Trade Openness and Political Compensation:

Labor Demands for Adjustment Assistance

Brian Burgoon and Michael J. Hiscox

University of Amsterdam, and
Harvard University

b.m.burgoon@uva.nl
hiscox@fas.harvard.edu
1. Introduction

Trade openness, like technological innovation, is a major source of “creative destruction” in any modern economy. In discussions of the optimal policy response to such change, much attention has been focused upon the potential benefits of adjustment assistance — policies aimed directly at facilitating the movement of workers and firms out of import-competing or declining sectors and into more efficient sectors. The particular appeal of such assistance lies in its dual role as actively encouraging the economic adjustment that makes openness and innovation “creative,” while at the same time compensating and mitigating the pain of those members of the economy who bear the costs associated with the “destruction.” In this particular combination, adjustment assistance is set apart from other forms of compensation that might be directed at those hurt by economic change (such as industry subsidies or unemployment benefits) which do not facilitate, or may even hinder, the operation of market forces.

Industrialized countries have experimented with a wide range of policies falling under the broad definition of adjustment assistance. Only a few of these experiments, such as the United States Trade Adjustment Assistance (TAA) program, have specifically targeted assistance at firms and workers disadvantaged by trade openness. More commonly, they are part of a broader array of policies providing government assistance for training, job search, relocation, and re-investment that encourage the re-allocation of labor and capital into more efficient types of economic activity. Many of these policies are referred to commonly as “active labor market programs.” Whatever their label, such programs have varied widely in their scale and scope. Since the 1950s, Sweden has
provided one of the deepest and broadest adjustment assistance schemes; U.S. programs offer perhaps the shallowest and most specific forms of assistance.

Recent work in the political economy literature has discussed how informational and time inconsistency problems can lead to underprovision of adjustment assistance (or other Pareto-improving forms of compensation), but does not explain variation in such policies across nations or over time. The comparative politics literature on broader welfare-state policies does focus on explaining policy variation, of course, and has identified a variety of forces that appear important in accounting for cross-national differences in spending on compensatory programs (in particular, institutional conditions like the power and organization of left parties and union movements). But this literature does not provide a ready explanation for variation in adjustment assistance (which is relatively low in many nations with strong labor organization, for instance, like Austria and Australia), perhaps because these general arguments do not allow for the distinct features of adjustment assistance and its varied effects upon different labor groups. The literature simply assumes that workers should be demandeurs of welfare-state policies in general, but (as we discuss below) important sectoral divisions may arise among workers over the value of adjustment assistance.

The aim of this paper is to take a step or two towards a better understanding of the political economy of adjustment assistance by focusing on how varying economic and organizational characteristics of labor might shape worker demands for adjustment assistance. Its analytical core is a simple economic model that generates predictions about how variations in sectoral employment and unionization affect labor demands for adjustment assistance.
We first consider how sectoral position shape worker preferences for adjustment assistance. We expect that workers tied to import-competing or declining sectors will have the strongest incentives to support adjustment assistance, because it provides a tax transfer to them that allows them to move to industries with higher wages; while those tied to exporting or booming sectors have incentives to oppose adjustment assistance, because it simply imposes upon them a tax burden. Net demand for adjustment assistance from labor groups will thus depend upon the relative political strength of the sectors; labor demand for assistance will be greater the larger the size of import-competing or declining sectors relative to the other sectors of the economy.

Next we consider the role of labor organization and the possibilities for “agency slack” between workers and their union representatives. We reason that union representatives may place a value on how adjustment assistance affects the size of their union membership independent of how the assistance affects the incomes of those members. Union representatives in declining sectors may recognize that adjustment assistance is an attractive alternative to protectionism because their members have the most to gain from such assistance, but they will also recognize that such assistance may hasten membership losses by subsidizing movement of workers out of their industries. On the other hand, union representatives in booming sectors have members who are actually disadvantaged by adjustment assistance, but they may also see such assistance as boosting membership gains by facilitating movement of workers into their industries.

Such considerations suggest that “agency slack” can strongly influence adjustment assistance demands. We expect that, all else equal, the greater the unionization among workers in declining sectors the weaker will be demands emanating from those sectors for
adjustment assistance. Conversely, the greater the unionization among workers in rising sectors, the stronger the labor demands for adjustment assistance from those sectors. Thus, and again somewhat counter to intuition, net labor demands for adjustment assistance should be a decreasing function of the unionization of declining sectors relative to rising sectors.

We develop and empirically illustrate these propositions in four sections. Section II motivates the study by discussing how the existing literature has so much to say about the value of adjustment assistance and yet so little about its political-economic origins. Section III presents a simple formal model of the adjustment process and labor preferences over adjustment policy as a first step towards developing a political economy of adjustment assistance. Section IV lays out an empirical application of the argument to the history of the Trade Adjustment Assistance program in the United States, where labor unions and other organizations representing workers have supported some aspects of TAA and opposed others, in a pattern over time and across sectors consistent with the model’s expectations.

2. Existing Studies of Adjustment Assistance and Related Policies

Increasing international economic openness and technological innovation clearly have severe distributional consequences for workers and firms within national economies. The changing division of labor mandated by commercial interdependence and technological innovation provides aggregate benefits for the economy but it imposes selective costs upon those in declining sectors. Economists have found common cause championing adjustment assistance as a policy tool that can reconcile these general and
particularistic interests. The value of adjustment assistance lies partly in its role as compensation for those who must bear the adjustment costs that openness and innovation impose, thereby allowing that both forms of change can be Pareto improving [e.g. Coase (1960); Trebilcock et al. (1990)]. But such assistance goes beyond mere compensation because it actively encourages precisely the kinds of economic change that makes openness and innovation beneficial in the aggregate; accelerating the re-allocation of resources towards more efficient activities.¹

The actual experience with adjustment assistance has varied widely across countries and time. In general, assistance programs are less common, less extensive, and are judged less successful than we might expect given the economists faith in this policy tool. Across OECD countries in 1995 spending on worker training and relocation policies, for instance, ranged from Sweden’s .83 percent of GDP to the United States’ .11 percent, with OECD countries averaging only .43 percent [OECD (1998)]. As for the performance of such programs, the story is just as checkered. Swedish labor market policies have been widely credited with cementing a commitment to economic openness, facilitating swift adjustment to economic shocks, and providing many years of near-full employment, low inflation, labor peace, and substantial economic growth [e.g. Scharpf (1991); Moene and Wallerstein (1995)]. In the U.S., on the other hand, a range of substantially smaller and more targeted programs, such as Trade Adjustment Assistance (TAA) and the more general Job Training Partnership Act, have been widely criticized for having provided very little compensatory assistance and even less direct encouragement of adjustment [Lafer (2002);

¹ In addition, recent research indicates that factor immobility tends to foster narrow interest-group politics sheltered from broader democratic oversight, and thus suggests that adjustment assistance may have more enduring political benefits [e.g. Hiscox (2001)].
The broader empirical literature suggests that the U.S. experience might be particularly wanting, but is closer to the norm than is the Swedish story.

This wide range of experience, and general disappointment, has inspired a substantial scholarly literature investigating the theory and practice of adjustment assistance. Most of this literature is normative and theoretical, aimed at shedding light on how to build a better adjustment-assistance “mousetrap”: whether and under what conditions policy promotes sectoral adjustment, legitimates economic reform and openness, makes international trade agreements more likely, and indemnifies workers from pain and risk. Empirical work on these issues includes strong arguments from both the left and right of the political spectrum, sometimes supporting and sometimes attacking adjustment assistance on these grounds, but almost always in the form of evaluations of specific programs. In the aggregate, this body of theoretical and empirical writings has generated substantially deeper knowledge about the value and pitfalls of adjustment assistance, with as many proposals as there are contributors for how to improve the design and implementation of labor market training programs, relocation assistance, and lump-sum payoffs.

We know much less, however, about the positive, political side of the story: that is, about what explains historical and cross-national variation in adjustment assistance policies. A number of contributions to the endogenous tariff, regulation, and broader public choice literatures have observed the disconnect between the promise and reality of

---

adjustment assistance and other forms of compensation, and have sought to explain the
general under-provision of such policies in political life. Moving beyond simple Olsonian
accounts of the under-provision of any public goods, the most useful of these contributions
have suggested that such assistance might pose higher transaction costs than less efficient,
sector-specific protectionism. Dixit and Norman (1986), Oye (1992) and others have
emphasized the information costs associated with accurately targeting lump-sum side
payments, or the costs of gathering information about the preferences of negotiating
partners in order to make compensatory “bargains.” And Dixit and Londregan (1995) have
emphasized time-inconsistency problems that complicate attempts by government
providers of compensation to make credible commitments to declining sectors to exchange
long-run adjustment assistance for political support. The results indicate how these types
of problems can make sector-specific protectionism more likely than adjustment
assistance.

The very strengths of these various insights in accounting for the under-provision of
adjustment assistance, however, are also their weaknesses in tackling variation in the
provision of adjustment assistance. Their emphasis on general conditions that
systematically select for less assistance means they have little to say about the observable
political and economic conditions that underlie the actual provision of adjustment
assistance and variations in the levels of that provision. The search for general tendencies
that account for underprovision, moreover, leads to a focus on the general informational

---

3 See, for instance, Culpepper (2003) on the practice and reform of labor market programs; Lafer (1999) on active
labor market policies in US political economy; Decker and Corson (1995), GAO (2004), OTA (1987), Brander and
Spencer (1994), and Mathematica (1979) on the TAA; and Hagedorn (1987) on German agricultural buyouts.
and political setting in which policy-making takes place, with less attention to the actual preferences of the players active in the political design of adjustment assistance.

Of course, one does not have to look far to find insights about the politics underlying variations in economic policies that are relevant to discussions of adjustment assistance. On the one hand, there is the vast body of literature focused on trade, regulatory, and other international economic policies of industrialized countries, in which some studies have actually tried to incorporate discussions of the origins of adjustment assistance policies [e.g. Destler (1992); Goldstein (1991); Kapstein (1998)]. On the other hand, there is the equally vast literature on the welfare state which, broadly construed, encompasses adjustment assistance and other types of compensation for groups adversely affected by economic change [e.g. Janoski (1990); Weir (1991); Rueda (2002)]. These two literatures have overlapped in recent work on globalization and the welfare state. This work, while dividing broadly over whether globalization constrains [Rodrik (1997)], facilitates [Garrett (1998)] or has nothing to do with welfare-state policies [Iverson and Cusack (2000)], and has generated important insights that anticipate variations in the use of the public economy to compensate for the vagaries of economic openness. Among these is that key labor-market and partisan institutions, such as corporatism or strong Left parties, can mediate whether deepening economic openness constrains or encourages welfare efforts[e.g. Cameron (1978); Katzenstein (1985); Garrett and Lange (1991); Garrett (1998)]. The argument is that countries that have or develop a more influential left in government and stronger unions in society, especially when embedded in corporatist exchange, are likely to spend more on assistance to compensate workers for the risks of openness.
The problem with these and related insights is that they do not pay sufficient attention to the difference between forms of compensation and to the particular preferences of different economic actors over each of these policy instruments. Unlike the standard literature on trade policy and regulation, which typically takes pains to define the policy preferences of specific groups over specific policy instruments, work on the welfare-state tends to paint with a very broad brush. The literature has only just begun, for instance, to take account of how employer attitudes to welfare policies can be more complicated than simple opposition. And the literature makes even fewer in-roads into how these complications can vary systematically across different instruments of the welfare state. Most importantly for our purposes here, no attention has been paid to the specific effects of adjustment assistance on different groups of workers within the economy. As we argue below, organized labor groups, widely expected to be the main supporters of welfare programs indemnifying vulnerable actors from the risks of openness, may actually be quite divided over adjustment assistance.

The weaknesses in the existing literature suggest the need for a more focused study of the politics of adjustment assistance. In particular, we need a clearer idea of the policy preferences of different actors and the conditions which are most likely to affect their support for, or opposition to, adjustment assistance. To this end, the next section develops a simple model of labor adjustment in response to exogenous, trade-induced shocks, and focuses on the policy preferences of those actors most critical to the political struggles over adjustment assistance — workers and unions in different sectors.

3. A Simple Model of Labor Demands for Adjustment Assistance
3.1. The Adjustment Process

We begin with a very simple, two-period, two-sector, one-factor model.\(^4\) Consider an economy with two tradeable goods sectors, one import-competing (X) and one exporting (Z). Assume that, over time, exogenous trade-induced shocks reduce the relative price of the import-competing good — this may be the result of trade liberalization (reducing either foreign or domestic trade barriers), a decline in the transactions costs associated with trade, or some trade-increasing productivity changes abroad.\(^5\) Assume that, in each period, there is a fixed labor supply, \(L\), allocated across production in the two industries. In response to the change in relative prices, and wages, labor can move from X to Z between periods, but incurs moving costs when doing so.

To simplify the analysis, we assume that production technologies are identical in each industry, and unchanging, with marginal products equal to unity.\(^5\) Then full-employment production levels can be described simply by

\[
Q_{X1} = L_{X1}; \quad Q_{Z1} = L_{Z1}
\]

in the first period, and by

\[
Q_{X2} = L_{X2}; \quad Q_{Z2} = L_{Z2}
\]

in the second period; where \(Q_{ij}\) and \(L_{ij}\) denote output and employment in sector \(i \in (X, Z)\) for period \(j \in (1, 2)\). We normalize the labor supply to unity, so that \(L_{Xj} + L_{Zj} = L = 1\), and assume the economy is never fully specialized (i.e. \(L_{Xj} > 0, L_{Zj} > 0\))

Assume now that relative commodity prices are determined entirely in international markets and change over time. Specifically, prices are given by:

\[
p_{X1} = p_{Z1} = 1
\]

\(^4\)The model develops upon the basic framework used by Fung and Staiger (1996).
in the first period, but \( p_{X2} = 1 - r \)
\[ p_{Z2} = 1 \]
in the second period; where \( p_{ij} \) are prices of good \( i \) in period \( j \), and \( r \) is the rate at which the price of good \( X \) declines between periods.

In the competitive equilibrium, workers (the units in which we measure \( L \)) are paid the value of labor’s marginal product in each sector, so that
\[ w_{X1} = w_{Z1} = 1 \]
in the first period, but \( w_{X2} = 1 - r \)
\[ w_{Z2} = 1 \]
in the second period.

\(^5\) Allowing for diminishing marginal product with additional units of labor input does not change the substantive results that follow, and the simpler specification allows for easier interpretation.
We begin the analysis of adjustment by assuming that the allocation of labor across the two industries is given exogenously for the first period, and the key question is how workers will react to the fully anticipated change in relative prices in period two. We allow that workers are free to change jobs at the beginning of period two, but face a cost for moving between sectors. These costs are assumed to be a function of both individual worker characteristics and structural features of the economy. Specifically, assume that an individual of type $\lambda$ who moves between sectors will incur a cost $\lambda$ for doing so, along with some common cost, $c$, incurred equally by all moving workers (where $c \geq 0$). For simplicity, assume that worker types are distributed uniformly on the unit interval — thus the proportion of workers with individual moving costs of $\lambda^*$ or lower is simply $\lambda^*$.

These assumptions just allow us to model the adjustment process in a simple way. Allowing moving costs to vary across individuals (as represented by $\lambda$) fits with evidence from studies of labor markets that suggest an array of personal characteristics (including age, marital status, family history, and religious affiliation) affect the ability of individuals to change jobs. On the other hand, a set of more general economic and political parameters also affect the common costs of shifting labor across sectors (represented by $c$). Chief among these are the specificity of occupational skills in each sector (and hence the costs associated with re-training), the geographical concentration or dispersion of sectors within the economy, and the regulatory barriers to occupational and geographic relocation imposed by federal and local governments.

---

6 It is a simple matter to extend the analysis backwards in time to allow that the initial allocation of labor is made in anticipation of price movements across more than one period, but doing so adds no insights to the adjustment dynamic we are interested in.


We now allow that government policy may include a subsidy, s, paid to each moving worker (where \( s \geq 0 \)). This is perhaps the most straightforward form of adjustment assistance we can consider. There are, of course, many alternatives. One common form of assistance, applied under the U.S. Trade Adjustment Assistance Act and the NAFTA Trade Adjustment Assistance law, provides extended unemployment compensation for those who lose their jobs, and subsidies for educational costs associated with re-training, without requiring that workers receiving such payments actually move from one sector to another. In Sweden, assistance for job search activities and for re-training is not conditioned on workers actually moving between sectors, but subsidies for workers relocating their place of residence in order to take a new job are.\(^9\)

Now consider the re-allocation decisions made by workers at the beginning of period two. Workers with lower \( \lambda \)'s (lower individual moving costs) will be the first to move between \( X \) and \( Z \). The marginal moving worker, \( \lambda_m \), will equate the costs of moving with the expected benefit:

\[
\lambda_m + c - s = w_{Z2} - w_{X2} = r
\]  

(4)

The equilibrium allocation of labor in period two is thus given by

\[
L_{X2} = L_{X1} - \lambda_m L_{X1} = L_{X1}(1 - r + c - s)
\]

(5)

\[
L_{Z2} = L_{Z1} + \lambda_m L_{X1} = L_{Z1} + L_{X1}(r - c + s)
\]

where \( \lambda_m L_{X1} \) measures the total amount of labor re-allocated from sector \( X \) to sector \( Z \).

3.2. Union Organization and Demands for Adjustment Assistance

\(^9\) For a detailed discussion of alternative assistance programs and their various welfare effects, see Brander and Spencer (1994). Their particular concern is with programs which offer benefits that are conditional upon workers or firms being in a disadvantaged state (e.g. unemployed) and hence create incentives for them to remain disadvantaged.
Up until this point we have been concerned only with describing the basic preferences of workers in different sectors, and the parameters which affect them, without regard to the political process. Now assume that workers in each sector are represented by labor union “agents” who are responsible for making demands upon the government on their behalf. We do not model electoral competition for union offices, to specify the exact mechanism by which (and the extent to which) these agents are accountable to workers. We assume simply that union agents have utility functions that reflect the income of their members and the size of their membership:

\[ U_{Ai} = U_{Ai}(Y_i, L_i) \]

Obviously, to the degree that these unions are agents of workers they will be concerned with sectoral income. On the other hand, the “office” rewards for union leaders — access to policy-making circles, status and prestige — are most likely linked to union membership. For simplicity we assume that

\[ U_{Ai} = (1 - a_i)Y_i + a_iL_i \] (11)

where \( a_i \) is a measure of the extent to which union preferences are weighted by concern for membership numbers relative to membership income — and is thus a measure of agency slack \( (0 < a_i < 1) \). Allowing \( a_i \)'s to vary across industries provides an (indirect) way to analyze the effects of differences in rates of unionization across sectors, since we can imagine that there is more agency slack in more unionized sectors, where higher numbers of workers are represented by union agents.\(^\text{10}\)

Substituting from (1) and (5) for two-period employment totals for each sector, and

\(^{10}\) A range of other factors will likely affect agency slack in labor unions, of course. In particular, slack will be a function of differences in the way union representatives are elected and the union members’ capacities for
taking derivatives, yields

\[ \frac{\partial U_{AZ}}{\partial s} = -(1 - a_Z) L_{Z1} L_{X1}(r - c + 2s) + a_Z L_{X1} \]

\[ \frac{\partial U_{AX}}{\partial s} = (1 - a_X) L_{X1}[L_{Z1}(r-c) + s(1-2L_{X1})] - a_Z L_{X1} \]

Solving for optimal levels of s for each union agent yields

\[ s^*_Z = -\{L_{Z1}(1 - a_Z)(r - c) + a_Z\} / \{2 L_{Z1}(1 - a_Z)\} \]

\[ s^*_X = -\{(1 - a_X) L_{Z1}(r - c) + a_X\} / \{(1 - a_X)(1 - 2L_{X1})\} \]

Clearly, then, agency slack can alter the “represented” demands of workers in each sector. All else equal, greater unionization in the export sector (higher \(a_Z\)) reduces the opposition to adjustment assistance that emanates from workers in that sector, as union agents benefit from the way subsidies boost their membership. Meanwhile, greater unionization in the import-competing industry (higher \(a_X\)) reduces support for assistance voiced by workers in that sector, as union agents are disadvantaged by the way subsidies accelerate membership losses.\(^\text{11}\) Overall, then, any increase in the unionization of the import-competing sector relative to the unionization of the export sector should reduce net demand for adjustment assistance. In general then, we can expect that workers in different sectors will be divided over adjustment assistance, and that demand for such assistance will be greater the larger the size of import-competing or declining sectors relative to the other sectors of the economy. Interestingly, this split between sectors actually may intensify when labor is more mobile (for exogenous reasons) between sectors. The combined (interaction) effect is that, while labor demands for assistance are increasing in the relative size of declining sectors, this

---

\(^{11}\) For large enough values of \(a_i\)'s, in fact, it is possible that preferences of unions may be entirely at odds with the real preferences of their members: as the \(a_i\)'s approach unity, unions in the export sector will support adjustment.
effect should be larger when levels of labor mobility are higher. The model also suggests that varying levels of union density, and hence "agency slack," will affect demands for adjustment assistance. Most importantly, we can expect that declining-sector unions will voice less (more) demand for adjustment assistance as their sector's union density rises (falls), while export-sector unions will voice more (less) demand for assistance as density rises (falls). The general, and somewhat perverse, effect is that any increase in the unionization of the declining sector relative to the unionization of the export sector should reduce net demand for adjustment assistance.

4. The Labor Politics of Trade Adjustment Assistance (TAA)

To empirically illustrate the model, we consult the history of the Trade Adjustment Assistance program in the United States. This history is fruitful for our purposes, not least because the policy is focused on assistance to trade-impacted workers – virtually unique in the OECD, where active labor market policies are rarely targeted at those suffering a particular source of dislocation. More importantly, the history of the TAA captures significant variation not only in the nature and level of training, relocation and other benefits, but also in levels of support that workers and union representatives have given to TAA, and in the various economic and organizational conditions (declining- and rising-sector employment levels and union densities) that the model suggests are relevant to that variation.

To be sure, finding evidence in this variation is complicated by the fact that labor activities and TAA outcomes are affected by the institutions that aggregate labor interests, by the

assistance while those in the import-competing sector will oppose it.
role of government and employers and other actors, and by experience with the programs. It is also complicated by a model that highlights off-setting interests of union leaders – on the one hand the interests of the members whom they politically represent, and on the other their own interests as agents – leading to some ambiguity in what the model predicts union actors to do.

But even where correlation between union demands and their economic and organizational patterns offer only ambiguous support for the argument, the detailed history of what various industrial unions and the AFL-CIO federation have done to support some aspects of TAA and not others, at some times and not others, illustrate the influence of both industry-specific interests of workers as well as agency slack.\(^\text{12}\) (Labor demand for) adjustment assistance is, as expected, increasing in the ratio of declining to rising employment, with declining-sector workers more supportive of TAA than rising-sector workers. And although harder to find in the history, “agency slack” does mark actions of union representatives in supporting the passive over the adjustment-oriented components of TAA, a pattern tending to be strongest among high-density unions facing the most membership losses due to international trade, and tending to increase in the ratio of declining-sector union density to rising-sector union density.

4.1. Evolution of TAA

Before the early 1960s, the U.S. had few if any policies in place that would fit a narrow definition of adjustment assistance. Despite some brief experiments with assistance in the first

---

\(^{12}\) Given our focus on worker and union preferences, one might also rely on evidence focused on opinion surveys over time and space. Unfortunately, opinion data rarely asks about TAA, and even were it to do so, we know little
New Deal, U.S. welfare policies were broad, generally means-tested labor market measures geared towards minimal unemployment insurance, family and youth assistance (AFDC), and somewhat more substantial and generous retirement benefits. The only public assistance it offered to basically healthy, civilian workers who might need help adjusting was passive, minimal, means-tested and quite short-term unemployment insurance. There were no active labor market policies, and education spending was for youth pre-work education, not adult retraining. And the many sector-level policies designed to take account of international or technological sources of dislocation were protectionist tariffs, quotas, price supports and the like which quite baldly sought to thwart sector adjustment.

The early 1960s, however, saw the creation of the first active labor market programs ostensibly targeted at sectoral adjustment: the Manpower Development Training Act (MDTA), for workers regardless of dislocation, and the Trade Adjustment Assistance program (TAA) focused on those dislocated by import competition. Created as part of the Trade Expansion Act (TEA) in 1962, TAA created a programmatic alternative to Escape Clause protectionism in Section 201 of standing US trade law. The program was to provide trade-impacted workers and firms able to show that their difficulties stemmed from trade liberalization with a range of benefits: For workers this included supplements to unemployment insurance (“trade readjustment allowances” TRAs), and money and advice for job-retraining, geographic relocation, and job-finding/matching.¹³

TAA has followed a checkered path since its creation. Figure One captures this by tracking the total number of workers certified and number of workers entering training since the

---

¹³ about whether this translates into political action, given difference between concentrated and diffuse interests that are not very distinguishable in survey instruments.
program’s founding in 1962. The eligibility requirements of the programs made TAA very difficult to access, such that no petitions were granted before 1970. And when petitions began getting certified in the early 1970s, the timing and scale of the assistance they provided proved less than their recipients hoped and needed. And furthermore, the lack of requirements that recipients of passive TRA assistance enter retraining and the loose regulation of such training meant that early TAA did little to promote actual adjustment – with but a handful of those winning certification between 1970 and 1975 entering training.

[Figure One about here]

The program has been subject of frequent renewal debates – with cycles of retrenchment and expansion coinciding with significant trade liberalization initiatives. Thus, eligibility and benefits were significantly expanded as part of the Trade Reform Act of 1974, which led to an explosion of certifications mainly via mass layoffs in the automobile sector, and with the lion’s share of the sky-rocketing costs (more than $1.6 billion in 1980) going to the passive Trade Readjustment Allowances (TRAs) rather than training/relocation. With the with Republican turn in Congress and Executive in 1980, the program was then allowed to lapse soon thereafter, and was then barely revived with more meager benefits and tighter eligibility requirements, precariously renewed annually or biennially. As part of the 1988 Omnibus Trade and Competitiveness Act, however, the program was funded for a longer period, expanded in its benefits, and given a greater emphasis on training by new eligibility requirements making TRA

\[13\] MDTA provided similar provisions on a somewhat larger scale (minus the supplements to unemployment insurance), and was means-tested but not targeted at those suffering some particular source of dislocation.
income benefits conditional upon participation in training. With the special NAFTA-TAA added to the regular program, the total available benefits to trade-impacted workers rose while eligibility requirements were reformed, with workers indirectly affected by trade and investment made eligible but with a new, more stringent training requirement.

Most recently, the program continues to enjoy a phase of expansion as compensation for the Bush Administration’s renewed Fast Track negotiating authority in 2002. With the latest reforms, TAA and NAFTA-TAA have been formally merged and expanded in their benefits (e.g. more cash support for older workers) and eligibility requirements (more workers less directly impacted by import competition), though with a continued emphasis on training conditionality and streamlined training support. The total costs of the program remain well below the 1980 peak, but in 2003 rose above $500 million and roughly 50 thousand training recipients, with the share of certified workers in training remaining below 17 percent (GAO 2004, 54). Projections, furthermore, suggest that the program may in the coming decade approach 1980 levels in terms of training recipients and total costs (Ibid.).

4.2. TAA and the Interests of Workers

According to the model, (labor demand for) adjustment assistance should be increasing in ratio of declining to rising employment, with declining workers more supportive of TAA than rising sector workers. Although measuring “declining” and “rising” sectors and their relationship is no simple task, the most obvious measures do point to patterns of labor demands for, and provision of Trade Adjustment Assistance that fit both these expectations at the aggregate level over time, and across sectors at key junctures in the development of TAA.
Aggregate-level Worker Demands Over Time. To begin with the aggregate level, Figure Two provides two measures of the extent to which US manufacturing industries, virtually all of which are tradable sectors, were “declining” in the trade-economics sense of being import-competing or export-oriented. The first measure is of import penetration, here captured by total imports as a proportion of the sum of imports and total shipments. The second measure is net export rate, captured here as exports minus imports as a proportion of total shipments. By both measures, the well-known story of US manufacturing in international markets is clear, that after the early post-World War Two period the US’s position of low import competition and of strong net-export orientation gave way to increasing import penetration and a negative net-export rate. Even by the late-1950s the worm had turned, as most visible by the spiking import-penetration ratio between 1950 and 1953, and a few years later significantly dropping net export orientation.

[Figure Two about here]

Figure Three then provides a couple of measures of how much US employment has been oriented towards declining as opposed to rising sectors. It makes the broad assumption that manufacturing can be treated as the declining by the mid-1950s, reasonable given Figure One’s portrait and what plenty of other literature suggests about deindustrialization generally. It also assumes that the following, mostly sheltered, sectors have been, relatively speaking, “rising”: private and private services, financial services, and wholesale and retail trade. These are, of course, very rough generalizations, because manufacturing harbors some “rising” sectors while the non-manufacturing sectors include plenty of losing industries, some in fact due to import-competition. Despite such qualifications, the ratio of employment in manufacturing to the sum of
employment in the other five sectors gives a rough estimation of how many US workers will, following the model, prefer TAA, relative to how many will be cool or hostile towards TAA. And the ratio of union membership in manufacturing to that in the “rising” sectors measure how much workers with an interest in TAA are politically represented, relative to those workers with a contrary interest – assuming that union representatives directly represent the interest of their members (an assumption we can relax shortly).

[Figure Three about here]

What is clear from both measures is that the ratio of declining to rising sectors in both employment and union membership has declined significantly and consistently in the post-War period. This is particularly stark in the case of union membership, where membership was heavily dominated by those tied to manufacturing sectors – by a ratio of nearly 3-to-1 in the early period – a bias that has fallen consistently ever since, to .25-to-1 by the late 1990s. Although less dramatic a drop, the ratio in total employment also has dropped significantly, though this secular trend began only in the 1950s.

According to the model, these trends “predict” in that Labor support for Trade Adjustment Assistance should have been higher in the earlier post-war period, when the declining workers were predominant in US employment, and should have diminished thereafter. Given that manufacturing employment was not clearly or significantly declining before the mid-1950s, one can hypothesize that net worker support for TAA at the national level should not have been strong before that time, with the workers tied to manufacturing becoming increasingly interested in adjustment assistance thereafter, especially in the 1970s. But as these workers became increasingly outnumbered by those tied to rising sectors, we expect consistent
diminishing interest in TAA in the net. How these off-setting tendencies balance is impossible to judge from the model, but we surmise that net support at the national level should have been strongest by the late 1950s and should have gradually diminished thereafter.

The political history broadly supports this expectation, to the extent that one can take the actions and discussions among workers and by union representatives in the labor movement as an indication. Organized labor was by far the strongest supporter behind both of these initiatives. Trade Adjustment Assistance, in particular, was a union baby, initially proposed in the 1954 Randall Commission by US Steelworkers President, and pushed along by the leaders of several industrial unions and, especially, the AFL-CIO. As the 1950s progressed, the AFL-CIO increasingly pressured the Eisenhower and, later, Kennedy Administrations to enact adjustment assistance to remedy the dislocation of increasingly trade-impacted union members.\footnote{This pressure inspired a spate of legislation, none successful, by democratic legislators friendly to labor appeals -- including the 1954 Kennedy-Williams-Humphrey-Eberharter calling for trade adjustment assistance, and similar bills in 1955, 1957, and 1958 calling for broader adjustment assistance.}

After voicing several such pleas in their biennial Conventions and more frequent Executive Council Directives, by the early 1960s the AFL-CIO and a number of other industrial unions explained that adjustment assistance and continued labor support for trade liberalization authority were “inseparable” \cite{AFL-CIO1961, CQ-Almanac1962}.

The actual TAA program was written-into the ambitious and hence divisive Trade Expansion Act seeking tariff-cutting authority for the up-coming Kennedy Round of GATT talks. Secretary of State George Ball, Labor Secretary Arthur Goldberg (former US Steel Workers counsel), and other officials wrote adjustment assistance provisions into the bill with extensive labor input, with the explicit understanding that it was the price of labor support.\footnote{This is supported by both secondary sources \cite{Zeiler1990} and an interview with Ray Vernon (Fall 1996), who was a part of the decision-making in Ball’s task group.} As
the TEA/TAA made its way through a contentious Senate and House review process, AFL-CIO and other union officials strongly signaled their linkage: AFL-CIO President George Meany told the Senate Finance Committee, “in our opinion there is no question whatever that adjustment assistance is essential to the success of trade expansion. And as we have said many times it is indispensable to our support of the trade program as a whole [Senate Hearings (1962), p.241].

By the 1970s, this level of enthusiasm from organized labor had faded substantially. This turn came as the AFL-CIO and most industrial unions turned to protectionism by 1970, explicitly opposing the 1974 Trade Reform Act and strongly supporting their protectionist, Burke-Hartke alternative. Most colorfully captured by AFL-CIO-president George Meany’s oft-quoted rebuke that TAA was mere “burial insurance,”16 organized labor’s support for the TAA softened significantly. In repeated Council and Convention directives and testimony for trade, welfare and adjustment assistance legislation, they always called for a continuation but reform of the programs, towards expanded benefits, loosened eligibility requirements, and streamlined implementation. But Labor was never again to make adjustment assistance the centerpiece of its welfare or trade policy stance, and was never explicitly willing to trade-in its core protectionism (or labor-standard linkage) for more TAA. As AFL-CIO trade expert Thea Lee put it, “we don’t see trade adjustment assistance as a substitute for good trade policies.”17 This softening of labor backing for these adjustment assistance initiatives clearly has many causes, such as the bitter experience with inaccessible implementation of the early TAA program. But the weakening of labor demands by the AFL-CIO and by the movement generally is also consistent with the international economic and employment conditions highlighted in the model.

17Interview Thea Lee (Fall 1996)
Sector-level worker interests. Variation in the interests of workers across sectors also broadly accords with the political history of TAA. Most importantly, throughout that history, the unions voicing the strongest support for adjustment assistance have been those representing workers tied to more declining sectors than the manufacturing average, while unions representing workers in rising sectors, whether export-oriented or sheltered, have either been silent or expressed, at best, more tepid support.

The earliest evidence of this is in the wellsprings of the TAA program in the mid-1950s. The idea for the program entered the policy agenda through the controversial initiative of the US Steelworkers president David McDonald and his Deputy (Elmer Roper), and they got more early support in such initiatives from the then-separate CIO’s Stanley Ruttenberg than from anyone in the AFL. As Figure Four suggests, the workers tied to primary and secondary steel products, whom US Steelworkers represented, were significantly more import-competing than the manufacturing average, especially visible with big drop in their net export rate in the late 1950s. The CIO, meanwhile, represented more rust-belt industry unions in early decline than did its AFL competitor, again implying that the bigger supporter of adjustment assistance was tied to more declining-sector unions. By the time adjustment assistance proposals made their way onto President Kennedy’s legislative agenda, the AFL-CIO (joined in 1955) was one of the strongest supporters of adjustment assistance.

[Figure Four about here]

In any event, all the unions to most actively take a stand on the TAA legislation – as evidenced by both testimony in House and Senate deliberations over the Trade Expansion Act
(TEA) and in intra-AFL-CIO Conventions where trade issues were discussed – were the more import-competing sectors. Thus, the US Steelworkers and the UAW expressed clear and strong support for TAA provisions in the TEA deliberations, and although they were concerned that TAA not undermine administered protections most of the Textile unions (especially ILGW and Union of Textile Workers) were also supportive of TAA. All these large and influential industrial unions were representing workers tied to significantly more import-competing sectors than the manufacturing average, and had the size and influence to push the AFL-CIO national to make TAA its condition for support of the 1962 trade liberalization authority. The important exceptions, here, were the Textile Workers Union of America (TWUA), which did not testify against TEA but was opposed in internal AFL-CIO deliberations, and the relatively small unions in Glass and ceramics and Hat and Millinery workers, which in TEA deliberations explicitly demanded protectionism and rejected adjustment assistance as a viable alternative. These exceptions undercut the expected pattern of organizations representing workers in the most import-competing sectors supporting TAA, though they were less opposed to TAA as such than they were to TAA as a political expedient to trade liberalization.  

In subsequent rounds of trade policymaking in which the TAA also was the subject of reform, we again see this pattern of the unions representing the more import-competing workers being the biggest or most vocal supports of the TAA. This is true even after most tradables unions turned to protectionism by the early 1970s. In deliberations over the 1974 Trade Reform Act, the AFL-CIO and most industrial unions explicitly championed protectionism and rejected any softening of this protectionism for stronger adjustment assistance – a clear softening, thus, of Labor’s and perhaps “worker” support of TAA. But they continued to claim, especially in back-

---

18 And as we shall see, the exceptions might also be explained partly as a story of “agency slack.”
door discussions, that such TAA was good if it could be made more accessible and generous. And an important part of the Nixon Administration’s success in getting sufficient support for the Trade Reform Act was that Labor was split, with the UAW breaking ranks with the AFL-CIO and member unions by supporting the trade liberalization in exchange for strengthening of the TAA. This minority position can be explained in part by the fact that it was the industrial unions that had been frustrated by continued rejection of certification for TAA benefits [Fowlkes (1970) (1971)], while the auto layoffs were only just beginning in the run-up to the Trade Reform Act. But the point is again that the main champion of 1974 TAA expansion was a powerful industrial union facing more net import competition than the manufacturing average. And in the many trade policy discussions and discussions of TAA since then, this pattern has continued.

The Agency-slack Devil is in the Details: Assistance over Adjustment

The history of the TAA also harbors evidence for the model’s expectation that union movements exhibit agency slack in their representation of worker interests, though this evidence is harder to come by than evidence for how worker interests affect TAA. We expect declining-sector unions to voice less demand for adjustment assistance as their sector’s union density rises, export-sector unions to voice more demand for assistance as density rises; and at the aggregate level, increase in the unionization of the declining sector relative to the unionization of the export sector should reduce net demand for adjustment assistance. Off-setting pressures on the strategies of union leaders and the policy development of TAA as a program make these hypotheses difficult to test. But there is evidence that union leaders
generally tried to reconcile their own with their rank-and-file’s interests by pushing especially for a TAA that prioritized provision of passive payments to dislocated workers over relocation benefits, and by minimizing requirements that such payments be conditional upon entering genuine adjustment-oriented training. Seen in this light, both the general over-time trends at the aggregate level, and the cross-sectoral trends across unions suggest plenty of agency slack.

Aggregate Union Demands Over Time. If we continue to consider manufacturing as a proxy for declining industries and services, finance, wholesale/retail trade and government sectors as rising, the aggregate trend in the ratio of union density in declining industries to that in rising industries is clear: Figure Five shows consistent and significant decline in the “bias” of unionization to manufacturing sectors, though it’s important to see that even in the present period manufacturing continues to be more unionized than are the other sectors. All other things equal, this pattern predicts rising support for adjustment assistance at the aggregate level – that is, more agency slack from rising-sector union leaders, leading to strengthened support for TAA from these leaders than one would predict from the interests of the represented; and/or less agency slack from declining-sector unions, weakening their opposition to TAA and bringing them closer to the interests of their represented workers. And as we have just seen, this prediction flies in the face of what relative employment patterns predict and what the history in general shows: declining aggregate-level interest of unions in TAA. This might be seen, thus, as disconfirming evidence for agency slack – or at least to suggest that union-leader preferences are shaped more by the interests of their rank-and-file than their own interests as agents. But it is important to recognize that the selective manner in
which unions have supported TAA over time is more consistent with the model's prediction.

[Figure Five about here]

First, union representatives involved in deliberations over the design of Trade Adjustment Assistance programs have consistently emphasized the passive over the active dimensions of adjustment assistance – that is, emphasized supplements to unemployment insurance and other passive benefits, and de-emphasized training and relocation benefits. This tendency is visible throughout the history of the TAA. Labor’s writing and sponsorship of the first national-level designs of TAA in the Randall Commission in 1957 and in Kennedy’s Trade Expansion Act called for the creation of a range of benefits, including training and relocation assistance, but the emphasis was always on the details of supplements to unemployment insurance. And there was never any mention of any training requirement, even though there was much discussion in Congressional circles of such adjustment-oriented training and relocation being the essence of TAA. In post-1962 revisions of TAA, furthermore, Labor has continually called for broadened and loosened eligibility requirements and expanded benefits, in the latter focusing much more on expanding passive elements such as health insurance and pension supplements than on improved or expanded training benefits. In these ways, one can see AFL-CIO sponsorship of TAA as mainly about assistance without any commitment to adjustment.
More explicitly, this emphasis on assistance over adjustment also manifests itself in explicit Labor union opposition to reforms of Trade Adjustment Assistance in the direction of requiring that recipients of assistance be enrolled in training and relocation programs. In post-1962 revisions of TAA, many (non-union) critics of TAA have called for more training conditionality to insure that the program be oriented towards genuine adjustment. This pressure led to inclusion of explicit training requirements, especially in the 1988 expansion of the TAA and in the passage of the NAFTA-TAA transitional assistance. Union reps, including those of the AFL-CIO national, have consistently spoken-out against such conditionality in TAA reform, expressed both in back-room discussions and in Congressional hearings surrounding TAA reforms (Congressional Almanac 1988). For instance, union officials have explicitly opposed the stringency of the so-called “16/6 rule” of the NAFTA-TAA, wherein certified workers must enter training within 6-months of dislocation or 16-weeks of certification to receive unemployment-insurance supplements [e.g. Haar and Garrastazu (2001)]. This opposition is consistently couched in terms of trying to ensure adequate access to benefits for those eligible. But it also fits the model’s predicted agency slack: supporting passive over the active benefits in TAA is a way for the leaders of a union movement in which declining-sector density is higher than rising-sector density to reconcile their interests as agents with those of those they represent.

Second, whatever the provisions written-into TAA legislation, unions have made selective use of adjustment assistance benefits, putting significantly more emphasis on winning for their members passive benefits than steering them into the training/relocation components of TAA. Unions have been quite aggressive about making sure that their
members in trade-dislocated firms learn about and gain access to TAA, and have been successful in filing certification petitions for TAA relief on their behalf. Between 1974 and 1982, for instance, many fewer union applications were denied (26 percent) than non-union applications (62 percent) [Dorn (1982), p.878]. Many unions have, in fact, used such information to advertise their success rates to their members, to signal benefits that union membership can provide [e.g. IAM (2004)]. What is important, however, is that the benefits these union representatives win for their members are overwhelmingly the passive, not the training benefits. The most extreme examples of this fall almost in the category of abuse, such as the tendency of UAW and other unions in the late 1970s and early 1980s to use TRA benefits to compensate (temporarily) laid-off workers while they wait to be rehired by their trade-impacted companies [e.g. Maggs (2002); GAO (1980)].

This tendency, however, is also visible in less anecdotal study of TAA-certification. For instance, after finding that the majority of certifications for TAA benefits were from union applications, a GAO report (1980) found that 85 percent of TRA recipients were temporarily laid-off, a pattern concentrated in highly unionized industries, and of this 85 percent 67 percent were rehired within a couple of years by their former employer [e.g. GAO (1980); Dorn (1981), p.887]. More relevant, Marcal (2001) analyzed a sample of 1,327 TAA participants in 1988 and 1989, among other things running a Probit regression of TAA participation and training-program participation on a range of pre-layoff attributes, including union membership, import-penetration, education, pre-layoff wages, race, gender, age, etc. What is relevant in this estimation for our present purposes is that union membership is a positive and highly statistically significant predictor of TAA certification.
and participation, but not a predictor TAA training participation [Marcal (2002), p.68]. One might object that this reflects individual attitudes more than union representatives helping members navigate TAA, but the broad battery of individual characteristics as controls suggest that something else is at work in explaining why union membership predicts TAA benefits and not training. Our interpretation is that this pattern partly reflects the selective use of TAA programs by union reps, where members are steered to TRAs more than to training or relocation benefits.

Third, the tendency of unions to oppose the training components of TAA benefits may well have dampened since the program’s creation in 1962. Although union representatives have themselves done little to increase training provisions and have decried training conditionality well into the 1990s, they have continued to (more modestly) support TAA as others have imposed such provisions and conditionality on the program. More significantly, the most recent reform and expansion of the TAA in August 2002 has essentially taken-on the more stringent training conditionality of the NAFTA-TAA (that all workers to receive passive benefits must be enrolled in training within 16 weeks of certification or 8 months of dismissal) (AFL-CIO 2002). This is a significant shift towards a more adjustment-oriented TAA. And yet a number of labor unions – including the AFL-CIO, textiles (UNITE), Teamsters, and Steelworkers – testified on behalf of expanding TAA’s benefits, without mentioning in any of their Senate or House appearances any objections to the training requirement. This may well reflect that unions continue to recognize (rising)

---

19 One might reason, for instance, that union workers are likely to receive artificially high (collectively-bargained) wages that make them particularly vulnerable to a wage cut with relocation, making them more inclined to seek some TAA assistance, though less inclined to enter training programs. Whether or not this logic works (one might conclude that the wage differential spurs incentives for retraining), it is important
passive benefits, or benefits in general in the interests of their representatives. But it is conceivable that such continued support as the training emphasis has increased with time may reflect a softening of agency slack at the aggregate level of the union movement as Figure Five would predict. In sum, the history of TAA politics suggests that unions exhibit a particular form of agency slack, decreasing in recent years, wherein they reconcile agent with principal interests by pressuring for the passive and soft-pedaling or opposing the active benefits in TAA.

Agency slack across unions. Finally, there is a modicum of evidence for the model’s implication that agency slack ought to vary across unions in different sectors. We have found no evidence that rising sector unions with the highest union density exhibit more support for TAA than do lower-density rising-sector unions. But there is some evidence that declining-sector unions with the highest density exhibit more agency slack.

First, one can consider the behavior of unions in high-density sectors like United Autoworkers (UAW) and, to a lesser extent US Steelworkers, in their more skeptical positions on and use of training elements of TAA or other training programs. The UAW experience provides the clearest example. The UAW has consistently focused its organizing on automobiles and truck assembly, and to a lesser extent parts, and in these sectors has won very high rates of unionization, even since the 1970s often above 70 percent in automobile assembly and between 40 and 50 percent in transportation generally – by any measure much higher than the manufacturing average throughout the post-WWII period. Fitting the agency slack story, UAW union representatives might be expected to have felt

that the Probit estimation includes pre-layoff wages of individuals as controls
more pressure to oppose the relocation and training components of TAA than other declining-sector workers.

This appears to be so in a range of UAW actions surrounding adjustment assistance. It is visible in that the UAW was one of a few unions to explicitly testify against training conditionality in the 1986 and 1988 reforms to the TAA – while also remaining one of its strongest general supporters of TAA in the labor movement. More obviously, agency slack may also account for how the UAW made the most use of TAA in the late 1970s and early 1980s in a way that maximized the TRA benefits and made very little use of actual training provisions [GAO (1980); OTA (1987)]. And finally, it manifests itself in the training programs on which they spend their own resources, such as the UAW-Ford and UAW-GM "nickel" and "dime" funds. As one economist sympathetic with these programs concluded, these programs have “not...proven able to provide skills needed for auto worker to find comparable paying jobs outside of manufacturing. The most effective use of these programs, and similar programs in other industries, is to coordinate the upgrading of skills with major investments in new equipment within the same plant or same company” [Jacobson (1991), pp.12-13].

Another shard of evidence can be found in the union politics that underlay the creation of the TAA in 1962, a rare episode of trade policy bargaining in which labor unions are split in their explicit support for TAA. As we saw above, the lion’s share of the union movement supported TEA and TAA provisions (including the AFL-CIO national, as well as most of the textile unions, Steelworkers, and the UAW). But a few declining-sector unions (all glass and pottery unions, Hat and Millinery workers union, Textile Workers Union of America) opposed the TEA-TAA package [e.g. CQ Almanac (1962); House Ways and Means
(1962); Donahue (1992)]. Their shared position tended to be that TAA would provide a useless substitute for protection, perhaps most eloquently captured by Glassworkers Protective League representative Mildred Homko’s lament: “[Through passage of the TEA bill (HR9900)] we shall have the best trained, most highly skilled unemployment lines in the world” [CQ Almanac (1962), p.269].

This latter opposition was an anomaly for the model’s hypothesis that support for TAA should be an increasing function of workers’ declining-sector import penetration. It may be, however, that such opposition fits our model’s expectation with respect to agency slack. It is difficult to judge whether these splits align with the theory’s expectations about differences in union density, because a number of the unions have memberships that cut across industry employment that allow calculation of such density. But there is no clear sign that the declining-sector unions more skeptical about TAA were those with the highest union density: on the one hand Glass workers had in the early 1960s union density above 50 percent, but Hat workers had significantly less; and declining-sector unions supporting the TAA, such as the Steelworkers, were responsible for comparable density averaged across the primary and fabricated steel sectors. Given the lack of clear information on density grounds, it is worth considering the more easily measurable pattern in raw membership levels across the declining-sector supporters and opposers. Figure Six shows, thus, the percentage change in membership in the relevant declining-sector unions

---

20 Enoch R. Rust, Vice President of United Glass and Ceramic Workers said that the combination of TEA’s import penetration and TAA would yield “vagabonds on government relief” (p.2314 TEA Hearings Part 4). And Gerald Coleman, Secretary of the United Hatters, Cap and Millinery Workers opposed emphasized that special conditions of the industry made training insufficient, protectionism legitimate (US Senate Hearings, pp.970-974).

21 For instance, the Textile Workers Union of America had members spread in a wide range of particular segments the textiles and apparel industry, as did the Shoe Workers.
between 1955 and 1965. As the Figure suggests, with the important exception of the Shoe Workers, the declining-sector unions experiencing the greatest membership declines tended to be the unions opposed to the TEA-TAA package, perhaps reflecting agency slack.

[Figure Six about here]

5. Conclusion

Overall the evidence indicates some support for the model’s basic claims about how demands for adjustment assistance from labor according are not a constant, but vary according to the structural make-up of the economy and relative levels of unionization across sectors. There are many issues that need to be examined carefully in future work on this project, of course. A shortlist would include: the particular effect of centralized union organization upon demands for adjustment assistance, how strategic considerations about the possibilities for affecting trade policy affect demands for assistance, and the policy preferences of firms.
References


---------, 1971, Administrative escape valves relieve pressures of imports on domestic industries, National Journal. (July 24).


Haar, J. and A.Garrastazu, 2001, Free Trade and Worker Displacement: The Trade Adjustment Assistance Act and the Case of NAFTA, Papers of the North-South Agenda (February).


Figure One:
TAA workers Certified, and Workers Entering TAA Training, 1962-2002*

Figure Two:
Import Penetration Ratio\textsuperscript{a} and Net Export Rate\textsuperscript{b} for All Manufacturing, 1946-98

\textsuperscript{a} Import penetration = imports as proportion of sum of total shipments and imports.
\textsuperscript{b} Net export rate = Exports minus imports as proportion of total shipments.

Figure Three:
Ratio of Manufacturing to “Rising” Sectors (Services, Finance, Wholesale&Retail Trade) in Employment and Union membership

Sources: Economic Report to the President (2000); Current Population Survey (various years) (own calculations)
Figure Four: Net Export Rate of Selected Industries, 1958-76

Source: Feenstra (1996) (own calculations)
Figure Five:
Ratio of Union Density Manufacturing to Density in Services, Wholesale/Retail Trade, Finance, and Government*

* Density in “rising” sectors = (union membership in services, wholesale/retail trade, finance, government)/(employment in services, wholesale/retail trade, finance, government)
Figure Six:
Change in Union Membership between 1955 and 1965 for Unions Testifying For and Against 1962 TEA/TAA

*Unweighted average of following unions: Glass and Ceramic Workers; Flint Glass Workers Union; Glass Cutters; Potters Union.
Source: Fink (1977)