

Informed Preferences? The Impact of Unions on Workers' Policy Views

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Abstract

To what extent, and in what way, do labor unions shape workers' political preferences? Despite a decline in membership rates, few other organizations have the reach and ongoing access to such a sizable share of the electorate. A key question that arises is the degree to which this access translates into political influence. Empirical analyses often find that union members exhibit political views that are distinct from other workers. But it is unclear whether this is an outcome of the unions' influence on them, or whether this reflects self-selection, whereby only workers with certain political preferences join the unions in the first place. We address this debate by combining unique data from a targeted survey of American workers and a set of inferential strategies that exploit two sources of variation: differences in the legal choice that workers face when joining or opting out of unions, and over-time reversal in a union's policy position. Focusing on workers' stance on trade policy, we offer evidence that unions influence the preferences of their members in a significant and theoretically predictable manner. Moreover, the analysis indicates that self-selection accounts, at most, for a quarter of the estimated "union effect". The results illuminate the political impact of unions and the broader mechanisms by which citizens form policy preferences.

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1 Introduction

To what extent, and in what way, do labor unions shape workers' political preferences? The importance of unions is often attributed to their role in advancing the interests of workers, allowing them to overcome problems of collective action and to generate an effective "voice" (Freeman and Medoff, 1984). Much has been made, therefore, of the decline in the power of unions in recent decades and the impact of this trend on the representation of the disadvantaged and less well-off.

Yet despite a decrease in membership rates, union members still represent very sizable shares in the electorates of most advanced economies: 26% of all workers in Britain, 36% in Italy, and over 54% of the workforce in Norway. Even in the U.S, a noted example of shrinking unionization rates, enlisted union members still account for about 11% of the workforce (almost fifteen million workers), a conservative figure that excludes non-members covered by union agreements, nor family members whose livelihoods often depend on a unionized wage earner (OECD, 2013).¹ Clearly, few organizations have the reach and ongoing access to such a significant share of the electorate as labor unions do. A key question is whether and how this access translates into political influence.

The importance of this question has gained added impetus in recent years, as scholars have argued that the decline in union membership contributed to a host of regressive labor market outcomes, including weakening labor protections in the face of growing trade liberalization, the long shrinkage of the real minimum wage, as well as to the overall rise in income inequality (Bartels, 2009; Card, Lemieux, and Riddell, 2004; Gosling and Lemieux, 2004; Hacker and Pierson, 2011). These accounts have centered on a number of causal pathways. Some have emphasized the diminishing role of unions as representatives of low-skilled workers in wage negotiations, and unions' declining ability to oversee sector-wide collective bargain-

¹Data is from: OECD and J.Visser, ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2010), version 3.0 (<http://www.uva-aias.net/>).

ing. Other accounts have emphasized unions' reduced ability to influence electoral outcomes via campaign contributions or turnout mobilization drives (Burns, Francia, and Herrnson, 2000; Leighley and Nagler, 2007; Masters and Delaney, 1984; Neustadt, 1990; Radcliff and Davis, 2000; Saltzman, 1987). Notably, these accounts have paid little attention to another potentially important pathway, namely the influence that unions may exert on shaping the political preferences of their members. If unions are an institution that directly affects the policy preferences of a large swath of workers, e.g. by providing policy-relevant information to its members, the decline in union density could help account for the relatively weak public opposition to a host of regressive policies advanced in recent years. Yet this additional pathway rests on the assumption that unions exert a meaningful influence on the political preferences of their members, a key assumption that is to date empirically unsubstantiated. As a recent study summarizing the state of the research on the topic concluded, "After 60 years of research on American unions, we still lack convincing evidence of whether or how union membership affects political attitudes" (Ahlquist, Clayton, and Levi, 2014).

This lacuna is due at least in part to a number of empirical challenges that arise in evaluating the political influence of unions on their members. The first is an absence of appropriate data. To detect the influence of unions on the political preferences of their members, one would want to compare the views of union members with other workers who are otherwise similar in all respects but union membership. Yet standard national surveys do not include sizable samples of both union members and non-members within the same industry, arguably the most natural comparison group for this type of analysis. Researchers are thus limited to comparisons between aggregated groupings of union members employed across different sectors, to similar groupings of non-members. As a result, one cannot tell whether differences observed in the political preferences of the two aggregated groups arise from the effect of union membership itself, or whether the differences simply reflect the variation in interests of workers employed in different industries. A second empirical challenge

arises from the fact that even if one overcame the data availability issue discussed above, and found that union members in a given industry hold policy positions that differ from those of their non-unionized counterparts, the interpretation would still be unclear. It may be that participation in the union itself causes workers to adopt certain preferences (i.e., a treatment effect), but it is equally plausible that workers who choose to join a union differ from non-unionized workers in other characteristics that account for their divergent political stances (i.e., a selection effect).

We address these empirical challenges by combining a unique original survey that includes large samples of workers in a targeted set of industries together with a set of inferential strategies that allow us to test the relative strength of the competing explanations. Our analysis focuses on the policy views of workers regarding trade openness, one of the few salient political issues on which unions across different industries vary significantly in positions and strength of preferences. To explore the link between the unions' stance on trade and the preferences of their members, we generate a new metric of each union's policy position that is based on its lobbying efforts on all trade-related bills in the years preceding the study.

Our findings provide support for the so-called treatment effect of unions; that is, for the argument that unions exert influence on their members in a clear and systematic manner. In contrast, the evidence suggests that self-selection into unions accounts, at most, for less than a quarter of the observed difference between union members and their non-unionized counterparts. More specifically, the analysis points to the important role of unions as information providers, demonstrating a strong relationship between the intensity of unions' correspondence with their members, the degree of information that members possess about the issue at hand, and the degree of alignment between the unions and their members on the issue.

Exploiting differences across the U.S in the legal choice that workers face in joining or opting out of unions (a.k.a the 'Right-to-Work' law), we show that preferences of union

members and non-members are inconsistent with the legal differences in selection mechanisms into unions. We estimate that union membership accounts for about a 41% increase above the baseline rate in workers' likelihood of opposing trade liberalization, an effect comparable to the effect associated with obtaining a college degree, one of the most studied and established predictors of trade policy preferences (Scheve and Slaughter, 2001*a*; Hainmueller and Hiscox, 2006). In addition, we leverage the sudden U-turn in the United Auto Worker's stance toward a free trade agreement with Korea and examine the reversal's impact on its members' stance. Using pre- and post-shift data, we show that members indeed became more supportive of trade expansion following their union's change of position, while the same shift had no discernible effect on non-members employed in the same industry.

The article contributes to the research on the political impact of unions, demonstrating their effect in shaping members' policy positions. Beyond influencing political outcomes via Political Action Committees (PACs) and lobbying efforts (Facchini, Mayda, and Mishra, 2011; Masters and Delaney, 2005), we show that unions are also able to influence the views of their membership in a theoretically predictable and meaningful way. With growing economic openness and the attendant pressure on labor to be internationally competitive, as well as the increasing flow of money into politics representing business interests, unions are facing major challenges that threaten to diminish their effectiveness as workers' "voice" (Baldwin, 2003; Slaughter, 2007). In these circumstances, assessing and quantifying the influence of unions on their members' political preferences is key for mapping the relative forces shaping today's political landscape.

More broadly, our analysis also adds to the work on the sources of voter preferences. In particular, a prominent strand in the political economy literature attributes the positions that individuals take on various policies – e.g. trade, immigration, taxation – to their expectations regarding the likely impact of the policy on their wellbeing (Mayda, 2006; Scheve and Slaughter, 2001*a*). Yet, most studies typically just assume this link between

perceived interests and policy preferences, without explaining how those interests come to be crystallized by voters. By providing substantial new evidence on the role and impact of unions as information providers, the paper illuminates one important mechanism that helps substantiate this key assumption.

The paper proceeds as follows. Section II reviews the main insights from the literature and draws a set of expectations about the influence of unions on their members. In section III we describe our data and empirical approach. Sections IV and V present the findings and a set of robustness tests. The final section discusses the broader implications of the findings for research on preference formation and the evolving role of unions.

2 Preference Formation, Information, and the Impact of Unions

The determinants of individuals' policy preferences are a major source of ongoing study. From the various explanations provided to date, two primary perspectives stand out: one emphasizing the influence of voters' self-interested considerations and the other focused on the impact of ideational factors.

Interest-based explanations suggest that people's attitudes on a policy are largely determined by the utilities they expect to derive from it. For example, individuals whose employment is less secure tend to be more supportive of policies that provide generous unemployment insurance or spending on active labor programs (Alesina and La Ferrara, 2005; Iversen and Soskice, 2001). In the same vein, several studies suggest that individuals exposed to foreign competition in the labor market are more likely to oppose policies liberalizing immigration or trade (Scheve and Slaughter, 2001*a*; Mayda and Rodrik, 2005).

Studies emphasizing the role of ideational factors stress the importance of value orientations and partisan attachments in shaping individuals' policy preferences (Campbell et al., 1960; Green, Palmquist, and Shickler, 2002; McClosky and Zaller, 1984). For example, beliefs about deservingness and the plight of the poor are shown to affect the level of support

for welfare provision (Fong, 2001; Feldman and Steenbergen, 2001). Others show that cosmopolitan inclinations or nationalistic attitudes are closely tied to voters' preferences on trade and immigration (Malhotra, Margalit, and Mo, 2013; Margalit, 2012).

Critiques of the interest-based approach center not only on the empirical support (or lack thereof) for some of its predictions, but also on the mechanism underlying its core logic. In particular, some question the basic, often implicit, assumption that individuals understand how their personal well-being is influenced by government policy (Sears and Funk, 1990; Mansfield and Mutz, 2009).² The notion that voters can tease out the implications of a complex policy, which at times is a matter of debate even among the experts, seems questionable, particularly given the wealth of evidence demonstrating citizens' lack of knowledge or grasp of very basic political and economic facts (Bennett, 1988; Campbell et al., 1960; Converse, 1962; Ferejohn, 1990; Neuman, 1986).

One response to this critique focuses on voter learning. The process of learning could presumably occur in several ways, without requiring the (probably, heroic) assumption that voters actively seek out and process policy-relevant information. For example, individuals may draw on their everyday experiences to form policy opinions that largely accord with their interests. Indeed, some studies show that voters update their political preferences leftwards – even if only temporarily – in response to the experience of various hardships such as loss of employment or of health care (Hacker, Rehm, and Schlesinger, 2013; Margalit, 2013). Another source of learning is exposure to information or cues. According to this view, citizens acquire pertinent knowledge about the rationale and preferences of friends, co-workers, or other groups that they believe to share interests with them, and subsequently infer how a policy is likely to affect their own interests (Lupia, 1994). It is within this strand

²Sears and Funk (1990: 164) argue that “ordinary people simply do not often perceive government as offering them very clear or substantial personal costs or benefits.” Mansfield and Mutz (2009: 432) also contend that self-interest has only a limited influence on shaping policy preferences because “citizens have a difficult time linking their personal economic situations to public policies.”

of arguments that the importance of unions is often stressed, since unions have close access to their members via regular meetings, direct mailings or mobilization drives. Unions are thus able, at least in theory, to communicate to their members facts and opinions over a range of policy issues. These communications, in turn, could help union members crystalize their interests and subsequently form or update their preferences (Fordham and Kleinberg, 2012; Leighley and Nagler, 2007).

Indeed, several studies have documented unions' engagement in a variety of activities aimed at advancing their policy goals. Such activities include drives to increase voter turnout among union members and their families (Asher et al., 2001; Becher and Stegmüller, N.d.; Leighley and Nagler, 2007), efforts to encourage voting for candidates endorsed by unions (Sousa, 1993; Dark, 1999; Clark and Masters, 2001), mobilization of members to become more politically active and engage in PAC contribution campaigns, and lobbying activities aimed at affecting pro-union legislation (Facchini, Mayda, and Mishra, 2011; Freeman and Medoff, 1984; Masters and Delaney, 1987). Yet, the basic question remains: what do unions do in terms of shaping the preferences of their own members? Despite the sizable literature on unions' operations, there is a striking paucity of evidence regarding the effectiveness of unions in influencing the political stance of their members.

Research on citizens' preferences regarding trade policy may provide some insight on this question. A number of earlier studies have found that union membership is, on average, associated with lower support for free trade (Balistreri, 1997; Mayda and Rodrik, 2005; Scheve and Slaughter, 2001*b*). When discussing this empirical association, authors often surmise that it may be the outcome of unions' ongoing communications on the matter with their membership (e.g. Mansfield and Mutz (2009: 431,436)). Yet, other than conjecture, those studies provide no evidence regarding the intensity of this communication of information, or that this communication has any causal impact on shaping members' attitudes.

Cognizant of this deficiency, Ahlquist, Clayton, and Levi (2014) provide what is arguably

the most careful and nuanced new set of insights on the matter. Focusing on a case study of a dockworkers' union (The International Longshore and Warehouse Union, or ILWU) and using a survey of workers in three localities (Los Angeles, Seattle and Tacoma), the authors employ a matching procedure to get an estimate of the "union effect". Overall, they find that members of the ILWU were more willing than non-members to support a protectionist stance on trade, even though trade openness was highly beneficial to their own employment. The authors propose that this seemingly puzzling result is evidence that the union was able to influence its members to adopt a solidaristic stance, i.e. to oppose a policy that was injurious to the broader class of workers. The study combines survey data and a rich historical account of the ILWUs position on trade policy over a period of six decades. Yet it remains unclear whether the findings from this specific case can be generalized to explain the impact of unions on workers' policy preferences in the broader economy. Overall, does union membership instill a class-based approach to trade policy, thus having a largely homogenizing effect on workers' preferences, or do the preferences of unionized workers vary systematically in a way that reflects the divergent interests of each industry?

To address these questions, one must not only investigate the impact of unions on a broader set of sectors, but also explore the mechanism underlying union influence.³ If unions are a source of crystallizing interests and shaping preferences of members, systematic evidence should show that members: (i) are aware of the information provided by their unions; (ii) correctly interpret the union's stance on the matter; and (iii) adopt the position touted by the unions. While these outcomes are at least plausible *ex ante*, convincing empirical research on all three questions is lacking. In the next sections of this paper we aim to provide new insights that address each of these contentions in turn.

³Ahlquist and Levi (2013) provide evidence on the importance of the educational mechanism, showing how the ILWU informs and shaping its members' views. They also compare this to the approach taken by two transport unions and the Waterside Workers Federation in Australia. Our investigation allows us to assess how prevalent this educational role is in other unions' relationship with their members in different sectors throughout the economy.

Table 1: Descriptive Statistics for Selected Industries

Industry:	Total Employed (1000s)	Output per Worker (\$)	Trade Balance (B\$)	Share BA Degree	Median Income (\$)	Sample Size (#)
Manufacturing						
Food products	1,485	292,093	8,400	22%	51,000	218
Chemical	850	546,482	-3,100	40%	88,945	225
Transportation equipment	1,607	362,878	-14,000	24%	76,005	270
Computer electronics	1,248	412,519	-110,000	48%	96,004	349
Fabricated metal products	1,528	163,973	-9,900	15%	61,570	352
Services						
Data processing and internet	395	359,059	0	45%	82,557	320
Financial	858	507,517	41	65%	110,067	375
Telecommunications	1,022	470,191	2	34%	83,000	375
Construction	7,215	119,281	0	15%	55,197	393
Nursing and residential care	3,008	43,584	0	18%	4,590	382
Ambulatory health care	5,661	112,263	0	48%	73,067	446
Education	3,037	51,309	13	65%	79,235	607

Source: March Supplement of Current Population Survey 2009;

2010 United States International Trade Commission data on imports and exports

3 Data and Empirical Strategy

Our analysis uses novel survey data of more than 4,000 American workers employed in a set of selected industries. The survey design followed a customized two-stage sampling approach. First, a set of 12 key industries were identified based on several criteria reflecting variation in their exposure to the impacts of globalization (e.g., factor intensity, value-added per worker, trade balance, and exposure to offshoring activity).⁴ Then, from each of those targeted industries, a sizable number of currently employed workers were recruited by YouGov/Polimetrix to participate in an online survey fielded between September 2010 and February 2011.⁵

To gain greater variation in the industries' exposure to international commerce, the survey included firms in both manufacturing and services. As Table 1 shows, the industries provide

⁴Industries are classified at the 3 digit NAICS level.

⁵The data was collected as part of the Harvard Globalization Survey in which Margalit was a co-PI. See Hainmueller, Hiscox, and Margalit (2013) for a more detailed description of the survey. We thank the other PIs for allowing us to use the data for this study.

wide variation of values along a set of pertinent dimensions. For example, as measured by the value added per worker, the sample includes highly skill-intensive industries (e.g., chemical manufacturing and financial services), industries with a mediocre level of skill-intensity (e.g., transportation equipment and computer electronics manufacturing), and industries with very low skill intensity (e.g., construction and nursing). With respect to trade balance, the selected industries include import-competing industries (e.g., transportation equipment and computer electronics manufacturing), non-tradables (e.g., health services) and export-oriented industries (e.g., food manufacturing).

The data include responses from 497 union members, which represent about 12% of the sample. However, union membership rates differ quite substantially across industries, ranging from less than one percent in the financial services sector to over 35% in educational services. As Figure 1 shows, the union membership rate obtained in the sample corresponds quite well with the actual rate of union membership.⁶

The tone and exact wording of questions on trade policy could have a sizable effect on the answers that respondents provide (Hiscox, 2006). The survey therefore asks a series of questions that could potentially tap into different aspects of workers' views on trade policy. The analysis we present below relies on responses to all three questions:

We would like to learn about your views on trade with other countries - by trade we mean American businesses and individuals buying goods from other countries or selling goods to other countries.

- Overall, do you think trade with other countries should be expanded, reduced, or kept at its current level?
- Do you think that trade with other countries is good or bad for you and your family?
- Do you think that trade with other countries is good or bad for the United States as a whole?

To explore the link between union membership and views on trade, the survey also contains

⁶Data is from the Union Membership and Coverage Database available at www.unionstats.com.

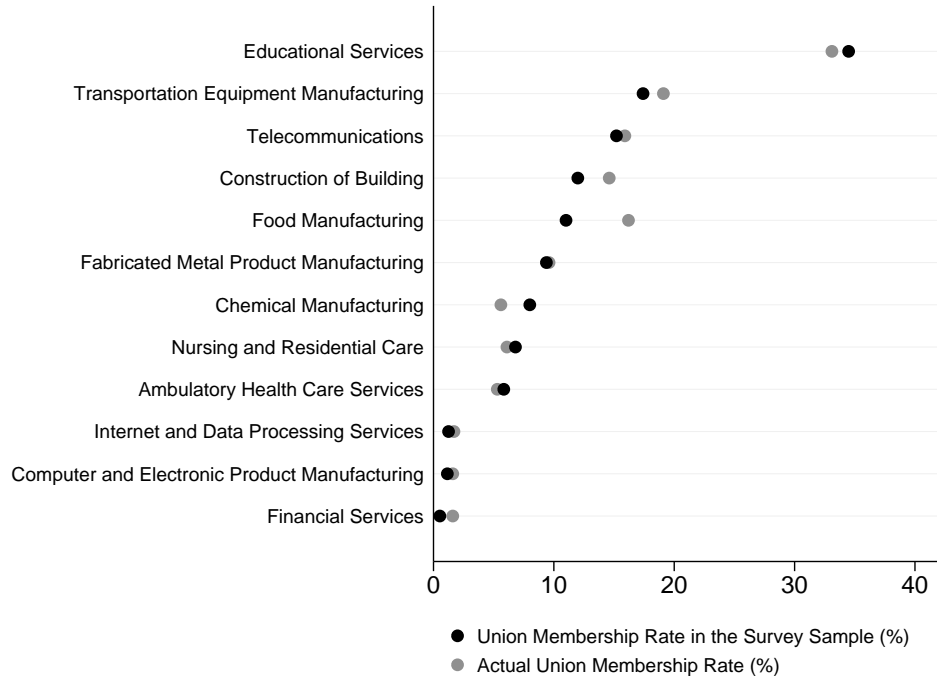


Figure 1: Union Membership Rate, by Industry

questions regarding the intensity of communication initiated by the union on trade policy, as well as a question pertaining to the degree of information that the union members possess about the unions’ position on the issue (see Appendix for exact question wording).

In order to examine the correspondence between how members assess their union’s stance on trade policy and the union’s actual position, we generated a new measure of each union’s “revealed preference” with respect to trade policy. We did so using information on each union’s lobbying activity and official announcements on legislation related to trade. Focusing on union activities during the two years prior to our study (from July 2008 to June 2010), we coded the positions the unions took on trade-related bills and used this data to place the unions along a trade protectionist-liberalizer scale. In total, we coded the activities of 15 labor unions that represent 75% of the unionized survey respondents who provided information on their affiliated unions.⁷

⁷Of the 497 surveyed union members, 343 respondents provided information on their union affiliation.

We examine each union’s position on major trade-related bills. We focus on all the bills on which at least one of the unions under study carried out an official (i.e., registered) lobbying effort and those bills that had potential application across industries.⁸ For every bill, we code each union’s position along a seven-point scale that ranges from ‘strongly protectionist’ (+3) to ‘strongly pro-trade’ (-3). The coding is based on the position expressed by the union (i.e., pro- or anti-liberalization) and the number of quarters it registered lobbying activity for or against the bill.⁹ For example, for bills on which a union lobbied against liberalization for five quarters or more, the union’s position is coded as ‘strongly protectionist’. If the lobbying took place for a shorter period of only 1 to 4 quarters, we assign a ‘protectionist’ (+2) score; we code a union as ‘weakly protectionist’ (+1) score if it did not lobby on the bill but had expressed a protectionist stance on the issue in its official pronouncements. Conversely, we assign scores between -1 and -3 using the same coding criteria when the union takes a pro-liberalization stance. Finally, a ‘neutral position’ (0) is assigned if the labor union did not express any view on the issue or conduct any related lobbying activity.¹⁰

Table 2 summarizes each union’s score on the trade protectionism scale. Since we examine

The majority provided the exact names of their union. For those respondents who only provided the codes of their local branches (e.g. local 101) or their firm names, we were able to infer their union affiliation based on residence, industry, and firm name. For that, we used the records of collective bargaining agreements between firms and unions available through the Office of Labor-Management Standards (<http://www.dol.gov/olms/regs/compliance/cba/>) and the Center for Union Facts (<http://www.unionfacts.com/>). Among the remaining unionized workers not represented through the 15 unions, 57% belong to other unions in the education sector which presumably hold a similar stance on policy issues with the primary unions in the sector that we do examine, namely the National Education Association and the American Federation of Teachers; the other 33% belong to 32 different organizations for which have only one or two members in the entire sample.

⁸We obtained each union’s lobbying reports from the Lobbying Disclosure Act Database available at http://www.senate.gov/legislative/Public_Disclosure/LDA_reports.htm. We then examined all the issues classified as trade-related issues according to the general issue area code in the lobbying report. See Appendix for a detailed description on the bills and the selection criteria.

⁹Lobbying reports often do not contain information on the organization’s actual position on the lobbied issue. We therefore use the union’s official letters to Congress or public statements to code whether the union’s stance is pro-trade or protectionist (i.e., protectionist or liberalizing).

¹⁰While we distinguish a strong stance (+3 or -3) from a relatively weaker stance (+2 or -2) using the threshold of lobbying for five quarters, the measured union stance remains robust when we revise the threshold to four or to six quarters instead.

Table 2: Union's Position on Each Issue and Calculated Protectionism Score

	TRADE	Colombia	Panama	Korea	Peru	NAFTA	TAA	Currency	Enft	BuyAmr	Recip	Total
USW: Steelworkers	+3	+3	+3	+2	0	0	+1	+2	+3	+1	+2	+20
IAM: Machinists	+3	+3	+3	+3	+1	+1	+2	+2	0	+1	0	+19
1) UAW: Auto Workers	0	+3	+2	+3	0	0	+1	+3	+3	0	0	+15
IFPTE: Technical Engineers	+2	+2	0	0	+2	0	0	0	0	+2	0	+8
IBT: Teamsters	+3	+3	+3	+3	+1	+2	+3	+1	+1	+2	0	+22
2) UBC: Carpenters	+2	+3	+3	+3	+1	0	0	0	0	+1	0	+13
IBEW: Electrical Workers	+1	+1	+1	+1	+1	0	+1	+1	0	+1	0	+8
3) CWA: Communications	+3	+2	+2	0	0	0	+1	0	0	+1	0	+9
AFGE: Government Employees	+2	+1	0	0	0	0	+1	+2	0	0	0	+6
SEIU: Service Employees	+1	+2	0	0	+2	0	0	0	0	0	0	+5
4) NEA: Natl Education Assn	0	0	0	0	0	0	0	0	0	0	0	0
AFT: Federation of Teachers	0	0	0	0	0	0	0	0	0	0	0	0
AFSCME: St./Cty./Mun.	+1	+1	0	0	0	0	+1	0	0	0	0	+3
5) UFCW: Food/Commercial	+2	+1	0	-1	+1	0	0	+1	0	0	0	+4
BCTGM: Bakery/Tobacco	0	0	0	0	0	0	0	0	0	0	0	0

1) Import competing industries: fabricated metal manufacturing, transportation equipment manufacturing, chemical manufacturing.

2) Building construction; * Intl Brotherhood of Teamsters also encompasses educational service, ambulatory service, and food manufacturing sectors.

3) Telecommunication

4) Education services, nursing, and ambulatory health

5) Export oriented industry: food manufacturing

each union's position on eleven different trade bills, the score could theoretically range from a low of -33 (pro-free trade) to a high of +33 (protectionist). As expected, unions operating in the import competing sectors – fabricated metal, transportation equipment, and chemical manufacturing – exhibit the most protectionist stance. We also find, unsurprisingly, that the least protectionist unions operate in the export oriented sector, food manufacturing, and in the non-tradable service sectors of education, nursing, and ambulatory health services. Somewhat surprisingly, unions in the building construction and the telecommunication sectors, both of which are not significantly affected by the flows of international trade, nonetheless take a relatively protectionist stance on the trade bills under study.

Since not all union members in the sample provided the specific name of the union to which they belong, we also generate an *average protectionism score* for each industry. For instance, among building construction workers who belong to one of the fifteen unions, 47% are members of the United Brotherhood of Carpenters (protectionism score: +13), 41% are members of the International Brotherhood of Electrical Workers (protectionism score: +8), and the remaining 12% belong to the International Brotherhood of Teamsters (protectionism score: +22). We therefore generate the average protectionism score in proportion to the share of members from each union and assign the building construction industry an average score of +12.¹¹ We conduct the same method for calculating the average protectionism score for the other industries, as well.¹² As expected, the import competing sectors are calculated to have the highest protectionism score: chemical manufacturing industry has the highest

¹¹The calculation is: $0.47*13+0.41*8+0.12*22=12$. To ensure the external validity of our weighting scheme, we also check the share of members in each union by industry using information from the online listing of collective bargaining agreements between firms and unions available at <http://www.dol.gov/olms/regs/compliance/cba/>. The Office of Labor-Management Standards provides 2,573 files of collective bargaining agreements along with the number of workers and the NAICS industry classification of firms involved in the agreement. The calculation using the collective bargaining agreement files yields a similar industry average protectionism score as our original calculation. We choose to use the weighting scheme based on our sample of workers instead of the one based on the collective bargaining agreement files because there is no available agreement file for the sectors of ambulatory healthcare, nursing, and residential care.

¹²We do not look at the sectors of data processing, securities, and computer and electronic manufacturing, because the share of workers who belong to a labor union (<10) is too small to be meaningful for analysis.

score (+19.8), followed by fabricated metal manufacturing (+16.2) and transportation manufacturing industries (+14.6). The industry average score for food manufacturing sector is also relatively high (+11.4) because almost half of the members belong to two protectionist unions, namely the UAW and the International Brotherhood of Teamsters.

4 Results

4.1 Do Union Members Have Different Policy Preferences?

We begin by presenting an unconditional comparison of union members' trade policy preferences and those of non-members working in the same industry. Based on responses to the three survey questions on trade described earlier, the panels in Figure 2 present a comparison of the share of respondents in each group who: i) support reducing trade levels, ii) have a negative perception of trade's impact on self, and iii) have a negative perception of trade's impact on the United States as a whole ¹³.

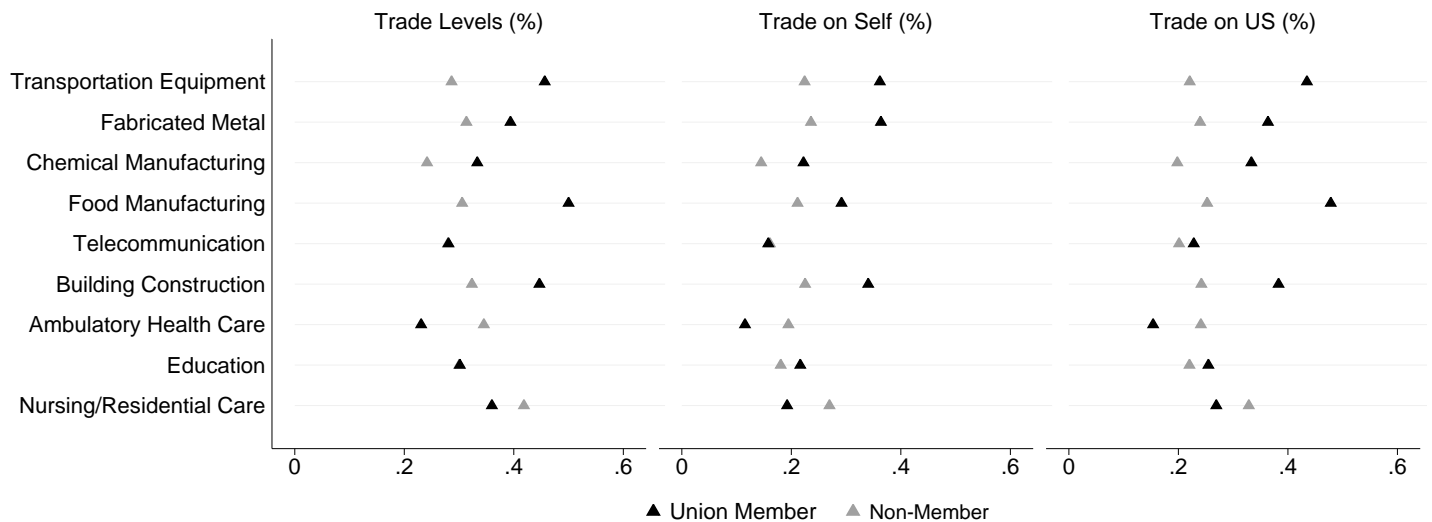


Figure 2: Trade Policy Views of Union Members vs Non-Members, by Industry

¹³The binary measure uses the bottom two categories on the five-point scale to classify the opposition to trade.

The graphs show that union members' policy preferences are different from those of non-members, but the impact of union membership is not uniform across industries. In the manufacturing industries – transportation equipment, fabricated metal, chemical manufacturing, and food manufacturing – union members tend to hold more negative attitudes toward free trade than non-members. Yet, the difference in view associated with union membership is not homogeneous across the service industries. For example, union members employed in building construction are more opposed to trade expansion than non-members, but the opposite pattern is registered in nursing and residential care, as well as is in the ambulatory health care industries, where unionized workers are less protectionist. Finally, we find little difference between the preferences of union members and non-members in both the telecommunication and education sectors.

To get a better sense of the overall 'union effect' across all industries, while taking account of the main potential confounders, we conduct a nearest-neighbor matching exercise. In this exercise we match each union member in our sample with a non-unionized worker who is employed in the same industry and is also of the same gender, ethnicity, marital status and education level as the union member.¹⁴ After the requirement for exact matching on these five criteria is fulfilled, the matching algorithm is instructed to seek the closest observation in terms of income level and age.¹⁵ With the matched data, we estimate a probit regression model calculating the average treatment effect of union membership on all three dependent variables.

The results, presented in Figure 3, indicate that the average 'union effect' is indeed considerable: union members are about 4 percentage points more likely to support reduction in levels of trade than similar workers employed in the same industry who do not belong to a union and about 5 percentage points more likely to perceive that trade is adversely affecting

¹⁴For education level, we use a binary indicator of completing a 4-year college degree.

¹⁵We do not match on the respondent's party identification that could be influenced by union membership.

oneself. The largest effect is registered with regards to the view that trade is harming the U.S. as whole, where the estimated union effect is an increase of 9 percentage points. As the figure shows, even taking account of the uncertainty in the estimates, the union effect is statistically distinguishable from zero at the 95% for two of the dependent variables and 90% for the third measure.

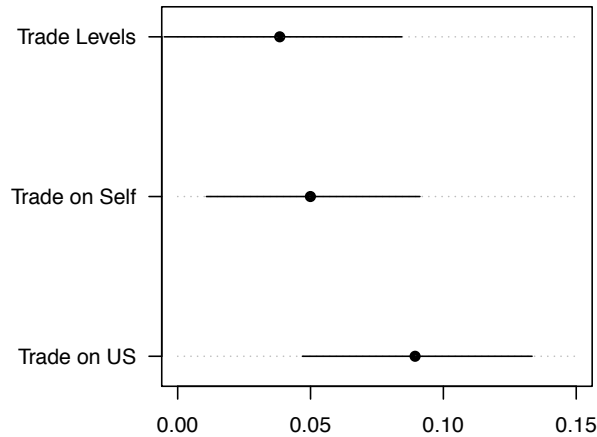


Figure 3: Average Treatment Effects (ATEs) of Union Membership

The question, of course, is what accounts for this ‘union effect’ and for the variation in its size and sign across industries (as seen in Figure 2). Conditional on the impact of trade openness on different sectors of the economy, when should we expect differences between the trade attitudes of union members and those of other workers employed in the same industry to be most significant? Two plausible answers come to mind. Some labor unions might be more strongly opposed to trade expansion and thus more active than other unions in communicating their views to their members. Alternatively, the variation we observe may perhaps be explained by different sorting effects. Since labor unions across industries represent different interests, they may attract as members those individuals who *to begin with* hold similar views to those of the unions (i.e. self-selection mechanism). In other words, the first mechanism holds that unions shape the views of their members through communication

and information provision, while the second mechanism suggests that unions merely echo the preferences of their members, not shape them. The following sections present a number of empirical tests that evaluate the relative validity of these two lines of explanation.

4.2 Unions as Information Providers

To evaluate the validity of the ‘information provision’ mechanism, we begin by using descriptive data to examine the basic expectation that unions do in fact communicate with their members on the issue of trade policy. We then explore the extent to which members are familiar with their union’s stance on the issue.

Our first analysis examines the issues that unions discuss most prominently in their communications with their members. As part of the survey, respondents who belong to unions were asked to list up to three issues that were most frequently addressed in their union’s communications. The answers to this open-ended question, presented in Figure 4, indicate that in some industries a considerable share of members describe trade as one of the three most discussed issues by the union: 58% of the respondents belonging to the United Auto Workers, 25% from the International Association of Machinists, and 18% from the United Steelworkers. In sharp contrast, none of the respondents from two of the least protectionist unions – the American Federation of Teachers and the Service Employees International Union – listed trade as a frequently discussed issue. This pattern is consistent with the notion that labor unions serve as information providers on trade issues. Moreover, the positive relationship we observe between the intensity of communication on trade issues and our measure of unions’ protectionist stance suggests that the latter is valid.

Next, we explore the degree to which workers are in fact familiar with their union’s policy stance on trade. The panels in Figure 5 present the share of members who: i) answered that they had received at least three communications from their union in the past year on the issue of trade; ii) are either somewhat, or very familiar with the union’s position on trade;

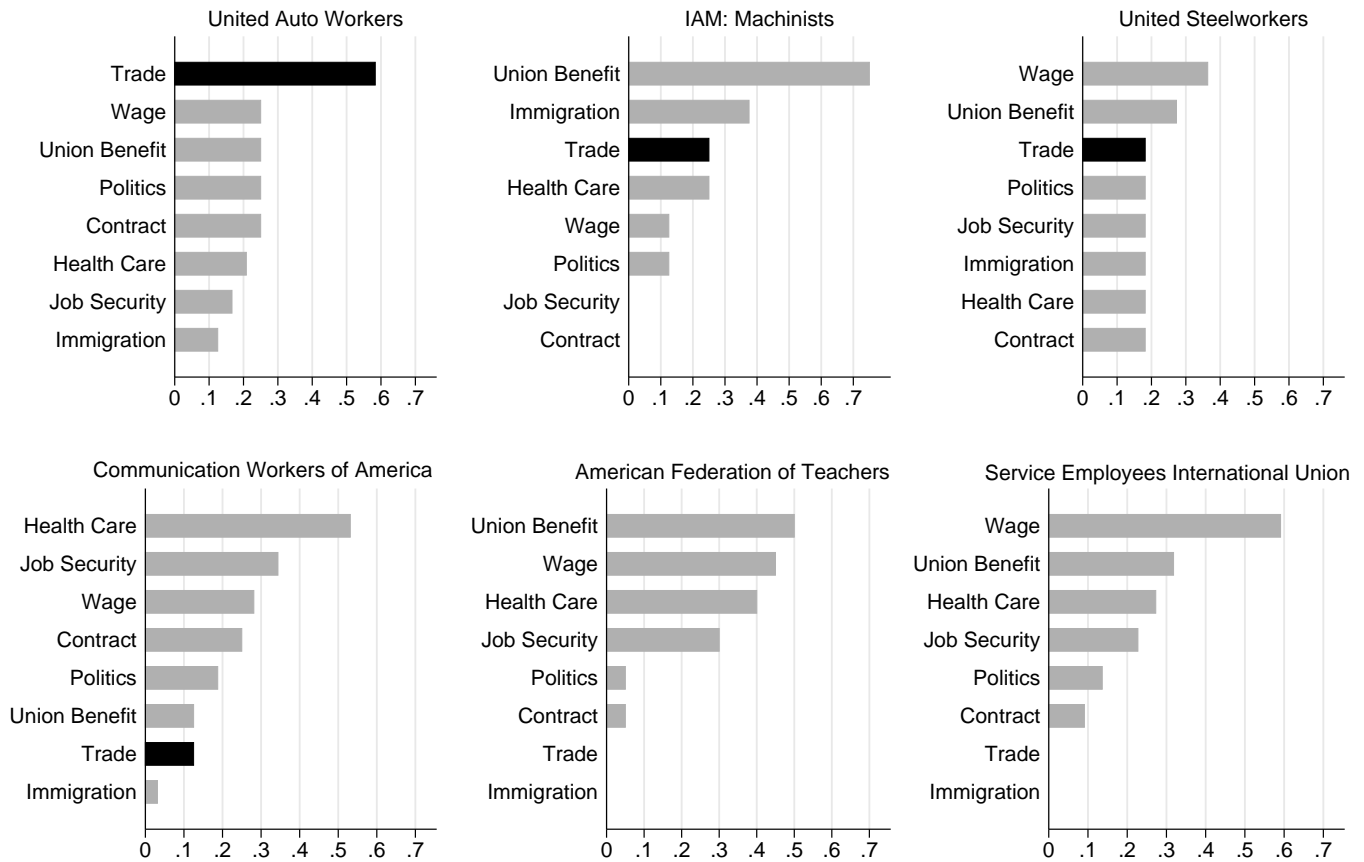


Figure 4: Issues Unions Discuss Most Frequently

Note: The unionized respondents were asked to list up to three issues that their union discussed most frequently in its communications to the respondent. We reclassified open-ended responses to eight categories presented in the figure, leaving out some answers that appear only rarely in the responses.

and iii) think that their union advocates reducing trade. The unions are sorted along the vertical axis by their protectionism score which, as described earlier, is based on the union's lobbying activity and official statements.

The left panel indicates that members of more protectionist unions typically received more communication from their organization on trade-related issues. Accordingly, those members also tend to express greater familiarity with their union's stance on the issue of trade (center panel), and to describe their union as protectionist (right panel). In the case of the more protectionist unions such as the United Auto Workers, the United Steelworkers,

or the United Brotherhood of Carpenters, over 70% of the members correctly note that their union supports reduction of trade levels. In contrast, in the American Federation of Teachers – the least protectionist union in our sample – only a fraction describe the union as protectionist, while the large majority thinks their union is either in favor of keeping trade at its current level (62%) or expanding it (19%).

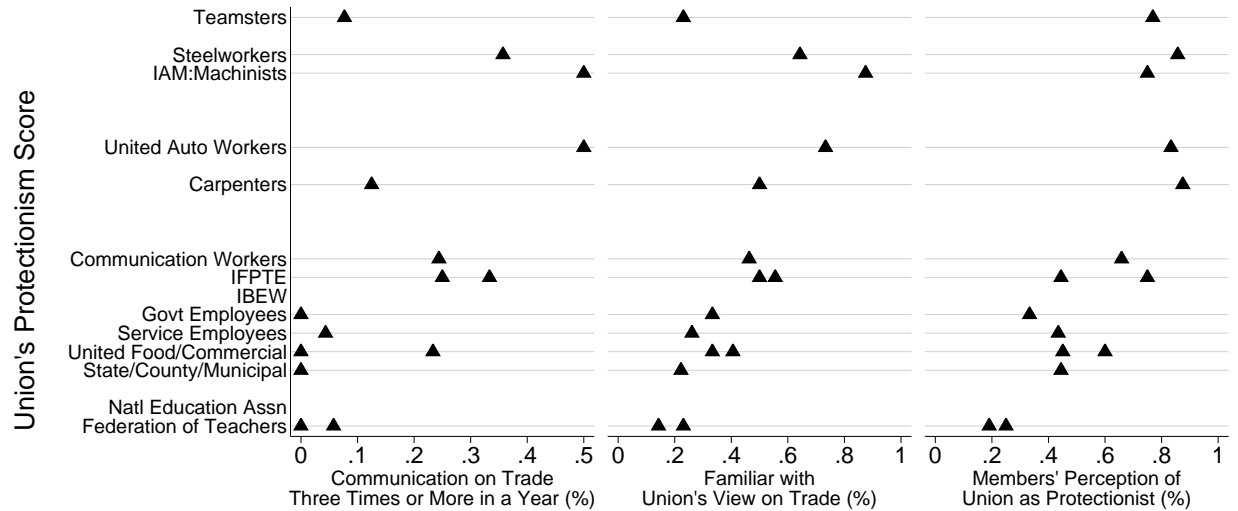


Figure 5: Union Communications on Trade and Members' Knowledge

The findings that Figure 5 highlights clearly lend support to the ‘information provision’ mechanism laid out above. Indeed, we find that members, especially those belonging to protectionist unions, do receive correspondence on trade-related issues and learn about the union’s policy stance. Yet to what extent does learning about the union’s policy position have an impact on the members’ own attitudes? The next section explores this question in some detail.

4.3 Do Members Internalize Information from the Union?

To assess whether communication from unions affects the preferences of workers on the policy, we examine the alignment between the stance of the union and its members’ own attitudes

toward trade openness. The upper panels in Figure 6 compare the stance of each union with the views of its members, presenting in each sub-graph the responses to one of the three dependent variables questions. The graphs show quite vividly that members' own attitudes on the issue of trade are positively associated with the protectionism score of their union. Indeed, the positive association appears across all three measures of trade preferences.

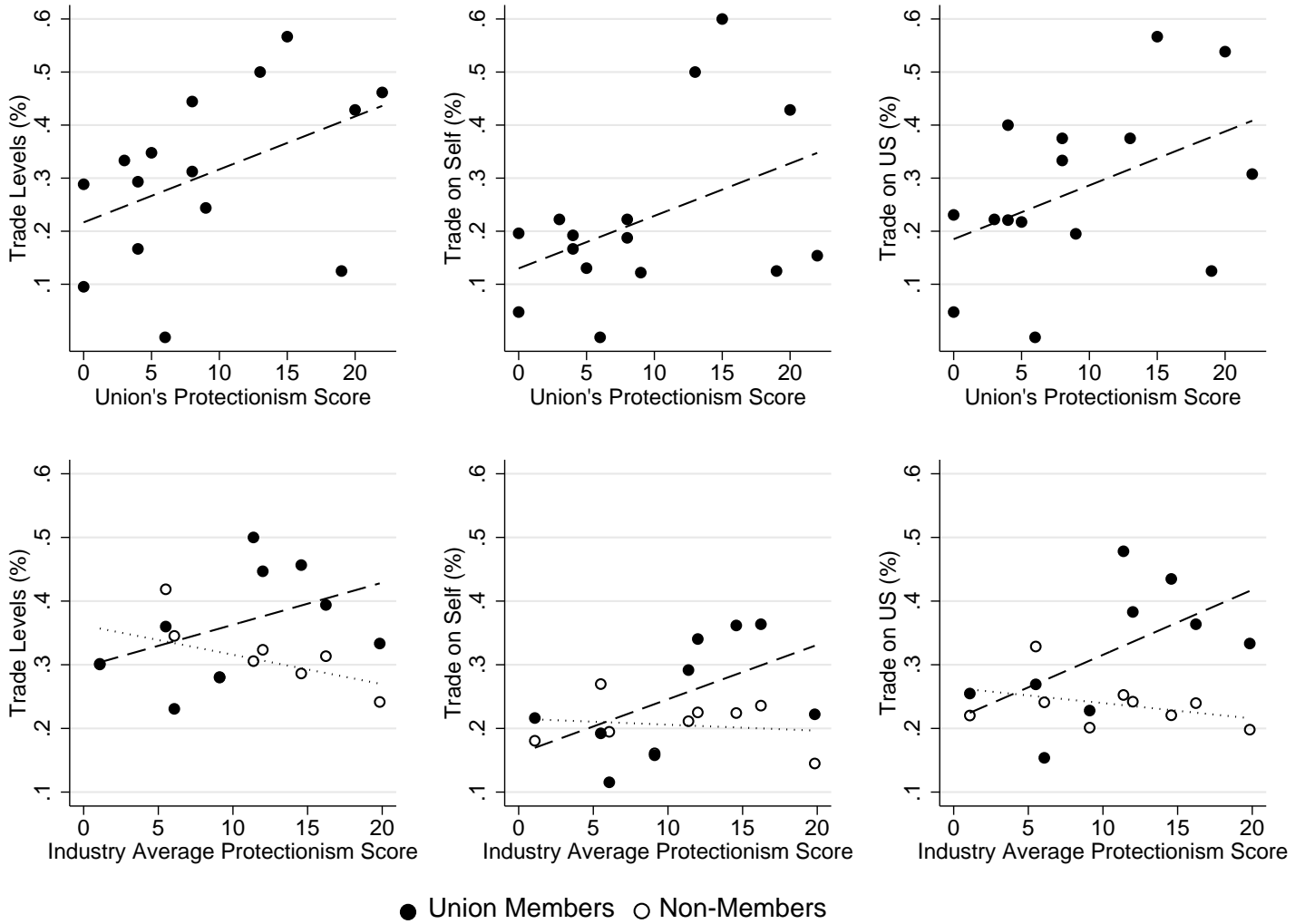


Figure 6: Alignment between Union's Stance and Workers' Policy Preferences across Unions

This finding, however, is subject to an obvious concern about endogeneity and potential spuriousness: The association might be simply driven by another factor that shapes both

the unions' stance as well as that of its members. For example, workers and unions in import competing sectors might be more protectionist than others simply because of the adverse consequences that exposure to foreign competition poses to them. As a first way of dealing with this possibility, we compare the trade preferences of union members with those of non-union workers *employed in the same industry*. If the association is driven by some industry-level characteristic, we should observe the same pattern within an industry among both union and non-union members. Yet empirically, that does not appear to be the case.

The lower panels in Figure 6 present the share of union members and non-members holding negative views toward international trade, and plot them against the industry's protectionism score. The graphs highlight that the average protectionism score of unions in each industry is positively correlated with union members' trade preferences, but not with those of non-members. While members from an industry represented by more protectionist unions appear to be more likely to hold negative views on trade openness, this relationship does not hold among non-members. This suggests that workers from the same industry not only differ in their views on trade as a function of whether or not they belong to a union, but also that the differences reveal a distinct pattern: the former hold views that correspond to those of the union while those of the latter group do not.

This striking pattern which Figure 6 highlights finds support also when tested formally. Specifically, we estimate a probit model:

$$\begin{aligned} \text{Probit}(Y_i) = & \alpha + \beta_1 \text{Industry Protectionism Score}_i + \beta_2 \text{Union Member}_i \\ & + \beta_3 \text{Industry Protectionism Stance} * \text{Union Member}_i + \theta \text{Controls}_i + \epsilon_i, \end{aligned}$$

where Y_i is a binary measure of individual i 's view on trade and *Average Protectionism Stance* is the average protectionism score for unions in i 's industry of employment. *Union Member* is a binary indicator for union members, and *Industry Protectionism Stance * Union Member* is the key variable of interest, capturing the interaction between the two variables.

The specification also controls for education, age, income, gender, race and marital status.

Table 3: Union Average Protectionism Stance and Worker’s View on Trade (Members vs. Non-Members)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Trade Level			Trade on Self			Trade on US		
Industry Protectionism Score	-0.002 (0.001)	-0.004* (0.002)	-0.002 (0.002)	0.001 (0.001)	-0.000 (0.001)	0.001 (0.002)	-0.000 (0.001)	-0.002 (0.002)	-0.000 (0.002)
Union Member	0.024 (0.024)	-0.063+ (0.035)	-0.018 (0.039)	0.038+ (0.021)	-0.015 (0.032)	0.020 (0.035)	0.057* (0.023)	-0.023 (0.033)	0.015 (0.037)
Industry Protectionism Score *Union Member		0.011** (0.004)	0.007+ (0.004)		0.007* (0.003)	0.003 (0.003)		0.010** (0.003)	0.007+ (0.004)
Demographic Controls	No	No	Yes	No	No	Yes	No	No	Yes
Observations	3194	3194	2911	3194	3194	2911	3194	3194	2911

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

The results of the estimation are presented as marginal effects in Table 3. The results suggest that the unions’ stance on trade has a notable impact on the attitudes of the union members, but not on the attitudes of the non-members. We find a positive and statistically significant coefficient for the interaction term β_3 , but the coefficient for β_1 is in most specifications very small in magnitude and statistically indistinguishable from zero. This indicates that union members exhibit attitudes on trade that much more closely resemble the position staked by the unions than the attitudes of the non-members employed in the same industry.

5 Treatment versus Selection

The results presented so far are consistent with the notion that, among other functions, unions are information providers that exert effective influence on their members’ policy preferences. Yet, as noted above, these findings may also reflect a self-selection process: If workers’ decision to join a union takes into account the position of the union on trade-related issues, and if those who join protectionist unions are also more engaged in reading the communications they receive on the topic, the results in Figure 6 could be an outcome

of a reverse causal process. To address this possibility and test whether a selection effect accounts for the results, this section presents a number of inferential tests designed to help tease out between the competing explanations.

5.1 Cross-State Legal Differences and the Union Effect

To address the possibility that self-selection accounts for the ‘union effect’ detected in the analyses above, we leverage state-level differences in their “Right-to-Work” laws, which refer to the legal conditions that govern the ability of workers to join or opt out of a union. Since the introduction of the Right-to-Work (henceforth RTW) provision in 1947, as part of the Taft-Hartley Act, individual states in the U.S. have had the option of enacting a law that prohibits union “security agreements”. This means that in states that adopt the RTW law, labor unions cannot legally require workers to pay union dues. The implication is that union membership in RTW states depends much more on individual workers’ own discretion and is less a function of an institutional requirement to do so.¹⁶ Indeed, union membership rates are systematically much higher in non-RTW states, even within the same industry (see Figure 7). This difference in the regulation of union membership across states allows us to test the self-selection explanation in the following manner: if self-selection accounts for members’ preferences, the effect of union membership should be larger in those states in which membership is much more likely to arise from a worker’s choice.

To test this proposition, we estimate the following binary probit model:

$$Probit(Y_i) = \alpha + \beta_1 Union_i + \beta_2 RTW_i + \beta_3 Union * RTW_i + \gamma Industry_i + \theta Controls_i + \epsilon_i,$$

where Y_i is a binary measure of respondents’ attitudes toward international trade. $Union$ is a binary indicator for an individual i ’s union membership, and RTW is a binary variable

¹⁶For an overview of the Right-to-Work law, see Collins (2012).

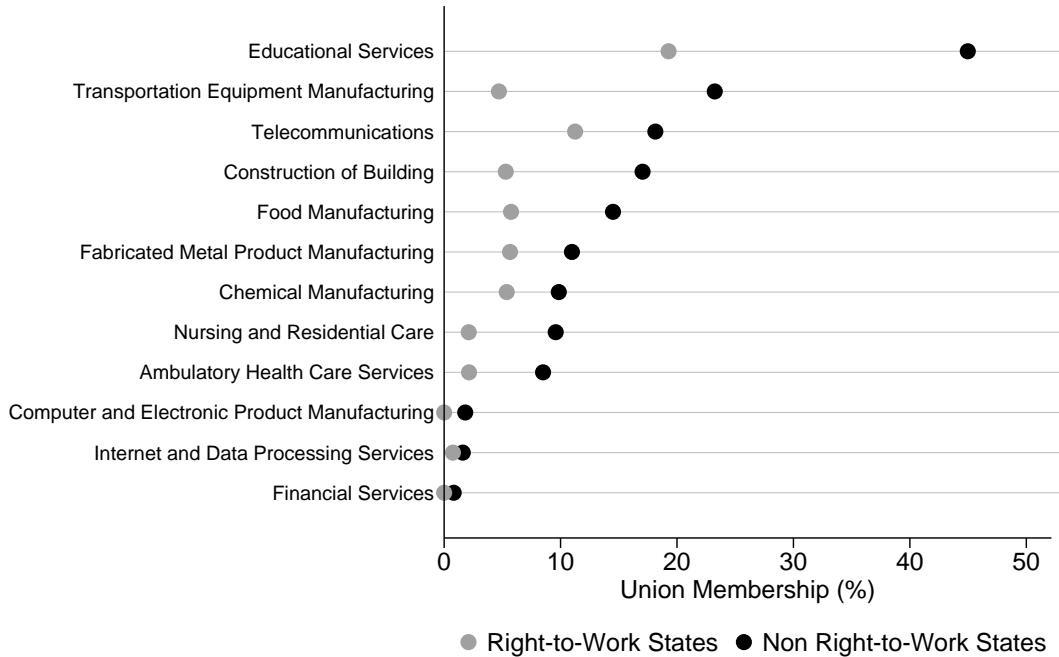


Figure 7: Unionization Rate by Industry and Right-to-Work Law Status

that takes the value 1 if i resides in a state that had adopted the ‘Right to Work’ law at the time of the survey. The key parameter of interest is the coefficient β_3 on the interaction term $Union * RTW$. If we find that the interaction term is sizable and significant, that would point strongly toward a selection-based explanation, as it would indicate that the ‘union effect’ – the difference in attitudes of union members and non-members in their industry – are less pronounced when workers are “pushed” into their union membership status.

The model also includes fixed effects for *Industry* as well as *Controls*, a vector of individual characteristics (income, gender, race, age, education, and marital status).¹⁷ In some models we also include a measure of party identification (an ordinal scale ranging from strong democrat (1) to strong republican (7)). In the last column of each set of specifications, we also include the control variables interacted with RTW , to control for the possibility that

¹⁷Income is a 14-level ordinal variable, ranging from less than \$10,000 (1) to more than \$150,000 (14); education is 6-level ordinal variable, ranging from no high school education (1) to a graduate degree (6).

individual characteristics may also have varying effects under the different legal settings.

We expect labor unions to affect the policy preferences of their members when they actively disseminate policy-related information to their membership. Thus, to provide an effective test of the treatment mechanism, we conduct a split-sample analysis in which we estimate the model separately for industries in which the average protectionism score is high – transportation equipment, chemical, fabricated metal, and food manufacturing, telecommunication and building construction industries – and the rest of the sample, i.e. industries that score low on the protectionism score.¹⁸

We present the estimation results with all three dependent variables in Table 4 – the results for industries with high average protectionism score in the top panel of the table, and the results for the rest of the industries in the lower panel. For each dependent variable, we begin by including only a set of basic covariates. The coefficient on *Union Member* is positive and statistically significant in the industry groups represented by the protectionist unions (top panel), yet it is not significant in the less protectionist industries (lower panel). This result, which holds across all the model specifications, suggests that the effect of union membership is conditional on the firmness of the union’s stance on the policy issue in question, perhaps because those unions communicate their stance on the issue more intensely to their membership.

Yet as explained above, the key coefficient of interest is the interaction term *Union Member * RTW*. Notably, this interaction term is not statistically significant in any of the specifications in the protectionist industries: this is case when we include only the basic set of covariates, when we control also for respondents’ partisan affiliation, as well as when we interact RTW with all other covariates. Moreover, the substantive effect of the interaction term is either very close to zero or small and slightly *negative*, a finding that is inconsistent

¹⁸None of the labor unions in the sample is actively advancing a pro-trade stance. The difference is thus between unions strongly opposed to trade-liberalizing bills and unions that are not strongly opposed.

Table 4: Effect of Union Membership on Attitudes toward Trade

Strongly Protectionist Unions												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Trade Levels											
Union Member	0.097** (0.037)	0.090* (0.042)	0.096* (0.043)	0.097* (0.044)	0.070* (0.033)	0.084* (0.038)	0.084* (0.039)	0.094* (0.040)	0.130** (0.036)	0.145** (0.042)	0.146** (0.042)	0.146** (0.042)
RTW	0.021 (0.024)	0.018 (0.025)	0.023 (0.026)	-0.076 (0.174)	-0.002 (0.021)	0.003 (0.022)	0.009 (0.022)	0.260 (0.170)	0.011 (0.022)	0.016 (0.023)	0.024 (0.024)	0.040 (0.170)
RTW*Union Member		0.026 (0.082)	0.007 (0.081)	0.008 (0.083)	-0.053 (0.058)	-0.069 (0.054)	-0.086 ⁺ (0.050)			-0.049 (0.062)	-0.066 (0.059)	-0.063 (0.060)
Party ID Control	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
Full Interactions	No	No	No	Yes	No	No	No	Yes	No	No	No	Yes
Observations	1634	1634	1607	1607	1634	1634	1607	1607	1634	1634	1607	1607
Not Strongly Protectionist Unions												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Trade Levels											
Union Member	-0.013 (0.033)	0.018 (0.038)	0.017 (0.038)	0.010 (0.038)	0.012 (0.028)	0.024 (0.032)	0.019 (0.032)	0.011 (0.032)	0.010 (0.030)	0.008 (0.033)	0.002 (0.033)	-0.002 (0.033)
RTW	-0.004 (0.020)	0.007 (0.021)	0.007 (0.021)	0.051 (0.152)	-0.004 (0.017)	0.000 (0.018)	0.000 (0.018)	-0.054 (0.116)	-0.017 (0.018)	-0.018 (0.019)	-0.017 (0.019)	0.054 (0.139)
RTW*Union Member		-0.129* (0.054)	-0.130* (0.053)	-0.122* (0.055)		-0.049 (0.050)	-0.047 (0.051)	-0.028 (0.057)		0.008 (0.066)	0.011 (0.067)	0.025 (0.070)
Party ID Control	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
Full Interactions	No	No	No	Yes	No	No	No	Yes	No	No	No	Yes
Observations	2196	2196	2160	2160	2196	2196	2160	2160	2196	2196	2160	2160

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

All models include fixed effects for *Industry* as well as *Controls* (income, gender, race, age, education, and marital status). Full Interactions include the demographic controls interacted with *RTW*.

with the selection mechanism being at play. In the less protectionist industries, the finding is similar. The interaction coefficient is either substantively close to zero or negatively signed. In sum then, the results clearly go against the prediction that arises if a selection mechanism accounts for the distinct trade policy preferences of union members.

To assess the substantive effect of union membership on trade attitudes, we estimate the probability that a worker with characteristics of the sample median supports a reduction in trade levels.¹⁹ A non-union member with such characteristics is, on average, 21% likely to support a more protectionist measure, but union membership increases this probability by 8 percentage points to over 29%. This represents about a 41% increase over the baseline level. We also examine the effect of union membership in the less protectionist group of industries.²⁰ In this case, union membership increases the predicted probability of supporting trade reduction by less than 2 percentage points on average, yet the point estimate is well below conventional levels of statistical significance.

The substantive effect of union membership on the probability that a worker perceives a negative impact of trade on oneself and family is even more considerable. A worker with characteristics of the sample median has a 17% likelihood of perceiving trade as harmful, but this estimate increases by 8 percentage points among union members with similar characteristics, representing a 50% increase compared to the baseline estimate. Note that this effect is comparable in size to that associated with education, a variable that is widely documented as an important determinant of trade preferences (e.g., Hainmueller and Hiscox (2006)).²¹

¹⁹We estimate the predicted probability based on the second model and set *age* at its mean value and all other categorical variables at their median values, assuming a white male, married, with 4 years of college education. The industry is set to *transportation equipment industry* when estimating the model for more protectionist group of industries.

²⁰We estimate the probability setting the industry category to *ambulatory health care industry*.

²¹A change from a high school diploma to a 4-year college graduate is associated with a decrease in the predicted probability of a negative perception of trade by 10 percentage points.

5.2 Members' Preferences when the Union Changes Position

If unions affect the policy positions of their members by providing policy relevant information, we would expect that following a change in the policy stance of the union, a corresponding change in the view of their members would also take place. In contrast, we would not expect this to occur if members join the union because of their affiliation with its (original) stance on trade. In this section we examine the effect of exactly such type of reversal in a union stance: the sudden and fairly dramatic shift in the United Auto Workers (UAW) position toward a major trade liberalization deal. This examination thus provides a second setting for testing the competing explanations for the previously observed union effect on members' trade preferences.

For many years, the UAW, a labor union representing workers primarily in the auto industry, had been consistently and strongly opposed to the expansion of U.S. trade. It was also part of a vocal opposition to the signing of trade agreements with Colombia and with Korea, agreements that were debated exactly around the time of the survey. With respect to the latter agreement, the UAW's official statement from April 2010 summarized its position as follows: "The UAW strongly opposes the free-trade deal negotiated by President Bush with South Korea (KORUS FTA) in April 2007, and has reiterated that opposition to the Obama administration and to Congress. The poorly negotiated and misguided auto provisions of the KORUS FTA would further open the U.S. market to increased automotive imports from Korea..." The statement ended by calling the union members to "Tell Congress that this free-trade deal would lead to a surge in automotive imports from South Korea, worsening our lopsided auto trade deficit and threatening the jobs of tens of thousands of American workers."²²

Yet, following intense lobbying and negotiations with the Obama administration, a set of

²²The full statement is at <http://www.uaw.org/page/international-trade-and-investment-policy>.

changes advocated by the union were incorporated into the revised agreement. On December 6th of that same year, the union made a statement pronouncing that “the changes announced to the U.S.-Korea Free Trade Agreement today are a dramatic step toward changing from a one-way street to a two-way street for trade between the U.S. and South Korea. These changes represent an important opportunity to break open the Korean market for U.S. businesses and workers and boost American manufacturing jobs, particularly in the automotive sector.” The announcement went on to detail the advantages of the revised trade deal: “We believe an agreement was achieved that will protect current American auto jobs, that will grow more American auto jobs, that includes labor and environmental commitments, and that has important enforcement mechanisms.”²³

How did this shift in the union’s position influence the views of the autoworkers on trade? We examine the impact of the UAW’s pro-trade message by focusing on our sample of auto industry workers. The survey includes 102 respondents from the auto industry, a quarter of which participated in the survey *after* the UAW announced its support for the free trade agreement.²⁴ Using this sample, we compare the views of union members with those of non-members before and after the UAW’s endorsement of the free trade agreement. Figure 8 clearly demonstrates that union members working in the auto industry were significantly more protectionist than non-members before the shift, yet the level of support for trade restrictions significantly decreased after the UAW endorsed the free trade agreement. Crucially, this change in attitudes toward trade liberalization is not observed among non-members working in the same auto industry.

This pattern is very much consistent with the educational, information provision mechanism we put forth here that union members became more supportive of trade as they received a pro-trade message from the union. Yet this observed pattern could potentially be explained

²³The full statement is at <http://www.uaw.org/category/tags/korus>.

²⁴The survey includes 270 respondents working in the transportation equipment industry, which encompasses aircraft manufacturing and aerospace manufacturing industries as well as automobile industry.

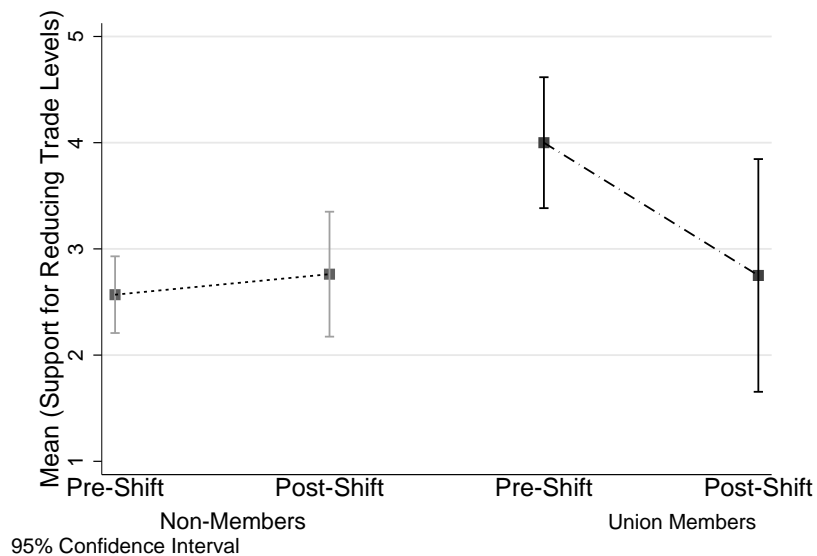


Figure 8: Support for Reducing Trade by Union Membership before and after the UAW Shift

also by reversed causality, namely that a shift in members’ trade preferences (following the renegotiation of the trade deal) was itself the trigger for the change in the union’s public stance. Such an explanation, however, is highly implausible given the very complicated and technical nature of the changes made to the trade agreement. These included new provisions on the schedule of tariff reductions, changes to the list of safety regulations, incorporation of certain environmental standards, and the introduction of safeguard provisions pertaining to Korean exports.²⁵ The average worker might not even be aware that such changes were made to the agreement, let alone be able grasp how these technicalities would affect her well-being without the assistance of the union’s message communicating and simplifying the bottom line of these changes: opening markets to U.S. vehicles and increasing the number American auto jobs.

Another alternative explanation for the shift that occurred only in union members’ prefer-

²⁵For instance, Korea agreed that motor vehicles produced by the U.S. manufacturer that sold no more than 25,000 in Korea shall be deemed to comply with Korean safety standards if the motor vehicle is certified to comply with the U.S. safety standards. see Appendix for detailed information on the revised agreement.

ences could be news consumption. If union members follow the news more than non-members, perhaps the explanation is that members became supportive because of greater exposure to the news coverage of the agreement. Against this possibility, it should first be noted that the revised agreement was in fact severely criticized by key media outlets, some of which took a stance that directly contradicted the union’s assessment of the deal.²⁶ Thus, it is unclear in what direction news consumption would influence one’s attitudes toward trade before and after the change in the agreement. Notwithstanding, in the following estimation we also control for respondents’ level of news consumption along with other potential confounding factors to ensure that the difference between union members and non-members are not driven by other characteristics. We estimate the model:

$$Probit(Y_i) = \alpha + \beta_1 Union_i + \beta_2 Post-Shift_i + \beta_3 Union * Post-Shift_i + \theta Controls_i + \epsilon_i.$$

This specification is similar to the one estimated in the previous section, only here we include a *Post-Shift* indicator instead of a binary variable denoting an *RTW* state. The *Post-Shift* indicator variable takes the value 1 if individual *i* was interviewed after the UAW announced its support for the KORUS FTA and the value 0 if interviewed before. In some models we also include separate indicators for Michigan and Ohio, the two states in which the auto industry is concentrated, as well as their interaction terms with a binary indicator for post-shift survey. These controls are necessary to ensure that a finding is not driven simply by state specific characteristics. The main interest in this analysis is of course the effect associated with *Union* membership and the interaction term *Union*Post-shift*. We expect union members interviewed before December 2010 to exhibit more intense protectionist attitudes than non-members because the former were exposed to the union’s message opposing the free trade

²⁶For example, *The New York Times* published an article under the headline, “Few New Jobs Expected Soon from Free-Trade Agreement with South Korea,” which argued that “the effect of the agreement on aggregate output and employment in the United States would likely be negligible.” (December 7, 2010).

deal. In addition, we expect that union members interviewed after the shift – and who presumably were exposed to the pro-trade message from the union – to be less protectionist.

Table 5: Change in the Union’s Policy Position and Members’ Preferences

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Trade Level				Trade on Self		
Union Member	0.547** (0.120)	0.497** (0.140)	0.503** (0.143)	0.478** (0.156)	0.401** (0.140)	0.303+ (0.156)	0.414* (0.164)	0.374* (0.177)
Post-Shift	0.062 (0.128)	0.021 (0.136)	-0.002 (0.137)	-0.042 (0.171)	-0.054 (0.120)	-0.092 (0.122)	-0.119 (0.123)	-0.014 (0.157)
Post-Shift*Union Member	-0.442** (0.076)	-0.465** (0.076)	-0.469** (0.079)	-0.501** (0.072)	-0.067 (0.206)	-0.022 (0.235)	0.046 (0.258)	0.155 (0.326)
Demographic Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
News Consumption	No	No	Yes	Yes	No	No	Yes	Yes
Party ID	No	No	Yes	Yes	No	No	Yes	Yes
Auto States	No	No	No	Yes	No	No	No	Yes
Observations	102	98	97	97	102	98	97	97

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Demographic Controls: income, gender, race, age, education & marital status

News Consumption: A binary indicator taking a value of 1 if the respondent read a newspaper once a day or more.

Auto States: Michigan, Post-Shift*Michigan, Ohio, Post-Shift*Ohio

The estimation results are presented in Table 5. The results are indeed in line with the expectations: The coefficient on *Union Member* is positive and statistically significant at the 0.01 level or higher in all specifications estimating support for trade reduction. In addition, the coefficient on *Union Member*Post-Shift* is negative and highly significant in all models. This is the case even when we control for respondent’s news consumption and ideological affinity. Given that this result is estimated with a sub-sample of 102 auto workers, the consistency of the finding, both unconditionally and when controlling for a host of confounding factors, is quite striking.

Turning to the right panel of the table in which we analyze respondents’ view of trade as harmful to themselves and their families, we find that union membership was again associated with a sizable and significant effect on the perception of trade as adversely affecting oneself.

However, in this case we observe a much weaker change following the union’s u-turn in the pro-trade direction. Taken together, these results suggest that the union was able to effectively influence the policy stance of its members after it publicly changed its position on the signing of the KORUS agreement, but this shift did not reverse the members’ perception that trade has overall been harmful to them and their families.

5.3 Bounding the “Union Effect”

The analyses presented herein demonstrate that the effect associated with union membership on the policy preferences of its members cannot be accounted for by a selection (i.e. self-sorting) mechanism. Nonetheless, the evidence does not eliminate the possibility that selection accounts for at least some, if not most of the so-called ‘union effect’. Thus, in the final analysis we estimate a lower bound of the treatment in a condition where selection on unobservables may account for some of the estimated effect.

We do so using the method pioneered by Altonji, Elder, and Taber (2005) and recently developed in Oster (2014), which estimates the bounds of a treatment effect based on coefficient movements after inclusion of controls. The logic of this approach is straightforward: If we assume that selection on observables is proportional to selection on unobservables, we can examine how much coefficients change with the inclusion of observables and form an understanding of the sensitivity of a coefficient on unobservables. If the coefficient moves little after the inclusion of controls, this suggests that the coefficient is robust to unobservables. Yet, this movement must be scaled by movements in the R-squared because an uninformative control does not change the coefficient in a significant manner but also adds little to the R-squared.²⁷

Following these assumptions, we estimate linear regressions for all three dependent vari-

²⁷See appendix for a detailed explanation of the method in the context of this study.

ables.²⁸ In the first stage we estimate the model when only including the indicator of union membership; in the second stage we estimate the model with the full set of controls.²⁹ We then use the R-squared values to calculate the identified set of union treatment effects. As before, we estimate the models separately for workers in industries represented by highly protectionist unions and for workers in less protectionist industries.

Table 6: Identification of Lower Bound of Treatment Effect

	Baseline Effect (S.E.) [R^2]	Controlled Effect (S.E.) [R^2]	Identified Set
Strongly Protectionist Unions			
Trade Level	0.103 (.032) [.005]	0.087 (.034) [.087]	[0.069, 0.087]
Trade on Self	0.082 (.029) [.004]	0.065 (.031) [.083]	[0.047, 0.065]
Trade on US	0.127 (.030) [.010]	0.122 (.032) [.073]	[0.117, 0.122]
Not Strongly Protectionist Unions			
Trade Level	0.004 (.029) [.000]	-0.020 (.032) [.113]	[-0.045, -0.020]
Trade on Self	0.023 (.025) [.000]	0.001 (.028) [.073]	[-0.021, 0.001]
Trade on US	0.033 (.027) [.001]	0.006 (.030) [.097]	[-0.020, 0.006]

Table 6 summarizes the results. The identified set shows the lower and upper bounds of the union treatment effect. The lower bound refers to the treatment effect when we assume that the unobservables are as important as the observables in explaining the impact of union membership on trade attitudes. The upper bound denotes the union treatment effect when we assume that there is no selection on unobservables. Among protectionist unions, the results show that the lower bound of the union effect is both positive and sizable for all three dependent variables. For example, in the case of support for reduction in trade levels, the lower bound is 0.069, which means that union members are about 7 percentage points more likely to support a reduction of trade than non-members, even when we assume that the unobservables are as important as the observables. This represents about a 35%

²⁸The estimation procedure requires a linear regression model. Similar to Altonji, Elder, and Taber (2005: 176), we estimate linear regression models by assuming that the unobservable selection bias in a probit model is close to the bias in an OLS model.

²⁹Controls include income, gender, race, age education, marital status, and the fixed effects for industry and state.

increase from the baseline rate. Crucially, in all three dependent variables, even the lower bound of the estimated union effect is sizable, representing at least 76% of the upper bound estimate. This indicates that the large bulk of the union effect is not due to selection on unobservables. Finally, in the bottom three rows, which show the estimation results for the less protectionist unions, the finding is very different: the union effect is either not robust to selection on unobservables or substantively very close to zero.

6 Conclusion

Labor unions are conventionally seen as organizations fighting for better rights, wages and benefits for workers. Despite wide agreement among scholars that these objectives guide much of unions' activity, the methods used by unions to obtain these objectives and the consequences of their deployment are often deeply contested. This paper examines one route by which labor unions pursue their objectives, namely through emboldening support for the organization's stance by communicating information to the union's membership. To date, little systematic information exists about the degree to which unions communicate with their members on specific policy issues, and even less is known about the impact of these communications on members' preferences.

Exploring these issues, this paper has shown that unions do indeed communicate policy-relevant information to their membership on a regular basis, but that the frequency and nature of these communications varies significantly across unions. Focusing on the issue of trade policy, we find that unions that engage in substantial lobbying on trade-related bills also tend to communicate regularly on the matter with their members. In fact, in some cases, communication of information on trade policy eclipses correspondence even on traditional union issues, such as wages or health care. Beyond documenting these patterns of communication, we provide evidence that those unions that engage in substantial communication of information to their members are also able to influence the members' attitudes toward

the union-held position. Thus, it appears that unions are not merely a “voice” of workers’ preferences, but also an effective institution that is able to systematically shape and cohere that voice toward a given policy objective.

The rise in levels of international trade in recent decades poses a major challenge to labor unions, as competition from overseas constrains their ability to negotiate improved compensation or employment conditions for workers. Indeed, the weakening of unions in the face of deepening globalization has been cited as a contributing factor to the rise in wage inequality in various countries. Our results highlight a largely overlooked channel that may account for this development, namely the ability of unions to influence their members’ political attitudes. Our findings suggest that unions may in fact be influencing the dispersion of incomes not only directly, i.e. by negotiating improved compensation for workers in the lower income rungs, but also indirectly by affecting the degree of public support for inequality-reducing policies.

One might ask whether workers cannot discern their policy interests without the unions’ guidance on such policies. For sure, some workers can. Yet our analysis shows that elite communication, in this case by unions, significantly affects the policy views of their members and accounts for variation in policy preferences even among similarly-skilled workers employed in the same industry. These findings, together with results obtained from in depth case studies (Ahlquist and Levi, 2013), suggest that for explaining individual attitudes on a policy one must look beyond its distributive effects and also pay attention to citizens’ sources of information. As this paper demonstrates, these sources can have a rather strong intervening effect.

Our findings pertain to the impact of unions in the U.S., with relatively low rates of membership. One obvious extension of this study would be to examine our research question but in countries with much higher union density rates, such as Denmark, Norway, or even Canada. We conjecture that the union effect we would find in those countries would be even

larger than the one we identify in this study, since the strength of the unions outside the U.S. allows them to invest more in communicating and educating their members. Whether that is the case is of course an empirical question that hopefully future research would illuminate.

In prior research on public opinion, any consideration of a “union effect” on attitudes has almost exclusively relied on the inclusion of an indicator variable denoting whether or not the respondent belongs to a union. This approach assumes a homogeneous effect across unions. Yet our study, which utilizes information not only on membership but also on the specific unions the respondents’ belong to, highlights the significant variation both in the position that unions take on the same issue as well as in the intensity in which they correspond with their members about the issue. Thus, by estimating only the average union effect, as most prior research has done, scholars have underestimated the impact of the more active unions on the preferences of their members. This suggests that for addressing some questions about the political consequences of unions, particularly those that seek to go beyond their overall effect on the electorate, collecting information not just on membership but also on the specific union affiliation could be very useful.

In recent years, perhaps due to the declining rates of union membership, the focus in much of the research has shifted to exploring the influence of other institutions such as the church or business lobbies on various political and electoral outcomes (Green, 2007; Smith and Walker, 2013; Baumgartner et al., 2009). Yet even today, few organizations have the broad reach and regular access to such sizable portions of the electorate as labor unions do. Indeed, as the findings of this paper indicate, a meaningful understanding of the forces shaping public preferences in today’s political environment requires taking a serious account of unions’ significant impact.

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Appendix

1 Data Description

1.1 Survey Items

A number of survey items asked union members about their knowledge regarding their union's policy stance and related activities. These items read as follows:

- Overall, where do you think the union stands on the question of whether trade with other countries should be expanded, reduced or kept at its current level?
- How familiar would you say you are with the union's view on trade with other countries? Do you think that trade with other countries is good or bad for you and your family?
- During the past year, approximately how often would you estimate the union has communicated with you about trade with other countries?

1.2 Calculation of the Union Protectionism Score

The metric of unions' protectionism score is based on examining the position of the unions on all trade-related issues that were actively lobbied by at least one of the labor unions in the study. Given how labor intensive examining each of the fifteen unions' position on each of the issues and to make the comparison work manageable in scope, we focus only on issues that were tied to a legislative bill. This focus leaves out issues that were not related to any legislative activity during the two years period under examination. We also excluded bills that were purely industry-specific (e.g. the United Steelworkers lobbying on an antidumping and countervailing duty case on coated paper). Such bills do not allow for a comparison with the position taken by unions outside the industry since they do not lobby or announce their position on the issue.

Based on these criteria, we used the fourteen bills in the table below to generate the unions' protectionism measure. In the few instances where information was provided only about the lobbying activity taking place but not about the actual stance taken by the unions, the position value was coded as missing.

- We examine each union's position on every specific bill. For instance, we consider if the union supported or opposed the bill proposing to withdraw from NAFTA or the

Table A1: Congressional Bills on Foreign Trade Lobbied by Unions

Lobbied Bills Included for Measuring Union’s Protectionist Stance	Coding
Trade Reform, Accountability, Development and Employment Act of 2009	protectionist
US-Colombia Trade Promotion Agreement	free trade
US-Panama Free Trade Agreement	free trade
US-Korea Free Trade Agreement	free trade
US-Peru Trade Promotion Agreement Implementation Act	free trade
Withdrawal of the US from NAFTA	protectionist
Reauthorizing Trade Adjustment Assistance	protectionist
Currency Reform for Fair Trade Act; Currency Exchange Rate Oversight Reform Act of 2009	protectionist
Trade Enforcement Act of 2009	protectionist
Buy American Provision in the American Recovery and Reinvestment Act of 2009	protectionist
Reciprocal Market Access Act of 2009	protectionist
U.S. Foreign-Trade Zones: Trade Agreement Parity Proposal	missing info
Trade Agreement Benchmarks and Accountability Act	missing info
Export Promotion Act of 2010	missing info

buy American provision in the American Recovery and Reinvestment Act. Yet, we do not take into account its general view toward NAFTA or the buy American program.

- We code unions’ support for (opposition to) the trade agreement deals as pro-liberalization (protectionist), and support for (opposition to) other anti-liberalization bills as protectionist (pro-liberalization).
- Specifically, we code support for the “Trade Reform, Accountability, Development and Employment Act” of 2009 as a protectionist stance, because the bill: i) Required a re-evaluation of US free trade agreements every two years; ii) Would have restricted the applicability of trade agreements in regards to trade in services, foreign investment, government procurement, IPR protection, trade remedies, among other areas, and iii) Required the President to submit to Congress a plan to renegotiate any trade agreement that does not meet the stated requirement already in effect.
- Support for the Trade Enforcement Act of 2009 and the Reciprocal Market Access Act of 2009 is coded as protectionist. Trade Enforcement Act of 2009 proposes to apply countervailing duties to non-market economy countries. The Reciprocal Market Access Act proposes to limit the President’s authority to reduce or eliminate tariffs pursuant to trade agreements until certain conditions are met, as well as to withdraw tariff concessions against trade partners who violated the trade agreement.

2 Changes in the United States - Korea Free Trade Agreement

The United States and the Republic of Korea initially signed the free trade agreement on June 30, 2007, but later reached a new agreement that entailed revised provisions for the automotive sector on December 3, 2010. This sections presents the key issues revised in the agreement.³⁰

- **Tariffs** For motor vehicles principally designed for the transport of persons, the United States shall keep duties at the base rate during years one through four, and eliminate duties effective January 1 of year five. Korea will reduce duties to four percent *ad valorem* on the date KORUS enters into force and eliminate duties effective January 1 of year five.
- **Safety Standards** “Korea shall provide that an originating motor vehicles of the United States produced by a manufacturer that sold no more than 25,000 originating motor vehicles in the territory of Korea during the previous calendar year shall be deemed to comply with Korean Motor Vehicle Safety Standards if the manufacturer certifies that the motor vehicle complies with U.S. Federal Motor Vehicle Safety Standards.”
- **Motor Vehicle Safeguard** “Neither Party may apply a safeguard measure for a period exceeding two years, except that the period may be extended by up to two years if the competent authorities of the importing Party determine [...] that the measure continues to be necessary to prevent or remedy serious injury and to facilitate adjustment and that there is evidence that the industry is adjusting, provided that the total period of application of a safeguard measure, including the period of initial application and any extension thereof, shall not exceed four years.”
- **Environmental Standards** “With regard to Korea’s new automobile fuel economy and greenhouse gas emissions regulation, [...] Korea will provide that, from 2012 to 2015, a manufacture that sold up to 4500 motor vehicles in the territory of Korea in calendar year 2009 shall be deemed to comply with the target level set forth in the regulations if either the average fuel economy or the average CO_2 emissions level for the vehicles the manufacturer sold in the territory of Korea during the relevant calendar

³⁰The full legal texts are available here: <https://ustr.gov/trade-agreements/free-trade-agreements/korus-fta/legal-texts-reflecting-december-3-2010-agreement>.

year meets a target level that is 19 percent more lenient than the relevant target level provided in the regulation that would otherwise be applicable to that manufacturer.”

3 Unobservable Selection and Bounding the Treatment Effect

The method advanced in Oster (2014) shows that we can identify the bounded set of the treatment effect using the regression values from uncontrolled and controlled regressions and assumptions about: (i) $\bar{\delta}$, the proportional selection between observables and unobservables related to the treatment and (ii) R_{max} , the R-squared of the full regression with the treatment, observable controls and unobservable controls.

The $\bar{\delta}$ captures the relative importance of the index of observed and unobserved variables in explaining the treatment. The bound $\bar{\delta} = 1$ means that the unobservables are as important as the observables. This is considered an appropriate upper bound because “researchers typically focus their data collection efforts (or their choice of regression controls) on the controls they believe *ex ante* are the most important” (Oster, 2014: 11). It is thus quite unlikely that unobservables are more important than the whole set of observable controls that are relevant to the treatment. Regarding R_{max} , it is necessarily bounded between \bar{R} , the R-squared of the controlled regression, and 1. The simulated results suggest that the upper bound of $\min\{2.2\bar{R}, 1\}$ is an appropriate assumption to make. We therefore calculated the lower bound of the “union effect” assuming $\bar{\delta} = 1$ and $2.2\bar{R}$.