# The Occupational Status Threat and Populism

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#### Abstract

The shift to the right in the domestic politics of western democracies is often explained by two competing narratives: Economic decline among import-competing sectors, and the failure of the redistributive bargain between free trade's winners and losers has led to growing resentment not just against free trade, but also immigrants, globalization, and political elites. Alternatively the social status of individuals, potentially under threat, is the key predictor of populist beliefs. We attempt to reconcile these approaches with a novel approach: we measure an individual's labor market insecurity, a proxy for threat to socioeconomic status – and interact that with local exposure to a trade shock. Individuals with a predisposition to a risk to socio-economic status, when exposed to a local economic shocks attributable to imports from abroad, are more likely to express anti-globalization sentiment. We find that a trade shock in the presence of status insecurity is a powerful predictor of populist political beliefs.

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### Introduction

An individual's material interests drive attitudes towards international trade policy. Welfare, in the standard view, is consequent to an individual's skills, exposure to foreign competition or sector of employment, all of which affect their wage or their job in the face of increasing pressures from abroad. This, however, is only part of the exposure an individual faces. A manufacturing worker, say, doesn't have to directly experience a declining wage or be laid off from a job to develop anti-globalization sentiments. Instead, an individual's perception of their exposure to trade related risk may be enough to predispose that worker to anti-outsider sentiments, whether it is a dislike of imported goods, immigrants or ideas that originate from outside the nation-state.

A predisposition, however, does not necessarily imply the expression of a particular anti-globalization sentiment. Such sentiments require activation. We suggest that predisposed individuals are activated to express anti-outsider opinions after direct, and local exposure to a specific trade shock.

We develop a measure of an individual's predisposition to anti-globalization sentiment, and when we interact that with a variation of the now standard "China shock" instrument, we find the shock activates those with a preexisting risk of labor market insecurity to express anti-outsider sentiments. Those individuals in occupations for which there are fewer other occupations with similar task profiles, and fewer similar jobs in their state, are more likely, when exposed to a globalization shock, to express declining support for free trade, increased immigration, international organizations and the like.

The new measure of risk perception or job insecurity combines two dimensions: the first is a measure of occupational task specificity – how similar is an individual's occupation to occupations held by others in the economy. The second dimension accounts for the relative prevalence/availability of an individual's occupation by state. When combined, we have a measure of how frequently jobs with similar task profiles are available in the same the state for any individual. This index captures the potential costs of both retraining/ new skill acquisition, with the additional potential costs of relocation.

Our headline finding is that while exposure to trade shocks reduces individuals support for NAFTA by about 3%, this response is much stronger among those with greater occupational risk, rising to about a 10 percentage point shift. We find similar effects for attitudes towards immigrants, and views about isolationism.

# 1 Literature and Theory

Individual attitudes towards international trade policy are commonly viewed as emerging from the interaction of economic identities. Observational work often emphasizes differing characteristics of an individual's locus of engagement in the economy. For instance, Baker (2005) emphasizes the individual's role as consumer in the the economy, and suggests that when preferences are non-homothetic, richer individuals prefer to consume more skill intensive goods, and may in fact oppose freer trade in skill abundant countries. An individual for whom their human capital or skill-set characterize their identity will induce preferences via standard Stolper-Samuelson logic Stolper and Samuelson (1941): skilled individuals in tradable sectors in skill abundant countries prefer freer trade, while those with lower skills express more support for social safety nets that protect against the uncertainties from abroad (Walter, 2017). Of course, many view their sector of employment as integral to their sense of self; perceptions of wellbeing improve among those that are employed in sectors that expand with commercial integration (Margalit, 2011). Educated individuals, reflecting a cosmopoltian identity are seen to express pro-globalization attitudes more frequently (Mansfield and Mutz, 2013) as are homeowners, especially in districts adversely affected by trade (Scheve and Slaughter, 2001).

Within similar individuals, different identities can be activated, inducing the expression of differing attitudes to globalization. Naoi and Kume (2015) shows in an experimental setting that when an individuals' consumer identity is activated among a random selection of Japanese respondents, attitudes to trade are less oppositional, relative to when their identity as a producer is activated.

The characteristics of the individual's occupation may activate sentiment towards trade and globalization. Occupations characterized by both "task-routineness" and "off-shorability" activate perceptions of insecurity and exposure to risk (Owen and Johnston, 2017).

The literature in social psychology however suggests that an individual's identity alone does not necessarily imply the expression of attitudes consistent with that identity. Guisinger (2009) for instance demonstrates that trade issues are often not salient even for those that are most susceptible to dislocations from imports.

Instead, one's occupation, or skill set or education may predispose one to a particular profile of attitudes. But expression of those attitudes requires some sort of activation. Exposure to arguments, to events, to cues from elites or some other external precipitant makes certain identities salient in the political sphere, where they might not have been otherwise. For instance, Ballard-Rosa et al. (2017) offer evidence in an experimental context that those exposed to trade shocks are more likely to express stronger "authoritarian" values.

We theorize a sequence of steps that lead to the activation of anti-globalization sentiment at the individual level. We begin with an individual's occupation, and in particular, how similar an individual's occupation is to others in the economy. Each occupation is characterized by a 12-dimensional vector of standardized tasks; standard network techniques allow us to measure the uniqueness or the specificity of any job. In a sense an individual in a job for which there isn't another close by in task-space may be more "at-risk" than an individual in an occupation for which there are many others with similar task profiles. This is the first stage in measuring an individual's "predisposition" to a particular sentiment.

The second stage is to take account of the supply of similar occupations within the individual's geographic proximity. We weight the occupational specificity with the relative prevalence of that occupation among all occupations in the respondent's state. These two elements provide a measure of perceived labor market risk, or alternatively a measure of an individual's predisposition to antiglobalization sentiment.

The third step regards the activation of those predispositions to anti-trade, globalization, immigrant and other sentiments. Activation of the predisposition requires exposure to an external shock. We adopt a "sociotropic" approach (Bisbee, 2018), relying on local exposure to an import shock as the precipitant event. To keep thing simple, and since we have the geographic location of the respondent, we make use of, and calculate our own version, of the "China shock instrument" (Autor, Dorn and Hanson, 2013) for each county in each year.

The interaction of these three factors – occupational specificity, job availability and exposure to a globalization shock – provide a strong basis for the expression of opinions opposed to trade and immigration, distrust of international organizations and multinational corporations. When an individual's identity as a member of a group whose social, or more specifically their occupational status, is threatened, a set of opinions and attitudes are activated. These opinions emerge in response to the interaction between perceived threat faced by the shock from abroad and the domestic labor market or occupational status threat.

# 2 Empirical Context

We obtained geocoded data from the General Social Survey (GSS) by special request. These data cover the period from 1993 to 2018 for the United States. Questions asked include questions about free trade agreements, questions about globalization, and questions about immigration. Many of these questions were only asked in a particular year. However, we were able to identify a handful of questions that were asked over multiple years, allowing us to estimate the relationship between changes in the exposure to import competition and opinions. These questions include:

- NAFTA: "Generally speaking, would you say that American benefits or does not benefit from being a member of NAFTA?"
- FREE TRADE: "How much do you agree or disagree with the following statements? Free trade leads to better products becoming available in America."
- LETIN: "Do you think the number of immigrants to America nowadays should be...[increased a lot] to [reduced a lot]"
- INTLINCS: "How much do you agree or disagree with the following statements? Large international companies are doing more and more damage to local businesses in America."
- POWRORGS: "How much do you agree or disagree with the following statements? International organizations are taking away too much power from the American government."
- DECSORGS: "How much do you agree or disagree with the following statements? In general, American should follow the decisions of international organizations to which it belongs, even if the government does not agree with them."

We look at responses to these questions both in isolation as well as combining those for trade and globalization to increase coverage. We also use principal component analyses across all measures to extract a nativist latent dimension.

During this period, the United States experienced what is commonly referred to as "the China Shock" (Autor, Dorn and Hanson, 2013) (hereafter referred to as ADH). In 2001, China joined the WTO and obtained permanent normal trading relations with the United States and other member countries. This meant, among other things, that the tariffs on Chinese goods entering the United States would

no longer be subject to annual revisions and deliberation. The assurance of a set level of tariffs discontinuously reduced economic uncertainty for firms in both the United States and China. Firms that otherwise may not have started or expanded operations now did so. This prompted more trade between the U.S. and China with the distributional consequences that one would expect. Exporters in the United States saw their profits rise, while local firms that competed with Chinese imports experienced market contractions.

We follow the economic literature in calculating import exposure to Chinese goods as a function of the change in Chinese imports before and after WTO accession, interacted with the intensity with which local labor markets competed with imports. Formally, the import penetration measure is calculated as:

$$\Delta IPW_{uit} = \sum_{j} \frac{L_{ijt}}{L_{ujt}} \frac{\Delta M_{ucjt}}{L_{it}} \tag{1}$$

where L represents employment and M represents imports from China. These measures are indexed by county i, industry j, and period t, with  $\Delta$  representing the change over time. The u and c indices indicate the United States and China respectively.

Substantively, this measure exploits variation in an exogenous source of competition for US workers is mapped onto the demand for labor in these sectors. This measure of the China Shock has been widely adopted in both the economics and political economy literatures. Autor, Dorn and Hanson (2013) employ an instrumental variables approach to purge this measure of any residual confounding from reciprocal demand by predicting changes in US import exposure with changes in import exposure to China among other developed economies.

$$\Delta IPW_{oit} = \sum_{i} \frac{L_{ijt-1}}{L_{ujt-1}} \frac{\Delta M_{ocjt}}{L_{it-1}}$$
 (2)

Their IV-strategy identifies the portion of the growth in US imports that arises due to changes in Chinese productivity and changes in the costs of trade. Insofar as these sources of variation are orthogonal to the political outcomes of interest to our paper, we can make causal claims about the effect of free trade on politics in the United States.

We calculate our own version of this measure for each county in each year between 1990 and 2016 by combining data from County Business Patterns (CBP, to calculate L) and the United States International Trade Commission (USITC, to calculate  $\Delta M$ ). We plot the geographic distribution of how the import pene-

# 3 Occupational Risk

We define occupational risk as a function of the costs associated with finding new employment in the event of job loss. These costs consist of retraining costs (the time and expenses required to learn new skills) and relocation costs (the costs associated with relocating for new work). By taking geography seriously, our measure departs from existing methods that focus exclusively on skills.<sup>1</sup> There are two motivations for this distinction.

First, we are interested in not just the occupations that are offshoreable but any occupation for which job loss constitutes relatively higher costs of reemployment. Existing work has shown that free trade's negative consequences spill-over to affect individuals who may not work in the import-competing industry. These spill-overs are defined by geographic proximity due to the economic agglomeration in physical space that characterizes U.S. labor markets. If several import-competing firms cluster in a geographic region of the United States, trade shocks can affect not only the workers who are employed at these firms, but also the businesses that are built up around them. Thus we are interested in occupational risk, broadly defined, in order to capture whether and how such trade shocks can influence political beliefs across all who are affected, not only those who are directly affected.

Second, this broad definition of occupational risk is best understood at the intersection of retraining costs and relocation costs. Retraining costs in isolation might erroneously characterize a certain occupation as high risk of the skills are specialized but similarly specialized occupations are geographically clustered. In this case, specialized workers may not need to incur the retraining costs if there are similarly specialized occupations in close proximity. Conversely, defining risk solely by relocation costs ignores the inverse situation in which workers in jobs that require a general set of skills may be able to move to a different occupation that uses the same set of skills.

To develop a running example, Jill is a fence erector (SOC 47-4031) working and living in New York City. Her primary duties involve erecting and repairing metal and wooden fences and fence gates around highways, industrial establishments, residences, or farms using hand and power tools. We want to characterize

<sup>&</sup>lt;sup>1</sup>See Autor, Levy and Murnane (2003); Owen and Johnston (2017).

the costs associated with finding a new job were Jill to lose her current position.

We consider retraining costs as a function of how similar her current position is to all other occupations in terms of the skills she uses. For example, her current occupation is relatively intensive in manual skills, making the retraining costs required to transition into an occupation as a structural iron and steel worker (SOC 47-2221) relatively low. But the retraining costs associated with transitioning into the terrazzo workers and finishers occupation (SOC 47-2053) are slightly higher as she will need to learn about the appropriate mixtures of cement, sand, pigment, and marble chips to create floors, stairways, and cabinet fixtures. And the retraining costs associated with transitioning into a job as a computer software engineer for applications (SOC 15-1031) are much higher still, requiring multiple years learning programming languages.

Similarly, we consider relocation costs as a function of how distant her current position is to all other occupations in terms of geographic proximity. If there is labor market demand for fence erectors in New York City, Jill's travel costs will be negligible. If there are job openings in Connecticut, Jill may not have to relocate but her commute will become longer. And if the only jobs she can find are in Texas, she will have to uproot her life.

### 3.1 Retraining Costs

To operationalize these two concepts of occupational risk, we rely on two rich sources of data. For training costs, we turn to the O\*Net database which contains expert assessments of every occupational category used in the U.S. Census (Autor, Levy and Murnane, 2003). These experts assign numerical values for the intensity with which different skills, abilities, tasks, and contexts are used in each occupation, ranging from 1 (the least intensively used) to 5 (the most intensively used). To take a small selection of examples from Jill's current occupation as a fence erector, this role requires little in the way of writing skills (1.94) but much in the way of equipment maintenance (3.69). This occupation doesn't require strong memorization abilities (1.63) but does rely on visualization abilities (3.25). Jill's typical activities don't include a lot of documenting information (1.83) but she does perform a lot of general physical activities (4.26).

These numerical values combine to form a multi-dimensional vector describing the combination of tasks, skills, and abilities involved in any given occupation. We use these vectors to determine the degree of similarity between any two occupations by calculating the pairwise Euclidean distance. We assume that two occupations that are relatively distant from each other using this measure require more training costs to move between than two occupations who are closer.

#### 3.2 Relocation Costs

Our conceptualization of relocation costs is much simpler and requires only publicly available Census data. Specifically, we record the state-level labor market shares by occupation from the 2000 Census to measure the relative prevalence of any given occupation in a state. We assume that relocation within a state is relatively cheaper than relocation between any two states. Thus an individual who works in an occupation that is relatively prevalent in her state has low theoretical travel costs in the event that she is laid off, since she may only have to change her commute. Conversely, if she lives in a state where her occupation only constitutes a tiny fraction of the labor market, her potential travel costs are higher since she may have to leave behind family and friends in pursuit of re-employment.

To combine these two measures and capture our intuition that occupational risk is a function of retraining and relocation costs, we do the following. First, for occupation i in state s, we take the weighted average distance between i and all other occupations j where the weights w are given by j's share of total employment in state s. Formally:

$$R_{i,s} = \sum_{j=1}^{J} (d_{i,j} * w_{j,s})$$

This yields a risk measure  $R_{i,s}$  which is larger for occupations that use different skills from other occupations in the same state. Consider a simplified example of only two occupations, i and j, and two states  $s_1$  and  $s_2$ . Let  $d_{i,j} = 1$  and  $d_{i,i} = d_{j,j} = 0$ . Finally, let  $w_{i,s_1} = .7$ ,  $w_{j,s_1} = .3$ ,  $w_{i,s_2} = .1$ , and  $w_{j,s_2} = .9$ . In this example,  $R_{i,s_1} = 0.7 * 0 + 0.3 * 1 = 0.3$ . Filling out Table 1 is straightforward. By itself, these metrics capture a lot of the intuition that both

$$\begin{array}{c|ccc}
 & i & j \\
\hline
s_1 & 0.3 & 0.7 \\
\hline
s_2 & 0.9 & 0.1 \\
\end{array}$$

Table 1: Occupational risk measures for i and j in states  $s_1$  and  $s_2$ 

retraining and relocation costs influence occupational risk. An extension is to measure the geographic distance between  $s_1$  and  $s_2$  ( $geo_{i,j}$ , calculated using state

centroids) and then use this distance as a weight to calculate the weighted sum across all states:

$$R_{i,s_k} = \sum_{l=1}^{L} \left( \sum_{j=1}^{J} (d_{i,j} * w_{j,s_l}) \right) * geo_{s_k,s_l}$$

This latter measure is obviously marred by the imprecision of using state centroids to estimate geographic distances. Future work armed with commuting zone-level employment shares by occupation could improve on this approach. Unfortunately, data availability requires us to use state measures of occupations to calculate our occupational risk measure. Nevertheless, we believe this measure that combines both skill-based and location-based risk improves on existing metrics.

#### 4 Methods

We use a variety of methods to estimate the relationship between import exposure and political beliefs. Our workhorse regression specification nests respondents within commuting zones by year and controls for pre-treatment individual-level covariates, including gender, race, marital status, educational attainment, age, foreign born status, foreign born status of the respondent's parents, religion, and number of children born. We confirm our results are robust to dropping potentially post-treatment controls including marital status, religion, and children. With this specification, we predict variation in political beliefs as a function of the change in county-level import exposure, formally specified as:

$$y_{ict} = \alpha + \beta_1 \Delta IPW_c + \beta_2 \mathbf{X}_i + \lambda + \delta + \epsilon_{ict}$$
 (3)

where we include random effects by commuting zone  $(\lambda)$  and year  $(\delta)$ .

To account for potential endogeneity between U.S. demand for Chinese goods (which might be correlated with political beliefs) and the change in import competition, we adopt the instrumental variables strategy of Autor, Dorn and Hanson (2013).

$$y_{ict} = \alpha + \beta_1 \Delta I \hat{P} W_c + \beta_2 \mathbf{X}_i + \lambda + \delta + \epsilon_{ict}$$
(4)

where we predict variation in the import penetration measure in the United States with Chinese exports to other advanced economies.

These measures predict variation in political beliefs as a function of exposure to import competition. We are also interested in determining whether the

strength of this relationship is moderated by the occupational risk of an individual's job. In theory, we expect individuals working in higher risk occupations to be more sensitive to import competition. Effectively, this requires the potentially heroic assumption that occupational risk is pre-treatment, allowing us to use it as a moderator in interacted regressions. Clearly, this is not the case given that part of our measure incorporates the availability of similar occupations in a given state. If import competition changes local labor markets in a regional manner, or if it influences the composition of skills and tasks required by an occupation, the pre-treatment assumption is invalidated. To account for this possibility, we construct the measure using O\*NET data and geographic occupation data from 2000, prior to China's accession to the WTO. The interaction specification can be written:

$$y_{ict} = \alpha + \beta_1 \Delta IPW_c + \beta_2 OCC_i + \beta_3 \Delta IPW_c \times OCC_i + \beta_2 \mathbf{X}_i + \lambda + \delta + \epsilon_{ict}$$
 (5)

where  $OCC_i$  is the occupational risk measure defined above for individual i, based on skill vectors and geographic distribution of occupations in the year 2000.

### 5 Results

We begin by predicting opinions as a function of exposure to import competition from China in the GSS data. Previous research has used similar specifications with different data to identify a significant backlash against free trade as a function of exposure Bisbee (2018). In Table 2, we find substantively similar results although the only significant coefficients are for opinions on free trade (columns 1 and 2). These findings suggest that individuals exposed to import competition are 3 percentage points more likely to hold negative views of NAFTA and 1.5 percentage points likely to disagree that free trade leads to better products in the United States. These constitute approximately an 8% change in opinions on trade associated with import exposure.

There is also some evidence suggesting greater opposition to immigration among respondents exposed to import competition. We see that these respondents 1.3 percentage points more likely to support reducing immigration to the United States and roughly 1 percentage point more likely to believe that immigrants take jobs away from Americans. However, the latter coefficient is not significant at conventional levels and both estimates represent less than a 3% change in opinion along these dimensions. Finally, there is little systematic evidence of

Table 2: Opinions and Import Competition Exposure

	Protectionism		Xenophobia		Isolationism	
	NAFTA (1)	Free Trade (2)	Less Imm (3)	Take Jobs (4)	Intl Comps (5)	IO Power (6)
$\Delta$ IPW	0.031*** (0.009)	0.015** (0.006)	0.013* (0.006)	0.017 (0.019)	0.005 (0.009)	0.004 (0.008)
High School Deg	0.163*** (0.032)	0.029 $(0.020)$	0.171*** (0.014)	0.261*** (0.037)	0.060** (0.027)	0.123*** (0.026)
LTHS	0.162*** (0.045)	0.073*** (0.027)	0.147*** (0.017)	0.272*** (0.045)	0.128*** (0.035)	0.155*** (0.035)
Some Coll	0.094*** (0.030)	0.031 (0.019)	0.129*** (0.014)	0.151*** (0.036)	0.051** (0.026)	0.118*** (0.025)
Black	-0.018 (0.039)	0.032 $(0.024)$	$-0.095^{***}$ $(0.017)$	0.027 $(0.041)$	-0.0001 $(0.032)$	0.098*** (0.031)
Other Race	$0.051 \\ (0.050)$	0.024 $(0.030)$	$-0.108^{***} $ $(0.020)$	0.013 $(0.064)$	-0.047 $(0.040)$	0.104*** (0.039)
Female	-0.031 (0.024)	-0.024 $(0.015)$	-0.012 (0.011)	-0.003 $(0.027)$	-0.025 (0.020)	-0.066*** $(0.020)$
Foreign Born	-0.069 $(0.058)$	-0.023 (0.035)	$-0.163^{***}$ $(0.025)$	$-0.190^{***}$ $(0.070)$	0.099** (0.046)	$-0.127^{***}$ $(0.045)$
Parents US	-0.033 $(0.059)$	0.075** (0.034)	0.115*** (0.024)	0.084 (0.066)	0.190*** (0.045)	-0.055 $(0.045)$
One Parent FB	-0.052 (0.071)	0.013 (0.042)	$0.050 \\ (0.030)$	$0.079 \\ (0.079)$	0.144** (0.057)	-0.024 (0.056)
Age	-0.019 (0.016)	0.027*** (0.010)	0.016** (0.007)	0.030* (0.017)	$0.008 \\ (0.013)$	0.065*** (0.013)
N Children	$0.004 \\ (0.015)$	0.008 (0.010)	0.002 (0.006)	0.016 (0.016)	$0.019 \\ (0.013)$	0.019 (0.012)
Mean Outcome Observations	0.37 1,590	0.17 2,317	0.47 8,309	0.6 1,310	0.63 2,338	0.35 2,268

*Notes:* Opinions predicted by exposure to import competition. All outcome measures converted to dichotomous values where 1 indicates more protectionism, xenophobia, and isolationism. Additional controls not shown. All specifications include year and county random effects in a multi-level model. \* p  $\leq$  .05, \*\* p  $\leq$  .01, \*\*\* p  $\leq$  .001.

a relationship between import competition and isolationist dimensions. While the coefficients have the expected sign, they are very small and indistinguishable from zero.

# 5.1 Occupational Risk

We now turn our attention to the paper's main contribution which is to test whether occupational risk moderates the anti-globalist backlash to import competition. We run the interacted regression defined in equation 5 and plot the marginal effects of import penetration across different values of occupational risk. As illustrated in Figure 1, we see consistent evidence of individuals who experience greater occupational risk holding more negative views of NAFTA.

#### Belief that America does not benefit from NAFTA

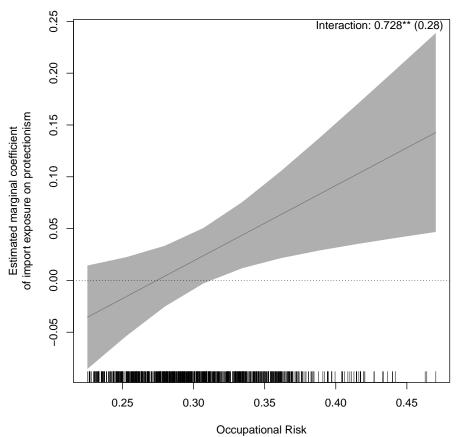


Figure 1: Marginal effects of import penetration exposure on belief that NAFTA is bad for the United States across varying levels of occupational risk. People who work in more risky occupations are more sensitive to the change in import competition following China's accession to the WTO, adjusting their political beliefs in a more protectionist direction.

Substantively, this figure suggests that there is meaningful heterogeneity behind the protectionist reaction discussed in Table 2. Specifically, while the average reaction increases the probability of believing NAFTA does not benefit the U.S. by three percentage points, this response is much stronger among those with greater occupational risk. While the data grows increasingly sparse at the highest end of our risk measure, Figure 1 indicates that the protectionist backlash to import competition exceeds ten percentage points, or almost a 30% change in

views of NAFTA.

We replicate these analyses for the other opinions of interest in Figure 2. We add a synthetic measure for protectionism, xenophobia, and isolationism that aggregates across questions via principal components analysis. As illustrated, there is consistent evidence of opinions on free trade being particularly moderated by occupational risk (top row of plots). There is also some evidence of similar dynamics for xenophobia, although these results are much noisier. In particular, there is no systematic effect for responses to the question about whether the number of immigrants should be reduced ("Less Imm" panel). However, the question on whether more immigrants will result in U.S. workers losing their jobs is significantly related to occupational risk. Finally, the questions on globalization suggest that respondents are more isolationist, in particular expressing concern that international companies are hurting U.S. businesses. Across all measures, the moderating influence of occupational risk is aligned with theoretical expectations.

#### 5.2 Dimensions of Risk

The preceding analyses used the measure of occupational risk that combines the two proxies for retraining and relocation costs. In the following analyses, we re-estimate the interaction effects focusing only on one dimension or the other. As illustrated in Figure 3, it appears that the most important component of occupational risk is the dimension associated with retraining costs. Defining risk only using the average Euclidean distance between the skills required for a respondent's occupation and all other occupations yields significant interactions with the trade shock. Conversely, defining risk using only the relocation dimension based on the share of an individual's occupation in her state yields much more noisy interaction coefficients. Nevertheless, we note that in both cases, the sign of the interaction term is in the direction we expect – namely that greater occupational risk exacerbates the effect of the trade shock on anti-globalist opinions.

## 6 Discussion

The relationship between exposure to free trade's negative consequences and political beliefs about free trade are moderated by an individual's occupational risk. We show that individuals living in areas characterized by high degree of import penetration exhibit more negative opinions about free trade agreements. But importantly, we show that these reactions are stronger among those who face

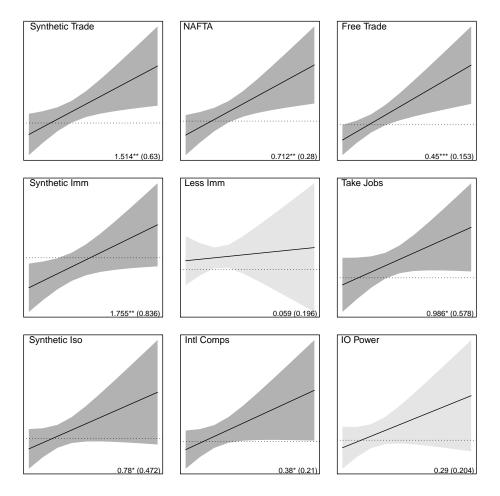


Figure 2: Marginal effects of import penetration exposure on a variety of globalist opinions. People who work in more risky occupations are more sensitive to the change in import competition following China's accession to the WTO, adjusting their political beliefs in an anti-globalist direction. Synthetic measures based on first principal components of constituent measures.

greater costs in the event of job loss.

We calculate these costs as a combination of retraining costs – proxied for with occupational task intensity – and relocation costs – proxied for with the state shares of occupation. When disaggregated, these dimensions of occupational risk somewhat predict heterogeneity in the relationship between opinions and trade exposure. But the strongest moderating effects come when the dimensions are combined.

These results highlight the importance of expanding our understanding of who wins and loses under free trade. Exposure to trade's negative consequences can influence the policy preferences that define the microfoundations of trade's

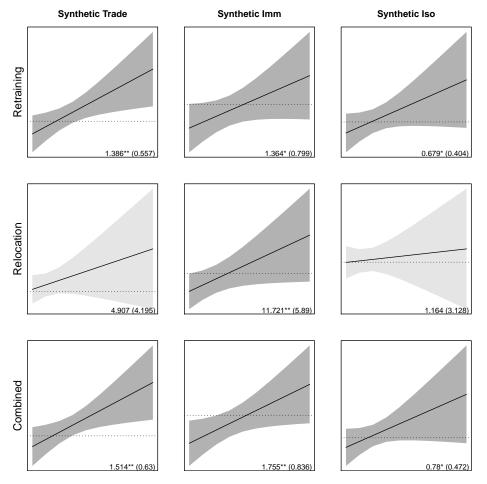


Figure 3: Marginal effects of import penetration exposure on a variety of globalist opinions. People who work in more risky occupations are more sensitive to the change in import competition following China's accession to the WTO, adjusting their political beliefs in an anti-globalist direction. Synthetic measures based on first principal components of constituent measures.

political economy. But this exposure interacts with an individual's occupational risk profile in important ways. This understanding augments the conventional wisdom about the political economy of trade by redefining both who reacts to trade's effects, and how strongly they react.

# References

- Autor, David, David Dorn and Gordon H Hanson. 2013. "The China syndrome: Local labor market effects of import competition in the United States." *The American Economic Review* 103(6):2121–2168.
- Autor, David H, Frank Levy and Richard J Murnane. 2003. "The skill content of recent technological change: An empirical exploration." *The Quarterly journal of economics* 118(4):1279–1333.
- Baker, Andy. 2005. "Who wants to globalize? Consumer tastes and labor markets in a theory of trade policy beliefs." *American Journal of Political Science* 49(4):924–938.
- Ballard-Rosa, Cameron, Mashail Malik, Stephanie Rickard and Kenneth Scheve. 2017. The economic origins of authoritarian values: evidence from local trade shocks in the United Kingdom. In *Annual Meeting of the International Political Economy Society, Nov.* pp. 17–18.
- Bisbee, James. 2018. What is out your back door: How policy preferences respond to local trade shocks. Technical report.

**URL:** jamesbisbee.com

- Guisinger, Alexandra. 2009. "Determining trade policy: Do voters hold politicians accountable?" *International Organization* 63(03):533–557.
- Mansfield, Edward D. and Diana C. Mutz. 2013. "US versus them: Mass attitudes toward offshore outsourcing." World Politics 65(04):571–608.
- Margalit, Yotam. 2011. "Costly jobs: Trade-related layoffs, government compensation, and voting in US elections." *American Political Science Review* 105(01):166–188.
- Naoi, Megumi and Ikuo Kume. 2015. "Workers or Consumers? A Survey Experiment on the Duality of Citizens' Interests in the Politics of Trade." *Comparative Political Studies* 48(10):1293–1317.
- Owen, Erica and Noel P Johnston. 2017. "Occupation and the political economy of trade: Job routineness, offshorability, and protectionist sentiment." International Organization 71(4):665–699.

- Scheve, Kenneth F. and Matthew J. Slaughter. 2001. "What determines individual trade-policy preferences?" *Journal of International Economics* 54(2):267–292.
- Stolper, Wolfgang F. and Paul A. Samuelson. 1941. "Protection and real wages." The Review of Economic Studies 9(1):58–73.
- Walter, Stefanie. 2017. "Globalization and the demand-side of politics: How globalization shapes labor market risk perceptions and policy preferences." Political Science Research and Methods 5(1):55–80.