# Anti-Globalization Sentiment: Exposure and Immobility\*

James Bisbee<sup>†</sup>

B. Peter Rosendorff<sup>‡</sup>

**Keywords:** globalization; Free trade; protectionism; Xenophobia; Isolationism; populism

Running title: Anti-Globalization Sentiment

<sup>\*</sup>We thank Felipe Balcazar, Jeff Frieden, In Song Kim, Layna Mosley, Erica Owen, Tom Pepinsky, Stefanie Walter, Stephen Weymouth, and participants at the 2019 and 2020 International Political Economy Society meetings, the 2020 Political Economy of International Organization meeting, the 2021 GRIPE webinar, the 2021 American Political Science Association meetings, the The Backlash: What's Next? workshop at Princeton University (2022), and IE School of Global and Public Affairs, Madrid (2022) for helpful comments. The authors received no financial support for the research, authorship, and/or publication of this article.

<sup>&</sup>lt;sup>†</sup>Assistant Professor, Vanderbilt University. 230 Appleton Place, Nashville, TN 37203. Email: james.h.bisbee@vanderbilt.edu. Orcid id: 0000-0002-3334-2416

<sup>&</sup>lt;sup>‡</sup>Professor, Department of Politics, New York University. 19 West 4th Street, New York NY 10012. Email: peter.rosendorff@nyu.edu. Orcid id: 0000-0002-6775-8911

#### Abstract

Individuals with heightened labor market insecurity express more protectionist, xenophobic and isolationist sentiment. We construct a novel measure of labor market insecurity that combines an individual's industry-based exposure to import competition with an occupation-based measure of job immobility. Immobility captures the similarity of an individual's job to others in the economy, weighted by their prevalence. The holder of a job that is dissimilar to others in the industry or in the state experiences more anxiety regarding their labor market prospects in the face of a globalization shock, and is more likely to express anti-globalization sentiment.

**Word Count:** 10,536

The data and materials required to verify the computational reproducibility of the results, procedures and analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: https://doi.org/10.7910/DVN/2WRQWZ

Is there an anti-globalization backlash in advanced industrial democracies? The electoral consequences of trade shocks are well documented: districts more adversely affected by import competition have increased their electoral support for protectionist, isolationist, and anti-immigrant politicians. Yet at the individual level, survey-based evidence linking exposure to these same trade shocks and anti-globalization attitudes has remained elusive. There is a missing link in the microfoundations of the anti-globalist backlash.

We propose a solution to this puzzle that emphasizes an individual's labor market insecurity. While existing work uses an individual's geographic location as a proxy for their exposure to import competition, or relies on self-reported perceptions of the local or national economy, we focus on an individual's labor market position. Theoretically, we posit that individuals whose future job prospects are more uncertain in the face of import competition are more likely to express anti-globalist views. Empirically, we construct a novel measure of labor market insecurity that combines the industry-based exposure to import competition with an occupation-based measure of job immobility. Substantively, the missing link in the microfoundations of the anti-globalist backlash is found among individuals who recognize the threat of free trade to their current job, and perceive the costs of finding a new job to be high.

Our definition of labor market insecurity has two components: the prevalence of jobs that are similar to an individual's current occupation (immobility), and the exposure to imports affecting that individual's industry. Recent research has focused largely on the latter component, with an explosion of empirical work using the commuting zone-based measure of Chinese import competition popularized by Autor, Dorn, and Hanson (2013). We argue that, while important, this focus on exposure neglects the crucial component of immobility, which combines two dimensions: occupational task specificity and occupational prevalence. Occupational task specificity captures the (dis)similarity between the tasks and skills required for an individual's occupation, and those required by other occupations. Occupational prevalence captures the frequency of an occupation by state and industry. We combine these two dimensions to measure the extent to which an individual's current occupation is situated in industries and locations with similar jobs – a measure we interpret as a proxy for the costs of re-employment in the event of job loss. Higher costs of

switching jobs is associated with greater immobility.<sup>1</sup>

We see our measure as an extension of the concept of labor mobility that is core to the classical theories of international trade. Those models consider labor mobility bluntly, as either fixed for all workers (of a particular skill level) in an industry (such as the Ricardo-Viner model), or perfectly flexible for all workers in all industries (as in the Heckscher-Ohlin model). Our measure allows both industry and skill differences to capture variation in individual labor market mobility. Furthermore, by incorporating geography into our measure, we accommodate the localness of labor markets that traditional theories ignore entirely. Our measure provides a finer-grained accounting of an individual's labor market position, and the anxiety it may generate, that is essential to understanding politically relevant beliefs and opinions regarding globalization.

Our headline finding is that while an individual exposed to shocks to their industry of employment reduces individuals' support for NAFTA (a proxy for attitudes towards international trade) by a modest 3%, this response is much stronger among those with greater occupational immobility, rising to about a 10 percentage point shift. Furthermore, we show that this anti-globalization backlash extends beyond protectionism to include isolationism and xenophobia.

By focusing on the *threat* of loss, we underscore the importance of anxiety in the formation of politically relevant beliefs, and suggest a solution to a persistent puzzle in the IPE literature in which individual-level survey data find little evidence relating an individual's labor market position to their views on trade (Mansfield and Mutz 2009, Mutz 2018, Rho and Tomz 2015), while at the same time aggregate behaviors such as voting for protectionist candidates map squarely on to the geographic distribution of free trade's negative consequences.

<sup>&</sup>lt;sup>1</sup>For some individuals, the immobility of their job (or the rarity of similar jobs) is a source of labor market monopoly power. But for others, these same characteristics can be a source of anxiety due to the perceived difficulty an individual might face should they be forced to find a new job. For two individuals with jobs that are equally specific, the crucial factor that determines whether this immobility is a boon or a curse is the demand for that skillset. We proxy for this with a measure of import competition faced by an individual's industry of employment.

#### 1 Individual-Level Views on Globalization

Individual-level sentiments relating to the international system have emphasized the position individuals hold in the economy, and how this position connects with their country's resource endowments. Employees in export sectors are more likely to prefer freer trade; high skilled workers in skill-abundant countries are also supportive of openness (Scheve and Slaughter 2001, Margalit 2011). Within an industry, individuals with lower skills express more support for protection or insulation from foreign competition while more productive workers favor trade (Walter 2017, Dancygier and Walter 2015, Rommel and Walter 2018). Alternatively, Baker (2005) emphasizes the individual's role as consumer, and suggests that richer individuals prefer to consume more skill-intensive goods, and may in fact oppose freer trade in skill-abundant countries. Educated individuals, reflecting a cosmopolitan identity are seen to express pro-globalization attitudes more frequently (Mansfield and Mutz 2013) as are owners of homes and other assets, especially in districts positively affected by trade (Scheve and Slaughter 2001).

Across these studies, the logic that links the class, sector, assets or endowments of an individual to their attitudes operates directly through the effect of trade on purchasing power. These survey-based studies can't preclude the possibility of selection or omitted variable bias – people are not randomly assigned to these categories. The recent work that exploits a plausibly exogenous source of variation in free trade's negative consequences via the "China Shock" (Autor, Dorn, and Hanson 2013), evidence of a systematic response at the level of individual public opinion has been mixed. The China shock instrument – a proxy for reductions in manufacturing employment using changes in imports from China – has been predictive of electoral shifts in both the US (Autor et al. 2016, Margalit 2011, Jensen, Quinn, and Weymouth 2017) and Europe (Colantone and Stanig 2018b, Dippel, Gold, and Heblich 2015, Rommel and Walter 2018), and cross-nationally (Milner 2021); increases in support for political parties engaging in populist rhetoric (Baccini and Sattler 2020) with stronger anti-globalization platforms (Milner 2018) or more extreme candidates in general (Feigenbaum and Hall 2015, Autor et al. 2016); and the expression of authoritarian values (Ballard-Rosa et al. 2021).

Presumably, these electoral shifts are the product of constituent-level changes in policy pref-

erences, where the pain experienced by globalization's losers is expressed at the ballot box. Yet survey-based evidence in support of the individual-level microfoundations for the aggregate results on elections has been scarce. Studies of the U.S. electorate by Sides, Tesler, and Vavreck (2018) find little evidence of free trade's losers shifting support toward Trump in America's Rust Belt in 2016; indicators of racism and xenophobia are far more predictive of that shift. Similarly, Mutz (2018) suggests that "status threats" to traditionally high status groups threatened by population change explains more of the shift to the right in the US than does the decline in US manufacturing jobs. More broadly, there is a growing consensus among IPE public opinion scholars that "voters do not have economically self-interested preferences about trade policy" (Rho and Tomz 2015). The rejection of the economic anxiety-to-anti-globalist narrative in the United States is cemented in a far-reaching review by Carnes and Lupu (2021), who show that the stylized description of "white working class Americans" constituting the core of Trump's base is unsupported in the data. Walter (2021) puts it succinctly: "Studies that examine broad shifts in globalization-related public opinion over time are relatively rare and provide inconclusive evidence" (p. 423).

We contribute to a small but growing set of individual-level studies that push back on this view. Hays, Lim, and Spoon (2019), replicating Colantone and Stanig (2018a) show that survey respondents living in economically susceptible regions are more likely to harbor anti-immigrant (but not protectionist) sentiment, and argue that this effect is mediated through xenophobic beliefs. Similarly, Cerrato, Ferrara, and Ruggieri (2018) suggest that Chinese import shocks drive negative attitudes towards immigrants and minorities. By documenting patterns that link exposure to free trade's negative consequences with a bundle of anti-globalist views, a pattern that is accentuated among individuals who are most threatened by potential future job loss, we bring back in the economic basis – labor market insecurity – to this complex and multifaceted backlash.

## 1.1 Mobility

Classical models of trade predict that labor mobility often ameliorates the pain of economic contraction. The specific factors framework assumes that labor is immobile across industries (Stolper and Samuelson 1941), while the Heckscher-Ohlin model assumes that labor is immobile across

skill levels (Heckscher and Ohlin 1991), at least in the short run.<sup>2</sup> Models with increasing returns (Krugman 1979) and/or heterogeneity in firm productivity (Melitz 2003) assume competitive labor markets where labor (lumped into homogeneous categories) moves to earn its highest reward. We posit that these models oversimplify an individual's labor market experience in several ways. First, immobility is not shared by all workers with the same skills or who work in the same industry; more accurately there is variation in immobility within these categories. Second, the classical models fail to recognize how skill and industry can interact, as well as the role played by geographic distance. Third, traditional approaches undervalue forward looking behavior, where perceived risk of future job loss affects (current) attitudes.

We carefully measure labor market mobility at the level of an individual, incorporating both their industry, their occupation, and their geographic location to provide a rich, theoretically motivated, measure of immobility. By taking seriously the influence of uncertainty and anxiety on politically relevant beliefs, we push back on the growing consensus that the anti-globalist wave sweeping across advanced industrial democracies is disconnected with globalization's losers. It is found among those who are precariously positioned in the labor market, and threatened by future dislocation.

### 1.2 Occupations

We follow Acemoglu and Autor (2011) and describe occupations as combinations of task intensities across a broader task profile (expanding beyond routineness) in developing our measure of labor market insecurity. In doing so, our contribution connects with a recent work that links the task routineness and offshorability of an individual's occupation with their attitudes toward international trade (Owen and Johnston 2017). Owen (2020) combines an occupation's susceptibility to automation with its "routine task intensity" index (RTI) to demonstrate that individuals in those occupations are more likely to exhibit protectionist sentiment and more support of rightwing parties. Kaihovaara and Im (2020) reconceptualize RTI and offshorability as measures of an individual's "economic vulnerability." Like Owen and Johnston (2017) they find that RTI and

<sup>&</sup>lt;sup>2</sup>See Irwin (1996), Hiscox (2001) for the political consequences of (homogeneous) factor immobility.

offshorability lead to perceptions of heightened competition for jobs or social welfare services.

#### 1.3 Cultural Explanations

Our research also connects with an ongoing debate about the relationship between protectionism and non-economic characteristics, most notably an anti-outsider identity (Sides, Tesler, and
Vavreck 2018, Margalit 2019, Malhotra, Margalit, and Mo 2013, Mansfield and Mutz 2009). In
our analysis, we treat these "cultural" explanations as outcomes of interest, predicting variation
in a bundle of protectionist, isolationist, and xenophobic beliefs as a function of anxiety about
one's labor market position. It may be that labor market anxiety directly causes changes in these
adjacent preferences, or activates these previously less salient identities. Or it may be that elite
cues which articulate general economic anxieties as being produced by foreigners stoke the populist
flames for electoral rewards (for recent work on the role of elite cues in IPE, see Katitas 2019, Kuk,
Seligsohn, and Zhang 2022). We leave the precise mechanisms by which international trade affects
not only protectionism, but also xenophobia and isolationism, to future research. Our results
confirm, however, that economic conditions affect politically significant, populist-leaning beliefs.

# 2 Building a Measure of Labor Market Insecurity

We capture labor market insecurity as an interaction of occupational immobility with exposure to import competition. Consistent with the classical models, mobile workers are less affected by import competition, while immobile workers are likely to experience greater insecurity in the face of growing imports. We adopt a task intensity approach (Owen and Quinn 2016, Owen and Johnston 2017) which we label specificity and merge this with additional elements of mobility: geography and industry. Our measure combines three sources of labor market friction: retraining costs (associated with learning the skills required for a new job), relocation costs (associated with moving in geographic space), and "transition" costs (associated with moving from one industry to another) to calculate a single measure of labor market immobility, which we then interact with exposure to import competition to predict variation in a bundle of anti-globalist attitudes.

Table 1 describes our measure at a general level, underscoring the primacy of (dis)similarities in occupational tasks and skills, and providing a roadmap for the description that follows.

Table 1: Overview of Measure Construction.

Concept		Construct	Interpretation	Measure	
Immobility	Specificity	Task dissimilarity	Retraining costs	$d_{jk}$	
	Prevalence	Geographic flows	Relocation costs	$\frac{L_{kq}}{L_q}$ ; $P_{s\to q}$	
		Industrial flows	Transition costs	$\frac{L_{km}}{L_m}$ ; $P_{n\to m}$	
Exposure	Competition	Import competition	Job loss threat	$\Delta M_{nt}$	

Note: Mapping of concepts of interest (left-most column) to the constructs used to capture these concepts (second column) to the substantive interpretation of the measure (third column) to the specific measures (right-most column).

#### 2.1 Job Specificity: Retraining Costs as Task Dissimilarity

Every occupation j can be expressed as a task-intensity vector  $(t_1^j, t_2^j, ..., t_6^j)$ . Occupation task intensity vectors are drawn from the United States Occupational Information Network database which contains expert assessments of every occupational category used in the U.S. Census (Autor, Levy, and Murnane 2003).<sup>3</sup> We use these measures calculated in the early 2000s to avoid endogeneity between task intensities and Chinese imports.<sup>4</sup>

The similarity between any two occupations j and k can be expressed as the Euclidean distance  $d_{jk} = \left(\sum_{\gamma=1}^{6} \left(t_{\gamma}^{j} - t_{\gamma}^{k}\right)^{2}\right)^{\frac{1}{2}}$ . Two jobs involve similar tasks if their  $d_{jk}$  is relatively close to 0, whereas jobs that are very different could have a score closer to 2. If the task profile of an individual's job is not that distant from other jobs, there are lower barriers to finding a new job in the event of economic dislocation. Substantively,  $d_{jk}$  is the core element of our measure that captures the amount of retraining costs an individual would have to incur were they to switch from occupation j to occupation k.

<sup>&</sup>lt;sup>3</sup>The underlying data contain hundreds of dimensions covering the concepts of task intensities, contexts of work, and skills required. We follow Autor (2013) and reduce these to six dimensions: non-routine cognitive: analytical; non-routine cognitive: interpersonal; routine cognitive; routine manual; non-routine manual: physical; and offshorability.

<sup>&</sup>lt;sup>4</sup>Owen and Johnston (2017) use one dimension of these task vectors, *routineness*, and interacts this with the offshorability of the occupation to determine attitudes to trade protection across 22 developed economies in 2003 (and 20 in 2013). We examine the similarities between their approach and ours in the Supplemental Information (SI), Section 8.

To develop a running example, Jill is a fence erector (SOC 47-4031) working and living in Pennsylvania. 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. Her current occupation is relatively intensive in manual skills, making the transition into an occupation as a structural iron and steel worker (SOC 47-2221) relatively straightforward—she has those skills and experience. The difficulty 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. The difficulty associated with transitioning into a job as a computer software engineer for applications (SOC 15-1031) are higher still, requiring multiple years learning programming languages. The distances between these jobs are visualized in Figure 1 which uses factor analysis to visualize the four occupations in two-dimensional space.

#### 2.2 Job Prevalence

On its own, our measure of retraining costs  $(d_{jk})$  merely captures the Euclidean distance between a given job j and some other job k in terms of the tasks and skills required. To capture the *overall* retraining costs of a given occupation j, we must aggregate over all possible other occupations  $k \in \mathcal{J}$ , where  $\mathcal{J}$  is the set of all jobs. We weight these pairwise distances with two dimensions, one geographic and the other at the industry level.

The geographic unit is the US state. For a given job k, we can measure the proportion of workers in job k out of all workers in all jobs in a given state s, which we denote  $\frac{L_{ks}}{L_s}$ ;  $L_{ks}$  is the total number of workers in occupation k in state s, and  $L_s = \sum_{k \in \mathcal{J}} L_{ks}$ . This ratio weights each occupation k, yielding a state-specific weighted sum of all pairwise jobs j and k:

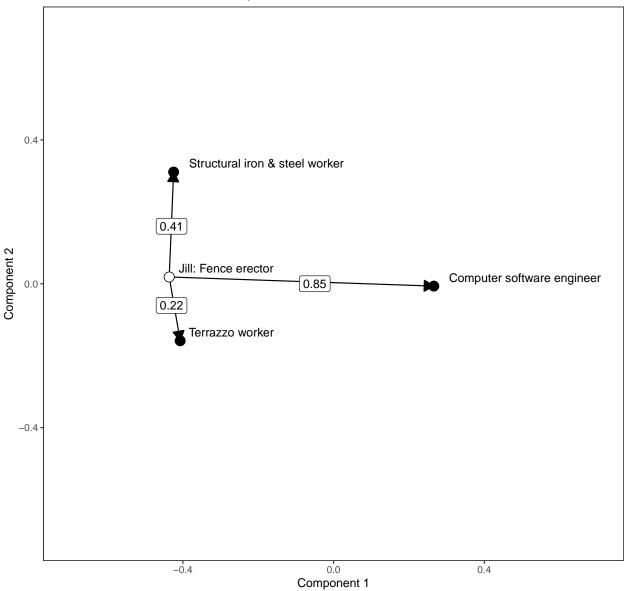
$$\sigma_{js} = \sum_{k \in \mathcal{J}} \left( d_{jk} * \frac{L_{ks}}{L_s} \right)$$

Substantively, this measure gets larger when the prevalence of jobs that are dissimilar to j is greater in a given state s.

Figure 1: Task distances in (simplified) Euclidean space

#### Example of task distances

Distances between fence erector occupation and three others



Note: Four jobs in Euclidean space simplified from six down to two dimensions via principal components analysis. Jill's current job (fence erector) is given in white, while the three comparisons are indicated with black points. Euclidean distance in task space is indicated by black arrows and labels.

The second dimension is industry, where we instead weight by the share of all jobs in a given industry n that are of occupation k. Formally:

$$\sigma_{jn} = \sum_{k \in \mathcal{J}} \left( d_{jk} * \frac{L_{kn}}{L_n} \right)$$

As above, this measure is increasing in the prevalence of dissimilar occupations in a given industry.

Continuing with our running example, Figure 2 visualizes the weighted sums of retraining costs by state (left panel) and industry (right panel) for Jill's current occupation. As illustrated, we note that the weighted Euclidean distance between fence erectors and all other occupations is lower in states like Mississippi and West Virginia, and highest in Washington DC. Substantively, this means that the most prevalent occupations in DC require very different combinations of skills, tasks, and abilities than Jill's current occupation, while the most prevalent occupations in Mississippi are relatively more similar in their requirements. Similar patterns are observed by industry, with more magnified differences between industries prevalent in the most similar occupations (i.e., outdoors industries like Animal and Crop Production) and those prevalent in the most dissimilar occupations (i.e., Education and Finance).

#### 2.3 Relocation and Transition Costs

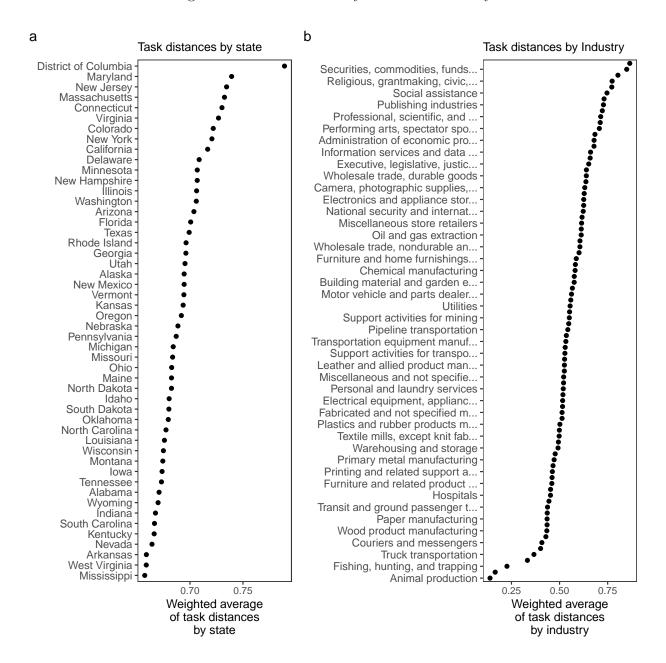
Together, these  $\sigma_{js}$  and  $\sigma_{jn}$  measures proxy for the retraining costs between a given occupation j and all other possible occupations k an individual might shift to in the event of labor market dislocation, where the weights are specific to either a state or an industry. There are two additional dimensions of cost to consider: relocation costs and transition costs.

Relocating to a new state is costly: moving, buying or renting a new space, searching for new communities for socialization and education, and the economic and social costs of severing local relationships. Similarly, transitioning out of one's current industry is more costly than staying within it. Different industries can have different norms of communication, cultures of work, lexicons – industry transitions can be costly even when the specific occupations are the same.<sup>5</sup>

To operationalize these costs, we assume that less commonly occurring relocations (for example, moving from Idaho to Hawaii) and less commonly occurring industry transitions (for example, transitioning from manufacturing to education) reflect differences in the costs required to make these moves. Denote a transition matrix  $T_{sq}$  that contains states along its rows and columns, where each cell contains the proportion of workers who move from state s to state q, denoted  $P_{s\to q}$ . For a

<sup>&</sup>lt;sup>5</sup>We demonstrate in the SI, Section 6 that the majority of the predictive power of our measure comes from the geographic component, suggesting that industry-to-industry transitions are less costly.

Figure 2: Task distances by state and industry



Note: Weighted sums of Euclidean distance in task space for fence erectors, aggregating across all possible occupations by state (left panel a) and by industry (right panel b, every other industry is labeled on the y-axis for legibility).

worker in a given state s, we use the vector of weights  $P_{s\to q}$  to calculate a weighted sum of the  $\sigma_{js}$  retraining costs visualized in the left panel of Figure 2 above. Formally, let the relocation-weighted

sum of retraining costs be defined by:

$$\sigma_{js}^{\mathcal{S}} = \sum_{q} \left( \sigma_{js} * P_{s \to q} \right) = \sum_{q} \sum_{k} \left( d_{jk} * \frac{L_{kq}}{L_q} * P_{s \to q} \right) \tag{1}$$

where s denotes an individual's current home state and  $q \in \mathcal{S}$  is another state. This value is increasing in (1) the prevalence of occupations k in state q that are dissimilar from the individual's current occupation j (2) the prevalence of workers who move from state s to state q. In other words, if the cheapest relocation costs are to a state with an abundance of dissimilar occupations (i.e., Washington DC for our Fence Erector), Jill's prospects of finding a new job in the face of a labor market shock are dim, whereas if many workers migrate from Pennsylvania to Mississippi which is home to the most similar occupations, her prospects are improved.

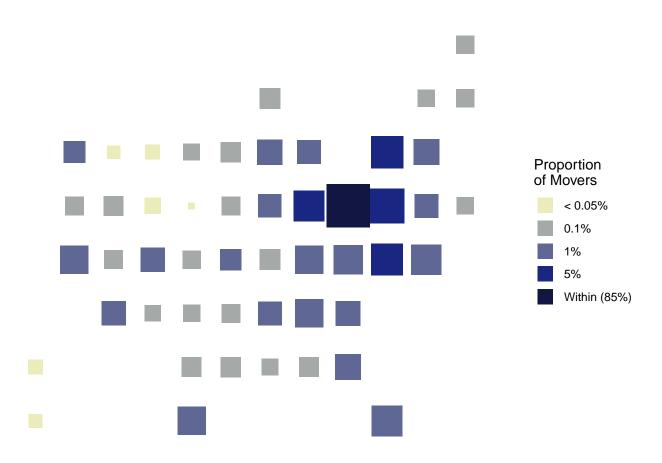
Empirically, we rely on the Census Job-to-Job (J2J) dataset which contains precisely this type of measure, allowing us to create the transition matrix  $T_{sq}$ . Figure 3 visualizes the transition matrix for Pennsylvania. Each box represents a U.S. state, and is shaded by the proportion of workers from Pennsylvania who changed jobs in 2000 ( $P_{PA\to q}$ ). States are sized by the logged number of total transitions.

We apply a similar approach to operationalizing industry transitions, again using the J2J dataset to create a transition matrix, the cells of which become the weights we apply to the overall weighted retraining costs described above. Figure 4 visualizes this matrix, where rows indicate the origin industries n, and columns indicate the destination industries m. As before, each cell is sized by the logged number of total transitions and shaded by the proportion of all outflows from n that transition to m (i.e.,  $P_{n\to m}$ ). As with geography, there is clear evidence of a within-industry bias (although to a much smaller degree), indicated by the diagonal. The weighted sum of industry-transition costs of moving from industry n to m for job j is:

$$\sigma_{jn}^{\mathcal{N}} = \sum_{m} \left( \sigma_{jn} * P_{n \to m} \right) = \sum_{m} \sum_{k} \left( d_{jk} * \frac{L_{km}}{L_m} * P_{n \to m} \right) \tag{2}$$

Formally,  $\sigma_{js}^{\mathcal{S}}$  and  $\sigma_{jn}^{\mathcal{N}}$  denote the weighted sums of retraining costs that incorporate (1) the Euclidean distances between dyadic occupations  $d_{jk}$ , (2) the prevalence of occupation k by state and

Figure 3: J2J flows from PA to other states



Note: Total job leavers who find new employment in either their initial state (Pennsylvania in navy) or a new state. States shaded by the share of all workers who move, and sized by logged number of total movers. Among workers in Pennsylvania who changed jobs in 2000, 85% found new employment in-state.

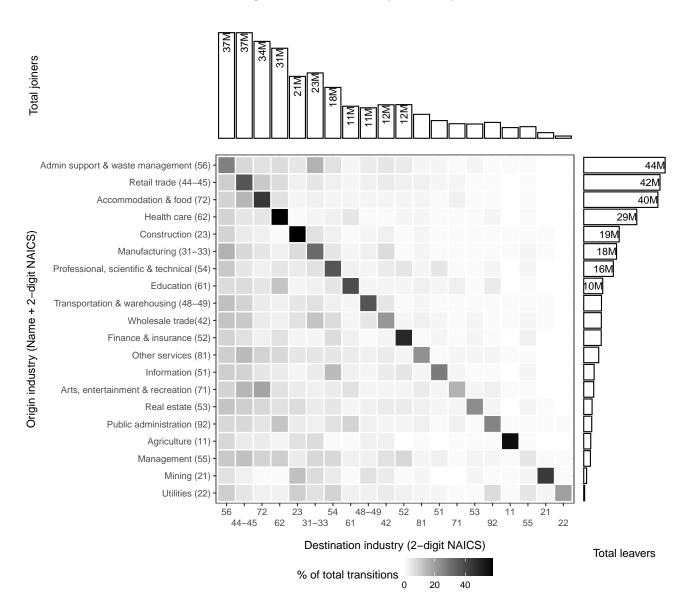
industry  $\sigma_{js}$  and  $\sigma_{jn}$ , and (3) the ease of making these transitions  $P_{s\to q}$  and  $P_{n\to m}$ . Conceptually, we view these J2J flows as proxies for the costs of geographic relocation and industrial transition. Empirically, these transition probabilities allow us to calculate geography- and industry-specific measures of job immobility

Our final measure of occupational immobility for a survey respondent i working occupation j in industry n and state s is simply the mean of these two measures:

$$\sigma_{jns}^{i} = \frac{1}{2} (\sigma_{js}^{\mathcal{S}} + \sigma_{jn}^{\mathcal{N}}) \tag{3}$$

Our proposed measure of occupational immobility suffers from two limitations, both of which

Figure 4: J2J Flows by industry



Note: Rows indicate the industry from which workers depart and columns indicate the industry to which they transition. Barplots indicate total joiners (top facet) and leavers (right facet). Cells are shaded by the proportion of leavers from one industry who transition to each other.

are due to data availability. First, the J2J data is available only at the state and two-digit industrial code units of aggregation. Ideally we would measure these patterns at finer units of aggregation, such as counties or commuting zones, and at finer industrial levels. Insofar as our reliance on the relatively coarse units of aggregation invites measurement error, we argue that these errors should only bias against our findings (Bisbee and Zilinsky 2022).

Second, we are unable to calculate the intersection of occupations by both state and industry

when calculating proportions.<sup>6</sup> We take the simple average of the two  $\sigma_{js}^{\mathcal{S}}$  and  $\sigma_{jn}^{\mathcal{N}}$  when calculating each individual's occupational immobility  $\sigma_{jns}^{i}$ . In the SI, Section 6, we examine which of these two dimensions of immobility is more prognostic of politically relevant beliefs, finding it is predominantly the geographic component (although industry matters substantially for views on trade specifically).

Summarizing, the immobility of a job is higher if there are (relatively) more jobs in the same state or industry that are task-distant from the current job, and/or there are (relatively) more jobs in distant states or different industries that are task-proximate to the current job. As emphasized above, however, this definition of occupational immobility is, by itself, insufficient to predict subjective experiences of labor market anxiety or insecurity and the associated politically relevant beliefs that may follow from that anxiety. While our measure captures the rarity or immobility of a worker's job, that does not alone connote labor market risk. After all, a worker in a job with high entry barriers, and few competitors, may command a high wage and feel relatively secure in their job. In the next section we combine this measure of immobility with a threat to job security, showing that it is when a job feels insecure, and also there are few similar jobs in close proximity, that labor insecurity is activated.<sup>7</sup>

### 2.4 Industry-Based Import Exposure

Our empirical context is the United States, using geocoded survey data from the General Social Survey (GSS) that includes the respondent's most recent occupation and industry of employment.<sup>8</sup>

<sup>&</sup>lt;sup>6</sup>By using J2J data from 2000, prior to the spike in import competition precipitated by China's accession to the WTO in 2001, we treat these weights as "pre-treatment". However, there are some state-industry to state-industry cells in the transition matrix that are empty in 2000. Instead of treating these as literal zeros, we calculate the weight based on the first time the cells are non-zero in subsequent years, meaning that the rarest state-by-industry transitions are post-treatment. It is likely, however, that these transition matrices themselves changed in response to trade and automation shocks; we leave an analysis that incorporates these shifts to future research.

<sup>&</sup>lt;sup>7</sup>In the SI, Section 8 we compare this measure of job immobility to the other occupation-specific measures commonly used in the literature, including routine task intensity (RTI) and offshorability (Owen and Quinn 2016, Owen and Johnston 2017). Job immobility exhibits a U-shaped relationship with measures of task routineness, suggesting that job immobility is minimized for occupations with middle levels of task intensity (although the location of the minimum varies by the specific dimension of task intensity). Conversely, job immobility exhibits almost no systematic relationship with offshorability. We also demonstrate that while our measure of labor market insecurity (job immobility interacted with import competition) is prognostic of a bundle of anti-globalist views, while these alternative measures are not.

<sup>&</sup>lt;sup>8</sup>These data are available by special request from NORC at the University of Chicago.

In 2001, China joined the WTO and obtained permanent normal trading relations with the United States and other member countries. The US experienced an import boom from China, especially in manufacturing sectors, and while some exporters in the US saw their profits rise, local firms that competed with Chinese imports experienced market contractions.

Existing research in both economics and political science has relied on spatially-defined labor markets to assign exposure, where having more workers employed in an import-competing industry means that the location has greater exposure. Typically these studies rely on commuting zones to approximate local labor markets, although in some cases counties or states are used instead. None of these geographic units are definitionally "correct" since an individual's exposure to import competition needn't cleave to any particular geographic border. While "commuting zones" may define combinations of counties with high degrees of within-unit movement, awareness of free trade's negative consequences – either via egotropic effects on one's personal welfare, or via sociotropic effects on one's community – is transmitted via variety of channels that are only poorly approximated by geographic units (Bisbee and Zilinsky 2022).

The benefit of our data is that we needn't rely on aggregate measures of labor markets to calculate our survey respondents' exposure to the China Shock. Specifically, we observe their industry of employment, allowing us to connect them directly to the change in competing goods imported from China. Formally, for respondent i working in industry n, their exposure to imports  $IE_{nt}^i = \Delta M_{nt}$  where  $\Delta M_{nt}$  is the change in Chinese imports competing with goods produced in industry n between 1989 and the year the respondent was surveyed, t.

Import competition defined at the level of an individual's industry of employment implies two assumptions related with the Stable Unit Treatment Value Assumption (SUTVA). First, this measure assumes that all workers in an industry are equally exposed to import competition, and further that workers in other industries that don't directly compete with imports from China are totally insulated. The former is addressed with our occupation-based measure of immobility, accounting for the fact that some workers in the same industry might be less threatened by import competition than others. The latter part of this assumption is more strict, but consistent with

<sup>&</sup>lt;sup>9</sup>In the SI, Section 6.2 we replace this industry-based measure of exposure with the commuting zone measure of Autor, Dorn, and Hanson (2013). Our industry-based measure is more strongly predictive of the bundle of beliefs of interest.

assumptions underpinning geography-based measures of import exposure.

The second assumption is that individuals are insensitive to the spatial spillovers that are implicit in the geography-based measures of import exposure. In other words, while the shuttering of a factory that succumbs to import exposure can have negative consequences not only for the workers directly employed there but also for workers in geographically proximate jobs, our industrybased measure assumes that these spillovers do not (substantively) translate into opinions on trade and globalization. With this assumption, we anchor our measure firmly in an egotropic framework. In both place- and industry-based settings, we are only imperfectly identifying respondents who are affected by import competition. In our industry-based measure, we likely underestimate exposure by ignoring individuals who live in areas where free trade's negative consequences are unavoidable. In the place-based measures, exposure is likely overestimated by including individuals who live in a commuting zone that is home to import competing firms, but are nevertheless oblivious to the causes of these firms' plight, or even aware of their plight in the first place. We show in the SI (Section F, page SI.23) that the industry-based measure  $(\sigma_{jn}^{\mathcal{N}} \times IE_{nt}^{i})$  is less prognostic of traderelated opinions, than is our geography-based measure  $(\sigma_{is}^{\mathcal{S}} \times IE_{nt}^{i})$ . The job-to-job transitions data reveals that geographic relocations are far more constrained within the state of origin than industry relocations (the distributions of within-state and within-industry job transitions are plotted in Figure SI.10). If these transitions reflect the true costs of job transitions, we conclude that moving in geographic space is more costly than moving in industrial space, and perhaps not surprising that the majority of our findings are driven by the geographic component of our job immobility measure. 10

<sup>&</sup>lt;sup>10</sup>We are unable to construct as nuanced a measure of import competition exposure as we are for mobility, forcing us to rely on a crosswalk that links the volume of imports by product (HS8 codes) with the industry of employment for our survey respondents (NAICS-6 codes). We expect that this limitation introduces measurement error into our proxy for exposure to import competition, attenuating our results in a conservative direction, and demonstrate that place-based versions of the exposure measure such as that used by Autor, Dorn, and Hanson (2013) produce weaker results in the SI Section F.2, page SI.23.

# 3 Dependent Variables: Attitudes

The GSS data cover the period from 1993 to 2018 for the United States, and include questions about free trade agreements, globalization, and immigration. We also examine questions about an individual's perception of her labor market position to confirm that our measure of job market uncertainty predicts greater anxiety and dissatisfaction.

We combine multiple questions on international trade, immigration, and international organizations. Positive values reflect more protectionist views, more anti-immigrant views, and more anti-IO views. The full description of these variables is included in the SI.

Each of the roughly 37,000 respondents surveyed over the period between 1993 and 2018 appear only once in the data, and we are unable to estimate within-respondent changes in beliefs that would allow us to more convincingly causally attribute attitude shifts to the changes they experience in their occupational uncertainty. We subject our results to a battery of sensitivity analyses (SI section D, page SI.14) and placebo tests (SI section I, page SI.45) to bolster a causal interpretation of the correlations we observe.

#### 4 Estimation

We use a variety of methods to estimate the relationship between import exposure, job immobility, and labor market uncertainty and political beliefs. Our workhorse regression specification controls for individual-level covariates (including gender, race, marital status, educational attainment, age, foreign born status, foreign born status of the respondent's parents, and number of children born) and commuting zone-level covariates (including the male and female unemployment rate; the share of the labor force employed in manufacturing; proportions black, Hispanic, foreign born, and with a college education, and the proportion employed in routine-intensive occupations). With this specification, we predict variation in political beliefs as a function of import exposure:

$$y_{nst}^{i} = \alpha_s + \delta_t + \beta_1 I E_{nt}^{i} + \beta_2 \sigma_{ins}^{i} + \beta_3 \mathbf{X}^{i} + \beta_4 \mathbf{C}_{tme}^{i} + \epsilon_{nst}^{i}$$

$$\tag{4}$$

where  $\alpha_s$  and  $\delta_t$  are fixed effects for state and year, respectively;  $\sigma_{jns}^i$  is the occupational immobility measure defined in equation (3) above for individual i (who holds job j in industry n living in state s), surveyed at time t.  $\mathbf{X}^i$  is the vector of pre-treatment individual-level covariates described above and  $\mathbf{C}_{t_{pre}}^i$  is the vector of commuting zone-level pre-treatment measures, also described above. Since the individual-level trade shock is estimated based on respondents' industry of employment, we cannot control for industry-level confounders via an additional fixed effects term. However, we confirm (in the SI) that our findings are robust to using a multilevel model in which respondents are nested in industries, states, and years.

These measures predict variation in political beliefs as a function of exposure to import competition. We also expect individuals working in more immobile jobs to be more sensitive to import competition. This requires the assumption that occupational immobility is pre-treatment, to be used as a moderator in interacted regressions. 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 is:<sup>12</sup>

$$y_{nst}^{i} = \alpha_s + \delta_t + \beta_1 I E_{nt}^{i} + \beta_2 \sigma_{ins}^{i} + \beta_3 I E_{nt}^{i} \times \sigma_{ins}^{i} + \beta_4 \mathbf{X}^{i} + \beta_5 \mathbf{C}_{tyre}^{i} + \epsilon_{nst}^{i}$$
 (5)

### Assumptions Required for Causality

We argue that the change in Chinese imports between 1993 and 2018 is an exogenous shock from the perspective of an individual survey respondent, conditional on the individual and commuting zone-level covariates we control for, along with state and year fixed effects. This claim might be incorrect for several reasons.

 $<sup>^{11}</sup>$ All commuting zone-level predictors are measured in the census year prior to the survey wave, meaning that respondents surveyed in 2001 through 2010 are assigned to the commuting zone-level controls measured in the 2000 census, indicated by the  $t_{pre}$  subscript in Equation 4. We measure these contextual confounders at the commuting zone level as doing so at the state level would make them colinear with the state fixed effects.

<sup>&</sup>lt;sup>12</sup>We show in the SI, Section 11 that this interaction specification can be understood as a "shift-share" or Bartik approach, where a time varying component (the change in imports per worker, or shift) is distributed across states or industries (share).

First and least plausibly, reverse causality would require that increasingly anti-globalist views among the more job-immobile and import-exposed American workers would cause an increase in Chinese productivity in goods that compete with these workers. Second, there may be omitted measures that predict both an individual's bundle of anti-globalist opinions and their exposure to Chinese import competition that we have not accounted for. In the SI Section D (page SI.14) we conduct sensitivity analysis to characterize how strong such an omitted variable would have to be to overturn our results. Third, there may be selection effects in which those who continue to work in import-competing industries are inherently more anti-globalist for reasons other than the effect of import competition.

We view the selection concern as the main threat to our identification strategy. Those most exposed to free trade's negative consequences are also those least able to find new jobs – they are older, with families, and less educated (Notowidigdo 2011). A positive correlation between employment in an import-competing industry and anti-globalist attitudes would be likely, but interpreting the changes in individual attitudes to be caused by imports would be incorrect: the coefficient would capture a shifting composition of workers driven by selection.

We address this concern in several ways. First, using county-to-county migration data from the IRS, we find no correlation between import exposure at the county level and migration patterns (see the SI Section E, page SI.22). Second, insofar as these attitudes are correlated with other individual-level characteristics such as age and educational attainment, we soak up part of the selection concern with these controls.<sup>13</sup> Third, even if the selection concern holds and the correlations we document do not reflect changes in an individual's opinion over time, the differential mobility of more or less globalist workers is important to our understanding of how shifting macroeconomic conditions can reshape the terrain of politics.

<sup>&</sup>lt;sup>13</sup>Note that we do not control for partisanship in our main specification, due to concerns of post-treatment bias wherein respondents might choose their party on the basis of exposure to import competition or job immobility. We show that our results are robust to the inclusion of these controls in the SI Section O, page SI.53.

### 5 Results

#### 5.1 Immobility and Exposure: Views on Labor Market Conditions

We begin by predicting beliefs as a function of exposure to import competition from China, and labor market immobility in the GSS data. Before turning to our exploration of the determinants of anti-globalist beliefs, we validate that our measure of insecurity does indeed predict variation in the respondent's subjective evaluation of their labor market position. Specifically, we regress a battery of outcomes on the respondent's exposure to Chinese import competition, which we dichotomize to be 1 if the respondent i works in an industry n whose output competes with Chinese imports (as of the date of the survey t), i.e.,  $IE_{nt}^{i} > 0$ , and 0 otherwise. Approximately 1/5th of our respondents are defined as "exposed" according to this definition. We interact this trade exposure dummy with the individual's occupational immobility measure,  $\sigma_{ins}^{i}$  as in equation (5) above.

We focus on three types of questions – those pertaining to the individual's job, those pertaining to the individual's finances, and those pertaining to the individual's overall satisfaction with her job, finances, and life in general, which we denote as perceptions of their "status". We create indices of for each category of question by recoding the individual questions such that positive values correspond to greater concern over job stability, dissatisfaction with finances, and negative assessments of one's status in society, and negative values mean the opposite. We sum over these constituent questions. Table 2 displays the coefficients on the industry-based import exposure and the occupational immobility measure. Standard errors are clustered at the respondent's industry, which is the unit at which our measure of import exposure is assigned.

In the first three columns, we find little evidence that negative assessments of the labor market are significantly associated with either exposure to import competition or our measure of job immobility. For the former (top row), the coefficients are either statistically insignificant or negative. Meanwhile our measure of job immobility is consistently negatively associated with all three indices, suggesting that, holding constant labor market threats due to import exposure, respondents in less mobile occupations are generally more secure with their labor market position. Recall that

<sup>&</sup>lt;sup>14</sup>We summarize the constituent questions in the SI.

<sup>&</sup>lt;sup>15</sup>The full regression results are summarized in the SI.

our argument rests on the claim that workers who score high on our measure of occupational immobility might also enjoy a degree of monopoly power in their local labor market.

Table 2: Job market evaluations: immobility and exposure

	Linear			Interaction			
	Job insecurity (1)	Financial insecurity (2)	Status insecurity (3)	Job insecurity (4)	Financial insecurity (5)	Status insecurity (6)	
Import exposure	0.093	-0.020	-0.043	0.062	-0.037	-0.053	
Job immobility	(0.027) $-0.016$	(0.032) $-0.026$	(0.022) $-0.019$	(0.027) $-0.027$	(0.030) $-0.033$	(0.022) $-0.023$	
Import exposure $\times$ job immobility	(0.011)	(0.008)	(0.008)	(0.009) $0.102$ $(0.021)$	(0.006) $0.057$ $(0.019)$	(0.009) $0.035$ $(0.015)$	
Outcome mean	-0.413	-0.987	-1.25	-0.413	-0.987	-1.25	
Outcome SD	1.16	2.25	1.69	1.16	2.25	1.69	
Outcome range	-4, 4	-7, 7	-6, 6	-4, 4	-7, 7	-6, 6	
Indiv. controls	Y	Y	Y	Y	Y	Y	
C-Zone controls	Y	Y	Y	Y	Y	Y	
Fixed effects:							
State	Yes	Yes	Yes	Yes	Yes	Yes	
Year	Yes	Yes	Yes	Yes	Yes	Yes	
Fit statistics:							
Observations	25,070	$30,\!297$	24,399	25,070	$30,\!297$	24,399	
$\mathbb{R}^2$	0.10	0.10	0.10	0.10	0.10	0.10	
Within $\mathbb{R}^2$	0.01	0.08	0.06	0.01	0.08	0.06	

Note: Results of regression predicting three measures of labor market insecurity (columns) as a function of exposure to import competition, job immobility, and their interaction (columns 4 through 6). Clustered (industry) standard-errors in parentheses.

Turning to columns 4-6, we show that the interaction between these two components of an individual's labor market position produce significant positive associations. Substantively, these coefficients indicate that, for every standard deviation increase in job immobility, the marginal correlation between import exposure and subjective assessments of labor market insecurity increases by between 5 and 7 percentage of a standard deviation. We visualize these results in Figure 5, adding a fourth outcome of overall subjective concern which is the aggregation of the three indices discussed above.

As illustrated, respondents working in occupations at the highest end of our job immobility scale who are exposed to import competition express almost three-quarters of a standard deviation

Overall insecurity index Job insecurity index 0.75 Interaction: 0.086 (0.017) 0.102 (0.021) 0.50 0.25 0.4 0.00 -0.25Status insecurity index MFX of import exposure 0.035 (0.015) 0.2 -0.2Financial insecurity index 0.057 (0.019) 0.2 -0.2

Figure 5: Subjective insecurity

Note: Marginal effects of import competition (y-axes) on subjective measures of labor market insecurity (facets) across levels of occupational immobility (x-axes),  $R^i_{jns}$ . Interaction coefficient and standard error indicated in top-left of each panel. Uninteracted coefficient measuring association between import exposure on outcome given on right of each facet ("Total").

5.8

Job immobility (logged)

6.3

Total

5.8

Job immobility (logged)

6.3

Total

more insecurity about their labor market position relative to those who are immobile but not exposed. Across all four indices, the interaction terms are statistically significant at the 95% level of confidence. Specifically, our models suggest that individuals who work in highly mobile occupations respond to an increase in Chinese import competition to their industry by expressing less anxiety about either their financial situation or their status in society. It is possible that, by virtue of being mobile workers, these individuals stand to benefit from free trade, and therefore express more positive assessments of their labor market position, despite being confronted with competition from Chinese imports. This hypothesis is consistent with traditional models of the

political economy of trade in positing that mobile factors of production "win", regardless of whether their particular industry is confronting increased import competition. We leave a more rigorous test of this hypothesis to future work.

#### 5.2 Immobility and Exposure: The Anti-Globalist Bundle

Consider now aggregated measures of the respondents' opinions on free trade, immigration, and international organizations (IOs). In Table 3, we find significant coefficients on import exposure for protectionist views (column 1) and negative attitudes toward international organizations (column 3). These findings suggest that individuals exposed to import competition are more protectionist on our combined index by roughly 0.16 standard deviations. Similarly, they hold more negative views towards international organizations and MNCs by approximately 0.13 standard deviations. The combined xenophobia index, which aggregates over 14 individual questions about immigrants, suggests that trade-exposed respondents are only 0.033 standard deviations more opposed to immigration compared to those insulated respondents. This estimate is only one-fifth the magnitude of the correlations between the trade shock and protectionism and IO indices, and is not statistically significant at conventional thresholds.

In columns 1 through 3, there is no evidence of a significant correlation between the respondent's occupational immobility measure and each of these bundles of views. In columns 4 through 6, we find statistically significant and positive interaction terms for both the protectionist index and the xenophobia index. These coefficients are of similar magnitude, suggesting that the marginal effect of exposure to import competition increases protectionism and xenophobia by 0.07 standard deviations per standard deviation increase in the respondent's occupational immobility. As illustrated in Figure 6, these results predict that the most immobile respondents are affected by import exposure by almost half of a standard deviation when it comes to their views on trade, almost 0.4 standard deviations when it comes to their views on immigration, and 0.35 standard deviations when evaluating the overall bundle of views on protectionism, xenophobia, and anti-IOs.

An important caveat to our conclusions obtains for views on international organizations. While we find that import exposure positively predicts negative evaluations of international organizations

Table 3: Aggregate anti-globalism: immobility and exposure

	Linear			Interaction		
	Anti- trade (1)	Anti- imms (2)	Anti- IOs (3)	Anti- trade (4)	Anti- imms (5)	Anti- IOs (6)
Import exposure	0.110 (0.041)	0.073 (0.037)	0.047 $(0.022)$	0.076 (0.039)	0.044 (0.037)	0.037 (0.021)
Job immobility	0.009	0.008 (0.019)	-0.006 (0.017)	-0.004 (0.010)	-0.005 (0.020)	-0.009 (0.021)
Import exposure $\times$ job immobility	,	,	,	0.103 (0.038)	0.095 $(0.025)$	0.027 (0.040)
Outcome mean	-0.913	-1.29	-0.247	-0.913	-1.29	-0.247
Outcome SD	2.15	3.96	1.58	2.15	3.96	1.58
Outcome range	-5, 5	-13, 14	-4, 4	-5, 5	-13, 14	-4, 4
Indiv. controls	Ý	Ý	Ý	Ý	Ý	Y
C-Zone controls	Y	Y	Y	Y	Y	Y
Fixed-effects						
State	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics						
Observations	4,296	6,117	3,524	4,296	6,117	3,524
$\mathbb{R}^2$	0.17	0.27	0.08	0.17	0.27	0.08
Within $\mathbb{R}^2$	0.05	0.10	0.05	0.05	0.10	0.05

Note: Results of regression predicting three measures of anti-globalist sentiment (columns) as a function of exposure to import competition, job immobility, and their interaction (columns 4 through 6). Clustered (industry) standard-errors in parentheses

overall, there is no evidence that this relationship varies across levels of immobility (bottom-right panel of Figure 6). If anything, the association is negative, although not statistically significant, close to zero, and noisily estimated. We posit that this might reflect our reliance on U.S. data, where trade and immigration are traditional cleavages across the political parties in the US, making these issues more salient in recent political discourse. Conversely, America's relationship with international organizations has not been a major source of difference across the parties, due in part to the influence wielded by the United States in these organizations. Furthermore, this index measures sentiment with some error – the survey questions conflate attitudes towards intergovernmental organizations with those towards multinational corporations (MNCs). MNCs meet with some negativity among the ideological left; international organizations are viewed with some suspicion by the right. With ideology explaining the majority of views on these dimensions, there is

Anti-globalism index Protectionism index Interaction: 0.081 (0.016) 0.103 (0.038) 0.6 0.6 0.3 0.4 \_0 3 Xenophobia index MFX of import exposure 0.095 (0.026) 0.50 0.25 -0.25 Anti-IO index 0.027 (0.04) 0.2 -0.2 6.3 5.4 5.8 Total 5.4 5.8 6.3 Total Job immobility (logged) Job immobility (logged)

Figure 6: Anti-globalist attitudes

Note: Marginal effects of import competition (y-axes) on anti-globalist opinions (facets) across levels of occupational immobility (x-axes),  $R_{jns}^i$ . Interaction coefficient and standard error indicated in top-left of each panel. Uninteracted coefficient measuring association between import exposure on outcome given on right of each facet ("Total").

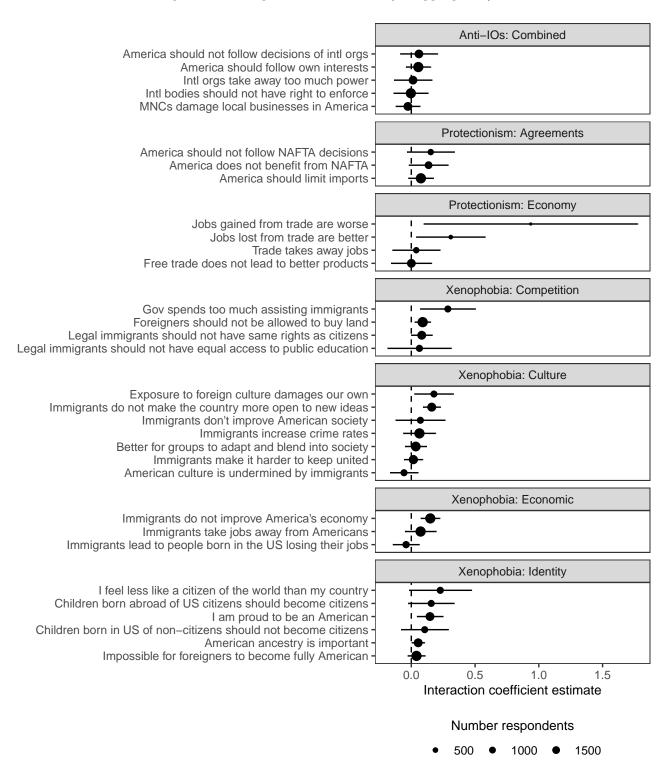
little variation left for our measures of trade shocks and job immobility to explain. We provide descriptive evidence of this in the SI Section L, page SI.51.

### Unpacking the Anti-Globalist Wave

To test more nuanced claims about the drivers of protectionism, xenophobia and distrust of IOs, we disaggregate the summary variables back to their constituent questions and plot only the interaction coefficients in Figure 7.

In terms of the drivers of protectionism, we document positive associations along the dimensions

Figure 7: Anti-globalist attitudes (disaggregated)



Note: Interaction coefficients characterizing increase in marginal effect of import competition on anti-globalist beliefs (disaggregated) associate with 1SD increase in job immobility.

of views on free trade agreements (specifically NAFTA), as well as views on the quality of jobs that are lost due to trade, and gained due to trade. Conversely, we find little evidence of import exposure among the least mobile to be prognostic of beliefs about the broader economic implications of trade, including the claims that free trade does not lead to better products, and that trade takes away jobs.

In terms of the xenophobia dimensions, we again find mixed results when disaggregating the data. We do note strong skepticism to many aspects of immigration, including opposition to statements regarding immigrants' benefits to American culture and ideas, as well as its economy. We also note strong support for the beliefs that the U.S. government spends too much assisting immigrants, suggesting that competition over public goods is activated by the intersection between import exposure and job immobility. In terms of issues related to identity, we underline the significant positive interaction terms on the dimensions of American ancestry and respondents' self-image as an American citizen.

Finally, we confirm the null results on opposition to international organizations. All three of the constitutive questions have the interaction coefficient close to zero and noisily estimated.

#### 6 Conclusion

The relationship between exposure to free trade's negative consequences and political beliefs about free trade are moderated by an individual's occupational immobility. We show that individuals in industries facing a 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 hold jobs that are rare, or are more distant in task, geographical and industrial dimensions than other jobs.

We measure the heterogeneity in labor mobility across individuals even within the same class, sector, education level or industry – in contrast to the classical approaches. Mobility is characteristic of both the occupational characteristics of the individual's job and prevalence of similar jobs. Immobility combines with exposure to trade shocks to generate a measure of job insecurity. When disaggregated, these dimensions of occupational risk predict heterogeneity in the relation-

ship between opinions and trade exposure to some degree. 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. Economic anxiety is not confined to those that have lost jobs; those whose labor market prospects are poorer in the face of potential shocks from abroad express more anxiety about their financial condition and their social status, which in turn is correlated with varieties of protectionist sentiment. In contrast, those whose skillsets permit a high degree of mobility across regions or industries express *less* anxiety about either their financial situation or their status in society, and welcome the benefits that globalization brings.

Our findings also reveal more precisely the degree to which the backlash against globalization is entwined with beliefs about identity, citizenship, and culture. We document striking patterns between the threat of economic dislocation due to import competition and beliefs that are adjacent to, but extend beyond, the economic concerns with free trade, international organizations, and immigrants. Put bluntly, those who are hurt by globalization hold more populist views, ranging from the qualities that define an American citizen to the anxiety that foreign cultures erode America's.

Our estimates are likely to be towards the lower bound of the combined effect of immobility and exposure. Individuals who are unemployed – who may have lost their job due to competition from abroad and may hold anti-globalization sentiment – are not included in our sample. Individuals whose new industries are not not subject to globalization shocks may have previously held stronger anti-globalization sentiment when they were employed in a declining industry.

In the SI, we test a range of alternative measures of trade shocks that account for local sociotropic dynamics (Alkon 2017). We find less strong results when replacing our individual-level shock measure with these alternatives, suggesting that – at least when it comes to the moderating effect of occupation – the story is an egotropic one.

We argue that the patterns we document are causal in the sense that our respondents confront unforeseen labor market threats. Yet we emphasize that, even in the absence of causal claims, these descriptive patterns are striking. In our data, free trade's potential (and not necessarily actual) losers adhere to a worldview of eroding American power, the decline of American culture, and the powerlessness of American sovereignty. As to whether these individuals (the immobile and exposed) are the pivotal voters in swing districts remains an open question; we offer a potential mechanism here that links exposure to trade and observed political support anti-globalist candidates at the district level.

While our empirical results are limited to the United States at the turn of the 21st century, we suggest that they capture a common pattern across advanced industrial democracies. At its core, our contribution provides a richer empirical operationalization of the essential characteristics of an individual's labor market position pertaining to free trade: mobility. Future work might apply this measure to other contexts; nevertheless these findings shed light on how economic anxiety correlates with a bundle of anti-globalist beliefs among voters in the largest economy in the world, and the guarantor of the current liberal world order. Perceptions of an increased risk of economic dislocation leads to rising nativism, and presents a serious challenge to domestic political support for the liberal world order.

### References

- Acemoglu, Daron, and David Autor. 2011. "Skills, Tasks and Technologies: Implications for Employment and Earnings." In *Handbook of Labor Economics*, ed. Orley Ashenfelter, and David card. Vol. 4B San Diego, CA: Elsevier pp. 1043–171.
- Alkon, Meir. 2017. Local Sociotropism: How Community Variation in Trade Exposure Affects Voter Demands. Technical report Princeton University.
- Autor, David. 2013. "The "task approach" to labor markets: an overview." *Journal for Labour Market Research* 46 (3): 185–199.
- Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi. 2016. "Importing Political Polarization? The Electoral Consequences Of Rising Trade Exposure." *NBER Working Papers* 22637.
- Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." 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.
- Baccini, Leonardo, and Thomas Sattler. 2020. "Austerity, Economic Vulnerability, and Populism." *GRIPE Webinar*.
- 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 A. Malik, Stephanie J. Rickard, and Kenneth Scheve. 2021. "The Economic Origins of Authoritarian Values: Evidence From Local Trade Shocks in the United Kingdom." Comparative Political Studies 54 (13): 2321–2353.
- Bisbee, James, and Jan Zilinsky. 2022. "Geographic Boundaries and Local Economic Conditions Matter for Views of the Economy." *Political Analysis* pp. 1–7.
- Carnes, Nicholas, and Noam Lupu. 2021. "The White Working Class and the 2016 Election." *Perspectives on Politics* 19 (1): 55–72.
- Cerrato, Andrea, Federico Maria Ferrara, and Francesco Ruggieri. 2018. "Why Does Import Competition Favor Republicans." SSRN Working Paper 3147169.
- Colantone, Italo, and Piero Stanig. 2018 a. "The Economic Determinants of the 'Cultural Backlash': Globalization and Attitudes in Western Europe." BAFFI CAREFIN Center Research paper (2018-91).
- Colantone, Italo, and Piero Stanig. 2018b. "The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe." American Journal of Political Science 62 (4): 936–953.

- Dancygier, Rafaela M., and Stefanie Walter. 2015. "Globalization, Labor Market Risks, and Class Cleavages." In *The Politics of Advanced Capitalism*, ed. Pablo Baramendi, Silja Häusermann, Herbert Kitschelt, and Hanspeter Kriesi. Cambridge University Press pp. 133–56.
- Dippel, Christian, Robert Gold, and Stephan Heblich. 2015. "Globalization And Its (Dis-)Content: Trade Shocks And Voting Behavior." NBER Working Papers (21812).
- Feigenbaum, James J., and Andrew B. Hall. 2015. "How Legislators Respond to Localized Economic Shocks: Evidence from Chinese Import Competition." *The Journal of Politics* 77 (4): 1012–1030.
- Hays, Jude, Junghyun Lim, and Jae-Jae Spoon. 2019. "The Path from Trade to Right-wing Populism in Europe." *Electoral Studies* 60: 102038.
- Heckscher, Eli Filip, and Bertil Gotthard Ohlin. 1991. Heckscher-Ohlin trade theory. The MIT Press.
- Hiscox, Michael J. 2001. "Class Versus Industry Cleavages: Inter-Industry Factor Mobility and the Politics of Trade." *International Organization* 55 (1): 1–46.
- Irwin, Douglas A. 1996. "Industry or Class Cleavages over Trade Policy? Evidence from the British General Election of 1923." In *Political Economy of Trade Policy: Essays in Honor of Jagdish Bhagwati*, ed. Gene Grossman Robert Feenstra, and Douglas Irwin. MIT Press.
- Jensen, J. Bradford, Dennis P. Quinn, and Stephen Weymouth. 2017. "Winners and Losers in International Trade: The Effects on US Presidential Voting." *International Organization* 71 (3): 423–457.
- Kaihovaara, Antti, and Zhen Jie Im. 2020. "Jobs at Risk? Task Routineness, Offshorability, and Attitudes Toward Immigration." European Political Science Review 12 (3): 327–345.
- Katitas, Aycan. 2019. "Elite Cues and Attitudes Toward Globalization Evidence from Televised Political Advertising in the US." Working Paper.
- Krugman, Paul R. 1979. "Increasing Returns, Monopolistic Competition, and International Trade." *Journal of International Economics* 9 (4): 469–479.
- Kuk, John, Deborah Seligsohn, and Jiakun Jack Zhang. 2022. "The partisan divide in US congressional communications after the China shock." *Economics & Politics* 34 (3): 494–526.
- Malhotra, Neil, Yotam Margalit, and Cecilia Hyunjung Mo. 2013. "Economic Explanations for Opposition to Immigration: Distinguishing between Prevalence and Conditional Impact." *American Journal of Political Science* 57 (2): 391–410.
- Mansfield, Edward D., and Diana C. Mutz. 2009. "Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-Group Anxiety." *International Organization* 63 (3): 425–457.
- 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.

- Margalit, Yotam. 2019. "Economic Insecurity and the Causes of Populism, Reconsidered." *Journal of Economic Perspectives* 33 (4): 152–70.
- Melitz, Marc J. 2003. "The impact of trade on intra-industry reallocations and aggregate industry productivity." *Econometrica* 71 (6): 1695–1725.
- Milner, Helen V. 2018. "Globalization and its Political Consequences: The Effects on Party Politics in the West." Princeton University.
- Milner, Helen V. 2021. "Voting for Populism in Europe: Globalization, Technological Change, and the Extreme Right." *Comparative Political Studies* 54 (13): 2286–2320.
- Mutz, Diana C. 2018. "Status Threat, not Economic Hardship, Explains the 2016 Presidential Vote." *Proceedings of the National Academy of Sciences* 115 (19): E4330–E4339.
- Notowidigdo, Matthew J. 2011. The Incidence of Local Labor Demand Shocks. Technical report National Bureau of Economic Research.
- Owen, Erica. 2020. "Firms vs. Workers? The Politics of Openness in an Era of Global Production and Automation." *GRIPE Webinar*.
- Owen, Erica, and Dennis P. Quinn. 2016. "Does Economic Globalization Influence the US Policy Mood?: A Study of US Public Sentiment, 1956–2011." British Journal of Political Science 46 (01): 95–125.
- 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.
- Rho, Sungmin, and Michael Tomz. 2015. Why Don't Trade Preferences Reflect Economic Self–Interest? Technical report Stanford University.
- Rommel, Tobias, and Stefanie Walter. 2018. "The Electoral Consequences of Offshoring: How the Globalization of Production Shapes Party Preferences." Comparative Political Studies 51 (5): 621–658.
- Scheve, Kenneth F., and Matthew J. Slaughter. 2001. "What Determines Individual Trade-policy Preferences?" *Journal of International Economics* 54 (2): 267–292.
- Sides, John, Michael Tesler, and Lynn Vavreck. 2018. *Identity crisis: The 2016 presidential campaign and the battle for the meaning of America*. Princeton University Press.
- Stolper, Wolfgang, and Paul A. Samuelson. 1941. "Protection and Real Wages." Review of Economic Studies 9 (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.
- Walter, Stefanie. 2021. "The Backlash Against Globalization." Annual Review of Political Science 24 (1): 421–442.