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# Why does import competition favor republicans? Localized trade shocks and cultural backlash in the US

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## ABSTRACT

Evidence that local exposure to Chinese import competition favors right-wing parties has often been attributed to the success of economic nationalism. We test an alternative account. Trade shocks catalyze cultural backlash, which drives support for conservative candidates, as they compete electorally by targeting out-groups. We assess this hypothesis in the 2008–2016 US presidential elections. Using individual-level survey data, we provide evidence that Chinese import shocks drive negative attitudes towards minorities and positive feelings towards in-groups. Opinions about free trade and redistribution are not affected. Results indicate that this rightward shift is primarily driven by non-Hispanic white and male respondents. These findings point to the role played by trade-induced cultural backlash in shaping political outcomes in the US.

## Introduction

In recent years, nativism has become a salient feature of several Western democracies. In this context, economists and political scientists have debated whether cultural backlash or economic insecurity explains the rise of anti-globalization movements in Europe and the US. The ‘cultural backlash’ side has stressed resentment among mostly white, non-college-educated voters towards immigrants and minorities, citing the fear of losing status as the main factor driving the rise of populism (e.g. Inglehart & Norris, 2016; Mutz, 2018).

Conversely, the ‘economics’ side of the debate has focused on the role played by individual economic insecurity (e.g. Guiso et al., 2017) and exposure to different types of globalization shocks, ranging from migrants and refugees to international trade and capital flows (e.g. Rodrik, 2018). A strand of this literature has assessed the extent to which the local labor market effects of competition with foreign imports, especially from China, have favored the rise of protectionist and radical

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candidates in Europe and the US (e.g. Autor et al., 2020; Ballard-Rosa et al., 2021; Colantone & Stanig, 2018a, 2018c; Dippel et al., 2016; Feigenbaum & Hall, 2015).

This article aims at reconciling the two aforementioned perspectives by addressing the following puzzle. Studies focusing on the political consequences of Chinese import competition have consistently shown that trade exposure favors candidates and parties at the right end of the political spectrum, even before the recent populist wave. However, it is not entirely clear why this occurs. Does this happen because right-wing parties campaign on nationalist economic platforms? Why do not import-exposed voters turn to the left and demand greater redistribution and social insurance, consistent with the ‘compensation hypothesis’ (Cameron, 1978; Rodrik, 1998; Walter, 2010)?

US presidential elections are particularly interesting in this regard. Previous research has documented that import-exposed regions have been disproportionately more likely to support Republican candidates over the past decade (Autor et al., 2020). This evidence does not appear surprising in the 2016 election, as the Republican candidate, Trump, ran a harsh protectionist campaign. However, the success of conventional, more pro-trade GOP candidates, such as Romney and McCain, in the same areas seems harder to explain in light of international trade stances. Why, then, does import competition consistently favor Republicans?

Combining insights from different disciplines, we advance the following hypothesis. Since the distributional implications of trade integration may be difficult to grasp (Hainmueller & Hiscox, 2006; Rho & Tomz, 2017), voters may not often clearly identify the source of the local economic threat posed by trade shocks. However, the labor market effects of Chinese competition are sizable, persistent and cut across the board (Acemoglu et al., 2016; Autor et al., 2013a, 2013b; Autor et al., 2014). As suggested by Inglehart and Norris (2017) and Inglehart (2018), resulting economic insecurity may catalyze cultural backlash and trigger strong in-group solidarity, rigid conformity to group norms, and rejection of outsiders, such as ethnic, racial, religious and sexual minorities. In turn, this may drive support for right-wing candidates, who compete electorally by targeting out-groups and leveraging nativist attitudes.

To test this hypothesis, we draw on data on attitudes towards minorities, immigrants, free trade policies and redistribution from the 2008–2016 American National Election Studies (ANES). We also construct a measure of local exposure to Chinese import competition following Autor et al. (2013a). Our analysis shows that, in the 2008–2016 presidential elections, individuals in trade-exposed districts are disproportionately more likely to exhibit positive attitudes towards in-groups and negative attitudes towards out-groups.

More specifically, we provide evidence that voters in import-exposed areas express more extreme stances in favor of ethnic and racial in-groups (Whites) and against ethnic and racial minorities, among which Hispanics are the most targeted. Moreover, they are more likely to express positive feelings in favor of religious in-groups (Christians) and negative attitudes towards religious out-groups (Muslims) and sexual minorities (gay men and lesbians). Conversely, Chinese import penetration does not significantly affect attitudes towards international trade and redistribution. Evidence from heterogeneity tests indicates that these effects are more concentrated among or driven by non-Hispanic white and male individuals.

The article is organized as follows. Section ‘Cultural backlash and economic globalization’ reviews the relevant literature. In section ‘The Interplay of Cultural and Economic Factors’, we provide the conceptual framework that the investigation is based upon. In section ‘Data and Methods’, we describe the data and method employed in our analysis. In section ‘Results’, we estimate the effect of regional exposure to Chinese import competition on individual attitudes towards ethnic, racial, religious and sexual in-groups and out-groups. Moreover, we provide evidence that attitudes towards international trade and redistribution are not affected by import exposure. In section ‘Heterogeneity Tests’, we conduct heterogeneity tests by individual race/ethnicity and gender. The final section draws conclusions and points to further avenues of research.

## Cultural backlash and economic globalization

The increasing success of radical right-wing platforms has stimulated a lively debate about the causes of this major turn in the political landscape of Western democracies. One perspective emphasizes that populist support can be explained as a social psychological phenomenon, reflecting a nostalgic reaction against long-term processes of value change (Inglehart & Norris, 2016) and subjective perceptions of social status loss (Gidron & Hall, 2017). The ‘cultural backlash’ hypothesis predicts that support for populist parties is strongest among men, the elderly, those with poor educational attainment, and traditionalists who see their relative social status as declining.

In favor of this argument, Inglehart and Norris (2016) show that anti-immigrant attitudes, mistrust of global and national governance, support for authoritarian values, and left-right ideological self-placement are consistent predictors of voting for populist parties. Analogously, Gidron and Hall (2017) find that lower self-attributed social status is consistently associated with electoral support for radical right-wing parties. Kaufmann (2017) shows that authoritarian attitudes have leverage in explaining American and British voters’ support for Trump and Brexit, respectively. Hooghe and Dassonneville (2018) point to attitudes towards immigration and ethnic minorities as the most important predictor of choosing Trump in the 2016 presidential election. Furthermore, Mutz (2018) argues that changes in financial wellbeing had little impact on shifts in individual support for Republicans from 2012 to 2016. Instead, political attitudes were shaped by changing notions of national status, in terms of both US dominance in the world and white numerical dominance in the US.

Another perspective emphasizes the role of economic factors, focusing on the electoral consequences of secular changes to post-industrial societies, such as trade integration, globalization of finance and migration (Rodrik, 2018), and automation (Acemoglu & Restrepo, 2017). Compressed real wages and fewer employment opportunities in selected industries result in economic insecurity, especially among the most vulnerable strata of society. The ‘economics’ argument predicts that individual economic insecurity (e.g. Guiso et al., 2017) and exposure to different types of globalization shocks (Rodrik, 2018) are the most important predictors of support for populist candidates and movements.

Scholars have increasingly focused on how electoral behavior is shaped by exposure to international trade shocks. Walter (2010) claims that higher individual

exposure is associated with greater demand for welfare transfers which, in turn, drives support for left-wing parties in Europe. Margalit (2011) shows that trade-related job losses in the US made it harder for incumbents to win elections in 2000 and 2004. Jensen et al. (2017) point out that incumbent parties are more likely to lose votes when imports increase and exports decrease, particularly in swing states where low-skilled manufacturing workers face competition from imports. Moreover, Owen and Quinn (2016) provide evidence that trade flows affect the aggregate policy mood towards the role and size of government in the US.

Within this literature, several studies have built on the seminal article by Autor et al. (2013a). They provide evidence that Chinese import competition caused costly adjustments in US local labor markets in terms of higher unemployment, lower labor force participation, and compressed wages in regions that house import-competing manufacturing firms. Feigenbaum and Hall (2015) show that members of Congress elected in import-exposed districts are more inclined to support protectionist bills. Furthermore, Autor et al. (2020) show that rising Chinese import penetration is associated with increasing market share for the Fox News channel, stronger ideological polarization in campaign contributions, and a relative rise in the likelihood of electing a Republican to Congress. They find that that the rightward shifts in ideological affiliation and voting patterns are concentrated among non-Hispanic Whites, with zero or opposite effects evident among Hispanics and non-Whites.

A trade-induced rightward shift has taken place among European individuals, too. Using a panel of fifteen European countries between 1988 and 2007, Colantone and Stanig (2018c) uncover that voters in import-exposed areas are more likely to support extreme right-wing parties. Colantone and Stanig (2018a) show that voters in import-exposed British regions were disproportionately more likely to vote in favor of Brexit in the 2016 Referendum to leave the European Union.

Overall, studies focusing on Chinese import exposure across Western countries have provided much fodder for ‘economics’ arguments on the origins of right-wing populism and are consistent in highlighting a pro-conservative effect.<sup>1</sup> However, these studies have not entirely clarified why this occurs. According to the ‘compensation hypothesis’ (Cameron, 1978; Rodrik, 1998; Walter, 2010), import competition should induce net losers from globalization to choose left-wing parties through greater demand for redistribution and social insurance.

Yet, studies that find a pro-conservative effect in Europe underscore that losers from globalization might prefer protection over compensation, thereby demanding trade restrictions rather than greater welfare transfers (Colantone & Stanig, 2018c). While this argument seems to apply well to European countries, it is more difficult to understand why import exposure is associated with Republican vote gains in the US. Indeed, Autor et al. (2020) document a significant pro-Republican effect in presidential elections even before 2016. Trump’s protectionist campaign in 2016 is consistent with the claim that import exposure fosters demand for economic nationalism, but this is hardly the case for McCain’s campaign in 2008, as his policy platform was starkly in favor of free trade. Thus, we are left with a puzzle: why do import-exposed voters turn to right-wing candidates and parties?

Some of the studies cited above attempt to address this question, although they do not provide a unifying framework. Autor et al. (2020) concede that economic

adversity can increase support for nativist politicians, and that wedge issues, as opposed to trade policy stances, seem to drive support for Republican candidates. In support of this claim, they show that extreme Republican congressional candidates are more likely to be elected in trade-exposed districts with a majority of white citizens. Colantone and Stanig (2018a) show that exposure to import competition negatively affects attitudes towards immigration in the UK which, in turn, are correlated with the vote in favor of Brexit. Furthermore, Ballard-Rosa et al. (2021) provide evidence that localized trade shocks from import competition increase the likelihood of positive attitudes towards authoritarian values among British individuals. Colantone and Stanig (2018b) show that tighter import competition in European regions makes respondents less supportive of democracy, more in favor of strong leaders, and particularly concerned with immigration, especially its cultural threat.

Closely related to the argument proposed in this article are also some recent studies that have examined attitudes and voting behavior in areas exposed to broader phenomena of deindustrialization, economic decline and manufacturing layoffs. For instance, Carreras et al. (2019) provide evidence that British citizens who live in economically depressed and declining districts are more likely to develop cultural grievances, most notably anti-immigrant and Eurosceptic views. These cultural grievances, in turn, inform political choices, such as the decision to support the 'Leave' option in the Brexit referendum.

Using county-level voting data and individual-level survey data from the 2008, 2012 and 2016 US presidential elections, Baccini and Weymouth (2021) find that white voters are more likely to vote for Republican challengers where manufacturing layoffs are high, whereas black voters in hard-hit localities are more likely to vote for Democrats. They also show that white voters tend to associate local manufacturing job losses with obstacles to individual upward mobility, and with broader American economic decline. Finally, employing data from the 2012 US Cooperative Congressional Election Study, Bisbee et al. (2020) offer evidence of growing protectionism and xenophobia among American voters residing in highly trade-exposed areas.

These analyses have generated an increasing awareness among scholars that cultural and economic drivers may be joint determinants of anxiety about social status and support for radical right-wing parties (Colantone & Stanig, 2019; Franzese, 2019; Gidron & Hall, 2017; Hopkin, 2017). Building on this evidence, we address the puzzle outlined above through a comprehensive framework that attempts to reconcile the 'economics' and 'cultural backlash' perspectives. Theoretically, we try to move beyond what we think is an inaccurate and potentially misleading dichotomy between economic and cultural explanations of the success of right-wing populism and nativism. Empirically, our analysis focuses on the effects of import exposure on attitudes towards racial, ethnic, religious and sexual in-groups and out-groups. This focus constitutes a novel contribution, which distinguishes our investigation from other studies coming to similar conclusions about the economic determinants of cultural backlash (e.g. Ballard-Rosa et al., 2021; Bisbee et al., 2020; Colantone & Stanig, 2018b).

## The interplay of cultural and economic factors

How do trade shocks influence voting behavior? Addressing this question from a theoretical standpoint is key to explaining the link between import competition

and support for Republican presidential candidates. At least two mechanisms can account for this empirical relationship.

The first mechanism is in line with a standard open economy politics (OEP) perspective, such as the one proposed by Feigenbaum and Hall (2015) or the framework underpinning the ‘compensation hypothesis’ (Cameron, 1978; Rodrik, 1998; Walter, 2010). This view assumes that trade shocks affect individual economic attitudes and increase their demand for protection or redistribution. As a consequence, in a two-party competition, voters in import-exposed areas will select the candidate based on her economic policy stance. If they value more protection than redistribution, they will prefer the relatively more protectionist candidate. Vice versa, if they want to have greater access to welfare services and social security, they will prefer the candidate campaigning on a stronger redistributive platform. When competitors’ stances on economic policy are similar, no significant relationship between trade exposure and voting is to be expected.

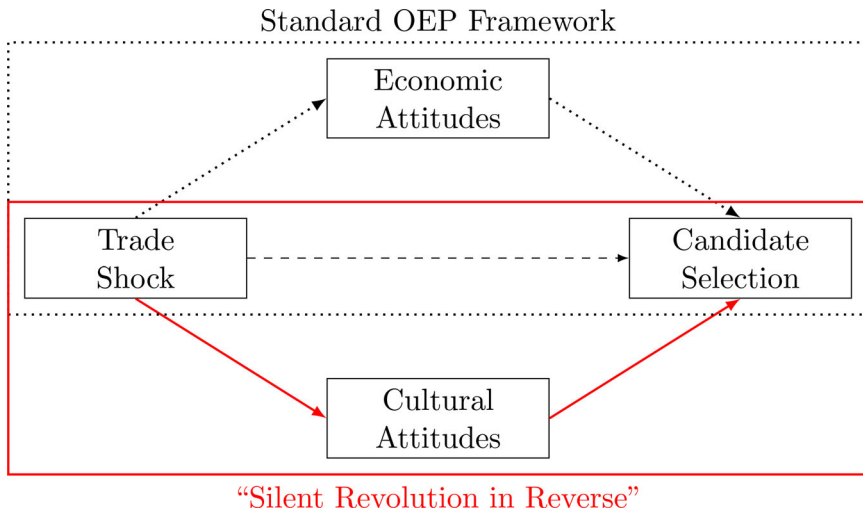
Thus, import-exposed individuals will exhibit more negative attitudes towards international trade and/or more positive attitudes towards redistribution, and choose candidates who match their demand for protection. In line with this view, Colantone and Stanig (2018c) identify economic nationalism – defined as a combination of opposition to free trade and isolationism; laissez-faire on domestic economic issues; and a strong nationalist stance – as the key feature explaining the link between import competition and radical right-wing parties in Europe.

The second mechanism stems from the ‘cultural backlash’ hypothesis, in reconciliation with the ‘economics’ perspective. As mentioned by Inglehart and Norris (2016) and Gidron and Hall (2017), and further developed in Inglehart and Norris (2017) and Inglehart (2018), the analytical distinction between economic insecurity and cultural backlash theories may be partly artificial. These factors may be linked by an interactive process if structural changes in the workforce and social trends in integrated markets sharpen economic insecurity, and if this, in turn, triggers a negative backlash among traditionalists towards cultural shifts. It may not be an either/or question, but one of relative emphasis with interactive effects.

Inglehart and Norris (2017) and Inglehart (2018) define this interactive process as ‘the Silent Revolution in Reverse’. They argue that cultural backlash explains why some individuals support right-wing populist movements, while declining economic security – which catalyzes cultural backlash – explains why support for these movements is greater now than it was thirty years ago. As (Inglehart & Norris, 2017, p. 443) point out, ‘insecurity encourages an authoritarian xenophobic reaction in which people close ranks behind strong leaders, with strong in-group solidarity, rejection of outsiders, and rigid conformity to group norms’. The idea that heightened economic insecurity catalyzes processes of cultural backlash leads them to hypothesize that ‘the groundswell of support for populists ultimately reflects economic insecurity, but its immediate cause is a backlash against rapid cultural changes’ (Inglehart & Norris, 2017, p. 452). To summarize, it can be expected that import-exposed individuals will exhibit more culturally conservative attitudes and choose candidates who target out-groups, such as ethnic, racial, religious and sexual minorities. Figure 1 offers a visualization of the two mechanisms theorized in this section.

The ‘Silent Revolution in Reverse’ hypothesis may have analytical leverage in explaining how import competition affects voting behavior in Western democracies





**Figure 1.** Alternative causal pathways linking trade shocks and candidate selection.

for at least two reasons. First, the distributional consequences of trade integration are not easily grasped by the majority of population. As shown by Hainmueller and Hiscox (2006) and Rho and Tomz (2017), opinions on trade policy are often not consistent with the predictions of standard economic models. Given the complexity of the import competition phenomenon, this may be true also for individuals that are more directly exposed to trade shocks. If the relationship between material self-interest and trade preferences is weak, it seems unreasonable that individuals living in import-exposed areas would choose their most preferred candidate based on her economic policy stance.

Second, localized economic shocks from import competition may fuel scapegoating behavior, thus resulting in ‘cultural backlash’. Research in political science and sociology has already highlighted how economic adversity catalyzes scapegoating. Racial prejudice and negative attitudes towards immigrants have been often linked to individual (e.g. Burns & Gimpel, 2000; Citrin et al., 1997) and aggregate economic conditions (e.g. Golder, 2003; Jackman & Volpert, 1996; Quillian, 1995; Semyonov et al., 2006). Moreover, research on ethnic collective action theorizes that increasing resource competition triggers political mobilization along ethnic lines (e.g. Hechter et al., 1982; Olzak, 1992). This is also consistent with the evidence provided by recent research on the association between populist platforms and a broad range of non-trade-related economic shocks, such as automation (e.g. Dal Bó et al., 2019; Anelli et al., 2019), austerity (e.g. Fetzer, 2019), layoff notices (e.g. Dehdari, 2020) and income losses (Gidron & Mijis, 2019).

What, if anything, makes the China shock unique? Different from cyclical fluctuations in unemployment, Chinese import competition triggered sizeable general equilibrium effects in the US. Autor et al. (2013a, 2013b) find that increased import exposure causes negative local demand spillovers that reduce low-skilled employment in non-manufacturing industries. This evidence is corroborated by Acemoglu et al. (2016), who investigate whether negative shocks to trade-exposed industries also affect sheltered sectors. They find that lower demand for non-traded goods



and services amplifies the employment effect of import penetration in local economies. Despite partial reallocation, this effect is negative overall.

Moreover, Autor et al. (2013a) show that the trade-induced increase in non-manufacturing labor supply exerts downward pressures on wages in sheltered industries. Low labor mobility aggravates this phenomenon (Autor et al., 2014), thereby preventing national wage adjustment. Thus, wage stagnation over the past two decades has concentrated in sheltered industries in areas subject to Chinese import competition. As a result, highly import-exposed regions exhibit lower marriage and fertility rates (Autor et al., 2019), higher levels of workers' mental distress (Colantone et al., 2019) and higher mortality rates due to drug overdoses, alcohol abuse, and suicide (Pierce & Schott, 2016; Case & Deaton, 2017). In sum, there is much evidence supporting the notion that competitive pressures due to the expansion of Chinese manufacturing pose an across-the-board threat to import-exposed communities.

To be sure, trade-induced economic insecurity may shape cultural attitudes and favor right-wing candidates for reasons that remain closely connected with the economic views of trade-exposed individuals. Another plausible explanation, more consistent with a purely economic perspective, is that economic insecurity increases fears of competition with immigrants and ethnic and racial out-groups for access to employment, higher wages or welfare services. Therefore, the presence of a significant relationship between import exposure and negative attitudes towards ethnic and racial minorities is not in itself sufficient to reject the null hypothesis of economic attitudes driving the association between trade shocks and candidate selection.

However, the test of the 'Silent Revolution in Reverse' hypothesis can be made more systematic by considering a broader range of attitudes towards in-groups and out-groups, including religious (e.g. Muslims) and sexual minorities (e.g. gay men and lesbians). While economic concerns may mediate the relationship between economic insecurity and attitudes towards immigrants, it seems plausible to assume that fears of economic competition are orthogonal to attitudes towards religious and sexual in-groups and out-groups. Furthermore, if the relationship between trade-induced insecurity and candidate selection is driven by welfare chauvinism, we would expect to observe demands for welfare assistance and social security to be affected by import exposure.

To strengthen the validity of our argument, we draw inspiration from recent research efforts aimed at assessing the heterogeneous effects of economic distress in shaping political preferences and behavior across different racial sub-groups of the electorate (e.g. Autor et al., 2020; Green & McElwee, 2019). We follow the argument proposed by Baccini and Weymouth (2021). Building on insights from social identity theory (e.g. Tajfel, 1981), they contend that deindustrialization may trigger an acute political response among white voters due to the threat that economic restructuring poses to notions of dominant group status that are central to white identity.

Similarly, gender differences may play a role in the way trade shocks affect individual attitudes. Manufacturing, including highly trade-exposed industries, is a notoriously gendered sector, in which men account for the great majority of employment (Baccini & Weymouth, 2021, p. 7). Since gender influences relations of power and hierarchy in the formation of the working class (Baron, 1991), gender-based differences may be an important factor affecting cultural responses to trade shocks.

Based on our argument about trade-induced cultural grievances, we expect the effects of import penetration on attitudes towards racial, religious and sexual out-groups and in-groups to vary across different social groups holding different levels of relative power and status. In particular, we hypothesize that the effects of import competition on cultural attitudes are concentrated among or driven by non-Hispanic white and male voters. This is because, similar to what is argued by (Baccini & Weymouth, 2021, p. 7), the negative economic and social consequences of trade shocks may affect the settled expectations of white men in import-exposed areas, and challenge their privileged status as the dominant group.

Before investigating whether attitudes towards in-groups and out-groups are affected by import competition, the next section discusses the data and methods employed to address our research question.

## Data and methods

### *Exposure to import competition*

Our main independent variable is the index of import competition exposure first introduced by Autor et al. (2013a). We collect county-level data on employment in 4-digit SIC manufacturing industries from County Business Patterns (CBP). Since county-industry employment levels are often non-disclosed for confidentiality reasons, we use the publicly available fixed-point algorithm developed by David Dorn to impute missing values.

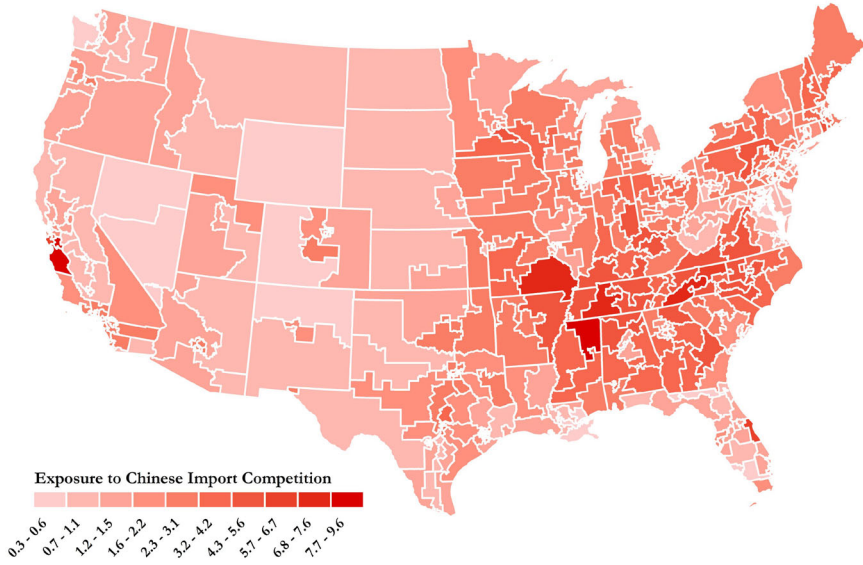
We draw international trade data from UN Comtrade. In particular, we collect data on Chinese imports at the HS-6 product level for years 1991 through 2016. In order to match HS-6 codes from Comtrade to 4-digit SIC codes from CBP, we replicate the methodology developed by Autor et al. (2013a) and group manufacturing industries to 397 SIC87dd identifiers. In addition, we draw data on the value of shipments by 4-digit SIC industry from the NBER-CES Manufacturing Industry Database.

Using these data, we construct an index of exposure to import competition by US commuting zone, a widely used geographical unit that proxies the boundaries of a local labor market (Tolbert & Sizer, 1996). This index is computed as follows:

$$\Delta IP_c = \sum_k \frac{L_{c,k,91}}{L_{c,91}} \frac{\Delta M_{CH-US,k,91-\tau}}{Y_{k,91} + M_{k,91} - X_{k,91}}$$

where  $c$  denotes US commuting zones,  $k$  denotes manufacturing industries,  $L$  denotes employment,  $\Delta M_{CH-US,k,91-\tau}$  is the change in US price-constant imports from China in sector  $k$  from 1991 to end year  $\tau \in \{2008, 2012, 2016\}$ , and  $Y_{k,1991} + M_{k,1991} - X_{k,1991}$  is beginning-of-period industry absorption, i.e. the value of shipments plus net imports.<sup>2</sup> We choose 1991 as the base year to capture most of the variation in Chinese import competition after World War II, in particular after China's access to the World Trade Organization in 2001. This index combines local industry composition in the base year with the variation in national imports from China during a given period. Figure 2 shows exposure to Chinese import competition by congressional district, as measured by  $\Delta IP_d$ , from 1991 to 2016.

Our goal is to estimate the effect of Chinese import competition on individual attitudes towards in-groups and out-groups in the US. However, realized US



**Figure 2.** Congressional district exposure to Chinese import competition (1991–2016).

imports from China are likely to be correlated with local demand shocks that also affect the outcome variables. In order to isolate the effect driven by the increase in Chinese manufacturing supply since the early 90s, we follow Autor et al. (2013a) and adopt an instrumental-variables approach. Thus, we define the following instrumental variable:

$$\Delta IP_c^{IV} = \sum_k \frac{L_{c,k,91}}{L_{c,91}} \frac{\Delta M_{CH-HI,k,91-\tau}}{Y_{k,88} + M_{k,88} - X_{k,88}}$$

where  $\Delta M_{CH-HI,k,91-\tau}$  denotes the sectoral variation in imports from China for a group of eight high-income economies whose trade patterns are comparable to the US.<sup>3</sup> In fact, these countries experienced substantial growth in import flows from China over the last quarter century, thus ensuring instrument relevance. A key assumption for instrument exogeneity to hold is that shifts in demand for Chinese products in the US are uncorrelated with shifts in demand for Chinese products in the eight economies above. Plausibly, an unprecedented expansion in the Chinese manufacturing capacity caused a disproportionate increase in exports towards advanced economies in Western Europe and America.

We combine commuting zone exposure levels to obtain an equivalent measure by congressional district. While commuting zones are clusters of counties, congressional districts often have irregular boundaries and span multiple local labor markets. Thus, we follow Feigenbaum and Hall (2015) and construct congressional district exposure as an average of commuting zone import penetration, weighted by the share of district land area that belongs to each commuting zone.

$$\Delta IP_d = \sum_c \frac{A_{d(c)}}{A_d} \Delta IP_c$$

where  $A_d$  is the total land area of congressional district  $d$ , and  $A_{d(c)}$  is the land area of district  $d$  that belongs to commuting zone  $c$ .

### ***American national election studies (ANES)***

We collect data on US voting and political attitudes from the 2008–2016 Time Series American National Election Studies (ANES), three extensive surveys covering a sample of 12,342 individuals overall. Each of these repeated cross sections was conducted around November presidential elections, spanning four months from early September through early January. ANES Time Series surveys are representative of the US population at the national level. We use data from ANES surveys to construct dependent variables and a rich set of demographic controls, including gender, age, three race dummies, a dummy for Hispanics, and three education dummies (less than high school diploma, high school diploma, and at least bachelor's degree).

First, in Section 'Results' we analyze attitudes towards in-groups and out-groups. We perform our analysis primarily relying on a set of variables called 'feeling thermometers'. In this case, each respondent is asked to provide a score in the 0–100 range to express individual appreciation towards specific social groups. Other survey questions allow for three or more answers, such as 'Strongly agree', 'Agree somewhat', 'Neither agree nor disagree', 'Disagree somewhat', and 'Strongly disagree'. Because our main instrumental-variables specification includes fixed effects, we dichotomize these dependent variables rather than estimate IV-ordered probit models. Specifically, we create dummy variables that take value 1 if a respondent exhibits a negative attitude towards a given group by either disagreeing or agreeing with a statement in the survey. For example, a dummy equals 1 if a respondent disagrees or strongly disagrees with the statement 'Immigrants are generally good for America's economy'. Also, another dummy takes value 1 if a respondent agrees or strongly agrees with the statement 'Immigrants increase crime rates in the US'. In Section 'Results', we also investigate the extent to which import penetration affects attitudes towards international trade and redistribution with a set of dependent variables constructed in the same manner.

Second, in Section 'Heterogeneity Tests' we perform heterogeneity tests to assess which individuals are more likely to drive the effects uncovered in Section 'Results'. First, we report estimates by individual race/ethnicity, splitting the sample of respondents into groups of non-Hispanic whites, non-Hispanic Blacks, Hispanics and Asians. Second, we report estimates by individual gender identity, splitting the sample of respondents into a group of males and a group of females.

In the Appendix, we consider the individual vote cast in presidential elections. Within each survey, we create two dummy variables taking value 1 if a respondent chose the Republican or the Democratic candidate, respectively. We set both dummies to 0 if a respondent abstained or chose a third-party candidate, and we drop individuals who either refused to answer or stated 'Don't know'. In the Appendix, we also investigate the extent to which attitudes towards in-groups and out-groups mediate the electoral effect of import competition. Our main outcome variable is a dummy variable indicating individual intention to vote for the Republican presidential candidate in the election.

Tables A1 and A2 in Online Appendix A report summary statistics for, respectively, discrete and continuous variables from ANES.

### ***Geographic controls***

The instrumental variable employed in this article constitutes an example of a Bartik instrument. As discussed by Goldsmith-Pinkham et al. (2020), the

assumptions under which Bartik instruments provide a valid identification strategy are quite stringent. The central identification concern is that the industry shares of the instrument predict outcome variables through channels others than those posited by the researcher. Thus, in our setting, the exclusion restriction would be violated if the sectoral composition of congressional districts affects attitudes towards in-groups and out-groups *independent* of the shock produced by the inflows of Chinese imports to the US after China's accession to the World Trade Organization in 2001.

As the structure of the local economy of the areas in which the respondents reside may shape their political, cultural and economic attitudes, it is hard to be sure that pre-treatment differences in industry shares are orthogonal to the outcome variables we consider in this article. To mitigate some of these identification concerns, we construct beginning-of-period regional controls to account for potential confounding factors.

We consider three potential alternative channels through which the district-level sectoral composition of the economy may influence the attitudes considered in this article. First, rather than being shaped by import penetration, individual attitudes may be conditioned by the relative importance of the manufacturing sector as whole (i.e. not just of industries exposed to trade with China) in the local economy. To address this concern, we draw employment data from the 1990 edition of CBP and compute the employment share in manufacturing by congressional district.

Second, it is possible that areas that are more exposed to import competition display a specific local racial composition, presenting a higher share of non-Hispanic white residents and/or a higher share of immigrants before the exposure to the treatment. To address this concern, we collect demographic data from the 1990 US Decennial Census and construct the share of non-Hispanic white and foreign born population in each district.

Third, areas that are more exposed to import penetration might present a higher pre-treatment inclination towards conservative candidates and values. To control for this, we draw election data from the CQ Voting and Elections Collection and compute the two-party Republican vote share by district in the 1992 presidential election.

Finally, before presenting the results it is important to observe that the use of individual-level survey data allows us to study how the attitudes of each ANES respondent are affected by our treatment variable, namely district-level import exposure. However, there is a mismatch between the level of the outcome and the level of the treatment, inasmuch as import exposure is measured on a relatively large geographic level (i.e. US congressional districts). This might generate issues of ecological fallacy, as inferences about individual attitudes are deduced from characteristics of the group to which those individuals belong. While other seminal contributions have relied on a similar research design (e.g. Colantone & Stanig, 2018a, 2018c), we acknowledge this limitation in our identification strategy, and suggest caution in the provision of a causal interpretation of the results.

## Results

The first part of our empirical analysis focuses on the relationship between district-level import penetration and attitudes towards specific racial, ethnic, religious and

sexual out-groups and in-groups. In our main specification, we stack ANES election surveys and estimate the following model:

$$S_{it} = \alpha + \beta \Delta IP_{d(i),t} + \mathbf{X}_{it}' \Gamma + \mathbf{G}_{d(i)}' \Lambda + \delta_t + \varepsilon_{it} \quad (1)$$

where  $\Delta IP_{d(i),t}$ , the change in Chinese import penetration in congressional district  $d$  from 1991 to year  $t \in \{2008, 2012, 2016\}$ , is instrumented with  $\Delta IP_{d(i),t}^{IV}$ , a similar measure that replaces US imports with Chinese manufacturing exports to 8 high-income countries.  $\mathbf{X}_{it}$  is a vector of demographic controls including gender, age, education, race, and ethnicity.  $\mathbf{G}_{d(i)}$  is a vector of geographic controls that comprise the 1990 district share of white and foreign born population, the 1990 district share of employment in the manufacturing sector, as well as the two-party state Republican vote share in the 1992 presidential election.  $\delta_t$  indicates election year fixed effects.  $S_{it}$  denotes alternative outcome variables, capturing attitudes towards in-groups/out-groups.  $S_{it}$  can take the form of a dummy variable or a continuous variable, therefore implying a linear probability model or a linear regression model, respectively. In all models, standard errors are clustered at the district-year level and observations are weighted by ANES sampling weights.

Table 1 reports estimates from four specifications. Respondents express their feelings towards Hispanics, African Americans, Asians, and Whites by choosing a score in the 0-100 range. These scores are used as dependent variables in panels A, B, C, and D, respectively. The baseline OLS estimate in column (1) implies that regional exposure is a strong predictor of negative attitudes towards Hispanics and Asians and of positive feelings towards Whites, while sentiments towards African Americans are weakly affected and the effect is imprecisely estimated.

Consistent with Autor et al. (2020), in column (2), the two-stage least squares estimate is larger in magnitude, reflecting the notion that unobserved demand shocks may mitigate the supply-driven effect of increasing Chinese import competition. For all three TSLS specifications in columns (2), (3) and (4), we report first-stage results in Table A3 of Online Appendix B, taking feelings towards Hispanics as a reference dependent variable.

In column (3), demographic controls attenuate the magnitude of the coefficients, which remain statistically significant for Hispanics, Asians, and Whites. In Column (4), we add geographic controls to address concerns about potential district-level confounding factors. Thus, we condition on the 1990 district share of (a) white residents, (b) foreign born population, (c) employment in the manufacturing sector, and (d) the district-level two-party Republican vote share in the 1992 presidential election.

The introduction of district-level controls partly alters the magnitude and statistical significance of the estimated coefficients. First, in the model estimating the effects of district-level exposure to import competition on sentiments towards Hispanics, the estimated coefficient has smaller magnitude, but remains statistically significant at the 5% level. Second, the introduction of geographic controls about sectoral employment, local racial composition and pre-period voting alters the magnitude and significance of the estimated coefficient in Panel B, which considers the effect of import competition on sentiment towards Asians. The magnitude of the coefficient decreases and the coefficient loses statistical significance. Finally, introducing geographic controls results in greater magnitude and higher statistical significance of the estimated coefficient in Panel D, which shows the results of the model considering sentiments towards Whites as a dependent variable.

**Table 1.** Import exposure and sentiments towards ethnic and racial minorities.

	(1) OLS	(2) TSLS	(3) TSLS	(4) TSLS
<i>Panel A: Dep. Var.: Feeling Thermometer – Hispanics</i>				
$\Delta IP$	-1.32*** (0.33)	-1.57*** (0.36)	-1.14*** (0.32)	-0.73** (0.36)
Observations	10,922	10,922	10,633	10,633
$R^2$	0.013	0.013	0.092	0.097
<i>Panel B: Dep. Var.: Feeling Thermometer – African Americans</i>				
$\Delta IP$	-0.20 (0.26)	-0.21 (0.29)	-0.07 (0.25)	0.02 (0.31)
Observations	10,926	10,926	10,637	10,637
$R^2$	0.009	0.009	0.109	0.110
<i>Panel C: Dep. Var.: Feeling Thermometer – Asians</i>				
$\Delta IP$	-0.67** (0.29)	-0.82** (0.32)	-0.74*** (0.29)	-0.29 (0.34)
Observations	10,880	10,880	10,595	10,595
$R^2$	0.009	0.009	0.039	0.043
<i>Panel D: Dep. Var.: Feeling Thermometer – Whites</i>				
$\Delta IP$	0.47** (0.23)	0.57** (0.25)	0.57** (0.24)	0.85*** (0.30)
Observations	10,928	10,928	10,639	10,639
$R^2$	0.002	0.002	0.022	0.024
Demo Controls			✓	✓
Geo Controls				✓

*Notes.* This table presents the estimated effects of district-level exposure to import competition on sentiments towards Hispanics, African Americans, Asians, and Whites. All models allow for election year fixed effects. Observations are weighted by ANES sampling weights. Column (1) reports OLS estimates. In columns (2) through (4),  $\Delta IP_d$  is instrumented with  $\Delta IP_d^V$ , a similar measure that replaces US imports from China with Chinese manufacturing exports to 8 high-income countries. The model in column (3) controls for gender, age, education, race, and ethnicity. The model in column (4) controls for the 1990 district share of white and foreign born population, the 1990 district share of manufacturing employment, as well as the district-level two-party Republican vote share in the 1992 presidential election. Standard errors clustered at the district-year level are presented in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Thus, the results shown in Table 1 reveal the presence of significant effects of import penetration on attitudes towards racial and ethnic groups. Higher import exposure is associated with more positive attitudes towards racial and ethnic in-groups (i.e. Whites) and more negative attitudes towards out-groups (i.e. Hispanics). The results shown in Table 1 are consistent with the view that ‘recent’ minorities are more likely to be the target of prejudice, discrimination, political opposition, and violence in both the US and Europe (Pettigrew, 1998). In fact, the number of Hispanics, and to a lesser extent of Asians, as a share of the US population has grown disproportionately in the last quarter century, while the fraction of African Americans has been roughly stable.

One may argue that attitudes towards ‘recent’ minorities may be negatively affected by the perception of increased competition in the labor market, higher crime rates, or any other source of insecurity within import-exposed communities. Stemming from the argument that mainly recent minorities are targeted, a natural follow-up question is whether regional exposure affects sentiments towards immigrants.

In Table A4 in Online Appendix C, we report estimates from specifications that explore these attitudes. In panel A, the dependent variable is a dummy that takes value 1 if a respondent believes that immigration levels in the US should decrease



a lot or decrease a little. In panel B, the dependent variable is a dummy that takes value 1 if a respondent thinks that immigration will take away jobs in the US. Finally, panel C reports estimates from a model in which feelings towards illegal immigrants are regressed onto our usual set of explanatory variables.

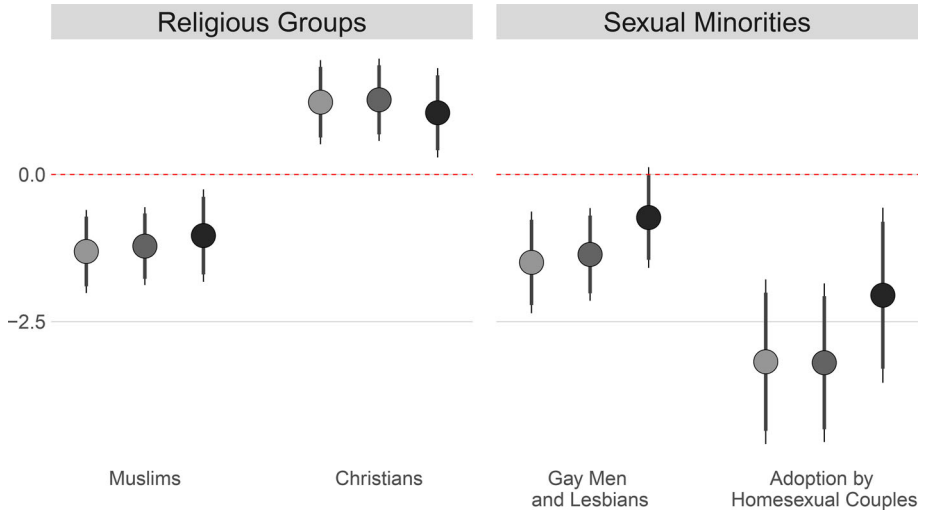
Overall, the evidence of a relationship between import penetration and attitudes towards immigrants is weaker than for attitudes towards ethnic and racial out-groups and in-groups. Exposure to import competition is estimated to increase beliefs that immigration levels should decrease and that immigrants will take away jobs in the US, as well as it is negatively associated with sentiments towards illegal immigrants. However, point estimates are weaker in magnitude as more controls are added, and all coefficients lose statistical significance when the geographic controls are included.

Our results imply that, while individuals in trade-exposed areas exhibit greater likelihood to be against immigrants, this phenomenon can not be systematically isolated from broader trends in deindustrialization, proxied by the 1990 employment share in manufacturing, and from possibly pre-existent opinions about immigration, proxied by the district-level support for Republicans in 1992.<sup>4</sup> The divergence between the results of Table 1 and those of Table A4 might suggest that, if there is something specific about the effect of trade shocks in the US, this is more clearly ascribable to shifting cultural values than to concerns about labor market competition with immigrants.

To test the hypothesis of trade-induced cultural backlash more directly, we proceed as follows. While attitudes towards immigrants and fast-growing ethnic minorities may be driven by labor market concerns, we consider a set of attitudes that are more plausibly orthogonal to individual views about the economy. In particular, we take into account sentiments towards religious and sexual out-groups and in-groups, which can provide us with more direct evidence that trade-induced regional shocks trigger a phenomenon of pure cultural backlash.<sup>5</sup>

First, we estimate the effect of import competition on individual feelings towards an easily identifiable religious minority (Muslims) as well as towards Christians, i.e. the most prominent religious in-group in the US. Second, we assess the relationship between import exposure and feelings towards sexual minorities, focusing on gay men and lesbians, as well as on respondents' support for the rights of these minorities regarding the wedge issue of child adoption by homosexual couples.

Figure 3 provides a visualization of the results in graphical form. It shows the estimates for our usual TSLS specifications using four dependent variables. In the left-hand panel, the two dependent variables are appreciation for, respectively, Muslims and Christians. In the right-hand panel, the dependent variables are appreciation for gay men and lesbians and support for children adoption by homosexual couples. The left-most (lightest) point of each triplet are estimates from TSLS models with no controls; middle points are estimates from TSLS models with individual-level controls; right-most (darkest) points are estimates from TSLS models including the full set of controls. 95% confidence intervals are indicated with thin bars, whereas thick bars indicate 90% intervals. The complete results from the estimation of all four models are presented in Tables A5 and A6 in Online Appendix D.

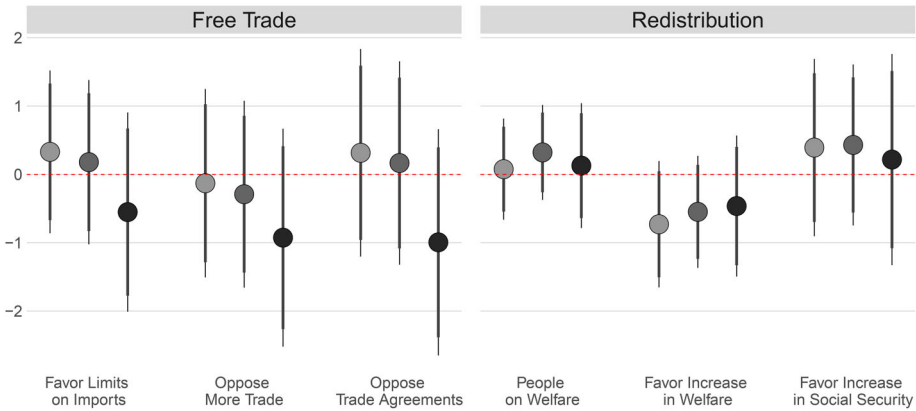


**Figure 3.** Import exposure and attitudes towards religious groups and sexual minorities.  
Notes: This coefficient plot illustrates the estimated effects of district-level exposure to import competition on sentiments towards religious out-groups and in-groups in the left-hand panel, and opinions about sexual minorities in the right-hand panel. The leftmost (lightest) points of each triplet are TSLS estimates from models with no controls; middle points are TSLS estimates from models controlling for gender, age, education, race, and ethnicity; rightmost (darkest) points are TSLS estimates from models including the full set of controls used in Table 1. All models allow for election year fixed effects. Observations are weighted by ANES sampling weights. Standard errors are clustered at the district-year level. 95% confidence intervals are indicated with thin bars, while 90% intervals are indicated with thick bars.

The estimates are statistically significant at conventional levels in all model specifications and have the expected negative sign for attitudes towards out-groups and positive sign for feelings towards in-groups. Specifically, individuals living in import-exposed districts exhibit more positive attitudes towards Christians (religious in-group) and express less favorable opinions about Muslims (religious out-group), as well as negative feelings towards gay men and lesbians and their right to adopt (sexual out-group).<sup>6</sup>

Next, we test alternative channels of theoretical interest by considering whether attitudes towards international trade and redistribution are affected by localized import shocks. One would expect import-exposed individuals to oppose stances in favor of increased openness to international trade. Moreover, according to the ‘compensation hypothesis’, one may expect import-exposed individuals to express demands for social security policies and welfare assistance.

Figure 4 presents a visualization of the estimated effects of import penetration on three outcome variables that capture opinions about trade, and three dependent variables that capture opinions about redistribution. Again, the figure shows the estimates from the usual TSLS specifications. In the left-hand panel, the dependent variables are three dummy variables given by the expression of, respectively, (1) positive attitudes towards limits on foreign imports, (2) negative opinions about whether increasing trade with other countries good for US, and (3) negative opinions about trade agreements with other countries. In the right-hand panel, the three dependent variables are (1) feelings towards people on welfare, as well as two dummy variables given by positive opinions regarding, respectively, (2) the expansion of federal budget spending for welfare programs and (3) the expansion of



**Figure 4.** Import exposure and attitudes towards trade and redistribution.

Notes: This coefficient plot illustrates the estimated effects of district-level exposure to import competition on sentiments towards international trade in the left-hand panel, and opinions about redistribution in the right-hand panel. The leftmost (lightest) points of each triplet are TSLS estimates from models with no controls; middle points are TSLS estimates from models controlling for gender, age, education, race, and ethnicity; rightmost (darkest) points are TSLS estimates from models including the full set of controls used in Table 1. All models allow for election year fixed effects. Observations are weighted by ANES sampling weights. Standard errors are clustered at the district-year level. 95% confidence intervals are indicated with thin bars, while 90% intervals are indicated with thick bars.

federal budget spending for social security. As in Figure 3, the triplets represent estimates from model specifications with different sets of controls, from the least conservative (lightest) to the most conservative (darkest). The complete results from the estimation of all four models are presented in Tables A7 and A8 in Online Appendix E.

In both panels and all model specifications, coefficients are imprecisely estimated. Moreover, point estimates have negative sign for opposition to more trade and support for more welfare spending, which goes counter the expectations generated by a standard OEP framework and the ‘compensation hypothesis’. This suggests that import exposure does not significantly affect attitudes towards international trade and redistribution. The results are consistent with the view that individuals have difficulty identifying sources of economic adversity as well as the distributional implications of free trade (Rho & Tomz, 2017).

Taken together, these results point to a non-negligible role played by trade-induced economic hardship in triggering cultural backlash. In Online Appendix F, consistent with previous research based on county-level data (Autor et al., 2020), we provide evidence of a positive relationship between local import competition and individual-level support for Republicans. In the next section, we conduct heterogeneity tests to identify the individuals among whom this rightward shift in cultural values is concentrated.

## Heterogeneity tests

This section explores the presence of heterogeneous effects of local exposure to import competition on individual attitudes towards in-groups and out-groups. We show the point estimates of our import penetration variable across different groups.

Our split-sample analysis considers the six dependent variables that have been shown to be significantly affected by trade exposure in the most conservative specification employed in the previous section. These are two variables about feelings towards ethnic and racial out-groups and in-groups (i.e. Hispanics and Whites), two variables regarding attitudes towards religious groups (i.e. Muslims and Christians), and two variables related to opinions about sexual minorities (i.e. feeling towards gay men and lesbians and support for children adoption by homosexual couples).

First, we consider individual race and ethnicity. We split the sample into four groups. The first group consists of non-Hispanic white respondents, for a total of 7,583 individuals, namely 61.4% of our (unweighted) sample. The second group contains non-Hispanic black respondents, consisting of 1,973 individuals (16% of the sample). The third and fourth groups are given by, respectively, Hispanic ( $n = 1,967$ , 16% of the sample) and Asian ( $n = 756$ , 6% of the sample) respondents. Table 2 shows the estimated effects of local exposure on individual attitudes by different racial and ethnic groups from the most conservative TSLS specification employed in the previous section, namely including the full set of controls. The left-most column of the table shows the outcome variable considered in each of the model of the split-sample analysis. Columns (1), (2), (3) and (4) display the estimated coefficients of the import exposure variable for, respectively, non-Hispanic whites, non-Hispanic blacks, Hispanics and Asian Americans.

The table indicates that the results of the previous section are primarily driven by non-Hispanic white respondents. As shown by column (1), with the only exception of the model considering feelings towards Hispanics, the point estimates are precisely estimated and present the expected sign when taking into account only non-Hispanic whites. The picture is different in the other groups. In no case is the coefficient of the import exposure variable precisely estimated when restricting the sample to black and Hispanic respondents.

When reducing the sample to Asian Americans only, import exposure is estimated to significantly and negatively affect feelings towards Hispanics and Muslims. However, for the other outcome variables, the estimates are not statistically significant and go in the opposite direction compared to those of non-Hispanic white respondents. Thus, these results provide evidence that a rightward shift in cultural values is clearly detectable only among non-Hispanic white respondents. We take these results as broadly consistent with previous studies showing that group-based ethnic and racial identities help explain political reactions to economic shocks (e.g. Autor et al., 2020; Baccini & Weymouth, 2021).

Second, we explore the presence of heterogeneous effects by individual gender identity. We now split the sample into two groups: (1) male respondents, (2) female respondents.<sup>7</sup> The first group has 6,547 observations, representing 53% of our (unweighted) sample. Table 3 presents the results of our analysis. Column (1) shows the coefficients of the import exposure variable from models estimated for male respondents, while column (2) exhibits the estimated coefficients for female respondents.

Consistent with our expectations, overall the cultural attitudes of male respondents are more sensitive to import penetration. All the coefficients in column (1) are statistically significant at conventional levels and have the expected sign. As for female respondents, the estimated coefficients are weakly statistically significant

**Table 2.** Heterogeneity by individual race and ethnicity.

Outcome variable	Racial/Ethnic group of respondent			
	(1) White Non-Hispanic	(2) Black Non-Hispanic	(3) Hispanic	(4) Asian
Feeling thermometer: Hispanics	-0.539 (0.429)	-0.688 (1.107)	-0.926 (1.097)	-3.792** (1.546)
Feeling thermometer: White	0.698** (0.338)	1.604 (1.122)	1.161 (0.895)	-0.593 (1.195)
Feeling thermometer: Muslims	-1.237*** (0.458)	-0.167 (1.294)	0.160 (0.863)	-3.375** (1.608)
Feeling thermometer: Christians	1.377*** (0.447)	0.556 (1.095)	0.339 (0.884)	-1.849 (1.428)
Feeling thermometer: Gay men and lesbians	-1.439*** (0.516)	1.944 (1.305)	0.927 (0.985)	0.813 (1.822)
Gay and lesbian Couples allowed to adopt = 1	-0.028*** (0.009)	-0.005 (0.022)	-0.007 (0.014)	0.046 (0.028)
Sample size	7,583	1,973	1,957	756

Notes. This table presents the estimated effects of district-level exposure to import competition on attitudes towards racial, ethnic, religious and sexual in-groups and out-groups by individual race and ethnicity. Observations are weighted by ANES sampling weights. All models allow for election year fixed effects and control for gender, age, education, race, ethnicity, the 1990 district share of white and foreign born population, the 1990 district share of manufacturing employment, as well as the district-level two-party Republican vote share in the 1992 presidential election. Standard errors clustered at the district-year level are presented in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

**Table 3.** Heterogeneity by individual gender identity.

Outcome variable	Gender identity of respondent	
	(1) Male	(2) Female
Feeling thermometer: Hispanics	-1.199** (0.533)	-0.268 (0.473)
Feeling thermometer: White	0.824* (0.440)	0.829* (0.460)
Feeling thermometer: Muslims	-1.418*** (0.441)	-0.642 (0.609)
Feeling thermometer: Christians	0.942* (0.561)	1.088** (0.483)
Feeling thermometer: Gay men and lesbians	-1.485** (0.577)	0.071 (0.585)
Gay and lesbian couples allowed to adopt = 1	-0.023** (0.009)	-0.018* (0.010)
Sample size	6,547	5,743

Notes. This table presents the estimated effects of district-level exposure to import competition on attitudes towards racial, ethnic, religious and sexual in-groups and out-groups by gender identity. Observations are weighted by ANES sampling weights. All models allow for election year fixed effects and control for gender, age, education, race, ethnicity, the 1990 district share of white and foreign born population, the 1990 district share of manufacturing employment, as well as the district-level two-party Republican vote share in the 1992 presidential election. Standard errors clustered at the district-year level are presented in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

when considering feelings towards Whites, Christians and opinions about child adoption by homosexual couples as dependent variables. In all the other cases, the coefficients are imprecisely estimated. Furthermore, in the model regressing feelings towards gay men and lesbians onto import exposure, the estimated coefficient has a positive sign, going counter to the results shown in the previous section.

Thus, while the rightward shift in cultural attitudes weakly extends to non-male respondents, these results confirm our expectation that the cultural attitudes of male respondents are more strongly shaped by import exposure.

In Online Appendix G, we show the estimated effects of local exposure on individual attitudes by election. Our results suggest that the nativist response to localized import shocks is not specific to the 2016 election, and the estimates are qualitatively consistent throughout the sample period.

To close the circle, in Online Appendix H, we assess whether the relationship between import competition and individual voting behavior is mediated by attitudes towards in-groups and out-groups. The results from the mediation analysis provide suggestive evidence that cultural attitudes channeled the effect of import exposure and resulted in greater likelihood to vote for Republicans in the 2008-16 presidential elections.

## Conclusion

This article has attempted to reconcile the ‘economics’ and ‘cultural backlash’ perspectives on the rise of right-wing populism by investigating the mechanism linking localized trade shocks from Chinese import competition to the success of conservative candidates in the US. Building on the ‘Silent Revolution in Reverse’ framework (Inglehart, 2018; Inglehart & Norris, 2017), we hypothesized that trade-induced economic insecurity catalyzes cultural backlash and triggers stronger in-group solidarity and rejection of outsiders.

We have explored the relevance of our argument in the 2008-2016 US presidential elections and have provided evidence that local competition with Chinese imports shapes cultural attitudes towards ethnic, racial, religious and sexual groups. Individuals living in import-exposed areas are more likely to take polarized stances in favor of racial and religious in-groups (Whites and Christians) and against ethnic, religious and sexual minorities (Hispanics, Muslims, gay men and lesbians). Conversely, local import exposure does not significantly affect attitudes towards trade integration and redistribution. The effects of import competition on cultural attitudes are primarily concentrated among non-Hispanic white and male individuals.

Overall, our findings are consistent with the evidence offered by parallel studies showing that trade-related economic threats push demands for conservative norms and cultural conformity among import-exposed individuals in Europe and the US (e.g. Ballard-Rosa et al., 2021; Bisbee et al., 2020; Colantone & Stanig, 2018b). Adding to these studies, we have shown that the effects of trade-induced cultural backlash extend to a broad range of social in-groups and out-groups.

These results shed new light on the ties that bind import competition and voting behavior in the US. Our analysis suggests that candidates may have an incentive to compete electorally by targeting out-groups in import-exposed communities. While we cannot conclude whether candidates accommodate pre-existing political demands or fuel social resentment in import-exposed areas, an interesting avenue of research may be the examination of the effects of elite cues on attitudes towards targeted groups among import-exposed individuals.

## Notes

1. A notable exception is Che et al. (2016), who document that from 1992 to 2010 US counties exposed to tighter Chinese import competition experienced larger increases in vote shares for Democratic congressional candidates. However, Autor et al. (2020) notice that gerrymandering leaves many counties fractured across districts, which makes county vote shares a noisy predictor for who wins congressional elections, and that candidates within parties vary widely in their ideology, which makes congressional vote shares an imperfect indicator of voter ideological preferences.
2. Imports are deflated using the Personal Consumption Expenditure (PCE) index.
3. The eight high-income economies are Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland.
4. When these two control variables are not included, the coefficient of the import exposure variable is estimated to be statistically significant at the 5% level in Panel A and B of Table A4.
5. Interestingly, the share of Muslim population in the US has historically been lower than 1%, while Christians add up to roughly 80%. This makes it harder to argue that individuals living in high import penetration areas express negative attitudes towards Muslims because of competition for scarce resources, such as labor market opportunities. The same argument about the irrelevance of resource competition and labor market concerns can be made regarding opinions about sexual minorities.
6. In additional analyses, we also detect a significant positive effect of import exposure on attitudes towards “Christian fundamentalists”, namely an even more extreme type of religious in-group for which ANES feeling thermometers are available in the 2008–2016 waves. The results are available upon request.
7. Only in the 2016 survey, there are 52 individuals whose binary gender identity is not disclosed/available. These individuals are excluded from the analysis, but the results are virtually unchanged when adding them to one of the binary categories.

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