Economic Decline, Social Identity, and Authoritarian Values in the United States

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Why does the contemporary backlash against globalization in the United States have such a substantial authoritarian character? We argue that sustained economic decline has a negative effect on the social identity of historically dominant groups. These losses lead individuals to be more likely to want to enforce social norm conformity—that is, adopt more authoritarian values—as a way to preserve social status and this effect is greater the larger the size of other groups in the population. Central to our account is the expectation of an interactive effect of local economic and demographic conditions in forging value responses to economic decline. The article evaluates this argument using an original 2017 representative survey in the United States. We find that individuals living in relatively diverse regions facing more intense competition from Chinese imports have more authoritarian values. We further find that the greater effect of globalization-induced labor market decline in more diverse areas is also evident for vote choice in the 2016 Presidential election.

Por qu la reaccin contempornea contra la globalizacin en Estados Unidos tiene un carcter autoritario tan importante? Sostenemos que el declive econmico constante tiene un efecto negativo en la identidad social de los grupos histricamente dominantes. Estas prdidas hacen que las personas sean ms propensas a querer imponer la conformidad con las normas sociales, es decir, a adoptar valores ms autoritarios, como una manera de preservar el nivel social, y este efecto es mayor cuanto ms grande es el tamao de los dems grupos de la poblacin. La expectativa de un efecto interactivo de las condiciones econmicas y demogrficas locales en la creacin de respuestas de valor al declive econmico es fundamental para nuestro informe. El artculo evala este argumento utilizando una encuesta representativa original de 2017 en Estados Unidos. Descubrimos que las personas que viven en regiones relativamente diversas que se enfrentan a una competencia ms intensa de las importaciones chinas tienen ms valores autoritarios. Adems, descubrimos que el mayor efecto del declive del mercado laboral inducido por la globalizacin en las zonas ms diversas tambin es evidente en los votos de las elecciones presidenciales de 2016.

Pourquoi la raction contemporaine contre la mondialisation aux tats-Unis a-t-elle un caractre autoritaire aussi substantiel? Nous soutenons que le dclin conomique continu a un effet ngatif sur lidentit sociale des groupes historiquement dominants. Ces pertes mnent des individus davantage susceptibles de vouloir faire respecter la conformit aux normes sociales—cest–dire dadopter des valeurs plus autoritaires—comme moyen de prserver leur statut social, et plus la taille des autres groupes de la population est importante, plus cet effet est important. Llment central que nous prenons en compte est lattente dun effet interactif des conditions conomiques et dmographiques locales sur le faonnement de rponses de valeur au dclin conomique. Cet article value cet argument en sappuyant sur une enqute reprsentative originale mene en 2017 aux tats-Unis. Nous avons dcouvert que les individus vivant dans des rgions relativement diversifies confrontes une concurrence plus intense des importations chinoises avaient des valeurs plus autoritaires. Nous avons en outre constat que le dclin du march du travail induit par la mondialisation qui tait intervenu dans les rgions plus diversifies avait galement eu un effet plus important vident sur les choix de vote lors de llection prsidentielle de 2016.

Introduction

Donald Trump's victory in the 2016 US presidential race came as a surprise to students of politics. In the years since, two dominant narratives have arisen to account for Trump's unexpected electoral success. On the one hand, some scholars have emphasized the importance of racial animus, particularly among white Americans, as a crucial predictor of voter support for Trump. On the other hand, authors have proposed that Trump's victory hinged on the support of a "white working class" who felt left behind by economic

development, and in particular by globalization. Many works on both sides have pitted these accounts as theoretically (and empirically) zero sum: in essence, arguing that it must either be cultural values or economic hardship alone that account for the rise of Trump.[1]

In this article, we attempt to bridge the gap between these two accounts by considering social identity and material well-being as two interrelated components of an individual's overall utility. Rather than demanding that one facet must override the other, we instead consider the ways in which, in particular, sustained regional economic decline may influence the relative importance of social conformity by different groups. Informed by this view of individual utility, we investigate the interactive effects of local economic and demographic conditions on the values individuals hold; in so doing, we demonstrate that rather than thinking of the economic and social explanations for Trump's election as competing, they may more properly be thought of as complementary approaches to studying the same phenomenon at different stages of the causal chain.

More precisely, we interrogate in this article the consequences of international economic integration on a set of individual values often called the *authoritarian personality*, which we take to refer to an individual preference for social order and conformity and a belief that these outcomes should be achieved by force if necessary (Altemeyer 1981). Our interest in explaining the consequences of international economic exchange arises out of a narrative that voter support for Trump was motivated by a "backlash against globalization;" Trump's opposition to immigration and free trade are often touted as manifestations of this backlash. Yet, while some political reactions to rising globalization have taken predictable forms emphasizing less globalization and/or more generous policies to help those adversely affected by economic integration (Feigenbaum and Hall 2015; Che et al. 2016), many journalistic and academic treatments have emphasized that the backlash is also characterized by anger and has evolved into full blown authoritarian populism (see, e.g., Haynes (2016), Taub (2016), Rodrik (2018), and Milner (2021)). That is, it is not simply a case of wanting to reduce international trade, immigration, and foreign investment: many of these voters connect globalization to their feelings of being abandoned by a "corrupt elite" that has betrayed the "virtuous people" and of being threatened by the loss of status in an increasingly diverse country (Mudde and Kaltwasser 2017). Indeed, we believe that authoritarian values characterize the rhetoric and many of the proposed policy responses of the contemporary backlash against globalization in the United States.

This phenomenon is well illustrated in Donald Trump's 2016 presidential campaign. He campaigned on a platform for which free trade and immigration were not just bad policies but symptoms of betrayal and disorder and it was at least in part voters with authoritarian values who responded to these appeals. As motivation for this claim, figure 1 presents a smoothed locally weighted average of the proportion of respondents voting for Donald Trump in the 2016 US presidential election against a measure of authoritarian preferences described below in detail.[2] There exists an extremely strong bivariate association between electoral support for Trump in 2016 and individual authoritarian values.[3]
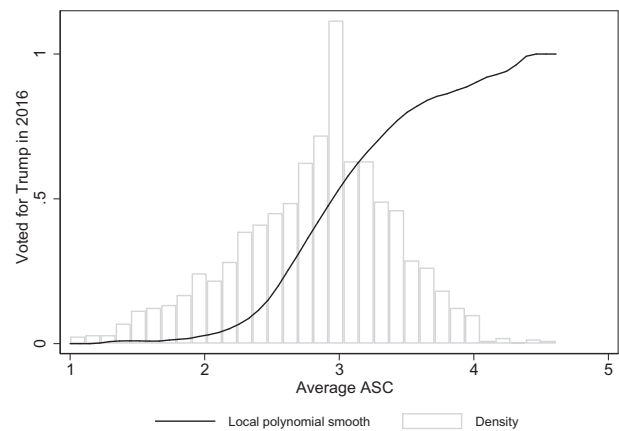

Figure 1. Authoritarian values and voting for Trump
Notes: Smoothed locally-weighted average of the proportion of respondents voting for Trump at the 2016 presidential election by authoritarian values as measured by the ASC scale.

The connection of globalization to support for Trump and populists like him around the world has been made in a number of recent papers. Che et al. (2016); Jensen, Quinn, and Weymouth (2017); Colantone and Stanig (2018b,c), Hays, Lim and Spoon (2019); Autor et al. (2020) and Milner (2021) all provide evidence of a correlation between some dimension of the impact of economic integration on local economic performance and support for populist political outcomes including Trump, more extreme left and right Congressional candidates, non-incumbents, Brexit, and far right parties in Europe. Many of these studies present compelling research designs that support a causal interpretation of these associations.

The obvious question is why globalization should lead to the support of these candidates. In the US context, Che et al. (2016) and others focus on the potential issue voting mechanism, suggesting that candidates like Trump are offering more protectionist policy which is what voters want; in these accounts, the rise of authoritarian sentiment and rhetoric is largely beside the point. Jensen, Quinn, and Weymouth (2017) argue that negative shocks from globalization function very similarly to all types of economic shocks, with poor economic performance being linked in the minds of voters to an anti-incumbent inclination. Yet this says little about why voters would respond in particular— among the set of available opposition messages—to the authoritarian kinds of rhetoric that have resonated with publics recently. Autor et al. (2020) focus on polarization and contend that voters respond to the negative consequences of globalization by supporting more extreme versions of whatever ideological leanings they previously held. We think all three of these mechanisms are plausible and contribute to our understanding of how globalization has affected American political behavior. That said, they do not really answer the question of why America's backlash against globalization has had such an authoritarian flavor (and that of other countries as well).

Without an obvious answer to this question, other journalists and scholars have taken a skeptical view that America's rising authoritarian populism has much to do with globalization or other economic sources (see, e.g., Inglehart and Norris (2016), Rothwell and Diego-Rosell (2016), and Mutz (2018)). Some of this skepticism is due to

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[1] Although see Gidron and Hall (2017, 2020) for recent work that considers the interplay between economic decline and cultural concerns arising from falling subjective social status.

[2] This is drawn from a nationally representative sample of adults in the United States that was fielded by the authors and is described below.

[3] See also MacWilliams (2016).

different assessments of the correlation between economic decline and voting for populist candidates. But the critique goes deeper than this with the view that even when such a correlation is observed, it is often viewed as spurious in that the real forces at work are some form of cultural backlash. After all, if the "backlash against globalization" is solely about its economic consequences, why hasn't the backlash been focused exclusively on economic policies?[4]

A second account for the rise of Trump emphasizes instead the importance of "identity" concerns, particularly among white Americans. One of the most prominent expositions of this view comes from Sides, Tesler, and Vavreck (2019), which argues that broader demographic shifts in the US population led to a crisis of identity of who, precisely, should count as "American." This was perceived to be particularly challenging to white Americans who had long been viewed as sitting atop the racial identity hierarchy, and thus felt threatened by changing notions of the body public (Mutz 2018). In a similar vein, Jardina (2019) argues that many white Americans intensified identification with their own race over the 2010s; these identity concerns were to prove potent electoral motivation for the candidacy of Donald Trump, who ran a campaign that was particularly focused on addressing a base of aggrieved white voters. Of course, in these accounts of the rise of outgroup animus and hostility among white Americans, we again witness the shadow of authoritarian values: indeed, the motivating example in the introduction to Sides, Tesler, and Vavreck (2019) concerns an act of violence against black individuals attending a Trump rally, which is fully consonant with the use of force against outgroups or nonconformists as a strong authoritarian preference.

Thus, without disputing that social identity played a central role in the 2016 presidential election, this article proposes an answer to why regional economic decline associated with globalization would lead to the types of authoritarian political reactions observed in the United States (and, likely, other countries around the world). Our framework synthesizes the insights in both the economic and cultural value approaches to understanding the rise of authoritarian populism in the United States. We argue that long-run economic changes from globalization have a negative impact on the social identity of historically dominant groups. This leads to an increase in authoritarian values because of an increased incentive to force minority groups to conform to social norms as compensation for identity losses; one of the most common behavioral consequences of authoritarian values is, of course, a strong reification of ingroup–outgroup identity and dislike for those that are perceived as threatening to the current order. We further argue that the effect of economic changes from globalization on authoritarian values is greater the larger the relative size of minority groups in the population.

The article tests the predicted effect of economic decline on authoritarian values using an original 2017 representative survey in the United States. Following recent research in psychometric measurement of authoritarian values, this included a battery of questions to capture separately three conceptual dimensions argued to be core to the authoritarian personality: aggression, submission, and conventionalism.[5] Based on an established literature documenting the negative consequences of Chinese import penetration for local economies in the United States (Autor, Dorn, and Hanson 2013; Acemoglu et al. 2016), we identify local economic shocks in the United States induced by China's integration with the world economy to estimate the causal impact of long-run structural decline in labor market outcomes on authoritarian values and voting behavior.

We find that majority group members living in relatively diverse regions in which local labor markets were more substantially affected by imports from China have more authoritarian values. The implied substantive effect of an economic shock is large and pronounced: in diverse areas, a standard deviation increase in the degree of import penetration corresponds to approximately one-third of a standard deviation increase in our baseline measure of authoritarianism. Consistent with our argument, this impact is much larger than the effect of trade shocks in less diverse areas. In contrast to these strong effects on white respondents, however, we find no systematic association between economic shock and the authoritarian values of non-white respondents, which accords with our expectations that the decline of majority group status is a crucial mediator. Our estimates are robust to the inclusion of a wide variety of demographic variables as well as controls for the extent of manufacturing employment prior to China's integration into the world economy and the size of the foreign born population; results also persist when we instrument for Chinese imports into the United States using a combination of Chinese imports into a number of similar economies. To substantiate our emphasis on the importance of relative racial economic standing, we additionally provide evidence that import penetration specifically decreased average regional incomes of whites relative to Blacks. Finally, we further find that the greater effect of labor market decline in more diverse areas is evident for vote choice in the 2016 presidential election – among white survey respondents who live in diverse areas, a standard deviation increase in the China shock corresponds to a 13 percentage point increase in the likelihood of voting for Donald Trump.

The article contributes to three important literatures: the impact of globalization on voting behavior and support for populists, the origins of authoritarian values, and the public behavior literature on the role of economic and value concerns in the determination of mass behavior. First, as discussed above, the existing literature on the impact of globalization on voting in the United States emphasizes issue-based voting concerning anti-globalization policy, retrospective voting over poor economic performance, and a policy extremity updating process in explaining the mechanisms that might account for this relationship (Che et al. 2016; Autor et al. 2020; Jensen, Quinn, and Weymouth 2017; Colantone and Stanig 2018b). Our evidence suggests a fourth mechanism is value change in which trade shocks lead voters to adopt more authoritarian values. These values in turn impact voting behavior including the support of populist candidates and parties.[6] This mechanism not only explains the interaction between economic decline and the size of minority groups but also answers our motivating question of why America's backlash is characterized by authoritarian rhetoric and policies: these values resonate with voters experiencing identity losses from the permanent decline in

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[4]There also exists ongoing debate on the extent to which individuals might be shielded against the adverse effects of globalization through government redistributive programs; see, for example, Milner (2021); Ritchie and You (2021); Schaffer and Spilker (2016).

[5]See Duckitt et al. (2010) and Dunwoody and Funke (2016).

[6]Our theory is consistent with recent findings by Hays, Lim, and Spoon (2019) that xenophobic beliefs about immigrants mediate the effect of trade shocks on support for rightwing populists in Europe; in ongoing work Cerrato, Ferrara, and Ruggieri (2018) make a similar argument linking trade shocks—via effects on negative outgroup sentiment—to support for rightwing candidates in the United States.

demand for their labor. We expect that these findings will be not only of use to scholars of US politics, but may also help explain the rise of more extreme rightwing populist movements across the globe.[7]

Second, we demonstrate novel empirical support for a link between economic threat and authoritarian values. While some prior research has documented an association between economic change and authoritarian values, this work has primarily been based on aggregate correlations between or across countries (Sales 1973; Doty, Peterson, and Winter 1991; Perrin 2005) or individual-level correlations between economic characteristics and authoritarian values (Feldman 2003; Stenner 2005).[8] Our article is largely unique in demonstrating credible causal evidence that authoritarian values in the United States were heightened under the shocks to local labor markets created by Chinese import competition. This result suggests that in addition to socialization, contemporary economic threats can affect levels of authoritarian values as theorized in early work by Fromm (1941), Lipset (1959), and Rokeach (1960).

Third, our study highlights the importance of understanding how certain types of economic shocks might affect political behavior, particularly when moderated by local racial demography. Much of the literature on the role of economic interests and cultural values in determining behavior views these explanations as competing rather than complementary. Even when researchers consider them complementary, they still tend to view these forces as orthogonal. In contrast, we contribute to a novel branch of work that argues that exploring the interplay between contemporary material interests and identity considerations is of fundamental importance to understanding some of the central political puzzles of our era (Gidron and Hall 2017, 2020).

Theoretical Framework

In this article, we argue that negative economic changes from globalization have a positive impact on authoritarian values, and that this effect is particularly large in areas with more diverse populations. In the following, we outline a theoretical framework for how to think about the effect of globalization on authoritarianism, which will guide our empirical analysis.

Economic self-interest as a driver of political preferences is widely studied in the literature, and this motive is often pitched against value- and social identity-based motives. Building on the insights of social identity theory (Tajfel and Turner 1979; Tajfel 1981) and its applications to economic behavior (Akerlof and Kranton 2000), we argue that the two types of motives can interact to shape political preferences, in that long-run economic changes can lead to identity losses and value changes. Importantly, given the centrality to our account of changing social perceptions around group identities, we believe that the effects we document are most likely to become pronounced from sustained economic decline. At the core of our argument are the anxieties that arise when a majority group member perceives that the social standing of her group has fallen permanently due to declining economic resources of the group; such changes in perception would be unlikely to be found following fluctua-

tions due to relatively short-term periodicity in the business cycle, for example.[9]

Thus, in considering the political effect of globalization generally and specifically China's integration into the world economy, we are referring to structural changes in regional economies. These are fundamental shifts in production capacity and employment patterns; economic changes from trade shocks are comparable to, for instance, the economic effects of technological change or, historically, economic dislocation following industrialization. These developments had long-lasting consequences for the distribution of growth and productivity across industries and occupations and for the return to skills across workers in the labor market. Therefore, economic changes from trade shocks affect entire communities or local economies and put people and places on very different life trajectories not only in terms of employment and income, but also in their ability to fulfill their social roles in their families and communities. Consistent with this conceptualization, existing literature on the effects of the "China shock" on the United States has documented negative effects on not only local economic outcomes including rising unemployment and lower average wages (e.g., Autor, Dorn, and Hanson 2013; Acemoglu et al. 2016), but also health outcomes (Pierce and Schott 2020).

Importantly, this work has identified that while the nucleus of economic dislocation is likely to be in manufacturing industries decimated by competition with cheaper Chinese products, the consequences of rising import penetration have spread beyond this core of affected industries to include average employment in the affected communities more broadly. Broz, Frieden, and Weymouth (2021) emphasize, for example, that when a large factory in town shuts down, the overall shocks to aggregate demand that occur tend to affect employment and earning capacity across the region more generally. The widespread effects of the kinds of economic change we study in this article are therefore likely to affect not only certain individuals living in a region, but perceptions of group standing more generally. Drawing on data for multiple European countries and the United States, Gidron and Hall (2017, S63) document declining perceived social standing over time for less-educated respondents in a majority of countries covered, and suggest that "[s]ince social status is closely associated with the quality of a person's occupation, these [secular economic] developments are likely to have depressed the social status of many workers;" the authors subsequently document that this falling sense of status is strongly associated with outgroup sentiment and voting for populist right parties in Europe. While a growing body of research has documented a number of political consequences from local economic decline, in summarizing work in this vein Broz, Frieden and Weymouth (2021, 24) nonetheless emphasize the importance of "research about the conditioning effect of cultural identities. Even though combining local economic hardship with identity politics is complicated, this is the research frontier. A crucial question is why whites and non-whites respond differently to manufacturing decline in their communities."

In this article, we address this component of the research frontier by arguing that—particularly if many trade-competing manufacturing industries were perceived as sources of valuable economic advancement for majority group members (Guisinger 2017)—falling incomes for members of these communities will be reflected not merely

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[7] While our work centers on demand-side arguments about mass responses to globalization, there is a related literature that helps explain supply-side reactions by political elites; see, for example, Tavits and Letki (2014), Ward et al. (2015), and De Vries, Hobolt, and Walter (2021).

[8] There is a more well-developed set of causal findings on the effect of security threats—not economic threats as we discuss here—activating authoritarian behavior; see, for example, Hetherington and Weiler (2009) and Richey (2012).

[9] Our emphasis on the effects of long-run structural change on value change, of course, does not imply that shorter-lived shocks do not affect political behavior. See Margalit (2019) for a recent review.

in an individual sense of economic loss, but in a broader group perception of falling social status for the majority group. This insight hinges on the assumptions that individual group identities are formed, at least in part, on the basis of the economic standing of members of the group and the ability of group members through work to meet the role expectations as a provider, consumer, and productive member of the community that come with their privileged status (Gidron and Hall 2017). While there clearly are additional dimensions of status that feed into a group's standing, our account emphasizes that at least some part of this standing is tied to the group's labor market trajectory. This resonates with ongoing work by Baccini and Weymouth (2021), which finds that deindustrialization in the United States over the last two decades (a process driven, in part, by trade competition) has indeed led to declining perceptions of social standing by white Americans, as well as heightened support for Donald Trump in 2016 among whites.

In response to this decline in social status, we argue that (some) majority group members may seek to compensate this loss by enhancing other identity-related payoffs that they enjoy as members of the group. In particular, given our interest in the rise of seemingly authoritarian impulses in the US electorate, we focus on the utility citizens may derive from social order and conformity, and the preference to impose such conformity through the use of force if necessary.[10] This set of preferences is derived directly from the classic account of authoritarian values in Altemeyer (1981). More specifically, we argue that, when threatened with declining economic status, majority group members may respond by heightening their preferences for ingroup homogeneity, and dislike for nonconformist behavior by members of other social groups.[11] In so doing, respondents may effectively upweight the importance of the components of their group identity that do not depend on their declining economic prospects.[12]

Yet, crucially, we also argue that the relative importance of this imposition of conformity on outgroup members is likely to vary systematically with the local demography in which an individual resides. In regions populated almost entirely by majority group members, there is little opportunity to run into outgroup members, or to observe nonconformist behavior by these individuals. This suggests that such regions have little potential to compensate job-related status losses on majority groups through inducing greater conformity on minorities, whatever the baseline rates of authoritarian values are in these places. In contrast, in regions where non-majority members form a larger share of the local population, exposure of majority group members to the presence of potential nonconformist behavior is much greater, and so the relative potential compensation from economic decline-induced status losses of imposing social order on outgroups

is substantially higher.[13] This suggests that the effects of sustained economic decline on the preference for "authoritarian values" among majority members should be most pronounced for those citizens who live in regions characterized by greater social diversity.[14]

For purposes of answering the question of why the backlash against globalization has had such authoritarian characteristics, the key insight is that long-run economic decline from globalization decreases not only economic returns but also the social status of majority groups. Economic change can undermine the social roles that individuals fill in their communities and families and the loss of status from no longer meeting these expectations is especially acute for members of historically advantaged groups. Some members of these groups may seek to compensate these identity losses by increasing their social status through other means, especially by enforcing greater homogeneity and conformity on the part of other groups. This response is more likely in diverse demographic settings in which levels of heterogeneity and/or nonconformity are potentially higher.

We summarize our argument with two empirical hypotheses that we investigate in this article:

> **H1:** *Globalization-induced economic decline in local labor markets increases authoritarian values among historically dominant majority social groups.*

> **H2:** *The positive effect of globalization-induced economic decline in local labor markets on authoritarian values among historically dominant majority social groups is larger in more socially diverse regions.*

Research Design

Our empirical strategy uses geographic variation in economic change and demographic characteristics in the United States to evaluate these two hypotheses. We specifically exploit variation in the effect of China's integration into the world economy on local labor markets to estimate both quantities of interest.

Data

Our analysis is based on a combination of data on local Chinese import penetration over time, data on local economic and demographic conditions, and an original survey conducted in the United States. Measures of Chinese import penetration are from the replication data and files provided by Autor, Dorn, and Hanson (2013) and Acemoglu et al. (2016). The measures are constructed using international trade data from the UN Comtrade Database and data on commuting zone employment by industry from the County Business Patterns. Data on local conditions are from the US Census. Our survey was implemented by YouGov in September 2017 and includes 1,800 respondents.[15] The survey data are nationally representative of the US adult population and contain information about the respondent's county

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[10] Prior work by Gidron and Hall (2017, 2020) focuses on the link between falling economic conditions and perceived social standing; here, we emphasize that this falling standing may activate a specific set of individual values that are subsequently linked to strong outgroup animosity as documented by these authors.

[11] Ongoing work by Cerrato, Ferrara, and Ruggieri (2018) links rising support for rightwing candidates in the United States to greater exposure to trade competition, with particular emphasis on the role of rising negative outgroup sentiment as exposure to import penetration increases.

[12] While not specifically focused on our conceptualization of authoritarian values per se, ongoing work by Colantone and Stanig (2018a) investigates the consequences of trade exposure for various cultural values in Europe, finding that individuals more exposed to Chinese imports are less likely to support democracy and other liberal values.

[13] In an influential conceptualization of authoritarian values, Feldman (2003) argues that "[d]iversity is both an indicator that people are not conforming to common social norms and a potential threat to the maintenance of those norms."

[14] Knowles and Tropp (2018) document that local-level exposure of whites to racial minorities in 2016 led to heightened racial identification among whites; these effects were dampened in regions with healthy local economies.

[15] Thirteen respondents from Alaska and Hawaii are dropped from the analysis, as we do not have trade shock measures for these states.

and zipcode of residence, as well as a battery of questions measuring authoritarian values.[16]

Prior research on authoritarianism has generated a plethora of potential means of measuring the concept. Here, we pursue a measurement strategy suggested by recent work in psychometrics that—building off Altemeyer (1981)'s important conceptualization—designs survey questions to tap each of three subdimensions: authoritarian aggression, submission, and conventionalism. Specifically, we implement Dunwoody and Funke (2016)'s survey battery, which includes three sets of questions for each subdimension. While the full text for all questions is presented explicitly in the online appendix C, this includes questions like "Strong force is necessary against threatening groups" for the aggression dimension; "People in positions of authority generally tell the truth" for the submission dimension; and "It would be better for society if more people followed social norms" for the conventionalism dimension. Question ordering was randomized, and for each statement respondents were asked to express their level of agreement on a five-point scale ranging from "strongly disagree" to "strongly agree." Below, after generating average levels of aggression, submission, and conventionalism for our respondents, we take the simple average of the three as our baseline outcome measure *ASC*.[17]

To empirically assess the effect of labor market shocks in the United States on authoritarian values, we capture the regional economic consequences of Chinese global integration by employing a measurement and identification strategy originally developed by Autor, Dorn, and Hanson (2013). Autor, Dorn, and Hanson (2013) and Acemoglu et al. (2016) provide evidence that Chinese import shocks had negative effects on local market outcomes including manufacturing employment, labor market participation, and earnings. The measurement and identification strategy has since been applied to study other political economy outcomes in the United States including Congressional support for protectionism (Feigenbaum and Hall 2015), incumbent party vote share (Jensen, Quinn, and Weymouth 2017), and political polarization and Congressional voting (Autor et al. 2020).

The measure of a local labor market shock is the average change in Chinese import penetration across industries, weighted by each industry's share of initial employment. We use US commuting zones to define local labor markets. Commuting zones are administrative geographic units made up of counties, and they are constructed to reflect the local economy where people live and work. We use data from Acemoglu et al. (2016) to get commuting zone-level measures of the shocks. We link these data to the respondents in our survey by information about respondents' county of residence. The trade shock data contain 722 commuting zones covering the US mainland, with boundaries defined by the beginning of the period of China's integration into the world economy (1990). Our survey data cover 366 of these commuting zones.

Following existing studies of the effects of Chinese import penetration on local economies (Acemoglu et al. 2016; Autor et al. 2020), we define local labor market shocks as the average change in Chinese import penetration in the commuting zone's industries, weighted by each industry's share

in the commuting zones's initial employment. This is done by first constructing—at the level of a US manufacturing industry j—the import penetration ratio of Chinese imports over time period τ, given by

$$\Delta IP_{j\tau} = \frac{\Delta M_{j,\tau}^{uc}}{Y_{j,91} + M_{j,91} - E_{j,91}}, \tag{1}$$

where the numerator ($\Delta M_{j,\tau}^{uc}$) captures change in Chinese imports into the United States over the relevant time period τ, and the denominator captures "initial absorption" as measured by industry shipments ($Y_{j,91}$) plus industry imports ($M_{j,91}$) less industry exports ($E_{j,91}$) at the beginning of the period. We construct our baseline measure over the years 1991–2007; we choose to end our baseline time period in 2007 so as to prevent the possibility of confounding an effect of Chinese import penetration on local labor markets with any consequences potentially arising during the Great Recession. Having constructed this measure of industry import penetration, we subsequently generate a location-specific measure of changing import exposure for a given commuting zone r as

$$\Delta IP_{r\tau}^{cu} = \sum_j \frac{L_{rj\tau}}{L_{r\tau}} \Delta IP_{j\tau}^{cu}. \tag{2}$$

As explained in Acemoglu et al. (2016, S176), $L_{rj\tau}/L_{r\tau}$ "is industry j's start-of-period share of total employment in CZ r. The variation in $\Delta IP_{r\tau}^{cu}$ across local labor markets stems entirely from variation in local industry employment structure at the start of period τ." $\Delta IP_{r\tau}^{cu}$ weights changing industry exposure to Chinese imports by the initial importance of employment in that industry within a given labor market, with the final value simply the sum of industry exposure across all manufacturing industries. In essence, the import penetration measure will be higher in those commuting zones characterized by a larger initial share of employment in industries that saw a prominent increase in Chinese imports; for regions without any employment in import-competing sectors, this measure should be zero. In what follows, for ease of notation we suppress superscripts and subscripts on our primary treatment measure, referred to as Δ *IP (91-07)* below. To help describe our shock data, we first present a breakdown of commuting zones by quartile of import competition, as demonstrated in figure 2.

The main idea behind treating the China import shock measure as exogenous is to take advantage of the fact that China's integration into the world economy was primarily a consequence of its decision to reform its economy and this was motivated by domestic political economy considerations in China. Nonetheless, to the extent that import demand is potentially affected by localized economic conditions, concern may still exist that this measure of changing Chinese imports is not truly exogenous to characteristics of labor markets across the United States. In order to address this source of potential endogeneity, we follow a host of work (Acemoglu et al. 2016) that employs an instrumental variables (IV) strategy, instrumenting for changes in imports of Chinese goods into the United States with a weighted average of changing imports into other "similar" countries. More precisely, we construct a measure of changing trade exposure to Chinese imports in other countries (*O*) for an industry j as

$$\Delta IPO_{j\tau} = \frac{\Delta M_{j,\tau}^{oc}}{Y_{j,88} + M_{j,88} - E_{j,88}}, \tag{3}$$

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[16] See the online appendix A for discussion of the sample.

[17] The overall distribution of these data is described in figure A1 in the online appendix. Descriptive statistics for this measure, and all others presented in the article, can be found in table A2 in the online appendix. We also examine each of these subindices individually below; the correlation matrix across the subcomponents is presented in table A3 in the online appendix.
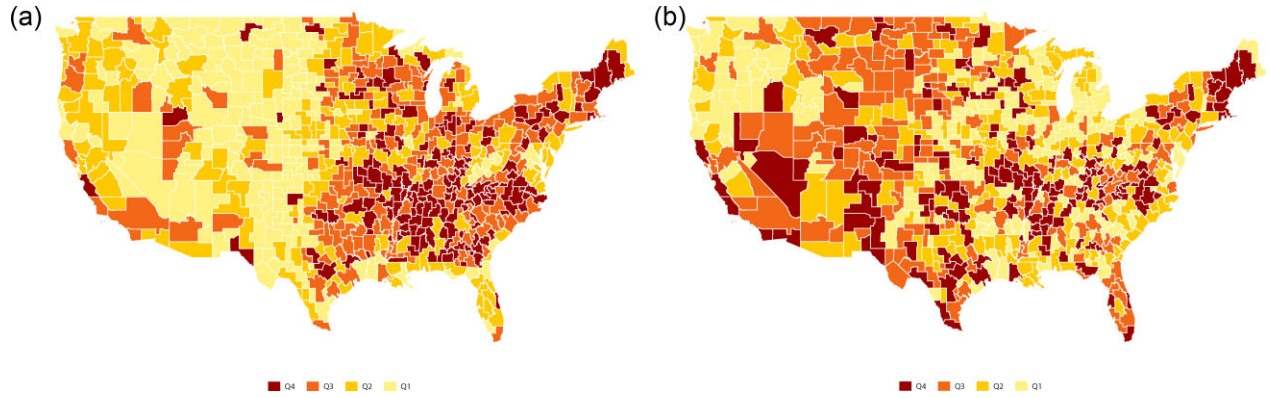
Figure 2. Trade shock exposure across commuting zones
Notes: The top panel shows a map indicating the quartile of each commuting zone's trade shock value, $\Delta IP(91\text{-}07)$. The bottom panel shows a map indicating the quartile of this measure controlling for the initial value of manufacturing employment in the commuting zone.

where "$\Delta M_{j,\tau}^{oc}$ is the growth in imports from China in industry j during the period τ… in eight other high-income countries excluding the United States" (Acemoglu et al. 2016, S152).[18] As argued elsewhere, much of China's expansion as a prominent exporter arose due to supply-side considerations within the country, which should be uncorrelated with the characteristics of particular labor markets within the United States. To the extent that most developed economies experienced similar exposure to rising Chinese manufacturing production, instrumenting for US imports of Chinese goods with imports into other similar countries should remove potentially endogenous demand-driven components of Chinese import exposure to a given commuting zone in the United States.

In the analysis, we investigate how trade shocks affect authoritarian values differentially depending on the relative size of minority groups in the local area. We simplify the complex patterns of diversity across US regions and focus on the relative size of the population that is white and non-white. Information about local ethnic composition is obtained from the Census Bureau's American FactFinder database. We define the variable *Diversity* equal to the value 1 if the respondent lives in a county with a non-white population of more than 30 percent.[19] Based on this definition, about one-third of our respondents live in a diverse area.

In some estimations, we include measures of additional individual and regional characteristics to strengthen our research design. At the individual level, we introduce measures for whether survey respondents identified as *Female*, their *Age* in years, an indicator variable *College* if the respondent's highest level of completed education was either "some college" or an associate's degree, an indicator variable *University* if the respondent reported completing a bachelor's degree, master's degree, professional degree or doctoral degree, whether the respondent reported being *Married*, and whether they had any *Children* under the age of 18.

We also introduce commuting-zone-level and county-level measures to account for variation across different regions that may affect the values of individuals in those regions out-

side of our proposed mechanism. First, we include a measure of initial *Manufacturing* employment share in the respondent's local labor market. In addition, given accounts of recent political mobilization based on perceived threats from immigration, we also include a county-level measure of the percent of the local population that is *Foreign Born*, as well as the *Change in % Foreign Born*.

Econometric Model

We estimate the association between an individual's average authoritarian values resulting from labor market shocks due to Chinese import competition and local racial demography; we additionally control for a number of individual sociodemographic characteristics and other regional characteristics. Our baseline model is:

$$ASC_i = \beta_0 + \beta_1 \Delta IP_r + \beta_2 Diversity_k + \beta_3 Diversity_k * \Delta IP_r$$
$$+ \mathbf{X_i}'\psi + \mathbf{Z_k}'\phi + \epsilon_i, \qquad (4)$$

where i indexes individual respondents, r indexes commuting zones, and k indexes counties; ΔIP and *Diversity* are defined above; X_i are individual-level covariates; Z_k are county-level covariates; ϵ_i is the error term; and β_0, β_1, β_2, β_3, ψ, and ϕ are parameters to be estimated. We initially estimate this equation by ordinary least squares and report standard errors clustered on commuting zones. Given our theoretical interest in the effects of economic shocks on majority group members' values, in our baseline results we restrict our analysis to respondents who self-identified as white only, then subsequently estimate our models on non-whites (as well as our full sample).[20]

As discussed above, we also estimate this equation using $\Delta IPO\ (91\text{-}07)$ to instrument for $\Delta IP\ (91\text{-}07)$. It has been argued that the massive surge of Chinese exports to the developed world occurred essentially as a result of internal changes to the Chinese economy, which are likely to be exogenous to particular regional-level characteristics in the United States (Autor, Dorn, and Hanson 2013). One requirement for the exclusion restriction to hold is that we must also assume that changes in Chinese imports to other

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[18] The eight similar countries are Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland.

[19] As reported in table A5 in the online appendix, our primary findings hold for a range of particular cutpoints designating a locale as "diverse," including a continuous measure of the share of the population that is non-white.

[20] All reported regression results employ population weights. Note that commuter zones are constructed based on underlying county-level data based on location of residence and commute-to-work distance.

advanced economies only have an effect on US authoritarianism through their impact on Chinese imports into the United States. Given existing work demonstrating low levels of awareness of US citizens on trade dynamics even within their own country (Rho and Tomz 2017), it seems unlikely that the exclusion restriction would be violated by individual citizens forming political values as a response to trade flows between China and other developed economies. As with all shift-share instruments, the exclusion restriction would be violated if the initial shares of labor concentration across industries are correlated with some other factor influencing authoritarian values. We implement a number of conditioning strategies such as controlling for initial levels of manufacturing and prior authoritarian values to further strengthen the plausibility of the exclusion restriction.[21]

In terms of our hypotheses, three sets of parameter estimates are of direct interest. Hypothesis 1 refers to the marginal effect of economic change on authoritarian values. For individuals in low-diversity local labor markets, this quantity corresponds to β_1 while for individuals in high-diversity local labor markets this quantity corresponds to $\beta_1 + \beta_3$. Hypothesis 2 predicts that the marginal effect of economic change will be higher in high-diversity communities and this quantity is captured by β_3.

Results

We first present baseline results from the OLS regression of average authoritarian values (*ASC*) on Chinese import competition, as well as its interaction with local diversity, on our sample of white respondents. As reported in column 1 of table 1, the coefficient estimate on Δ *IP (91-07)* (β_1) is positive but not statistically significant. Once we condition the effect of import competition on local diversity in column 2, we find that economic shocks are associated with significantly higher authoritarianism in regions with greater levels of diversity (the marginal effect of the trade shock in diverse commuting zones is equal to the sum of the coefficient on Δ *IP (91-07)* and the coefficient on the interaction term, i.e., $\beta_1 + \beta_3$). These results are unchanged when we subsequently introduce our battery of individual- and regional-level covariates in column 3.

Of course, as mentioned above, if demand for imports is in part a function of economic conditions in differing parts of the United States, our measure of Δ *IP (91-07)* may not be exogenous to labor market characteristics that could also affect authoritarianism. To address this concern, we replicate our primary specifications in an IV framework reported in table 2, instrumenting for imports into the United States with information on Chinese imports into other similar countries. The lower half of columns 1, 2, and 3 report the first stage results from our IV estimations; as can be seen, our instrument for Chinese imports in other developed economies (Δ *IPO (91-07)*) is always a significant predictor of Chinese imports into the United States.

Turning to our second-stage estimates, when employing an instrumental variable approach we recover evidence of an (unconditional) positive and statistically significant association between local import penetration and individual authoritarian values in column 1, although the substantive size of this effect is somewhat small. Comparing this estimate with the OLS estimate suggests that the OLS estimate is bi-

Table 1. OLS: trade shock exposure and authoritarianism

Variables	(1) ASC	(2) ASC	(3) ASC
Δ IP (91-07)	0.024	0.005	0.022
	(0.015)	(0.016)	(0.018)
Diversity		−0.179***	−0.141**
		(0.058)	(0.064)
Diversity × Δ IP (91-07)		0.107***	0.106***
		(0.029)	(0.030)
Female			−0.011
			(0.033)
Age			0.009***
			(0.001)
University			−0.224***
			(0.041)
College			−0.167***
			(0.037)
Married			0.039
			(0.035)
Has children			0.179***
			(0.041)
Manufacturing			−0.426
			(0.290)
% Foreign Born			−0.002
			(0.002)
Δ % Foreign Born			0.012
			(0.010)
Observations	1,225	1,225	1,225
R-squared	0.002	0.009	0.118
Commuting zones	324	324	324

The table shows results from an OLS regression of the variable *ASC* on the trade shock measure Δ *IP (91-07)* among white respondents. In column 2, a dummy variable for living in a diverse county and an interaction between the diversity variable and the trade shock variable are added. In column 3, a set of controls are added. Standard errors are clustered at the commuting zone-level and reported in parentheses. ***$p < .01$, **$p < 0.5$, *$p < .1$.

ased downward, which is in the opposite direction of our expectations if omitted economic conditions were biasing our estimates. It is, however, consistent with the bias we might expect if authoritarian values had a negative effect on import shocks perhaps through a reluctance to outsource inputs inducing a negative correlation between import shocks and the error term in the OLS specification. After including an interaction of the shock with local diversity in column 2, our estimates are quite similar to the OLS estimates and consistent with Hypotheses 1 and 2.

Employing the IV estimates in column 3, which also include control variables, figure 3 summarizes the marginal effect of a one-standard deviation increase in Δ *IP (91-07)* on the authoritarian values of white respondents in low and high diversity communities. This is our preferred specification and allows us to evaluate all three quantities of interest relevant to our two hypotheses. As shown in the figure and consistent with Hypothesis 1, the marginal effect of the shock is positive and statistically significant in both low diversity (β_1) and high diversity ($\beta_1 + \beta_3$) places. The substantive magnitude of the effect is large for the high diversity cases: a one-standard deviation increase in Δ *IP (91-07)* is associated with approximately one-third of a standard deviation increase in *ASC*, whereas a one-standard deviation increase in the shock is associated with about half that much change in less diverse areas. The confidence intervals in the figure also indicate, consistent with Hypothesis 2, that the

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[21] For our IV estimates, we report IV Eicker–Huber–White standard errors clustered on commuting zones. Table A11 in the online appendix shows that our results are essentially identical if we instead employ a bootstrapping simulation to construct our standard errors.
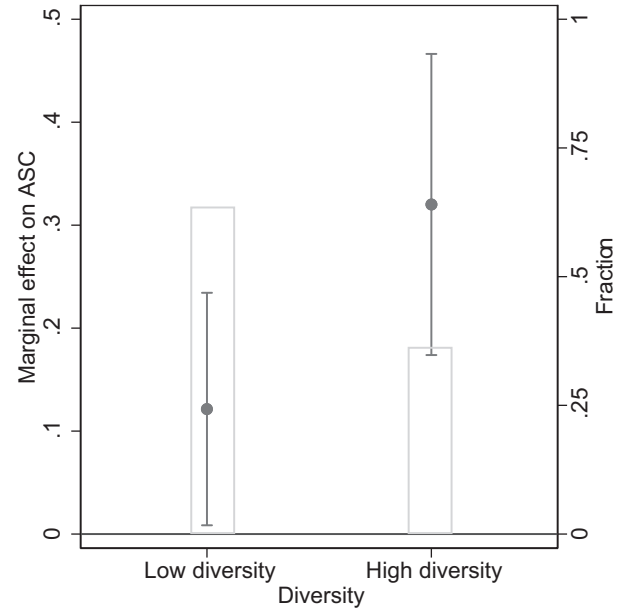
Table 2. IV: trade shock exposure and authoritarianism

Second Stage	(1) ASC	(2) ASC	(3) ASC
Δ IP (91-07)	0.038**	0.019	0.060**
	(0.017)	(0.019)	(0.028)
Diversity		−0.151**	−0.124*
		(0.066)	(0.069)
Diversity × Δ IP (91-07)		0.091***	0.098***
		(0.034)	(0.033)
Female			−0.012
			(0.033)
Age			0.009***
			(0.001)
University			−0.220***
			(0.041)
College			−0.166***
			(0.037)
Married			0.037
			(0.035)
Has children			0.180***
			(0.041)
Manufacturing			−0.782**
			(0.365)
% Foreign Born			−0.003
			(0.002)
Δ % Foreign Born			0.012
			(0.010)
First Stage	Δ IP	Δ IP	Δ IP
Δ IPO (91-07)	1.179***	1.206***	1.074***
	(0.068)	(0.079)	(0.088)
Diversity		0.142	0.204
		(0.146)	(0.148)
Diversity × Δ IPO (91-07)		−0.121	−0.157
		(0.128)	(0.129)
Controls			✓
Observations	1,225	1,225	1,225
R-squared	0.002	0.008	0.115
Weak ID F stat	300.6	117.6	84.10

The table shows first stage and second stage results from an IV regression of the variable *ASC* on the trade shock measure Δ *IP (91-07)* among white respondents, using the variable Δ *IPO (91-07)* as an instrument. In column 2, a dummy variable for living in a diverse county and an interaction between the diversity variable and the trade shock variable are added. In column 3, a set of controls are added. Standard errors are clustered at the commuting zone-level and reported in parentheses. ***$p < .01$, **$p < .05$, *$p < .1$.

estimates are significantly different from each other with the larger estimates for the diverse communities. Thus, we find strong evidence consistent with our core hypotheses regarding the effects of economic shocks on authoritarian values, as conditioned by local ethnic and racial geography.

Given our theoretical framework, all of our main analyses have been estimated on white respondents only. Our expectation is that the value effects of long-run economic decline should be very different for individuals who are not part of traditional dominant social groups. Specifically, there is no reason to think that authoritarian values would provide compensating identity payoffs for non-white respondents, regardless of local diversity. Consistent with this expectation, if we conduct our analysis on the subsample of respondents who do not identify as white, there is no effect of trade shocks on authoritarian values (as reported in table A9 in the online appendix). While one concern here might be due to loss in statistical power—our sam-

Figure 3. Marginal effect of trade shock exposure on authoritarian values
Notes: The plot shows the marginal effect of a one standard deviation increase in trade shock exposure for low and high diversity commuting zones on the ASC measure of authoritarian values among white respondents expressed as a standard deviation change (dot is the point estimate and whiskers are the 95% confidence interval). The plot is based on the IV estimates in table with control variables. The histogram indicates the fraction of observations in low and high density commuting zones.

ple of non-white respondents is about half the size of our white respondent sample—it is worth noting that other correlates of authoritarian values (such as education and age) remain statistically significant in this specification. In addition, the size of the coefficient on the interaction between trade shocks and local racial diversity in the non-white sample is approximately one-tenth the size of that in the white sample, suggesting that the lack of a significant association between local economic decline and authoritarian values in non-majority populations is indeed unlikely to arise. This is consistent with our theoretical account emphasizing the importance of compensating values in the face of declining social status for the majority group.

Robustness

The core finding from our baseline specifications is maintained across a host of robustness checks; in the interest of space, we simply discuss these results here and report the output in the online appendix. To begin, we include several additional covariates—at the individual and regional level— to our primary specifications. The first is a measure of *Household Income*; while including this variable may introduce post-treatment bias, as reported in column 1 of table A4 in the online appendix our primary findings are unchanged if we include this measure. Given early work on the strong association between authoritarian values and religious belief, we also introduce a measure capturing individual *Religious Importance* in column 2; this measure is indeed strongly positively correlated with *ASC*, but its inclusion has no

perceptible consequence for our primary estimates of interest. Column 3 introduces a measure of individual belief that success is due to hard work (as opposed to luck), which is also found to be strongly associated with authoritarian values but has no appreciable effect on the interaction of *Diversity*Δ IP (91-07)*.

At the regional level, we introduce county-level measures capturing the percentage of the population that lives in *Rural* areas in column 4 and a (logged) measure of *Total Population* in column 5; as expected, individuals from smaller and more rural counties do report somewhat higher average levels of authoritarianism, but our core estimate of interest remains unchanged. Given concerns over the possibility of regional concentration of high shock areas with greater racial diversity, column 6 introduces dummies for the main *Regions* of the United States; while respondents from the US South do report somewhat higher levels of *ASC* than the baseline levels (in the Midwest), this effect no longer remains significant in column 7 once we introduce all of the aforementioned covariates simultaneously. Crucially for our purposes, in all of these specifications we continue to find positive (and statistically significant) evidence that individuals in racially diverse regions more exposed to Chinese imports have higher average authoritarian values.

Finally, while our baseline specification identifies regions as "diverse" when the share of the population that is non-white exceeds 30 percent—corresponding approximately to the top tercile of diverse counties—this threshold is somewhat arbitrary. In table A5 in the online appendix, we replicate our core specification with varying thresholds for classifying a community as diverse. We continue to find strong support for our hypothesized positive interaction of *Diversity*Δ IP (91-07)* employing thresholds that range from the top quarter to the top half of regions in terms of diversity. As should be expected, for thresholds that include more racially homogeneous areas in our "diverse" measure, we fail to recover a significant effect of import penetration on authoritarian values.[22]

Interpretation

Was There Relative Economic Decline?

We have demonstrated a highly robust effect of regional import competition—particularly in diverse areas—on white Americans' authoritarian values. In our theoretical account, this heightening of preferences for outgroup conformity is likely to be greatest for those majority group members experiencing falling relative economic standing; as whites' dominance in the economic sphere dwindles in part as a result of heightened exposure to trade, this may increase preferences for the identity-related component of their well-being. Yet, while a number of prior works have emphasized clearly the ways that the China shock has devastated local economies in general, can we be sure that these effects have been felt differentially across racial groups?

To assess this implication of our argument, we collected annual Census data from the Longitudinal Employer-Household Dynamics (LEHD) panel on average county-level earnings by race for the years 2007 and 2016.[23] We then merged these measures of regional racial earnings with our data on import competition in order to assess the effects of Chinese import penetration on incomes by racial category separately. We first investigate the consequences of the China shock on white incomes; column 1 of table 3 reports a bivariate regression of the change (from 2007 to 2016) in average white incomes on Δ IP (91-07); as can be seen, average white incomes declined significantly in counties that were more heavily exposed to import competition. This effect remains in column 2 when we introduce as well our regional measures of immigration (in levels and in changes), as well as our measure of the fraction of the population that identifies as white.

Having demonstrated that whites were indeed harmed on average by trade exposure over this time period, we next investigate the consequences of the China shock for average Black incomes during this period. However, in stark contrast to the significant negative consequences of trade penetration on white earnings, when we regress the change in average Black incomes on Δ IP (91-07), we recover no systematic evidence of an effect; this is true in the bivariate estimation reported in column 3, as well as with our regional controls in column 4. Finally, to most directly assess the consequences of trade exposure on relative economic well-being, we construct a measure of the ratio of average white incomes to average Black incomes; as this measure increases, it represents those counties where whites earn on average more than Blacks, whereas a decline in this measure corresponds to areas where white incomes are lower relative to Black incomes. As reported in columns 5 and 6, we recover strong evidence that regions more exposed to the China shock were indeed areas where average white earnings were lower compared to the earnings of Blacks, substantiating our theoretical expectation that the China shock not only led to falling incomes on average, but had disproportionately negative consequences for the economic well-being of whites in trade-exposed regions. To the best of our knowledge, we are the first to report direct evidence of these racialized consequences of global economic competition, although we note that these findings resonate with those accounts discussed above that interpret trade and manufacturing job losses through a racialized lens (Guisinger 2017; Mutz 2018; Jardina 2019; Baccini and Weymouth 2021). The key finding is that economic change induced a status loss for whites in a way that our theoretical framework suggests may lead to the adoption of authoritarian values and is consistent with our primary empirical results.

Sorting

One potential concern with our interpretation of our estimates of the effects of import penetration on authoritarian values is that they could be due to geographic sorting rather than value change. Two types of sorting seem relevant. First, if more authoritarian individuals sorted into industries and regions later hit by the China trade shock, our estimates might be spurious. We have, however, already controlled for most of the factors that would plausibly lead to such sorting—for example, the percent employed in manufacturing at the beginning of the period, whether or not the area was rural, and the size of the population. We explore this further by collecting data from the American National Election Studies (ANES). We identify a set of questions in

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[22] In the main results, the measure of authoritarianism averaged across the three dimensions of authoritarian aggression, submission, and conventionalism. We also estimated our OLS and IV specifications for all three subdimensions separately and, as reported in tables A6, A7, and A8 in the online appendix, we generally find evidence of a positive marginal effect of import penetration on each for respondents in diverse areas. We also found that our results are robust to alternative operationalizations of the trade shock measure including taking the natural log, dichotomizing, and focusing on five different alternative time periods: 1991–1999, 1991–2007, 1991–2011, 1999–2007, and 1999–2011. Results available upon request.

[23] Data available here: https://lehd.ces.census.gov/.

Table 3. County average income by race and the China shock

Variables	(1) Δ White inc.	(2) Δ White inc.	(3) Δ Black inc.	(4) Δ Black inc.	(5) W/B inc.	(6) W/B inc.
Δ IP (91-07)	−27.812***	−22.944***	−5.817	−0.264	−0.009***	−0.008***
	(3.045)	(3.123)	(5.342)	(5.489)	(0.002)	(0.002)
% Foreign Born		10.966***		9.406***		0.005***
		(2.759)		(2.460)		(0.001)
Δ % Foreign Born		−1.113		7.395		0.001
		(7.034)		(6.101)		(0.004)
% White		−96.762**		46.573		−0.629***
		(42.415)		(60.475)		(0.034)
Observations	3,085	3,084	3,039	3,038	3,086	3,085
R-squared	0.022	0.056	0.000	0.009	0.003	0.153

Table reports regressions of average income in 2016, by racial group, at the county level on the trade shock measure. Heteroskedasticity-robust standard errors are reported in parentheses. ***$p < .01$, **$p < .05$, *$p < .1$.

the ANES from 1990 to 2016 that plausibly measure authoritarian aggression, conventionalism, and submission.[24] In each survey wave, we conduct factor analysis among white respondents on this set of questions, which yields three separate dimensions with eigenvalues greater than one; each of these dimensions loads onto the questions we included as likely to be associated with authoritarian values. Although China's integration into the world economy certainly started in the 1990s, it became much more intense after it joined the WTO in 2001. To include as many geographic regions as possible, we pool all available ANES waves prior to Chinese WTO accession and calculated average "pre-trade shock" authoritarian values (based on the underlying three dimensions from the factor analysis) for each county available; we similarly pool all ANES waves following 2001 to generate average "post-trade shock" values by county.[25]

We use these data to evaluate concerns about pre-trade-shock sorting. First, we merge the ANES county-level measures with our individual-level survey data. We regress our *ASC* measure on the ANES "pre-shock" measure and find that they are positively but somewhat weakly correlated.[26] This is consistent with the pre-sorting concern. We then regress our *ASC* measure on the ANES "post-shock" measure and find that they are strongly positively correlated.[27] The strengthening of this relationship is inconsistent with the view that evidence above is driven only by pre-trade-shock geographic sorting of authoritarian types. If individuals were geographically sorted by authoritarian values prior to the sharp rise in Chinese import competition, including this measure of pre-shock sorting into our primary regressions should attenuate our main effect if this primarily arises due to pre-period sorting of types. However, as demonstrated in column 4 in table A10 in the online appendix, our key results are robust to including this control.[28]

The second type of sorting is in response to the trade shock. If individuals respond to economic shocks in their area by leaving regions more hard hit by crisis, and if capacity for geographic mobility is correlated with individual authoritarian values, then our observed association between regions hit by economic downturn and average authoritarian values may be driven by locational sorting, not by changes in values themselves.[29] While conceptually plausible, we note first that existing literature shows a relatively modest response in terms of geographic mobility across local labor markets in response to trade shocks (Autor, Dorn, and Hanson 2013). In addition, recent work has found that regional labor mobility in the United States, while quite high from the 1950s to the late 1980s, has declined precipitously over the past twenty-five years (Kaplan and Schulhofer-Wohl 2017). Thus, there are reasons to suspect that individuals have not actually sorted themselves following trade shocks.

However, to address this issue, we included a question in our survey asking respondents whether they had moved their primary residence over the past twenty years. We restrict our analysis only to those individuals who report not having moved in the past two decades. As reported in columns 1–3 of table A10 in the online, we continue to find a strongly positive and statistically significant relationship between trade shock exposure and authoritarian values among respondents who live in diverse areas and have not moved over the past twenty years.

Effects on Voting Behavior

Our motivating discussion at the outset of this article highlighted the role of a "backlash against globalization" as an important account of the election of Donald Trump to the office of President. Further, we showed that authoritarian values were strongly associated with voting for Trump and highlighted a larger literature that has suggested that authoritarian values are important for understanding political behavior. Thus, it is natural to ask the question of whether import shocks explain voting behavior in the 2016 US presidential election. This general idea has been explored by other researchers but they have primarily emphasized policy

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[24] See the online appendix B for further details.

[25] This generates average authoritarian values for 549 counties in the "pre-trade shock" period and 1,443 counties in the "post-trade shock" period. Note that, while ideally we might estimate a "difference-in-difference" of regional authoritarianism over the two periods, those areas most likely to be sampled in repeated waves of the ANES are, all else equal, also more urbanized and less exposed to trade competition. In unreported results, we find that those areas that faced a higher China shock and were also more diverse are less likely to be included in both period samples; these are of course exactly the areas where we are most likely to detect a treatment effect.

[26] $p < .1$

[27] $p < .001$

[28] This strategy of conditioning on pre-treatment regional values is similar to one employed in ongoing work by Colantone and Stanig (2018a), which investi-

gates determinants of a cultural backlash in Europe. Note that we lose a significant number of observations in this model because of individuals in our sample who live in counties not represented in the ANES from 1990 to 1998.

[29] For a discussion of regional sorting by cosmopolitan values in Europe, see Maxwell (2019).

Table 4. OLS & IV: trade shock exposure and voting

Variables	(1) Trump (OLS)	(2) Trump (IV)
Δ IP (91-07)	0.024	0.053**
	(0.016)	(0.025)
Diversity	−0.113	−0.137**
	(0.069)	(0.068)
Diversity $\times$ Δ IP (91-07)	0.086**	0.104***
	(0.034)	(0.034)
Female	−0.095***	−0.097***
	(0.028)	(0.028)
Age	0.005***	0.005***
	(0.001)	(0.001)
University	−0.180***	−0.175***
	(0.039)	(0.039)
College	−0.095***	−0.094***
	(0.034)	(0.034)
Married	0.098***	0.095***
	(0.032)	(0.031)
Has children	0.021	0.020
	(0.044)	(0.043)
Manufacturing	−0.291	−0.626**
	(0.237)	(0.297)
% Foreign Born	−0.007***	−0.007***
	(0.002)	(0.002)
Δ % Foreign Born	0.020***	0.021***
	(0.008)	(0.008)
First stage	N/A	Δ IP
Δ IPO (91-07)		1.173***
		(0.087)
Diversity		0.193
		(0.148)
Diversity$\times$$\Delta$ IPO (91-07)		−0.129
		(0.125)
Controls		✓
Observations	1,023	1,023
R-squared	0.122	0.119
Weak ID F stat		105.4

This table shows results of an OLS regression of a dummy variable for voting for Trump regressed on the trade shock measure Δ *IP (91-07)* among white respondents in column 1, and an IV regression of a dummy variable for voting for Trump regressed on the trade shock measure Δ *IP (91-07)* using the variable Δ *IPO (91-07)* as an instrument in column 2. Standard errors are clustered at the commuting zone level and reported in parentheses. ***p < .01, **p < .05, *p < .1.

voting (voting for Trump because he offered protectionist policy alternatives), retrospective voting (voting for Trump because he was the anti-establishment alternative and as such not responsible for prior economic outcomes), and ideological polarization (voting for Trump among those with prior ideological beliefs that government should have a limited role in the economy because he was offering a more extreme alternative of that policy disposition).[30] In this article, we argue that a fourth mechanism is value change as trade shocks lead voters to adopt more authoritarian values and expect for this effect to be greater in more diverse geographic regions.

While we demonstrated above a remarkably robust association between our measure of *ASC* and support for Donald Trump, we present here results of a "reduced form" exercise in which we directly regress presidential vote choice by our survey respondents on our measure of Chinese trade competition. As demonstrated in table 4, we find that white indi-

viduals living in more diverse regions exposed to greater import penetration are significantly more likely to report voting for Donald Trump, even after including our battery of individual- and regional-level controls. Interpreting our coefficients in the context of a linear probability model, the implied substantive effect of this is quite large: a standard deviation increase in Δ *IP (91-07)* in a diverse region is associated with an increased probability of voting for Donald Trump of approximately 13 percentage points.

Conclusion

Several recent studies conclude that globalization has had important economic and political consequences all over the developed world. However, our understanding of the potential link between globalization and the rise of populism and why globalization would lead to the types of authoritarian political reactions that have characterized so many countries is very limited. The main argument of this article is that long-run economic changes from globalization have a negative impact on the social identity of historically dominant groups. This leads to an increase in authoritarian values because of an increased incentive to force minority groups to conform to social norms. We further argue that the effect of economic changes from globalization on authoritarian values is greater the larger the relative size of minority groups in the population.

Our article contributes to existing literatures in at least three important ways. First, it sheds new light on the sources of populism and support for extreme parties and candidates. Our findings show that changes in authoritarian values caused by changes in economic conditions and labor market status is one mechanism through which globalization can lead to support for extreme candidates. This implies that explanations for the election of Trump, and the rise of extreme candidates and parties in general, cannot be simplified to either pure economic self-interest or pure non-economic values. In fact, our study shows that economic conditions and non-economic values interact in important ways to shape political opinions and behavior. These findings are likely to be important not only for scholars of the United States, but additionally for research on the rise of extremists and populists across much of Europe as well, for example.

Second, we shed new light on the origins of authoritarian values. Authoritarian values are known to be an important predictor of political preferences and behavior, but we know very little about where these values come from. Our results show that at least parts of authoritarian values are sensitive to contemporary economic and social conditions.

Third, our study highlights the importance of understanding how certain types of economic shocks might affect social identity and status, and ultimately political behavior. Here, it is important to note that there presumably are differing social identity effects of and political responses to different types of economic shocks. China's integration with the world economy caused a specific type of labor market change. The result of increased Chinese import penetration was a permanent negative shock to demand for certain types of domestic workers and hence put these workers on a very different life path in terms of career and income. This is very different from business cycle-type unemployment shocks that are often temporary and idiosyncratic. In addition, the shocks from Chinese import penetration were highly geographically concentrated, which is again different from other economic shocks, and which might have important consequences for the political effects.

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[30] Che et al. (2016); Jensen, Quinn, and Weymouth (2017); Autor et al. (2020)

A better understanding of how economic changes affect values and ultimately political behavior—and how effects vary depending on the nature of the economic shocks—is an important direction for future research.

Supplementary Information

Supplementary information is available at the *International Studies Quarterly* data archive.

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