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# CAN EVIDENCE-BASED INFORMATION SHIFT PREFERENCES TOWARDS TRADE POLICY?

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#### **ABSTRACT**

We investigate the role of evidence-based information in shaping individuals' preferences for trade policies through a series of survey experiments that contain randomized information treatments. Each treatment provides a concise statement of economics research findings on how openness to trade has affected labor market outcomes or goods prices. Across annual surveys from 2018-2022, each administered to a representative sample of the U.S. general population, we find that information influences trade policy preferences in complex ways. Information highlighting the link between trade and manufacturing job losses significantly raises expressed preferences for more limits on trade. Strikingly, information on the price benefits of trade (or the cost of tariffs) also induces protectionist policy choices, indicating that these preferences do not respond symmetrically to information on the gains versus losses from trade. We find evidence that these expressed preferences are driven in part by how the received information interacts with one's political identity, resulting in prior-biased belief updating, as well as by pre-existing concerns over the impact on American jobs and over trade with China. Information that solely communicates the benefits of trade is thus unlikely to succeed unless it addresses these prior beliefs and concerns.

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A data appendix is available at http://www.nber.org/data-appendix/w31240

## 1 Introduction

The economic impact of globalization, particularly on one's domestic constituents, has been a central issue commanding the attention of politicians and policymakers in many developed countries. In the U.S., worries over how openness to trade affects jobs and wages have been aired since the early 1990s, and intensified following China's accession to the WTO in 2001. This has sowed the seeds for a backlash against globalization amid a decline in manufacturing sector employment (Colantone et al. 2022, Goldberg and Reed 2023). Many political actors have openly tapped into these grievances, as prominently seen during the Brexit episode in the U.K., the U.S.-China trade war, and the calls for trade restrictions at the height of the Covid-19 pandemic. Often, these campaigns have operated by spreading political messages urging protectionist measures rather than communicating objective information on the benefits and costs of openness to trade.

In this paper, we investigate whether and how evidence-based information on the gains and losses from trade can influence individuals' preferences towards trade policy. Can information derived from research, communicated in a concise and accessible manner, shift people's views on trade protection? Understanding how information might shape these policy preferences is critical and urgent in the current information environment. The rise of mobile devices and social media has substantially lowered the barriers to disseminating information, and political actors now regularly use digital platforms to reach out to the public, often with messaging that is anti-globalization in nature. Economists have conventionally viewed trade policy preferences as being driven by whether openness to trade aligns with one's economic self-interests (Baldwin 1989, Rodrik 1995), by concerns about the impact of trade on broader society (Mansfield and Mutz 2009), or by one's socio-political identity (Grossman and Helpman 2021). By contrast, less is known about how the information that the public is exposed to can affect views toward trade. From an empirical standpoint, a key challenge lies in the need to distinguish the effect of information from those of alternative forces, including the possibility that individuals choose their information sources based on their self-interests and pre-existing beliefs.<sup>3</sup>

We address this issue by developing a series of survey-based experiments, conducted annually from 2018-2022, that contain randomized information treatments, each providing a

<sup>1.</sup> In the mid-1990s, a debate emerged with some economists arguing that trade with low-income countries was responsible for low unskilled wages and increased inequality in developed countries (e.g., Wood 1995). Others pointed to the role of within-industry specialization and evidence from the factor content of trade to argue that the effect of trade on wage inequality was quantitatively small relative to other forces (see Krugman 1995, 2000). For follow-up on this debate, see Lawrence (2007), Krugman (2008), among others.

<sup>2.</sup> The Global Trade Alert has documented the recent rise in government measures that restrict international trade; see https://www.globaltradealert.org.

<sup>3.</sup> A line of work in political economy, epitomized by Gentzkow and Shapiro (2010, 2011), documents how members of the public *de facto* sort themselves to news outlets according to their right- versus left-leaning political preferences.

short summary of evidence from economics research on the gains and losses from trade. By randomizing these treatments across a representative sample drawn from the U.S. general population, this enables us to establish the causal impact of specific information on expressed preferences over policies. We focus on evidence-based information, drawing in particular on recent studies investigating the effects of U.S.-China trade on both labor markets and goods prices, to examine whether communicating such knowledge can move the policy preferences of a member of the general public. (In this regard, our work differs from other studies – reviewed in Section 2 – which assess individuals' reactions to scenarios or frames that have been crafted to illustrate the effects of trade.)

The survey consists of four parts: (i) a background section that collects respondents' demographic characteristics, as well as their baseline socioeconomic and political views; (ii) an information treatment section that administers a narrative on an aspect of the consequences of trade liberalization; (iii) a post-treatment section that solicits preferences over economic policies, including trade-related policies; and (iv) a final section that validates how well the participants engaged with the survey and asks about reasons for their trade policy choices. In all, we have collected responses from more than 18,000 participants spanning five years; we maintained a consistent question format across survey rounds, which has allowed us to corroborate our findings over a period of fast-changing political developments and unprecedented disruptions to the global economy.

Zooming in on the randomized information section of the survey, each treatment group received a concise narrative on a specific employment or price effect of trade that has been found to be quantitatively important in the economics research and data related to the recent influential literature on the "China trade shock". More specifically, the "Trade Hurts Jobs" treatment provides a statement of the main finding from Autor et al. (2013), that the rise in imports from China hurt the labor market outcomes of U.S. manufacturing workers. The "Trade Helps Jobs" treatment offers a description of how the growth in imports of goods from China led the U.S. to specialize more in its service sectors, as studied by Caliendo et al. (2019), with the expansion in service-sector jobs in turn driving an increase in total jobs in the U.S. economy. The "Trade Helps Prices" treatment draws on price data from the Bureau of Labor Statistics to highlight how the rise in imports from China was accompanied by lower prices, both for durable goods (such as computers) and non-durable goods (such as apparel). On the other hand, the "Tariff Hurts Prices" treatment, based on Amiti et al. (2019), describes how the tariffs imposed by the U.S. on China starting in 2018 raised the U.S. prices of tariff-related goods and lowered U.S. real income.

To make the information accessible to the general public, each of the above treatments is written in simplified, comparable text that eliminates technical jargon; we also include a figure that illustrates the key trend in employment or price outcomes from the narrative (to cater to participants who may prefer visual forms of information). It should be stressed

that each narrative seeks to be objective and evidence-based in its content. In particular, we do not deliberately expose participants to misinformation or falsified accounts, nor do we engage in hypothetical scenarios or commentary. (The treatment narratives, together with the entire set of survey questions, are presented in full in Appendix A.)

Following the information treatment, we then solicit the participants' preferences over a range of policy instruments, such as import tariffs, free trade agreements, and a minimum wage. We gather these using standalone "Yes/No" questions, as well as through a question in which respondents are asked to select their three "Most Preferred" policies out of a menu of eight policy options that includes "more limits on imports".<sup>4</sup>

A number of key findings emerge. First, just over half the participants agreed with placing more limits on imports when this is posed as a direct "Yes/No" question (57-62% over the survey rounds, pooling control and all treatment groups). Notably though, this support is considerably lower when respondents are asked to select their three "Most Preferred" policies out of the menu of eight options: The share who picked "more limits on imports" was between 23-28%; instead, "improving education and worker training", "higher taxes on top income earners", and "higher minimum wage" received the most support (46-61%, depending on the survey round), indicating that preferences for protection are not as strong when ranked against alternative policies to address labor market concerns. Looking across years, there is a slight uptick in support for "more limits on imports" as a "Most Preferred" policy, from 23% in 2018-2019 to 27-28% in 2020-2022 with the onset of the Covid-19 pandemic; this support for trade restrictions did not change noticeably in 2022 despite rising inflation. Overall then, the share of support for more protection has been stable over time rather than exhibiting large swings along with broader economic or political conditions.

Second, the evidence-based information on the impacts of trade shifts individuals' preferences for trade policy, but in complex and even unanticipated ways. Respondents who received the "Trade Hurts Jobs" treatment – on how the import surge from China hurt U.S. manufacturing workers (based on Autor et al. 2013) – were significantly more likely to express support for protection relative to the control group who received no information. This treatment effect is robust across all the survey rounds and is quantitatively important, being equal to about one-third of the gap in the intensity of protectionist preferences expressed by Republican supporters relative to independents.

In contrast, we find highly asymmetric reactions to information that seeks to convey the benefits of openness to trade. When presented with the "Trade Helps Jobs" treatment – on the job creation effect in non-manufacturing sectors – we see a rise again, albeit to a lesser degree, in support of trade restrictions. Even more strikingly, exposing participants to either the "Trade Helps Prices" or the "Tariff Hurts Prices" information induces a strong

<sup>4.</sup> The eight policy options were presented to each individual respondent in a random order, to avoid biases that might arise if there is a tendency to pick options that appear earlier in a list.

protectionist response: learning that imports from China have contributed to lower prices, or that the recent tariffs on these imports have hurt U.S. consumers, still raises respondents' propensity to favor more limits on imports. The magnitudes of these responses to the price-related treatments are moreover comparable to that from exposure to the "Trade Hurts Jobs" information and remain robust throughout the survey years. While we have explored several variants and combinations of these treatments in later rounds of the survey (as discussed in Section 5.3), these do not detract in a significant way from the above baseline findings.<sup>5</sup>

In sum, we find that individuals do not react symmetrically to information that highlights the gains versus the losses from trade. While information on manufacturing job losses raises preferences for import restrictions, information on the service-job or goods-price benefits of trade does not reduce – and in fact provokes – protectionist tendencies. The remainder of our paper seeks to better understand what might be driving this surprising result.

We first show that a basic misunderstanding of the narrative content is unlikely to be a primary explanation. Respondents, on average, were able to correctly recall whether they had received information about the effect of trade on "jobs" or "prices". This helps to rule out the possibility that participants who received a "prices" treatment were systematically mistaking it for a narrative about the jobs effects of trade, on which they might carry stronger negative prior views. Next, we find that attention matters in explaining the treatment effects: Respondents who spent a longer duration on the treatment screen were more likely to correctly recall whether the information was about "jobs" or "prices". In addition, they appeared to be swayed more by the "Trade Helps Jobs" and "Trade Helps Prices" evidence – and to update their views in the direction of the information – as their preferences for protection were dampened compared to those who spent less time on the treatment screen. This result is especially relevant in an age of fast information. While a common lament is that the public now spends less time processing each piece of content on social media and digital platforms, our finding suggests that extended attention (if one can successfully elicit it) can enhance the effectiveness of narratives on the benefits of trade.

We further examine mechanisms through which the information received may have shaped preferences for protection, by exploring whether there were differential treatment effects across respondents depending on their baseline characteristics. The goal here is to assess whether the information operates by interacting with particular respondent traits that might be markers of one's prior disposition toward protectionist policies, in a manner that reinforces those preferences. Following the literature on trade policy preferences at the individual level, the characteristics we consider include: (a) proxies of economic self-interest, that capture personal exposure (or perceptions thereof) to trade openness, such as through one's industry

<sup>5.</sup> For example, we have jointly presented both pieces of jobs-related evidence to a subgroup of respondents. While the "Trade Helps Jobs" information alone is not sufficient to induce a more favorable view towards trade, it weakly diminishes the protectionist response to the "Trade Hurts Jobs" narrative.

of employment or education level; (b) measures of *sociotopic concerns* about the broader societal impact of trade, such as over income inequality or the outlook for future generations; (c) *behavioral factors*, namely one's degree of loss aversion; and (d) *political identity*, namely which major political party one identifies with and supports.

Of note, we find a pattern of responses that differs on the basis of party political identity: Respondents who self-identify as Republican supporters react to the "Trade Hurts Jobs" narrative by becoming (weakly) more in favor of protection (compared to the average respondent), while information on the benefits of trade (on either jobs or prices) also triggers a rise in their protectionist sentiment. Conversely, for Democratic supporters, their preferences for protection are dampened by the treatment narratives, regardless of whether the information conveyed is about the benefits or costs of trade liberalization. These patterns point to the pivotal role of socio-political identity in shaping trade policy preferences (Grossman and Helpman 2021), and are consistent with individuals being prior-biased in the manner they update these preferences when presented with evidence-based information (Charness and Dave 2017, Benjamin 2019): When the information is in line with the positions prescribed by one's political identity, this reinforces trade policy preferences in the direction of these prior views. But when the information is dissonant with one's political identity, this leads the individual to double down on rather than shift away from their priors.<sup>6</sup> On a related note. we also uncover a role for selected markers of economic self-interest (specifically, household income or prior exposure to trade via NAFTA) as well as for behavioral factors (specifically, loss aversion) in mediating how individuals react to narratives about the benefits of trade; we elaborate on these findings in Section 6.1.

Finally, we directly asked those who selected "more limits on imports" as a top-three preferred policy their reasons behind this choice. Among the potential explanations that we listed (including: "not persuaded", "potential threat to national security", and "lower quality of imports"), respondents expressed the highest degree of agreement with concerns over how "imports might compete for jobs with U.S. workers" and with "concerns over imports from countries like China". This pattern holds uniformly across the control and all treatment groups (in particular, regardless of whether one received a "jobs" or "prices" narrative). Furthermore, in a textual response question where we allowed participants to freely articulate the reasons behind their trade policy views, the words "jobs" and "China" appeared with high frequency across all groups. These findings hold even in additional treatments we ran in which we modified the narrative to remove explicit mention of "China", suggesting that concerns over the role of China as a major U.S. trading partner and the associated concerns about jobs loom large as priors in the minds of the American public when the issue of trade

<sup>6.</sup> Such prior-biasedness in how individuals update their views has been found in other settings; see Soroka (2006) on reactions to information about the state of the economy; Nyhan and Reifler (2010), Nyhan et al. (2020), and Barrera et al. (2020) on responses to fact-checking; and Chopra et al. (2022) in the demand for news.

is raised. Consistent with the role of political identity, these prior concerns over China are more intense for right-leaning than for left-leaning respondents.

Taken together, our findings underscore the challenges with using evidence-based information as a mode of communication with the U.S. general public on the topic of international trade. Exposure to such information does not always move preferences in anticipated directions. It can instead reinforce prior views (that stem in particular from one's political identity), and amplify support for protection among those with a proclivity towards such policies. Moreover, these preferences over trade policies are not formed in isolation from the identity of the U.S.' main trading partners and the perceived impact of ongoing trade with these countries. As a consequence, public messaging that focuses solely on portraying the benefits of trade is unlikely to succeed unless it addresses prior concerns about the potential impact on jobs as well as over broader U.S.-China economic and geopolitical relations during this time period.<sup>7</sup>

The rest of the paper is organized as follows. Section 2 describes the related literature. Section 3 elaborates on our survey design and implementation. Section 4 reports broad patterns of policy preferences. Section 5 presents the evidence on the information treatment effects, while Section 6 explores explanations and mechanisms. Section 7 concludes.

## 2 Related Literature

Our paper builds on an extensive literature on the determinants of preferences over trade policy, with Baldwin (1989) and Rodrik (1995) providing early surveys on this topic. Baldwin (1989), in particular, divides these determinants into two sets of explanations: those that pertain to individuals' economic self-interest and non-economic concerns.<sup>8</sup>

The economic self-interest channel considers individuals' trade policy preferences to be principally shaped by how their personal economic circumstances are likely to be affected. This exposure to the economic effects of trade liberalization has traditionally been seen as occurring through one's industry of occupation (when factors of production are not mobile across industries, as in the specific-factors or Ricardo-Viner model), or through one's skill endowment in relation to the abundance of skills in the economy (when factors are mobile across industries, as in the Heckscher-Ohlin model). Motivated by these hypotheses, a body

<sup>7.</sup> This rise in U.S. protectionist sentiment in response to the emergence of an economic and geopolitical challenger is not without precedent. In the late 1980s, there was a similar surge in calls for protection and barriers to investment directed against Japan. For example, a *New York Times* poll conducted at that time found that Americans viewed the economic power of Japan as a greater threat to U.S. national security than the military power of the Soviet Union, and about one in four respondents supported restricting Japanese imports "a great deal" (*New York Times* 1990).

<sup>8.</sup> Another branch of the literature has focused on the role of lobbying and interest groups in shaping the "demand-side" of trade policy; see Grossman and Helpman (1995), Krishna (1998), Ornelas (2005), Bombardini (2008), Blanga-Gubbay et al. (2022), among others.

of studies has emerged drawing on data from existing surveys of socioeconomic attitudes; this has yielded varying degrees of empirical support for education or industry characteristics in explaining trade policy preferences (see Balistreri 1987, Scheve and Slaughter 2001a, Beaulieu 2002ab, Mayda and Rodrik 2005, Blonigen 2011, Blonigen and McGrew 2014, Jäkel and Smolka 2017, Mendez and van Patten 2022).

More recently, trade economists have advanced evidence showing that geographic location is also a locus of exposure to trade, since worker mobility across regions is often limited. A growing volume of studies led by Autor et al. (2013, 2016) and Pierce and Schott (2016) has shown how import competition, specifically the import surge from China, reduced manufacturing jobs and low-skill wages, with Autor et al. (2013) focusing in particular on the impact at the level of local labor markets defined by U.S. commuting zones. That said, the overall economic impact of trade liberalization with China continues to be an active area of research, as the episode has created both winners and losers. Other studies have highlighted how cheaper inputs from China have enabled U.S. manufacturing firms to become more competitive (Amiti et al. 2017), and how the U.S. has been able to specialize more and grow employment in non-manufacturing sectors in which it has a comparative advantage (Caliendo et al. 2019). Overall, this points to the need for a more nuanced assessment of how individuals' material self-interest has been affected on net by trade liberalization.

Moving beyond personal material considerations, the recent literature has identified a host of non-economic concerns that can shape trade policy preferences. The role of social or national concerns has been highlighted by Mansfield and Mutz (2009), who argue that trade attitudes are more strongly correlated with individuals' perceptions of how the U.S. economy as a whole has been affected by trade, rather than by one's private financial situation. A separate class of explanations for the tilt towards protectionism has focused on behavioral factors linked to loss aversion (Kahneman and Tversky 1979, 1984). To the extent that the disutility from the losses incurred by trade liberalization outweigh the perceived utility from any gains, this can lead to an anti-trade policy bias that favors declining and loss-making domestic industries (Freund and Ozcan 2008, Tovar 2009). A more recent strand of work has focused instead on how social identity – "concerns for members of those groups in

<sup>9.</sup> There is a parallel literature on migration policy preferences that has examined the role of individual economic circumstances and locational externalities (such as fiscal spillovers); see Scheve and Slaughter (2001b), Mayda (2006), Facchini and Mayda (2008), Alesina et al. (2019), and Mayda et al. (2022).

<sup>10.</sup> The broader debate on whether international trade has been the main reason behind stagnated low-skill wages is far from settled in the academic literature. As documented by Lawrence and Lawrence (2012), manufacturing employment has fallen steadily among most developed nations for decades. A leading alternative hypothesis is technological change whereby the rise of computers, automation, and robotics has been seen as the main force displacing low-end manufacturing jobs (see Acemoglu and Restrepo 2017).

<sup>11.</sup> Rotemberg (2003) develops a theory of trade policy determination in the presence of voter altruism toward other citizens.

<sup>12.</sup> More subtly, opposition toward free trade could also be driven by uncertainty over the distribution of gains versus losses from adopting such a policy (Fernandez and Rodrik 1991).

society with whom they identify" (Grossman and Helpman 2021) – can influence individuals' preferences over trade policy, even when this may not align with one's economic self-interests. This notion of social identity has been linked in countries such as the U.S. to the identity of the political party that individuals affiliate closely with (Bonomi et al. 2021, Gennaioli and Tabellini 2023), so much so that the political party that one supports is a reliable marker of one's preferences for protection.<sup>13</sup>

To this point, much of the literature on trade policy preferences has (implicitly) assumed that these are determined in a full-information environment.<sup>14</sup> In reality though, members of the public may be exposed to an incomplete or biased set of information, which makes it challenging to use observational survey data to appraise the role of information in shaping policy preferences. The experimental survey approach, by providing short-term but exogenously-assigned treatments to individuals' information sets, allows us to make headway on this front. This use of randomized treatments in general-population surveys draws on prior work in empirical public finance, with Stantcheva (2023) providing a practical methodological guide. Such survey-based experiments have been applied to study support for policies related to redistribution and taxes (Kuziemko et al. 2015, Fisman et al. 2017, Alesina et al. 2018), as well as immigration policy (Facchini et al. 2016, Grigorieff et al. 2017, Alesina et al. 2019).<sup>15</sup> The evidence from this work has at times been mixed on the ability of information treatments to move preferences; for example, Kuziemko et al. (2015) find that support for tax and redistribution policies is unaffected when individuals are made aware of the severity of income inequality, a result they attribute to individuals' lack of trust in government.

Several trade-related studies speak more closely to what we do in this paper. Di Tella and Rodrik (2020) provide randomized treatments consisting of scenarios about job losses in a fictional manufacturing plant, and find that whether the losses are attributed to demand, technology, bad management, or trade exposure affects participants' preferences over remedial policies. Rodriguez et al. (2021) experiment with issue framing – short cues on gains and/or losses associated with trade that are incorporated in the question wording – to examine if this shifts views on expanding trade in Latinobarometro countries.<sup>16</sup> Stantcheva (2022)

<sup>13.</sup> There is a broader literature on whether trade policy shapes aggregate voting patterns and electoral outcomes: see Autor et al. (2020), Fetzer and Schwarz (2021), Lake and Nie (2021), Choi et al. (2021), Choi et al. (2022), Blanchard et al. (2022) on the U.S.; Colatone and Stanig (2018) on Brexit; Dippel et al. (2022) on Germany; Ogeda et al. (2021) on Brazil; and Mendez and Van Patten (2022) on the Costa Rica-U.S. CAFTA referendum. On the other hand, Conconi et al. (2014) present evidence that the proximity of elections shapes the trade policy positions that U.S. politicians adopt.

<sup>14.</sup> An exception on this count is Ponzetto et al. (2020) who examine how information can affect support for protectionism in a model setting in which information acquisition is costly.

<sup>15.</sup> This in turn draws on work in the psychology literature on attitudes towards income inequality, including Norton and Ariely (2011), and Chow and Gallak (2012).

<sup>16.</sup> For example, their positive frame question is: "Are you in favor of or against (your country) increasing trade with other countries so that prices fall and the variety of products you may buy increases?" See Hiscox (2006) and Rho and Tomz (2017) for earlier studies exploring whether question framing can affect trade policy preferences in the U.S. general population. Separately, Nguyen (2017) explores whether the

uses surveys to elicit respondents' knowledge of trade and to experimentally expose them to content aimed at improving understanding of trade issues; a number of these treatments, which emphasize the efficiency effects of free trade, are able to raise support for it. The paper further shows that beliefs in the efficacy of compensatory redistribution are associated with less opposition to trade.

We complement the above studies by focusing on evidence-based information. Instead of administering hypothetical scenarios or question frames, we convey information that is in principle factual on the documented gains and losses from trade, while presenting this in a concise format that resembles how researchers might communicate their findings to the general public, say, on Twitter. Both Rodriguez et al. (2021) and Stantcheva (2022) find that cues about the employment losses from trade can reduce support for free trade, while cues about the consumption gains exert no significant effect on these preferences. The former finding dovetails with our treatment effects for the "Trade Hurts Jobs" narrative, but our results with the "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatments go further, indicating that information on the benefits of trade can even provoke a protectionist reaction that is grounded in concerns about the impact on jobs and over trade with China. Having conducted numerous rounds of the survey over five years, our study offers insights into the stability of the information treatment effects, even amid a period of complex political and economic shocks. Moreover, our analysis, by exploring an array of potential mechanisms, will point to an important role played by individuals' political identity in mediating how trade policy preferences respond to information, a point not emphasized in prior work.

# 3 Survey Design: Methodology and Instrument

We developed a series of surveys that contain randomized information treatments, in which each treatment offers an evidence-based narrative on an aspect of the gains or losses that stem from trade liberalization. This enables us to estimate a causal effect of information exposure on policy preferences, as the randomization of narratives across respondents constitutes an exogenous source of variation. We engaged a professional company (Qualtrics) to administer the survey to a sample representative of the U.S. general population along five dimensions: age, gender, race, education, and region.<sup>17</sup> The survey consists of four main parts:

Kuziemko et al. (2015) prime on income inequality can affect trade policy preferences.

<sup>17.</sup> The sampling quotas were: (i) by gender, female: 50.8%, male: 49.2%; (ii) by age, 18-24: 12.8%, 25-34: 17.7%, 35-44: 16.7%, 45-54: 17.7%, 55-64: 16.4%, 65+: 18.8%; (iii) by race, non-Hispanic White: 61.9%, non-Hispanic Black: 12.3%, Hispanic: 17.4%, Asian: 5.3%, Other: 3.2%; (iv) by education, HS diploma/GED or less: 40.8%, some college (no degree): 20.9%, college degree: 26.9%, graduate degree: 11.4%; and (v) by region, Midwest: 21.33%, Northeast: 18.02%, South: 37.27%, West: 23.38%. Participants who completed the survey received compensation of about \$2.00 each. The 2022 survey platform can be accessed at: https://hbs.qualtrics.com/jfe/form/SV\_esNIwUlv3V4Iufc.

Part 1: Background. This first section gathers general biographic characteristics of the respondents, including: age, gender, ethnicity, country of birth, state of residence, education, employment status (and sector), and household income. In addition, we elicit their baseline beliefs on a range of economic and socio-political issues, such as their: degree of trust in government; satisfaction with the health of the U.S. job market; willingness to pay more for a U.S. brand of similar quality; outlook for the next generation (how much they agree with the statement that "children born into my community will have a better life than my generation"); assessment of the impact that NAFTA has had on their family ("extremely good" to "extremely bad"); and views on how big of a problem inequality is in the U.S. today ("not a problem" to "a serious problem"). In the most recent 2022 round, we also seek their views on how big of a problem inflation is in the U.S. today.

As a marker of respondents' political identity, we ask which party's candidate they supported in the most recent presidential election ("Democrat", "Republican", or "Neither"). We also gauge the degree of loss aversion using a standard approach in the behavioral economics literature (c.f., Kahneman and Tversky 1979, 1984), by asking one's preferences between receiving a discount and avoiding a surcharge of an equal monetary amount (which we describe in the context of a monthly cellphone bill). Last but not least, we include a short module of questions related to news consumption and media use habits. (The full survey, including the list of background questions, can be found in Appendix A.)

Part 2: Treatment. The second section administers the treatment narrative. Respondents are randomly allocated to the control group (no narrative received) or one of the information treatment groups, each with equal probability. Each narrative starts with the same preamble – "How have globalization and imports affected workers and households? Economic researchers have been studying this issue." – before proceeding to describe a particular employment or price effect of openness to trade, that has been found to be quantitatively important in economics research following China's accession to the WTO in 2001:

- (a) The "Trade Hurts Jobs" narrative reports on the main finding of Autor et al. (2013), on how the rise in imports from China had a negative impact on the labor market outcomes of manufacturing workers in the U.S.
- (b) The "Trade Helps Jobs" narrative relates how the rise in imports from China led the U.S. to specialize more in service sectors as established by Caliendo et al. (2019), which contributed to an increase in the total number of jobs in the U.S. economy.
- (c) The "Trade Helps Prices" narrative describes how the rise in imports from China was accompanied by lower prices for both durable goods (such as computers, electrical products, and furniture), and non-durable goods (such as apparel), drawing on price indices from the Bureau of Labor Statistics.
- (d) Starting in the 2020 survey round, and following the resurgence in U.S. import tariffs,

we introduced a "Tariff Hurts Prices" narrative based on the findings from Amiti et al. (2019). This describes how the tariffs imposed in 2018, particularly on imports from China, resulted in higher prices for tariff-related goods, incurring an estimated loss to U.S. real income of \$1.4 billion per month.

To make the information accessible, each of the narratives was limited to three to four sentences in length – akin to a short social media post – and conveyed in text that avoids technical jargon. 18 To facilitate respondents who prefer to absorb information visually, each narrative was accompanied by a figure that illustrates the key trends over time in either job outcomes or goods prices. For example, in the "Trade Hurts Jobs" treatment, we reproduced Figure 1 from Autor et al. (2013), which overlays the increase in imports from China between 1987-2007 with the contemporaneous decline in the manufacturing employment share in the U.S. population. For the "Trade Helps Jobs" and "Trade Helps Prices" treatments, we created analogous figures in which the decline in manufacturing employment was replaced by data series illustrating respectively the rise in total U.S. nonfarm jobs and the fall in U.S. goods price indices. For the "Tariff Hurts Prices" treatment, we included a figure that shows how the U.S. prices of tariff-affected goods started to rise in early 2018 with the roll-out of the new tariffs. It should be stressed that each narrative is crafted based on evidence backed by recent economics research or data, and seeks to strike a neutral and factual tone; in particular, we do not deliberately expose participants to falsified accounts or hypothetical scenarios. (The narratives and accompanying figures are presented in Appendix A.1.)

Apart from the above four baseline treatments, we also implemented several variants of these narratives in later editions of the survey; these were similarly randomized to a comparable group of participants. Starting in 2020, we have run treatments in which both the "Trade Hurts Jobs" and "Trade Helps Jobs" information are jointly provided, to gauge the impact of these composite treatments as well as whether this is affected by the order in which the two pieces of information are presented. We have also exposed respondents to versions of the treatments in which we have removed key wording – such as taking out explicit mention of "China", and referring instead to a general increase in imports into the U.S. – in order to assess the sensitivity of our findings. We elaborate on these additional treatments in Section 5.3 below.<sup>19</sup>

Part 3: Policy Preferences. We then proceed to solicit preferences over economic policies.

<sup>18.</sup> While the treatment screen includes an academic citation to attribute the source of the narrative, the names of the institutions to which the researchers are affiliated were not included to avoid potential bias that could arise due to the reputations of the institutions.

<sup>19.</sup> In the 2018-2019 round of the survey, we included a "It's not Trade, it's Technology" narrative that presented the argument that "Technological advances in recent decades, such as computerization and automation, have tended to favor skilled workers while replacing some jobs that used to be performed by unskilled workers." We did not find statistically significant effects with this treatment and, given budget constraints, decided to omit it from subsequent survey runs to focus on the jobs- and prices-related treatments.

We capture preferences for protection through the following directly-posed questions:

- (a) "Do you support placing more limits on import?" (Yes or No. If Yes: "On which countries?")
- (b) "Would you support an increase in the U.S. tariff rate to reduce imports?" (Yes or No.)
- (c) "Would you support the U.S. signing free trade agreements with more foreign countries?" (Yes or No.)
- (d) "Of the following two policies, which do you prefer? Higher taxes on top income earners; Higher tariffs on imports from foreign countries; Both policies; Neither policy."

We further included a question in which respondents are asked to select their three "Most Preferred" policies from a list of eight options, in order to gauge the strength of their preference for protection relative to other measures that have commonly been proposed to address labor market concerns. The eight policies are: "higher taxes on top income earners"; "higher minimum wage"; "more benefits for the unemployed (e.g., unemployment insurance)"; "improving education and worker training"; "more limits on imports from foreign countries (e.g., higher tariffs on imports)"; "weakening the U.S. dollar, so that U.S. exports are more competitive"; "exiting from existing free trade agreements"; "more limits on immigration". These were presented to each participant in a random order, to account for possible choice biases that can arise from the order in which response options appear.<sup>20</sup>

The phrasing adopted in these policy-related questions is comparable to that in established socioeconomic surveys such as the Gallup Poll, the American National Elections Studies, and the World Values Survey. As we ask about trade policy preferences in multiple ways – e.g., "higher tariff rates on imports", "more limits on imports" – we will later work with a first principal component measure that seeks to extract the common component of variation in the answers recorded across questions; this helps to alleviate concerns over measurement error that might be inherent in the responses received on individual questions.

Part 4: Validate and Explain Choices. Beginning in 2020, we included a fourth section that contains questions to validate how well participants engaged with the treatment narratives. We ask directly whether the information read earlier in the survey affected their views on trade policy (on a Likert scale, from "strongly disagree" to "strongly agree"). As a basic recall question, we also ask whether the information received was on the topic of "the relationship between trade and jobs" or "the relationship between trade and prices" (with "I did not receive information on any of the above" being the third response option).

In line with our goal to understand what shapes preferences for protection, we started in the 2021 survey to direct participants who selected "more limits on imports" as a top-three

<sup>20.</sup> See in particular: https://www.qualtrics.com/support/survey-platform/survey-module/question-options/choice-randomization/.

preferred policy to a set of follow-up questions. These respondents were reminded of their policy selection, and then asked to assess the degree to which each of the following reasons explains why they picked "more limits on imports":

- I was persuaded that imports have hurt jobs in the U.S. (for respondents who received "Trade Hurts Jobs")
- I was not persuaded that trade has helped to create jobs in the U.S. (for "Trade Helps Jobs")
- I was not persuaded that imports have lowered goods prices for Americans (for "Trade Helps Prices")
- I was not persuaded that tariffs imposed by the U.S. have raised goods prices for Americans (for "Tariff Hurts Prices")
- Imports are often of lower quality.
- Imports are a potential threat to U.S. national security.
- Imports often compete for jobs with U.S. workers.
- I am concerned about U.S. imports from countries such as China.
- There are other more important concerns.

These respondents were asked to score each reason on a scale of 1 ("strongly disagree") to 5 ("strongly agree").<sup>21</sup> Last but not least, they were invited to describe any other relevant reasons in a text-response box.

We conducted annual runs of the survey over 2018-2022, which we group into four rounds as follows. The first surveys were launched in July 2018 and April 2019, with the "Trade Hurts Jobs", "Trade Helps Jobs", and "Trade Helps Prices" treatments; we have grouped these two pre-pandemic years as a single "round" due to the smaller number of respondents (2,277 observations) relative to later editions. The second round was conducted from April-June 2020 on a sample of 6,009 participants; in addition to the same treatments in round 1, we introduced the "Tariff Hurts Prices" narrative based on evidence on the new U.S. tariffs and their impact on goods prices. As we will discuss in Section 5.3, this second round also included the mixed jobs treatments, as well as versions of the "Trade Helps Prices" narrative with modified wording. The third round in April 2021 yielded a sample of 4,058 participants.<sup>22</sup> The fourth round was administered over April-July 2022, and delivered 6,005 observations; in this run of the survey, we added a question on participants' views on how serious a problem they considered inflation to be. In total, we have had over 18,000 respondents across the

<sup>21.</sup> The answer options for the basic recall question and the list of reasons for selecting "more limits on imports" in this follow-up question were also presented on the survey screen in random order.

<sup>22.</sup> This round of the survey contained additional questions on respondents' views on the effects of the Covid-19 pandemic and the U.S. government's relief packages, although we have not exploited these at length given the stability of our core findings over time.

four survey rounds. Note that we did not seek to assemble a longitudinal panel of the same individuals over time due to the challenge of low re-contact rates.

With the information collected on state of residence and the name of one's city or town, we were also able to infer the county of residence for the vast majority of respondents. This in turn allowed us to merge in a set of location characteristics, drawn from standard sources of U.S. county-level data, for more than 96% of the observations in each survey round.<sup>23</sup>

# 4 Broad Patterns of Policy Preferences

In this section, we provide a first look at our collected data and describe several key patterns. Table 1 reports summary statistics on the participants in each of the four survey rounds, on a range of underlying biographic variables (e.g., gender, age), socio-economic characteristics (e.g., household income, education, employment), socio-political views (e.g., party supported in the last presidential election), and news consumption patterns (e.g., frequency). We also tabulate these for several location characteristics, which respondents would in principle be exposed to through their county of residence; these are: the college-educated share (from the American Community Survey), the manufacturing share in local employment (from the County Business Patterns dataset), exposure to imports from China for 2000-2007 (from Autor et al. 2013), and whether the location is an urban area (from the US Census).<sup>24</sup>

Across the columns in Table 1, the means of the respondent and location characteristics are broadly similar over the survey rounds. The profile of our sample along the gender, age, race, and education dimensions are by construction consistent with their respective distributions in the U.S. general population. The sample moreover matches fairly well the labor force participation rate (e.g., 61% in round 4), as well as employment shares by sector (e.g.,  $0.07/0.51 \approx 13.7\%$  for manufacturing and  $0.40/0.51 \approx 78.4\%$  for services in round 4), even though these moments are not explicitly targeted.<sup>25</sup> On the other hand, the sample slightly over-represents the unemployment rate (10-11% across rounds), while leaning more Democratic in terms of left-right political identity (41-49% Democratic versus 34-36% Republican

<sup>23.</sup> We performed a fuzzy merge with a repository of city names across U.S. states. Observations with a Stata reclink fuzzy merge score lower than 0.93 were checked manually to correct for spelling errors, the use of abbreviations (e.g., "St." versus "Saint"), and differences between colloquial and formal names (e.g., "St. Peter" versus "St. Petersburg"). Where there was potential ambiguity, the IP address coordinates of the respondents were geolocated using Google Maps to determine their likely location. We dropped respondents with coordinates located outside the U.S.; these comprised less then 0.3% of the entire sample.

<sup>24.</sup> The college-educated variable is expressed as a share of the local population aged 25 and older, and is a five-year average over 2013-2017. The manufacturing share variable is for the year 2016. Both of these measures are constructed at the county level, whereas the China import shock variable taken from Autor et al. (2013) is at the commuting zone level. The urban area definition is from 2010.

<sup>25.</sup> For comparison, the labor force participation rate reported for 2022 by the U.S. Bureau of Labor Statistics is around 62%. The manufacturing and services shares of employed workers calculated from the 2022 Current Population Survey are 9.6% and 76.3% respectively.

support). Note though that this *per se* does not invalidate our empirical approach, since we will show in the next section that the control and treatment groups within each round are balanced across these key characteristics.

It is worth highlighting several interesting patterns in socio-political attitudes. The average respondent exhibited a slight distrust in government, held a slightly negative view of the impact of NAFTA and on the health of the U.S. job market (especially in rounds that coincided with the Covid-19 pandemic), and expressed a slight willingness to pay more for U.S. brands. The participants also viewed both inequality and inflation as a problem, particularly inflation in 2022. There is substantial dispersion, however, in each of these variables around their respective means, that we will exploit when examining potential channels through which information could be influencing trade policy preferences.

Another dimension along which there is considerable heterogeneity is the amount of time taken on the survey. The mean time to completion was about 15 minutes in rounds 2-4 (see the bottom of Table 1), after the validation and follow-up questions were added to the survey; the distribution of completion times is right-skewed, with a median of around 11 minutes.<sup>26</sup> Within the survey, respondents spent on average about half a minute on the information treatment screens.<sup>27</sup> Over half the respondents completed the survey on a mobile device.

Turning to policy preferences, Table 2 (top panel) presents the declared support for various policies – including trade-related policies – when these are elicited in directly-posed questions (e.g., a "Yes/No" format); we report unconditional means here pooling across the control and all treatment groups. When queried in a direct "Yes/No" manner, a fairly high share of respondents agreed with placing more limits on imports (57-62%, across the four rounds). Note however that the share favoring alternative policies, such as a minimum wage and more progressive taxation ("higher taxes on top income earners"), was consistently higher (65-80%).<sup>28</sup> Interestingly, between 65-68% of the participants indicated support for signing new free trade agreements; it is possible that some respondents may not see limits on imports and more free trade agreements as contradictory, since these moves could be pursued with different foreign countries.

<sup>26.</sup> As a data quality measure, Qualtrics removed observations that took less than half the median completion time after a first run of data collection and replaced these with freshly sampled respondents to fulfill the requested survey quotas.

<sup>27.</sup> Round 1 saw a higher average duration on the treatment screen, as the preamble of the narratives included more background information on inequality trends in the U.S. This longer preamble was removed in rounds 2-4.

<sup>28.</sup> The sum of the shares for "Prefer: Higher tariff rates on foreign countries?" and "Prefer: More progressive taxes?" exceeds one, since respondents were allowed to select "Both" in this survey question. The share who selected "Prefer: Higher tariff rates on foreign countries?" also exceeds the share who replied yes on "Would you support an increase in the U.S. tariff rate?" For the latter question, one of the response options was to keep the tariff rate the same, and a majority of respondents (around 60%) appear to have gravitated to this as a default answer. That said, respondents who expressed support for higher tariffs on one of these questions were also likely to do so on the other (correlation coefficient: 0.27, across all rounds).

The lower panel in Table 2 summarizes the responses to the "Most Preferred" policy question, where participants were asked to select their top three policies from the menu of eight options. Once again, anti-globalization policies received a lower level of support when compared to alternative tax or labor market policies. The share of respondents who selected "more limits on imports" sat in the 23-28% range, the corresponding share who picked "more limits on immigration" was between 34-37%, while only around 12% of respondents identified "exiting from free trade agreements" as a preferred course of action. In contrast, measures to "improve education and training", a "higher minimum wage", and "higher taxes on top income earners" each received broader support from about 50-60% of the survey participants. Not all public assistance programs received high support though, as only about a quarter of respondents identified "more unemployment benefits" as a preferred policy. The option that received the least support was to "weaken the US Dollar" (7-9%).<sup>29</sup>

Two further points are worth noting. First, there is a distinct gap in the level of support for "more limits on imports" in response to the direct "Yes/No" question, when compared to the share who picked this as a top-three preferred policy. Interestingly, import restrictions receive less support once individuals are asked to consciously prioritize and rank this against alternative policies. Second, across survey rounds, the ranking of support for the eight policy options was stable (Table 2, lower panel). For example, a "higher minimum wage" was consistently selected as a "Most Preferred" policy by the largest share of respondents, followed by "improve education and worker training" and "higher taxes on top income earners". This stability in policy preferences is quite remarkable, since the different rounds of the survey were conducted against a backdrop of economic shocks (e.g., the U.S.-China trade war and the Covid-19 pandemic) and political changes (e.g., the U.S. presidential election in 2020). There is only a small uptick over time in the share supporting "more limits on imports" as a "Most Preferred" policy – from 23% in 2018-2019, to 27-28% in 2020-2022, although this pattern is not uniformly replicated; when posed as a direct "Yes/No" question, the share of respondents who favored more limits on imports peaks instead in round 2.<sup>30</sup>

# 5 Evidence on Information Treatment Effects

## 5.1 Empirical Specification

We now turn to the task of identifying whether and how much the information treatments affected individuals' policy preferences. We evaluate this formally using the following regres-

<sup>29.</sup> The responses to the complementary question on one's "Least Preferred" policies yielded a consistent message, with "improve education and training", "higher minimum wage", and "higher taxes on top income earners" selected with the lowest frequencies (details available on request).

<sup>30.</sup> The variation in these preferences across regions of the U.S. is broadly consistent with the well-known geographic divisions in support for the Republican versus Democratic party (available on request).

sion specification:

$$\mathbf{1}(Policy_i) = \sum_{b=1}^{B} \beta_b \mathbf{1}(Treatment_i = b) + \gamma X_i + \epsilon_i, \tag{1}$$

where  $\mathbf{1}(Policy_i)$  is a dummy variable for whether respondent i expressed support for the particular policy measure. The  $\mathbf{1}(Treatment_i=b)$ 's are dummy variables for whether the respondent received information treatment b; the omitted category (b=0) is the control group that received no information. The  $\beta_b$  coefficients (for  $b=1,\ldots,B$ ) therefore capture the effects of the respective treatments relative to the control group. These can be accorded a causal interpretation, given the randomization of treatments to respondents. In Appendix Tables 1a-1e, we confirm that within each survey round, the randomization achieved balance in a large set of respondent characteristics across the control and treatment groups.<sup>31</sup>

We include in (1) a vector of controls,  $X_i$ , to capture any systematic correlations between these observed respondent characteristics and expressed policy preferences. This includes: (i) biographic variables (gender, age group, race, education, employment status and sector, household income, and region of birth); (ii) prior political identity (on the basis of the party supported in the most recent presidential election); and (iii) news consumption habits (frequency and main sources). To capture the effects of these preceding variables flexibly, we control for each using a set of dummies based on the response options from the associated survey question. We further control in  $X_i$  for: (iv) several location-specific socioeconomic conditions; as described earlier, these are the college-educated share, the manufacturing share in employment, the Autor et al. (2013) measure of exposure to imports from China, and an urban dummy. Note that the underlying randomization implies that the assignment of treatments should be orthogonal with respondent or location characteristics, and so the inclusion of  $X_i$  is in principle not crucial for the consistency of the treatment effects. Indeed, the  $\beta_b$ 's that we estimate with and without the set of controls are similar (see Appendix Table 2). That said, the use of these covariates will facilitate a comparison with the prior empirical literature on correlates of preferences for trade protection.

Last but not least, we account for several survey features. When the outcome variable is the indicator for whether "more limits on imports" was selected as a "Most Preferred" policy, we control for the "randomization order" – i.e., the position (1 to 8) in which "more

<sup>31.</sup> The randomization-t p-value (c.f., Young 2019) for a multiple hypothesis test of the orthogonality of the listed covariates in the appendix tables is 0.864, 0.019, 0.509, and 0.438 respectively for rounds 1-4 (with 1,000 iterations, controlling for survey-week fixed effects). In the two variants of the "Trade Helps Prices" narrative included in round 2, that removed "China" and "cheaper" respectively from the wording, the profile of these respondent groups was older and had slightly fewer years of education (Appendix Table 1b, last two columns); if these two characteristics are dropped, we do not reject the null hypothesis of orthogonality in this round (p-value=0.546). Accordingly, we take care to condition on age and education in the regression analysis. (The survey and treatment duration variables are excluded from the covariate set in the randomization-t tests, since these mechanically differ based on the length of the narratives.)

limits on imports" appeared to the respondent in the list of eight options – to account for any tendency toward picking policies that appear earlier in the list. We also include dummies for the week the response was recorded (to capture the effects of contemporaneous news events), and for whether the survey was taken on a mobile device (to control for possible differences between mobile and non-mobile device users in how they process information).<sup>32</sup>

In our regression analysis, we will cross-validate our findings by using an array of dependent variables constructed from the various trade-related policy questions. We run logit regressions based on (1), using in turn the following as  $\mathbf{1}(Policy_i)$ : (i) whether a "Yes" answer was recorded on the binary-response question "Do you support placing more limits on imports?"; (ii) whether a "Yes" was recorded for "Would you support an increase in the U.S. tariff rate?"; (iii) whether "higher tariffs on imports from foreign countries" or "both" (higher tariffs and higher taxes on top income earners) was selected on the question on preferences over these two policies; (iv) whether a "Yes" was recorded for "Would you support signing more free trade agreements?"; and (v) whether "more limits on imports" was chosen as a top-three "Most Preferred" policy. When presenting these logit regression results, we report marginal effects that are evaluated setting the treatment dummies,  $\mathbf{1}(Treatment_i = b)$ , at a baseline value of zero and the covariates in  $X_i$  to their in-sample mean values.

In addition, we will run OLS regressions based on the specification in (1), in which we use the first principal component of (i)-(v) as the dependent variable. We subtract the binary response to the question "Would you support signing more free trade agreements?" from one prior to taking this first principal component. This yields a measure that is increasing in the intensity of preferences for protection, that in principle dampens the effect of measurement error in the responses to any single survey question.<sup>33</sup> We report standard errors that are clustered by county of residence throughout the regression tables.

#### 5.2 Effects of Baseline Treatments

We analyze the effects of the information treatments across different rounds of the survey. By comparing the results from round 1 (2018-2019) against those obtained from the subsequent rounds 2-4 (2020-2022), this sheds light on any common features that are robust across the independently-drawn samples before and after the outbreak of the pandemic.

Baseline Round (2018-2019). Table 3 presents the results from round 1. Relative to the control group, participants who received the "Trade Hurts Jobs" treatment exhibit significantly stronger preferences for protection. For the five individual trade policy questions (i)-(v), exposure to evidence on how trade has led to manufacturing job losses raises support for "more limits on imports" (Column 1, for the "Yes/No" question), a "U.S. tariff rate

<sup>32.</sup> See Couper et al. (2017) for a review of potential concerns that arise with mobile web-based surveys.

<sup>33.</sup> The pairwise correlation across the individual measures (i)-(v) ranges between 0.103-0.367, pooling across all survey rounds and treatment groups.

increase" (Column 2), and "higher tariffs" (Column 3, when juxtaposed with "higher taxes on top income earners"); respondents in this treatment group were also more likely to pick "more limits on imports" as one of their three "Most Preferred" policies (Column 5). At the same time, the "Trade Hurts Jobs" narrative lowers support for more free trade agreements, although this effect falls short of statistical significance (Column 4). Overall, we find when using the first principal component measure that individuals exposed to the "Trade Hurts Jobs" information display stronger support for protection against imports (Column 6). The "Trade Hurts Jobs" coefficient of 0.282 in this last column implies a treatment effect which is about one-third the magnitude of the effect of self-identifying as a Republican supporter (relative to being an independent); as an alternative benchmark, this treatment coefficient is about one-fifth the size of a standard deviation in the principal component measure of intensity of protectionist preferences (1.400).

In contrast, communicating evidence that "Trade Helps Jobs" did not shift trade policy preferences in a statistically significant way, although the point estimates in several of the columns (including for the principal component measure) suggest that this narrative mildly tips respondents in a protectionist direction. On the other hand, the "Trade Helps Prices" narrative yields striking results: when presented with evidence showing that imports have been associated with lower goods prices, participants raise their support for more limits on imports (Columns 1 and 5), and for higher tariffs (Column 3). With the first principal component measure (Column 6), the "Trade Helps Prices" treatment effect is significant at the 5% level and quantitatively comparable to the effect of exposure to the "Trade Hurts Jobs" narrative. Somewhat surprisingly (and even paradoxically), it appears that evidence-based information on the impacts of trade can trigger increased preferences for trade protection, regardless of the positive or negative nature of the impact presented.<sup>34</sup>

Later Rounds (2020-2022). Prompted by the results from round 1, we conducted annual runs of the survey between 2020-2022 to explore the robustness of the initial findings, as well as to probe deeper into explanations for these patterns. As described in Section 3, the core set of survey questions remained unchanged across these rounds, even as we progressively added several treatment narratives and further follow-up questions.

Table 4 reports on the effects estimated from these later rounds. The regressions here pool the observations across rounds 2-4 as a convenient way to summarize the key patterns, since we obtain qualitatively similar results when examining each round separately (albeit with slightly less precision, see Appendix Table 3). In addition to the treatments seen earlier

<sup>34.</sup> These findings provide some reassurance against the presence of experimenter demand effects, wherein participants shade their answers towards what they perceive to be the survey's objective. The narratives on the beneficial dimensions of trade actually induce a pro-protectionist response, contrary to the anticipated direction of experimenter demand effects. We should also note that no monetary stakes were conditioned on specific responses being given. More broadly, see de Quidt et al. (2018) who present evidence that experimenter demand effects are relatively small.

in Table 3, rounds 2-4 rolled out the "Tariff Hurts Prices" narrative which describes evidence on the impact of the new U.S. tariffs, to investigate the responses when the price effects of international trade are presented in terms of the costs incurred by trade barriers.

We find that all the baseline results documented in 2018-2019 continue to hold in 2020-2022. Once again, the "Trade Hurts Jobs" treatment exerts a particularly noticeable effect: it raises respondents' propensity to favor protection uniformly across all the policy preference variables we consider (Columns 1-6, Table 4). As for the "Trade Helps Jobs" narrative, this yields imprecisely estimated treatment coefficients on each of the five individual trade policy questions (Columns 1-5). That said, we obtain a positive and significant effect at the 10% level with the outcome measure that extracts the first principal component of variation across these individual questions (Column 6); the implied magnitude of the shift in favor of import protection is about one-quarter that of the "Trade Hurts Jobs" treatment. If anything then, this mode of communicating that trade has some beneficial labor market effects tilts respondents towards more protectionist preferences too.

For the narratives on the price-related effects of trade, we replicate the puzzling finding from Table 3. The "Trade Helps Prices" narrative significantly raises support for protection, albeit with a treatment effect about half the size of that displayed in round 1 (based on the principal component measure). The newly-introduced "Tariff Hurts Prices" narrative induces a similar response: when information that tariffs have hurt U.S. consumers is conveyed, participants also shift towards voicing more support for limits on imports (Column 6). Given its persistence and robustness, this finding – that narratives on the beneficial price effects of trade can instead prompt protectionist reactions – cannot be easily put aside as an isolated result. These patterns moreover hold when we use alternative methods to combine the responses across the five individual questions (i)-(v), such as when using an unweighted average or adopting a factor analysis approach (see Appendix Table 3).<sup>35</sup>

We make further use of the validation questions in rounds 2-4 to confirm that, at least at a self-reported level, the treatment effects we have identified are driven by participants' engagement with the received information. Respondents who were exposed to a treatment were more likely to "somewhat agree" or "strongly agree" with the statement that the information received had affected their views on trade policy, relative to the no-narrative control group (Column 7, ordered logit regression). Also, when asked (post-treatment) to assess the impact that being open to trade has had for most Americans, each of the treatment groups was less likely to register "extremely good" or "somewhat good" as a response (Column 8, ordered logit). This is notable, that even respondents who received

<sup>35.</sup> Appendix Table 3 also confirms that the findings are robust when pooling all four rounds of data.

<sup>36.</sup> Each of the dependent variables in Columns 7 and 8 of Table 4 is an ordered categorical variable with five bins. We run an ordered probit regression with the same right-hand side variables as equation (1), and report the marginal effect on the predicted probability that either the fourth or fifth highest ordered bin is selected as the response.

information about the possible benefits of trade (or the harms of trade barriers) became more likely to express a negative view on how trade has impacted most Americans.

In sum, the 2020-2022 rounds show that the manner in which trade policy preferences are moved by our information treatments has been stable over time, despite the ongoing disruptions from the Covid-19 pandemic and U.S.-China trade war. Information on manufacturing job losses from trade intensifies preferences for import restrictions, while alternative information on potential sources of gains from trade does not induce a symmetric reaction as it likewise raises protectionist sentiment. These shifts are accompanied by a stronger belief that trade has had a bad impact on most Americans. Whereas studies such as Rodriguez et al. (2021) and Stantcheva (2022) have found that short cues or primes about the positive effects of trade yield a zero effect on trade policy preferences, the evidence-based information we administered on the potential benefits of trade goes even further in actually inducing a pro-protectionist response.

Respondent Characteristics. Before moving on to further results on the information treatments, we briefly discuss the correlations we find between respondent characteristics and trade policy preferences. On this count, Appendix Table 2 reports the full set of coefficients estimated from the specifications in Columns 6-8 of Table 4, where the dependent variables are respectively the first principal component measure of preferences for protection and the two validation questions on the role of information.

Consistent with previous research (e.g., Blonigen 2011), we find that older participants are more likely to support protection. The effect of gender on trade policy preferences is not precisely estimated (Column 2, Appendix Table 2), although women are more likely to have a negative view of the impact of trade on most Americans (Column 4, c.f., Scheve and Slaughter 2001, Mayda and Rodrik 2005, Blonigen 2011). The role of education is similarly mixed: those with some college education express a more positive view of the impact of trade, but this is not reflected in their choices over policies. Controlling for education, household income is positively correlated with preferences for protection, as is being employed in agriculture, mining, or manufacturing (relative to being employed in services).

Of note, political affiliation is important for explaining support for protection. In contrast to previous decades, Republican supporters are more likely to favor import restrictions during our sample period than independents, with the opposite being true for Democrat supporters, a reflection of how decisively the Trump administration moved the Republican party's platform away from support of free trade. It is worth pointing out too that Republicans are more intense in their support for protection (coefficient estimate: 0.625) than Democrats are in their opposition to it (-0.141), relative to independents. Related to this, the consumption of Fox News is associated with a stronger preference for protection.

In terms of location characteristics, a higher county manufacturing employment share is weakly associated with protectionist sentiment. On the other hand, we do not find a significant effect stemming from the Autor et al. (2013) measure of exposure to imports from China. Last but not least, the negative "randomization order" coefficient points to the usefulness of this survey design feature to account for the tendency to select answer options that appeared earlier in the list of "Most Preferred" policies.<sup>37</sup>

#### 5.3 Additional Information Treatments

In this subsection, we turn to discuss several variants of the narratives that were introduced in rounds 2-4 of the survey.

Mixed Information Treatments. While the "Trade Helps Jobs" information does not dissuade respondents from favoring limits on imports, could it nevertheless mitigate the strength of narratives that focus exclusively on the job losses associated with trade? In Panel A of Table 5, we evaluate the effects of information treatments in which the "Trade Hurts Jobs" and "Trade Helps Jobs" narratives are jointly included (in both possible orders). To provide a point of comparison on the size of the treatment effects, the sample in this panel comprises the control group together with the "Trade Hurts Jobs", "Trade Helps Jobs", and the two mixed treatment groups. (We verify in Appendix Table 4 that the results hold when we pool all the baseline and variant treatments in the same regression.)

We find that exposure to both jobs-related narratives on the same treatment screen weakly dampens protectionist responses. This reduction is more pronounced if the "Trade Helps Jobs" narrative is sequenced after the information that "Trade Hurts Jobs"; however, the treatment effect is not lowered to the point where it becomes equivalent to only receiving the "Trade Helps Jobs" narrative. These findings suggest that the "Trade Helps Jobs" narrative can modestly counteract information on the losses that result from trade liberalization, particularly if it is sequenced later.<sup>38</sup>

"Sans Cheaper" Treatment. One concern that emerges with the "Trade Helps Prices" narrative is that participants may be associating the word "cheaper" with "lower quality". If interpreted in this way, the narrative would no longer be conveying a benefit of free trade, which could (in principle) explain the shift in favor of import restrictions. To guard against this possibility, we ran a "sans cheaper" version of the "Trade Helps Prices" treatment, in which the phrase "availability of cheaper goods" in the narrative was replaced with "increased availability of goods" (see Appendix A.1 for the full wording). In Panel B of Table 5, we find that this adapted language continued to induce preferences in favor of protection,

<sup>37.</sup> Interestingly, participants who answered the survey on a mobile device are also more likely to select protectionist policies.

<sup>38.</sup> It is worth noting that respondents who received the mixed job treatments became more negative in their views on the impact of trade on most Americans (Column 8, Appendix Table 4), but also expressed a lower degree of confidence in their assessment on this front (Column 9). Being informed of both the positive and negative effects of trade may thus lowers one's certainty about the net impact, which could explain the corresponding milder protectionist response.

with a treatment effect comparable in size to that of the original "Trade Helps Prices" and "Tariff Hurts Prices" narratives.<sup>39</sup> It is thus unlikely that negative quality connotations associated with the adjective "cheaper" are what is driving the protectionist response.

"Sans China" Treatments. Our baseline narratives are written around the impact of the rise in imports following China's accession to the WTO, and so it could be possible that the mention of "China" is what is evoking the preferences for more limits on trade. We therefore also explore whether removing the national identity from the narrative – by referring instead to an "increase in imports from the rest of world" (see Appendix A.1) – has any bearing on the expressed trade policy preferences; we implemented such "sans China" versions for the "Trade Hurts Jobs", "Trade Helps Jobs", and "Trade Helps Prices" treatments. 40

Panel C of Table 5 illustrates with the "Trade Helps Prices" treatment that the protectionist turn in preferences is not dampened by dropping the identity of the trading partner from the treatment wording. <sup>41</sup> Put otherwise, there is a tendency among members of the U.S. public to opt for more limits on imports regardless of whether or not China is explicitly named in this treatment. Furthermore, in Appendix Table 11, we show that the treatment effect associated with each of the three "sans China" narratives is statistically indistinguishable from that of its respective counterpart "with China" narrative; for example, when directly comparing the "Trade Hurts Jobs" and "Trade Hurts Jobs sans China" treatments relative to the control group, the "sans China" narrative also induces protectionist responses and we cannot reject a null of equal-sized treatment coefficients (Panel A, Appendix Table 11). We will have more to say by way of interpreting this finding in Section 6.2.<sup>42</sup>

## 5.4 Comprehension and Attention

Having established that the protectionist response to the "Trade Helps Jobs" and "Trade Helps Prices" narratives is unlikely to be due to certain key wording *per se*, we investigate two related concerns below: that these treatment effects may be driven by a misunderstanding of the content or by inattention toward it.

<sup>39.</sup> The sample in Panel B of Table 5 comprises the control group, as well as the "Trade Helps Prices", "Tariff Hurts Prices", and "Trade Helps Prices sans Cheaper" treatment groups from rounds 2-4. Appendix Table 4 confirms that the "sans Cheaper" treatment effect is robust when instead pooling across all baseline and variant treatment groups.

<sup>40.</sup> We did not run a "sans China" version of the "Tariff Hurts Prices" treatment, given the difficulty of disassociating the recent U.S. tariffs from the main foreign country that they were levied on.

<sup>41.</sup> The sample in Panel C of Table 5 comprises the control group, as well as the "Trade Helps Prices", "Tariff Hurts Prices", and "Trade Helps Prices sans China" treatment groups from round 2-4.

<sup>42.</sup> Di Tella and Rodrik (2020) find that when they manipulate the identity of the foreign country to which jobs are lost from a developed country (France) to a developing country (Cambodia), this significantly raises preferences for protection. We did not experiment with a change in country name in our treatments due to budget constraints. Moreover, as we will see in Table 8, our survey participants cited concerns about trade with China even when randomized to a "sans China" treatment, which underscores the difficulty of dampening the salience of China as a trade partner in the minds of the U.S. general public.

Comprehension. Could the protectionist response we have uncovered be due to a basic misreading of the topic of the narrative? For example, even if participants had received the "Trade Helps Prices" narrative, the mention of the word "trade" might evoke an immediate association with "jobs" because of the (arguably) more widespread prior exposure to news on the impact of trade on jobs in the U.S. media.

Table 6 makes use of the end-of-survey recall question (from rounds 2-4) to address this possibility. We revert here to our baseline set of treatments (namely, that in Table 4) and run regressions using the specification in (1).<sup>43</sup> Reassuringly, we find that respondents were on average able to recall the subject matter of the narrative they received: Participants assigned to the "Trade Helps Prices" and "Tariff Hurts Prices" treatments were significantly less likely to say that the information was on the topic of trade and jobs (Column 1, logit regression), and more likely to indicate that it was on the relationship between trade and prices (Column 2). Likewise, participants in the "Trade Hurts Jobs" or the "Trade Helps Jobs" treatment groups were on average able to correctly identify that the information was on the topic of jobs rather than prices.<sup>44</sup> In Columns 3-4 of Table 6, we re-run our regression based on the principal component measure of trade policy preferences (from Column 6, Table 4), respectively for the subsets of respondents with incorrect versus correct recall of the information. This reveals that it was the respondents who correctly identified the topic of the narrative they read who are driving the shifts in favor of protection, for each of the four baseline treatment groups. The protectionist tilt in reaction to information about positive impacts of trade is thus not driven by participants who mistook the broad subject matter of the narrative.

Attention. While participants may have on average been able to distinguish between jobsand prices-related content, the degree to which they absorbed the information could vary with the level of attention paid. In principle, respondents who paid less attention may have fallen back on their prior views rather than updating them on the basis of the information conveyed.

Table 7 examines the potential role of attention, where we proxy for this using each respondent's time spent on the treatment screen. We confirm first that individuals who took more time – specifically, an above-median duration – are more likely to correctly answer the end-of-survey recall question on the topic of the narrative they received (Column 1, logit regression).<sup>45</sup> Exploring further, we find that the trade policy responses (summarized by the

<sup>43.</sup> Appendix Table 5 presents summary statistics on the end-of-survey information recall question. We control in all columns of Table 6 for the full set of covariates from the Table 4, Column 6 specification.

<sup>44.</sup> In rounds 2-4, respondents who selected "more limits on imports" as a "Most Preferred" policy were directed to a set of questions on their reasons for this choice; this follow-up section contained a one-sentence description of the information they received, which could have had a reminder effect. Our information recall results in Columns 1-2 of Table 6 are nevertheless robust to including a dummy variable for whether the respondent was shown these follow-up "reasons" questions (available on request).

<sup>45.</sup> Throughout Table 7, we take the median or quintile cutoffs separately for each treatment group in each

principal component measure) differed systematically on the basis of attention paid. The protectionist reaction to information is evident among those who spent less time and presumably paid less attention to the treatments (Column 2, below-median treatment duration). On the other hand, as we successively limit the sample to those who spent more time on the treatment screen – respectively, above-median (Column 3) and top-quintile (Column 4) duration – the treatment coefficients in response to the "Trade Helps Jobs", "Trade Helps Prices", or "Tariff Hurts Prices" information decrease in magnitude and wane in statistical significance. Respondents with a longer treatment duration appear to have not only better comprehended, but also responded less adversely to, the various narratives on the benefits of trade; at the same time, they expressed stronger support for protection in reaction to the "Trade Hurts Jobs" information compared to those who paid less attention.

Put otherwise, these patterns are consistent with greater attention inducing trade policy preferences that are in closer alignment with the direction of the information. This suggests that time-intensive information treatments can help to more effectively communicate the potential benefits of trade to the U.S. general public, to the extent that one is able to elicit this longer attention span.<sup>46</sup>

# 6 Exploring the Mechanisms

The preceding discussion points to a need to better understand respondents' prior views on trade policy, and more specifically, whether and how evidence-based information might prompt updating of these priors. We take two approaches toward this end. First, we consider various respondent characteristics that are potential markers of one's pre-disposition toward protectionism (drawing on the empirical literature on this topic), and explore whether the information received interacts in a significant way to further shape one's trade policy preferences. Second, we directly ask respondents who expressed support for more limits on imports about their reasons for this choice. This highlights key prevailing priors about the impact of trade on jobs, as well as over the role of China as a trade partner.

survey round. Note that we use all respondents in the control group as the omitted category in Columns 3-4 of this table, since we cannot compute a meaningful treatment duration for these participants.

<sup>46.</sup> The round 2 survey took place during the early months of the Covid-19 pandemic and also overlapped with events related to the Black Lives Matter movement. Appendix Table 6 explores whether this could have affected the attention of survey participants. We control here for a county-by-week measure of individual mobility constructed by Safegraph from cell phone signal data as a proxy for the severity of local Covid-19 lockdowns. We also control for the occurrence of county-level Black Lives Matter protests by week, drawn from the Armed Conflict Location & Event Data (ACLED) project. The inclusion of these variables does not affect the information treatment effects in the Table 4, Column 6 specification.

#### 6.1 Economic and Non-economic Characteristics

We augment the regression analysis in (1) with interaction terms between the treatment dummies and respondent traits, as follows:

$$\mathbf{1}(Policy_i) = \sum_{b=1}^{B} \alpha_b \mathbf{1}(Treatment_i = b) \times x_i + \sum_{b=1}^{B} \beta_b \mathbf{1}(Treatment_i = b) + \gamma X_i + \epsilon_i, (2)$$

where  $x_i$  is a respondent characteristic whose main effect is estimated as part of the vector  $X_i$  of controls. The objective of (2) is to explore channels through which the treatment narratives might influence preferences over trade policies. Each  $x_i$  is a respondent observable that we view as a potential marker of one's pre-disposition toward protectionism; conceptually, the coefficient  $\alpha_b$  then speaks to whether the information conveyed in treatment b interacted with this characteristic in a significant way to induce updating of priors, to either accentuate or dampen (depending on the sign of  $\alpha_b$ ) one's preferences for trade protection.

We take guidance from the literature, reviewed earlier in Section 2, to organize the range of respondent characteristics  $x_i$  under consideration. Specifically, we group the  $x_i$ 's under the following headings that correspond to different motivations for trade policy preferences at the individual level: (a) economic self-interest, that stem from personal exposure to the economic impact of trade (such as via one's industry of employment, level of education, or location); (b) sociotropic concerns (such as over income inequality in the U.S., or the outlook for future generations); (c) behavioral factors (in particular, one's degree of loss aversion); and (d) political identity (one's propensity to support the Republican or Democratic party). For convenience, we refer to the variables under (b)-(d) as non-economic characteristics, in the sense that these do not speak as directly as the variables under (a) to the potential impact of trade on respondents' material well-being. We recognize though that these categories need not be mutually exclusive; for example, the degree to which one is invested in sociotropic or civic concerns could vary with one's level of education.

In what follows, we focus on OLS regressions in which the dependent variable is the principal component measure that summarizes preferences for protection. Figure 1 presents the level effect coefficients of the respondent characteristics; each illustrated coefficient is from a separate regression based on (1), but run without the treatment dummies, while adding  $x_i$  as necessary to the right-hand side if it is not already included in the controls in  $X_i$ . Figure 2 then presents the interaction coefficients between the respective treatments and each  $x_i$ ; here, we run the specification in (2) separately for each  $x_i$ , where the right-hand side includes dummies for the four baseline treatments ("Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices") as well as their interactions with  $x_i$ .<sup>47</sup> We use a z-score of each respondent characteristic, to facilitate comparison of

<sup>47.</sup> We do not run the interactions jointly with all the  $x_i$ 's given sample size constraints.

the magnitudes of the estimated coefficients. The sample in these figures comprises the rounds 2-4 respondents in the control group, together with those with an above-median treatment duration who based on our previous discussion appeared to pay more attention to the information content. (The regressions on which Figure 2 is based are reported in tabular form in Appendix Tables 7-9. Appendix Figures 1-2 present analogous illustrations using all respondents who received these baseline narratives regardless of duration spent on the treatment screen, with qualitatively similar patterns.)

Economic self-interest. We first consider whether prior exposure to import competition through one's industry of employment, geographic location, or skill level, might affect how information shapes trade policy preferences. We capture these respectively with an indicator variable for whether the respondent works in the manufacturing sector, with the Autor et al. (2013) measure of China import penetration at the local level, and with whether the respondent had less than college-level educational attainment. Figure 1 suggests that manufacturing workers are marginally more inclined toward protectionist policies. That said, the interactions of all three variables with the various treatments yield indistinct results (Figure 2). While one might have hypothesized that these characteristics might make individuals' preferences more responsive to the "Trade Hurts Jobs" treatment or less responsive to evidence on the benefits of trade, we do not find such patterns in practice.<sup>48</sup>

We further examine several variables that capture more directly respondents' economic situation, namely: whether they are currently unemployed, and whether they are from a lower-income household (<\$50,000 annual income). In addition, we consider a variable that speaks to personal exposure to past trade liberalization episodes, namely: their assessment of the impact NAFTA has had on "you and your family" ("extremely bad" to "extremely good"). Interestingly, with these more direct markers of one's economic circumstances, we find that respondents from lower-income backgrounds and who self-report that NAFTA has had a bad personal impact tend to favor more protectionism (Figure 1), and this preference is moreover intensified when they are presented with information that trade can have positive job impacts (Figure 2, Panel B). One interpretation here is that evidence-based information that is at odds with respondents' priors on trade – that stem in particular from their economic situation – can in fact provoke and amplify protectionist sentiment.

Sociotropic concerns. Aside from considerations related to economic self-interest, trade policy preferences can also be shaped by respondents' concerns over the impact of trade on society as a whole (Mansfield and Mutz 2009). We explore a range of variables, elicited prior to the treatment component of the survey, that speak to such broader motivations.

Looking first at level effects, we find in Figure 1 that respondents who view inequality

<sup>48.</sup> See however, Ardanaz et al. (2013), who find that such economic self-interest variables played a mediating role in shaping attitudes toward trade in a survey-based experiment run in Argentina. Note though that their treatments comprised short frames and cues, rather than evidence-based information.

in the U.S. as a problem are less likely to favor trade protection; such respondents tended instead to rank alternatives such as more progressive taxes and a higher minimum wage among their top-three "Most Preferred" policies (available on request). Participants who view inflation as a problem in the U.S. are on the other hand more likely to favor restricting trade (based on the question on inflation included in round 4). Separately, we consider individuals' degree of trust in the U.S. government, in light of the result in Kuziemko et al. (2015) that low trust in government appears to dampen support for redistributive policies; we however find at best a small positive correlation with preferences for protection. Individuals may support limits on imports out of concern for producers of domestic goods; consistent with this, we find that respondents who express a willingness to pay more for a U.S. brand are also more in favor of protection. Last but not least, we examine perceptions over the health of the U.S. job market and on the outlook on whether future generations will have a better life; these yield relatively small effects on trade policy preferences.<sup>49</sup>

Turning to the interaction effects, we do not find particularly striking patterns of heterogeneous responses to the information treatments (Figure 2). Put otherwise, these measures of social concerns or perceptions do not appear to systematically influence how trade policy preferences react to the evidence-based information. There are two exceptions to this (where the interaction coefficients are statistically significant): from those who are more pessimistic on the outlook for future generations and are provided information that "Trade Helps Jobs" (Panel B), and from those who are willing to pay more for a U.S. brand and are shown the "Tariff Hurts Prices" narrative (Panel D). These cases are interesting, as they suggest that information on the benefits of trade (or the losses incurred from trade barriers) can trigger more protectionist preferences from such individuals, whom one might expect given their pre-existing views to already be disposed toward favoring protection.

Loss aversion. We next examine a key behavioral factor, specifically loss aversion. This trait is of particular relevance, since it can in principle account for the asymmetric reaction to information about the losses versus the gains from trade, if individuals perceive the disutility from losses as exceeding the utility associated with gains (Kahneman and Tversky 1979, 1984). We draw on existing studies such as Kahneman et al. (1991) and incorporate a survey question that gauges one's degree of loss aversion, by eliciting preferences over receiving a discount versus avoiding a surcharge of an equal monetary amount (as described in Section 3). In line with the behavioral literature, we find a slight preference in the general population towards avoiding the surcharge (see Table 1). More pertinent to our study, individuals who are more loss averse exhibit a stronger preference for limits on imports (Figure 1), in line with the hypothesis in Freund and Ozden (2008) and Tovar (2009) that loss aversion would

<sup>49.</sup> Similar to what we see for respondents who are concerned about inequality in the U.S., those who are dissatisfied with the health of the U.S. job market are significantly more likely to pick "more progressive taxes" and a "higher minimum wage" as a top-three preferred policy rather than "more limits on imports".

lead to a downweighting of the potential benefits from being open to trade. Further, more loss averse individuals react to the "Trade Helps Prices" treatment by in fact becoming more strongly in favor of protection (Figure 2, Panel C). This repeats a pattern we have seen earlier, where information that is at odds with one's prior disposition toward protection — marked out in this case by one's degree of loss aversion — can actually end up reinforcing those preferences.

Political identity. As a final category of determinants, we explore the role of political identity. This builds on the observation that party affiliation and support appears increasingly in the U.S. to be shaping individuals' preferences over a range of policies, including trade policy (Grossman and Helpman 2021). We have already seen in Section 5.2 that Republican supporters are more strongly in favor of protection during our sample period, while Democratic party supporters are less inclined toward protection compared to both Republicans and independents. Figure 1 further confirms that political identity is among the most quantitatively important correlates of protectionist preferences across the range of respondent characteristics we examine.

We moreover uncover a striking regularity in how political identity interacts with the information treatments. Efforts to convey either the jobs- or price-related benefits of trade instead accentuate calls for protection among Republican supporters (Figure 2, Panels B-D); meanwhile, the "Trade Hurts Jobs" narrative that conforms more with their political identity appears to mildly reinforce these preferences for limits on trade (although that effect in Panel A is not statistically significant). On the other end of the political spectrum, respondents who supported the Democratic presidential candidate are less likely to voice a preference for protection after being presented with information that "Trade Hurts Jobs" or with information that openness to trade has beneficial effects either for jobs or for prices (Panels A-D). In other words, information on trade outcomes, irrespective of whether this be about gains or losses, tends to amplify and even provoke the trade policy preferences associated with one's prior political identity.

Among potential interpretations, these patterns are in line with prior-biased updating, a form of confirmation bias that has been documented in the recent behavioral economics literature (Charness and Dave 2017, Benjamin 2019). Taking Democrat supporters as an example in our setting, narratives about the benefits of trade (or the harm caused by tariffs) that are in line with their political priors succeed in reinforcing their preferences away from restricting trade. But narratives such as "Trade Hurts Jobs" that are dissonant with their political priors instead prompt Democrat supporters to update their preferences in the opposite direction from the information. There is thus an asymmetry in the direction of updating: respondents do not simply discard the dissonant information, but react to it by coming down more in favor of their prior trade policy positions. We see a broadly analogous pattern with Republicans, who appear to update in favor of the trade policy position of

the party they identify with (i.e., opposition to free trade).<sup>50</sup> This finding that information received can reinforce prior beliefs and preferences stemming from one's political identity echoes results reported elsewhere, such as Mullainathan and Shleifer (2005) and Chopra et al. (2022) who study the demand for news sources. It also connects with a strand of work on the efficacy of fact-checking, which has demonstrated that such efforts can fail to persuade and can even lead individuals to dig in their heels towards views rooted in one's partisanship (Nyhan and Reifler 2010, Nyhan et al. 2020, Barrera et al. 2020).<sup>51,52</sup>

Taking stock, we have uncovered several respondent characteristics which interact with the information treatments in a meaningful way. Recall that the average effects for these treatments are reflected in Column 3 of Table 7 (for the above-median treatment duration sample), where three of the four narratives yielded smaller or even statistically insignificant treatment effects. The above exploration shows that this nevertheless masks several dimensions of heterogeneity that speak to how information can shape the trade policy preferences of key groups within the U.S. general population. This heterogeneity is along the lines of both economic variables (e.g., household income, personal exposure to NAFTA) and non-economic forces (e.g., loss aversion, political identity), which we interpret as prior markers of one's preferences for protection. A common pattern that emerges, particularly with the political identity variables, is that when the information received is at odds with the individual's pre-disposition toward protectionist policies, this can prompt a doubling-down on one's prior preferences. Evidence-based information that seeks to communicate the benefits of trade can therefore end up backfiring and reinforcing calls for protection among those who because of (for example) their political identity are already skeptical of free trade.

$$\frac{\pi(A|S)}{\pi(A^c|S)} = \left(\frac{p(S|A)}{p(S|A^c)}\right)^{\kappa} \frac{p(A)}{p(A^c)}.$$

The case  $\kappa=1$  corresponds to Bayes rule. Assume that if the narrative S confirms the prior A (e.g., if S is "Trade Helps Jobs"), we have  $p(S|A)/p(S|A^c)>1$ , so the individual updates in favor of A under Bayes rule; conversely, if S disconfirms A (e.g., S is "Trade Hurts Jobs"), we assume  $p(S|A)/p(S|A^c)<1$ . A situation of prior-biased updating can be described by:  $\kappa=c_1(\mathbf{1}(S\ confirms\ A))+c_2(\mathbf{1}(S\ disconfirms\ A))$ , where  $c_1>0$  and  $c_2<0$ . Regardless then of whether S is congruent or dissonant with one's priors, we have  $\pi(A|S)/\pi(A^c|S)>p(A)/p(A^c)$  and the prior is reinforced.

<sup>50.</sup> A related interpretation noted in the behavioral economics literature is information avoidance (Goldman et al. 2017). However, our findings that participants responded significantly to the treatments (relative to the control group), and that they could on average successfully recall the broad content of the narrative they read, suggests that participants did not simply avoid or disregard the information.

<sup>51.</sup> An overview of recent work in political science on this topic is provided by Nyhan (2021).

<sup>52.</sup> We can provide a formal description of this prior-biased updating behavior in our setting, following Charness and Dave (2017) and Benjamin (2019). For simplicity, let A denote the "event" that "trade is good", on which an individual places a prior probability p(A). Let  $A^c$  refer to the "event" that "trade is bad", which holds with complementary prior probability 1 - p(A). The posterior odds of A relative to  $A^c$  conditional on receiving a treatment narrative S can be formulated as:

#### 6.2 Why Limit Imports? Jobs, America, and China

In the remainder of this section, we seek to better understand the content of the prior beliefs that respondents might be falling back on when they express a preference for import restrictions, even while being presented with information on the potential benefits of trade. We do so by exploiting directly the rationales they identified if they chose "more limits on imports" as a "Most Preferred" policy. (Recall that starting in round 3, respondents who selected this as a top-three preferred policy were asked about their reasons behind this choice; see Appendix A.2 for this set of follow-up questions.)

Table 8 reports the summary statistics on respondents' degree of agreement with each of the specific reasons we proposed for their picking "more limits on imports" (ranging from 1 for "strongly disagree" to 5 for "strongly agree").<sup>53</sup> Several key messages emerge. While one hypothesis is that respondents may have been unpersuaded by the evidence-based information, this does not appear to be the main reason behind their expressed preferences for protection. In fact, conditional on choosing "more limits on imports" as a "Most Preferred" policy, participants who received the "Trade Helps Jobs", "Trade Helps Prices" and "Tariff Hurts Prices" treatments tended to assign a lack of persuasion among the lowest, if not the lowest, agreement scores.<sup>54</sup>

Instead, it is concerns over how "imports often compete for jobs with U.S. workers" and about "imports from countries such as China" that receive the highest agreement scores, consistently across all control and treatment groups. In particular, regardless of whether the narrative is about jobs (e.g., "Trade Hurts Jobs", "Trade Helps Jobs") or about prices (e.g., "Trade Helps Prices", "Tariff Hurts Prices"), a similarly high degree of agreement is registered with concerns for U.S. jobs as a rationale for being in favor of trade protection. At the same time, concerns about trade with China are uniformly cited as a leading reason for selecting "more limits on imports", even in the versions of the narratives that omit any mention of "China" while providing otherwise identical information (e.g., comparing the agreement scores for "Trade Helps Jobs" with "Trade Helps Jobs sans China", or "Trade Helps Prices" with "Trade Helps Prices sans China"). For the "sans China" treatment groups, the information thus appears to evoke prior perceptions not only of trade in general but also of trade specifically with China. Observe too that in spite of not receiving any narrative, the participants in the control group returned agreement scores with the various reasons that were very similar to that seen among the treatment groups (except for "not persuaded" which was omitted from the list of reasons presented to the control group). Overall, these patterns

<sup>53.</sup> The list of reasons was once again presented to respondents in random order on the survey screen, to avoid systematic biases that might arise if say there was a tendency to express stronger agreement with reasons that appeared near the top of the list.

<sup>54.</sup> Related to this, while distrust in the findings of academic researchers or experts could have triggered the protectionist responses (e.g., Cheng and Hsiaw 2022), we view this as unlikely to be the main driver behind the protectionist preferences given the low agreement scores for "I was not persuaded".

reveal how concerns about jobs and about China stand out as prior concerns in the minds of the U.S. general public, even when the information conveyed contains no explicit mention of the word "jobs" or "China".

This conclusion is further supported by a word-cloud analysis based on several textual-response questions in the survey (Figure 3). When participants were allowed to freely express any other reasons they had for favoring "more limits on imports" as a "Most Preferred" policy, phrases that appeared with high frequency include: "American Jobs", "Made in the USA", "America First", "Self Reliance", and "China" (Panel A). This is true both for groups exposed to a treatment about pices (right). Similarly, when asked to identify countries on which they favored placing more limits on imports, the most common response written in was "China", followed by "Russia" (Panel B). This is true regardless of whether the participant was shown a narrative that mentioned China (left) or a narrative "sans China" (right). Self-

In Appendix Table 10, we corroborate these visual patterns through a series of logit regressions. These show that there is no statistically significant difference in the propensity to identify China as a target country for more limits on imports across the control group, and the groups of respondents who received the "with China" and "sans China" versions of the same information treatment. Likewise, there is no meaningful difference in the occurrence of the word "jobs" in the open-text responses across the control, and the "jobs" or "price" treatment groups. The uniform nature of these volunteered text answers across different subsets of respondents reaffirms the importance of "jobs" and "China" as pre-held concerns among the American public on the impact of trade. (Note that the prominence of "China" as a prior concern across all treatment groups can also rationalize why we find no significant difference in the size of the treatment effects across the "with China" versus "sans China" versions of each narrative, in terms of the degree to which each shifts preferences in favor of trade protection; see Appendix Table 11.)

As a final exercise, we make use of the variation in the agreement scores,  $Agreement_{ir}$ , expressed by individual i on each of the listed reasons r for "more limits on imports". Following the discussion in Section 6.1 on the importance of political identity as a marker of

<sup>55.</sup> More specifically, the word cloud on the left of Figure 3, Panel A pools responses across the "Trade Hurts Jobs", "Trade Hurts Jobs sans China", "Trade Helps Jobs", and "Trade Helps Jobs sans China" treatment groups, while that on the right pools responses across the "Trade Helps Prices" and "Trade Helps Prices sans China" treatment groups.

<sup>56.</sup> The word cloud on the left of Figure 3, Panel B is pools responses from the "Trade Hurts Jobs", "Trade Helps Jobs", and "Trade Helps Prices" treatment groups, while that on the right pools the responses recorded from the three corresponding "sans China" treatment groups. For completeness, Appendix Figure 3 presents word clouds comparing the frequency of "China" (as a response to the question about which countries one would favor placing more limits on imports on) across the "jobs" versus "prices" treatment groups, and likewise comparing the occurrence of "jobs" (as a response to the "other reasons" question) across the "with" versus "sans China" treatment groups. The focal nature of "China" and "jobs" is evident across all groups even in this alternative comparison of the data.

prior beliefs, we examine whether there are systematic differences across Republicans versus Democrats in the reasons cited for preferring "more limits on imports". For this, we consider an OLS regression of the form:

$$Agreement_{ir} = \alpha \ Order_{ir} + \sum_{l=1}^{5} \beta_{l} \mathbf{1}(Reason_{r} = l) + \sum_{l=1}^{5} \gamma_{l} \mathbf{1}(Reason_{r} = l) \times x_{i}$$

$$+ \delta_{i} D_{i} + \epsilon_{ir},$$

$$(3)$$

where  $\mathbf{1}(Reason_r = l)$  is an indicator variable equal to 1 if the agreement score is for reason l; the  $D_i$ 's are respondent fixed effects; and  $Order_{ir}$  is the randomization order in which reason r appeared on respondent i's survey screen. The covariate  $x_i$  is an indicator variable based on whether i self-identified as a Republican (respectively, Democratic) supporter in the most recent U.S. presidential election. (3) is a relatively stringent specification, as the  $D_i$ 's sweep up the role of both observable and unobserved respondent characteristics (including  $x_i$ ); we are even able to accommodate treatment-group-by-reason dummies, which yields similar results (see Appendix Table 13).<sup>57</sup>

Figure 4 summarizes the interaction coefficients  $\gamma_l$  that we estimated: The contrast of note that emerges is that Republicans are significantly more likely to agree with concerns about imports from countries like China as a grounds for supporting more limits on imports, while Democrats are less likely to do so. This affirms once again the importance of political identity in influencing prior views on China as a trade partner country, and by extension on preferences over trade policy. Given the tendency we have seen in Section 6.1 for respondents to double down on their priors based on political identity, this suggests that information seeking to communicate the benefits of trade is unlikely to succeed in persuading Republican supporters, unless it also tries to address concerns about U.S.-China trade relations, or even the countries' broader geopolitical competition.

## 7 Discussion and Conclusion

Can evidence-based information shift preferences toward trade policy? To address this question, we have administered a series of survey experiments over 2018-2022 that contain randomized information treatments, each with concise summaries of evidence established by

<sup>57.</sup> In Appendix Table 12, we use a specification similar to (3), but without the interaction terms with respondent political identity, to formally verify that concerns about competition for U.S. jobs and concerns about imports from China indeed received the highest agreement scores among the six reasons listed. Note that the regression sample in each column in this table is formed by pooling a baseline treatment with its "sans China" counterpart. When further interacting the reasons dummies with an indicator for participants who received the "with China" narrative, we typically do not find strong evidence of differences in the agreement scores on the "jobs" and "China" reasons across respondents in the "with China" versus "sans China" groups.

economic researchers on the gains and losses from trade. We find that the answer to our motivating question is: "Yes, but in complex and unanticipated ways."

On the one hand, information that trade has had adverse impacts on manufacturing jobs ("Trade Hurts Jobs") raises support among survey respondents for more protection against imports. On the other hand, and more surprisingly, narratives that point to job gains in non-manufacturing sectors ("Trade Helps Jobs") or to gains through lower consumer prices ("Trade Helps Prices", "Tariff Hurts Prices") induce a similar intensification in preferences for protection. Among the U.S. general population, the reactions to information presented in this format on the gains versus losses from trade is thus highly asymmetric.

We document patterns of heterogeneous responses that shed light on underlying mechanisms. The information treatments interact in a significant way with several markers of individuals' priors on trade, most notably with their political identity as a Republican or Democratic supporter: When the received information is dissonant with the trade policy positions of the party they identify with, it triggers a doubling-down in preferences in favor of their priors, a pattern that can be described as *prior-biased updating*. Last but not least, respondents who ranked "more limits on imports" highly as a preferred policy consistently cited concerns about competition for jobs as well as over trade with China as leading reasons for their choice of policy. That these rationales were volunteered even by those who received a narrative that did not explicitly mention "jobs" or "China" points to the prior prevalence of these concerns among a key segment of the U.S. public.

Our findings give pause to whether short evidence-based messaging can help to steer public preferences over trade policy, much as economists might place stock in this as a mode for communicating information about the benefits of free trade. If public preferences can be shifted by such narratives in unintended directions, this should prompt some rethinking on the role of information and communication in the political economy of trade policy formation. It remains an open and challenging question how one might better craft such public communication, but our findings suggest at least two directions for future work. First, our results indicate that individuals tend to update in the direction of the information the longer the duration of their exposure to it. This points to the need to understand how to design narratives on the topic of trade that will engage and elicit sufficient attention to the underlying message. Second, a key conclusion we draw is that evidence-based information is unlikely to persuade a broad audience, unless it also addresses prior views that are rooted in political identity, as well as concerns over the potential impact on American jobs and over trade with China. We hope our findings spur more work on how public messaging and education can seek to pre-empt or assuage such concerns, so as to more effectively communicate the potential benefits of globalization – and pitfalls of protectionism – to the general population.

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# A Appendix

# A.1 Survey Treatments

The following **preamble** is presented at the start of each of the information treatment narratives (excluding the control group).

How have globalization and imports affected workers and households? Economic researchers have been studying this issue.

"Trade Hurts Jobs" narrative. Based on Autor, Dorn and Hanson (AER 2013), with Figure 1 drawn from their paper:

A line of recent research has shown that the United States substantially increased its imports from China, after China joined the World Trade Organization (WTO) in 2001. This was a major force behind the fall in U.S. employment in the manufacturing sector, as the figure below shows. This led to weak wage growth for the middle- and low-income workers who used to hold these manufacturing jobs.

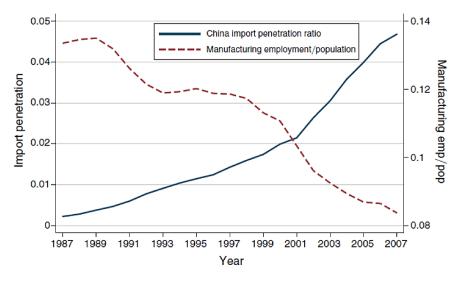
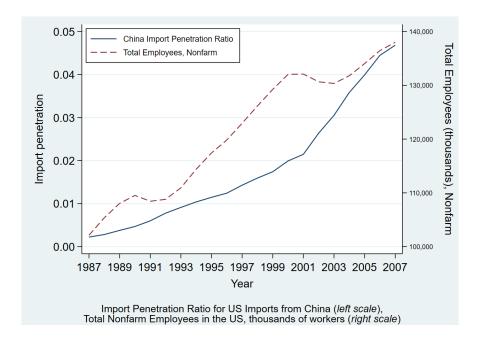


FIGURE 1. IMPORT PENETRATION RATIO FOR US IMPORTS FROM CHINA (left scale), AND SHARE OF US WORKING-AGE POPULATION EMPLOYED IN MANUFACTURING (right scale)

"Trade Helps Jobs". Based on Caliendo, Dvorkin and Parro (2019):

A line of recent research has shown that the United States substantially increased its imports from China, after China joined the World Trade Organization (WTO) in 2001. This enabled the U.S. to specialize more in the service sectors in which

it is particularly productive, helping to increase the number of jobs in the U.S. economy. The figure below shows that the rise in total jobs over the last decades was substantial.



Starting in 2020, two additional treatments were included that mix the "Trade Hurts Jobs" and "Trade Helps Jobs" narratives:

- "Trade Hurts Helps Jobs": "Trade Hurts Jobs" is presented first, followed by "Trade Helps Jobs". The narratives are prefaced respectively by: "On the one hand, a line of recent research...", and "On the other hand, another line of recent research...". (The figures from both narratives were included.)
- "Trade Helps Hurts Jobs": This is analogous to "Trade Hurts Helps Jobs", except that the order of the "Trade Hurts Jobs" and "Trade Helps Jobs" narratives are reversed.

Starting in 2021, two additional treatments were run that took out any occurrence of the word "China" from the narratives and from the accompanying figure:

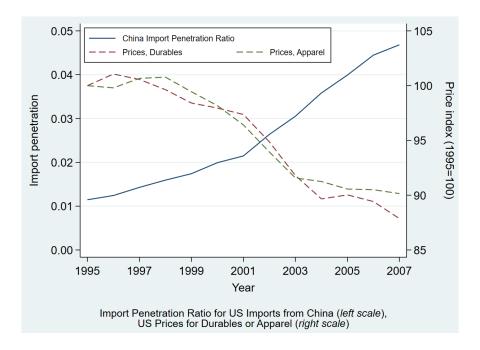
• "Trade Hurts Jobs sans China": The wording in the treatment is as follows, with the key change being replacing the description of the rise in imports from China with a description that refers to a general rise in imports into the United States from the rest of the world. "A line of recent research has shown that the United States substantially increased its imports from the rest of the world, as a result of globalization. This was a major force behind the fall in U.S. employment in the manufacturing sector, as the

figure below shows. This led to weak wage growth for the middle- and low-income workers who used to hold these manufacturing jobs."

• "Trade Helps Jobs sans China": The wording in the treatment is as follows. "A line of recent research has shown that the United States substantially increased its imports from the rest of the world, as a result of globalization. This enabled the U.S. to specialize more in the service sectors in which it is particularly productive, helping to increase the number of jobs in the U.S. economy. The figure below shows that the rise in total jobs over the last decades was substantial."

# "Trade Helps Prices". Based on price index data from the Bureau of Labor Statistics:

A line of recent research has shown that the United States substantially increased its imports from China, after China joined the World Trade Organization (WTO) in 2001. This was a major force behind the availability of cheaper goods, which benefited Americans. As imports from China increased, the prices of durable goods (computers, electrical products, furniture, etc.) and of nondurable goods such as apparel all saw declines, as the figure below shows.



Two variants of the "Trade Helps Prices" treatment were included in the survey starting in 2020:

• "Trade Helps Prices sans Cheaper". The sentence: "This was a major force behind the availability of cheaper goods, which benefited Americans." was replaced

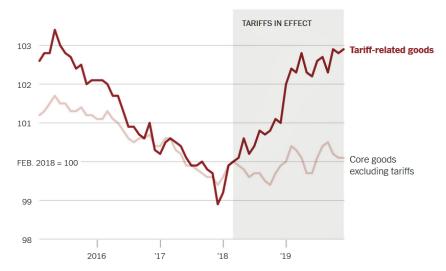
by: "This was a major force behind the increased availability of goods, which benefited Americans." This wording was intended to replace the adjective "cheaper", which could have triggered negative views towards imports due to the possible association of "cheaper" with imported goods being of "low quality".

• "Trade Helps Prices sans China". Any references to "China" were removed from the narrative; this parallels the wording in the "Trade Hurts Jobs sans China" and "Trade Helps Jobs sans China" treatments, as follows. "A line of recent research has shown that the United States substantially increased its imports from the rest of the world, as a result of globalization. This was a major force behind the availability of cheaper goods, which benefited Americans. As imports from the rest of the world increased, the prices of durable goods (computers, electrical products, furniture, etc.) and of nondurable goods such as apparel all saw declines, as the figure below shows."

"Tariff Hurts Prices". Based on Amiti, Redding and Weinstein (2019); figure drawn from the *New York Times* ("Opinion: The Year in Charts," by Steve Rattner, 31 Dec 2019).

A line of recent research has shown that the tariffs in 2018 have raised the cost of living in the United States. Over the course of 2018, the U.S. imposed tariffs on approximately \$400 billion of imports, particularly from China. This led to significant increases in U.S. prices of tariff-related goods, as the figure below shows. It is estimated that this increase in prices lowered U.S. real income by \$1.4 billion per month.

#### Core goods consumer price index



Source: Bureau of Labor Statistics. Core goods excludes food and energy; tariff-related goods prices includes laundry equipment and other appliances, furniture and bedding, housekeeping supplies, window and floor coverings, auto parts and bicycles.

# A.2 Full Questionnaire

On the introductory screen, participants are first briefed on the survey, the requirements to participate, the team conducting it, and are given contact information in the event that they have questions. It is mentioned that they can withdraw from the survey at any point, but will only be compensated upon completing the survey. They are then asked if they consent to being surveyed for the project.

Questions asked in the survey are below. Answer choices for each question are in *italics*.

#### **Demographic Questions**

- What is you age (in years)? 18-24; 25-34; 35-44; 45-54; 55-64; Above 65
- What gender do you identify with? Male; Female; Other
- Were you born in the US? Yes; No
- In which state were you born? (Dropdown list provided.)
- In which country were you born? (Dropdown list provided.)
- In which state (or territory) do you live? (Dropdown list provided.)
- What is the name of the city or town in which you live? (Text box.)
- How would you describe your ethnicity/race?

  White; African-American; Hispanic, Latino or Spanish origin; Asian; American Indian or Alaskan Native; Middle Eastern or North African; Pacific Islander; Other
- What is your level of education?

  High school or less; Some college (or currently in college); College graduate; Post graduate
- What is/was your major in college? (Dropdown list provided.)
- Which of the following best describes your employment status?

  Employed, working 40 or more hours per week; Employed, working 1-39 hours per week; Not employed, looking for work; Not employed, NOT looking for work; Retired; Disabled, not able to work; Student, full-time
- Which of the following best describes the sector in which you are currently working? Agriculture; Mining; Manufacturing; Services
- Which of the following best describes your current occupation? (Dropdown list pro-vided.)

• What was your TOTAL household income last year? \$0-\$24,999; \$25,000-\$49,999; \$50,000-\$74,999; \$75,000-\$99,999; \$100,000-\$149,999; \$150,000-\$199,999; \$200,000+; Unsure

#### Background Views and Beliefs

• On economic policy matters, where do you see yourself on the liberal/conservative spectrum?

More conservative; More liberal; Moderate

- Which party's candidate did you support in the 2016 U.S. presidential election? Democrat; Republican; Neither
- Which party's candidate did you support in the 2020 U.S. presidential election? [Rounds 3-4 only]

Democrat; Republican; Neither

• When there is an economic policy problem, do you view the free market or government action as the best solution?

Free market; Government action; It depends

- Do you think top income tax rates for the richest households in the United States were higher in the 1980s and the 1990s than they are today?

  Yes: No
- How big of a problem do you think inequality is in the United States today? Not a problem; A small problem; A problem; A serious problem
- Do you think income inequality in the United States has increased or decreased since the 1980s?

Increased; Stayed the same; Decreased

• What do you think the current average tariff rate is in the U.S.? (Tariff rate refers to a tax imposed on imported goods.)
0-4.99%; 5-9.99%; 10-14.99%; 15%+

- Do you think China is one of the top three export destinations for U.S. firms? Yes; No
- How much of the time do you think you can trust government to do what is right? Always; Most of the time; About half the time; Sometimes; Never
- How much of the time do you think you can trust private corporations to do what is right for their workers? [Rounds 2-4 only]

  Always; Most of the time; About half the time; Sometimes; Never
- How much of the time do you think people in your neighborhood can be trusted? [Rounds 2-4 only]

Always; Most of the time; About half the time; Sometimes; Never

- How much of the time do you think foreigners can be trusted? [Rounds 2-4 only] Always; Most of the time; About half the time; Sometimes; Never
- Are you willing to pay more for a U.S. brand than a foreign brand of similar quality? Yes; No
- Which of the following would you prefer on your monthly cell phone statement: Avoiding an additional surcharge of \$100 vs getting a discount of \$100? [Rounds 2-4 only] Strongly prefer avoiding a surcharge; Slightly prefer avoiding a surcharge; No preference for either; Slightly prefer getting a discount; Strongly prefer getting a discount
- Suppose you are given a cell phone with a market value around \$500. [Rounds 2-4 only]
  - Indicate the price you would be willing to pay if you had to purchase the cell phone yourself:
    - \$450 or less; Between \$450 and \$500; Exactly \$500; Between \$500 and \$550; \$550 or more
  - Indicate the price you would be willing to accept if you were to sell the cell phone:
     \$450 or less; Between \$450 and \$500; Exactly \$500; Between \$500 and \$550; \$550 or more
- Are you satisfied with the current health of the U.S. job market? Yes: No
- Which of the following best describes how you view your job? [Rounds 2-4 only] Gives a sense of identity; Just something to do for a living
- How big of a problem do you think inflation (i.e., rising prices) is in the United States today? [Round 4 only]
  - Not a problem; A small problem; A problem; A serious problem
- What impact do you think the North American Free Trade Agreement (NAFTA, a free trade agreement between the U.S., Mexico, and Canada) has had on you and your family?
  - Extremely good; Somewhat good; Neither good nor bad; Somewhat bad; Extremely bad
- What impact do you think the coronavirus (covid-19) pandemic has had on job security for you and your family? [Rounds 3-4 only]
  - Extremely good; Somewhat good; Neither good nor bad; Somewhat bad; Extremely bad
- What impact do you think the U.S. government's coronavirus (covid-19) relief packages and stimulus checks have had for you and your family? [Rounds 3-4 only] Extremely good; Somewhat good; Neither good nor bad; Somewhat bad; Extremely bad
- Do you approve or disapprove of the U.S. government's coronavirus (covid-19) relief packages and stimulus checks? [Rounds 3-4 only]

- Strongly approve; Somewhat approve; Neither approve; nor disapprove; Somewhat disapprove; Strongly disapprove
- Do you agree or disagree with the following statement? Children born into my community will have a better life than my generation.

  Strongly agree; Somewhat agree; Neither agree nor disagree Somewhat disagree; Strongly disagree

#### **News Sources**

- What type of media would you say is your main source of news about current events? Television; Internet; Print media/Newspapers; Radio; Podcasts; Word of mouth; None/Don't follow the news
- How often do you follow the news to keep up with current events? Daily; 3-6 times a week; 1-2 times a week; Less than once a week
- Which of the following programs is your main source of news?

  Broadcast television news (e.g., PBS, CBS, ABC, NBC); Cable news: CNN, MSNBC;

  Cable news: Fox News; Local TV news station; News/Evening news (non-specific);

  Other specific program/channel
- Which of the following internet sources is your main provider of news?

  Commercial media websites (e.g., cnn.com, bbc.com, nytimes.com); Social media (Facebook/Twitter); News aggregating service (Google News, Apple News, etc); Others; None (Do not obtain your news from internet sources)

#### **Information Treatments**

Refer to Section A.1 for a description of the information treatments. At the end of the treatment screen (which is a blank screen for the control group), participants are instructed to click to proceed to the next section.

#### Treatment Response Questions

- What impact do you think being open to international trade has had for most Americans? [Rounds 2-4 only]
  - Extremely good; Somewhat good; Neither good nor bad; Somewhat bad; Extremely bad
- How confident are you in your assessment from the previous question, regarding the impact that international trade has had for most Americans? [Rounds 2-4 only]

  Not at all confident; Somewhat not confident; Neutral; Somewhat confident; Extremely confident

- Do you support placing more limits on imports?
   Yes; No
  - If yes, on which countries?
     All Countries; Developing countries; Others (text box to specify)
- Would you support an increase in the U.S. tariff rate to reduce imports? Yes; No, maintain tariff rate; No, lower tariff rate
- What would you like the U.S. tariff rate to be? (Text box.)
- Should the U.S. tariff rate on imports be increased for specific industries? Yes; No
  - If yes, on which industries? (Text box.)
- Would you like the U.S. to leave the North American Free Trade Agreement (NAFTA, a free trade agreement between the U.S., Mexico, and Canada)? Yes; No
- Would you support a higher minimum wage? Yes; No
- Of the following two policies, which do you prefer?

  Higher taxes on top income earners; Higher tariff rates on imports from foreign countries; Both policies; Neither policy
- Would you support the U.S. signing free trade agreements with more foreign countries? Yes; No
- Of the policies listed below, please select the three you MOST prefer: (order randomized for survey participants)
  - More limits on imports from foreign countries (e.g., higher tariffs on imports)
  - Exiting from existing free trade agreements
  - Higher taxes on top income earners
  - More benefits for the unemployed (e.g., unemployment insurance)
  - More limits on immigration
  - Improving education and worker training
  - Weakening the U.S. dollar, so that U.S. exports are more competitive
  - Higher minimum wage
- Of the policies listed below, please select the three you LEAST prefer: (order randomized for survey participants)
  - More limits on imports from foreign countries (e.g., higher tariffs on imports)
  - Exiting from existing free trade agreements

- Higher taxes on top income earners
- More benefits for the unemployed (e.g., unemployment insurance)
- More limits on immigration
- Improving education and worker training
- Weakening the U.S. dollar, so that U.S. exports are more competitive
- Higher minimum wage

# Validation and Follow-up

- Did the information from the research findings that you read about earlier in this survey affect your views on trade policy (i.e., the use of tariffs or limits on imports)? [Rounds 2-4 only]
  - Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree
- If participant selected "More Limits on Imports" as one of their three "Most Preferred" policies, they were directed to a series of follow-up questions. [Rounds 3-4 only]
  - For participants in the control group: "We noticed that you selected "More limits on imports" as one of your three most preferred policies. For each of the following statements, please tell us the degree to which it explains your selecting "More limits on imports" as a preferred policy. I selected "More limits on imports" as a preferred policy because..." (order randomized for survey participants)
    - \* Imports are often of lower quality.
    - \* Imports often compete for jobs with U.S. workers.
    - \* Imports are a potential threat to U.S. national security.
    - \* I am concerned about U.S. imports from countries such as China.
    - \* There are other more important concerns.

For each potential reason, the participant chooses between the following options: Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree

- For participants in the "Trade Hurts Jobs" or "Trade Hurts Jobs sans China" treatment groups: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how imports have affected manufacturing jobs in the U.S." Also, the following potential reason is added to the baseline list: (order randomized)
  - \* I was persuaded that imports have hurt jobs in the U.S.

- For participants in the "Trade Helps Jobs" or "Trade Helps Jobs sans China" treatment groups: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how trade has allowed the U.S. to create jobs in the service sectors in which the U.S. is particularly productive." Also, the following potential reason is added to the baseline list: (order randomized)
  - \* I was not persuaded that trade has helped to create jobs in the U.S.
- For participants in the "Trade Hurts Helps Jobs" treatment group: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how imports have affected manufacturing jobs in the U.S., while at the same time trade has allowed the U.S. to create jobs in the service sectors in which the U.S. is particularly productive." Also, the following potential reason is added to the baseline list: (order randomized)
  - \* I was not persuaded that trade has helped to create jobs in the U.S.
- For participants in the "Trade Helps Hurts Jobs" treatment group: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how trade has allowed the U.S. to create jobs in the service sectors in which the U.S. is particularly productive, while at the same time imports have affected manufacturing jobs in the U.S.." Also, the following potential reason is added to the baseline list: (order randomized)
  - \* I was not persuaded that trade has helped to create jobs in the U.S.
- For participants in the "Trade Helps Prices", "Trade Helps Prices sans China", and "Trade Helps Prices sans Cheaper" treatment groups: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how imports have helped to lower prices of goods for Americans." Also, the following potential reason is added to the baseline list: (order randomized)
  - \* I was not persuaded that imports have lowered goods prices for Americans.
- For participants in the "Tariff Hurts Prices" treatment groups: The opening sentence is replaced by "We noticed that you selected "More limits on imports" as one of your three most preferred policies, after reading the information about how tariffs imposed by the U.S. have raised the prices of goods for Americans." Also, the following potential reason is added to the baseline list: (order randomized)

- \* I was not persuaded that tariffs imposed by the U.S. have raised goods prices for Americans.
- For all the above groups: What other reasons led you to select "More limits on imports" as a preferred policy? (Text box.)
- Has the coronavirus (covid-19) pandemic affected your views on trade policy (i.e., the use of tariffs or limits on imports)? [Rounds 2-4 only]

  Yes: No
- In view of the coronavirus (covid-19) pandemic, which of the following would you agree with? (Select all that apply.) [Rounds 2-4 only]

  Yes; No
  - Countries should be able to restrict the export of medical products and health equipment.
  - Countries should avoid imposing tariffs on imports of medical products and health equipment.
  - Countries should keep the manufacture of goods that are needed in supply chains at home and avoid moving production abroad.
  - Countries should avoid imposing tariffs on imports of goods that are needed in supply chains.
  - Countries should be able to restrict the movement of people across borders.
  - None of the above.
- How has the coronavirus (covid-19) pandemic affected your views of China? [Rounds 3-4 only]
  - Strongly positively affected; Somewhat positively affected; Neither positively nor negatively affected; Somewhat negatively affected; Strongly negatively affected
- In what other ways has the coronavirus (covid-19) pandemic affected your views about globalization? [Rounds 2-4 only] (Text box.)
- The information from the research findings that I read about earlier in this survey was on the topic of: [Rounds 2-4 only] (order randomized)
  - the relationship between trade and prices
  - the relationship between trade and jobs
  - I did not receive information on any of the above

# A.3 Appendix Tables and Figures

In this section, we provide a walk-through guide of the appendix tables and figures.

In Appendix Tables 1a-1e, we report summary statistics for a host of respondent characteristics and survey features separately for the control and each treatment group; these are presented for round 1 in Appendix Table 1a, round 2 in Appendix Table 1b, round 3 in Appendix Table 1c, and round 4 in Appendix Tables 1d-1e. These illustrate that the underlying treatment randomization delivered subsamples that were broadly balanced along these baseline characteristics. The respective table footnotes report p-values for a randomization-t multiple hypothesis test (based on Young 2019) of the orthogonality of the covariates.

In Appendix Table 2, we elaborate on the regressions presented in Table 4 of the main paper, which are based on the pooled rounds 2-4 data. Column 1 in this appendix table reports a stripped-down version of the baseline regression from Column 6 of Table 4 (where the dependent variable is the first principal component measure of preferences for protection); we remove all auxiliary controls here to verify that the treatment effects remain relevant. Column 2 reproduces Column 6 of Table 4 in its entirety, reporting the full set of coefficients for the respondent controls. Columns 3 and 4 similarly report on the full set of estimated marginal effects from Columns 7 and 8 of Table 4 (ordered logit regressions), which are based respectively on the survey question asking respondents if the information affected their views on trade policy (1= Strongly disagree, 5=Strongly agree), and their assessment of the impact of trade on most Americans (1= Extremely bad, 5=Extremely good).

In Appendix Table 3, we present robustness checks based on different samples and alternative constructions of the dependent variable. Using the first principal component outcome measure, Columns 1-3 present the regressions when run separately on each of rounds 2, 3, and 4 respectively. Column 4 pools all fours rounds of data. Columns 5-7 revert to the pooled rounds 2-4 sample, and instead aggregate the five component questions via respectively a simple unweighted average, a dummy equal to one if the respondent selected a protectionist response on at least three of the five component variables, and the first factor based on a factor analysis of the five variables. (Note that we subtract the response to the question on support for more free trade agreements from one, to obtain outcome measures that are increasing in protectionist preferences.)

In Appendix Table 4, we reproduce the specifications from Table 4 in our main paper, but now jointly estimate the effects of the four baseline treatments along with that of all variants of the information treatments, using all available observations from rounds 2-4. In the additional Column 9, the dependent variable is the ordered categorical measure of respondents' confidence (1=Not at all confident, 5=Extremely confident) in their assessment of the impact that trade has had for most Americans, this being the outcome variable in the preceding Column 8.

Appendix Table 5 reports summary statistics related to the end-of-survey information

recall question. This includes the share of respondents who selected each answer option ("about jobs", "about prices", "no information"), as well as the shares who conditional on the information received were able to correctly recall it.

Appendix Table 6 demonstrates the robustness of the Table 4, Column 6 baseline specification to controlling for two key shocks that were contemporaneous to round 2 of the survey. We use a county-by-week measure of mobility from Safegraph, that is based on cell-phone signals around local points of interest, to capture the severity of Covid-19 lockdowns during the first months of the pandemic; Column 1 incorporates an indicator variable equal to 1 for observations with a below-median Safegraph mobility score. We include in Column 2 a dummy variable for whether a Black Lives Matters event was reported in a given county-week, drawn from the ACLED project database. Last but not least, Column 3 jointly controls for both of these shock dummies.

In Appendix Tables 7-9, we provide more detail on the regressions in which we interact the treatment dummies with respondent characteristics, following the specification in equation (2) in the main text. The interaction coefficients were illustrated in Figure 2 in the main paper. In these appendix tables, we report the estimated level effects of the treatment dummies, the respondent characteristic under consideration, and the interaction coefficients.

Appendix Table 7 presents these for the six measures of economic self-interest we considered: whether the individual is employed in the manufacturing sector (Column 1); the Autor et al. (2013) China import shock measure for 2000-2007 at the commuting zone level (Column 2); whether the individual has less-than-college educational attainment (Column 3); whether the respondent is currently unemployed (Column 4); whether the respondents' annual household income was less than \$50,000 (Column 5); and the respondent's assessment of how bad NAFTA has been for them and their family (1=Extremely good, 5=Extremely bad; Column 6).

Appendix Table 8 presents these for the six measures of sociotropic concerns: whether the individual views inequality in the U.S. to be a problem (1=Not a problem, 4=A serious problem; Column 1); whether the individual views inflation in the U.S. to be a problem (1=Not a problem, 4=A serious problem, available in round 4 only; Column 2); degree of trust in government "to do what is right" (1=Never, 5=Always; Column 3); whether the respondent is willing to pay more for a U.S. brand of similar quality (Column 4); whether the respondent is dissatisfied with the current state of the U.S. job market (Column 5); and the respondents' extent of disagreement with the statement that "children born into my community will have a better life than my generation" (1=Strongly agree, 5=Strongly disagree; Column 6).

Appendix Table 9 reports these regressions for: the measure of loss aversion (1=Strongly prefer getting a discount of \$100, 5=Strongly prefer avoiding a surcharge of \$100; Column 1); whether the respondent supported the Republican party candidate in the most recent

presidential election (Column 2); and whether the respondent supported the Democratic party candidate in the most recent presidential election (Column 3).

In Appendix Table 10, we present logit regressions that test for whether there are differences across the information treatment groups in the propensity for respondents to mention "China" in their textual answers. The dependent variable in Columns 1-2 is an indicator for whether "China" is listed as a text answer to the question on which countries they would favor placing more import limits on, while that in Columns 3-4 is an indicator for whether "China" is mentioned in the textual response on other reasons for selecting "more limits on imports" as a "Most Preferred" policy; the latter variable is naturally defined only for the subset of respondents who made this a top-three policy choice. The sample in Columns 1 and 3 comprises the control, "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and their counterpart "sans China" treatment groups; the sample in Columns 2 and 4 comprises all available observations in rounds 2-4. We verify that there is no difference in the propensity to mention "China" across the control, "with China", and "sans China" treatment groups.

In Columns 5-6, we present logit regressions that explore whether there are differences in the propensity to mention the word "jobs" in the free text box response to the question seeking other reasons for selecting "more limits on imports" as a top-three preferred policy. Column 5 restricts the sample to the control, "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and their counterpart "sans China" treatment groups, while Column 6 uses all available observations from rounds 2-4. The results show that there is no significant difference in the propensity for "jobs" to be mentioned across the control group, jobs-related treatment groups, and price-related treatment groups. (Note that we control in this regression table for survey round dummies in lieu of week dummies due to the more limited number of observations with text responses.)

Appendix Table 11 explores if there are differences in the treatment effects from "with China" versus "sans China" versions of what would otherwise be the same narrative. The dependent variables we consider here are the first principal component measure of protectionist preferences (Column 1); self-declared responses to whether the information affected views on trade policy (Column 2); and one's assessment on the impact that trade has had for most Americans (Column 3). Each panel is run on a sample that comprises the control group and the listed pair of "with China" and "sans China" treatments. Focusing on Column 1, we find that both the "Trade Hurts Jobs" treatment and the variant of it that omits mentioning China exhibit a positive and significant effect on preferences for protection (Panel A). The treatment effects are likewise positive, though not statistically significant, for the "Trade Helps Jobs" and its "sans China" variant (Panel B). Both the "Trade Helps Prices" and "Trade Helps Prices sans China" also provoke a similar protectionist response (Panel C). Importantly, we find throughout the table that the effects of the "with China" and "sans China" treatments are statistically indistinguishable.

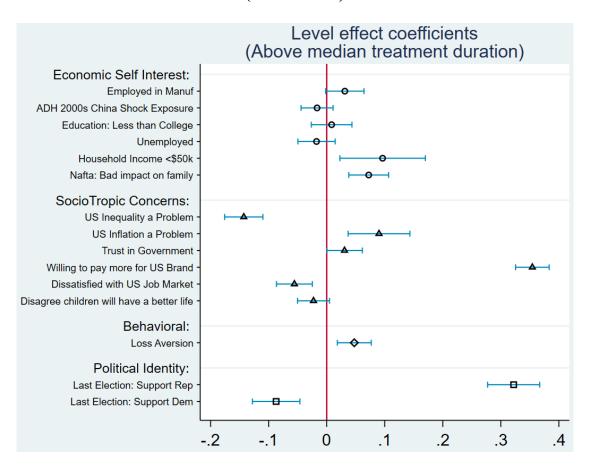
Appendix Tables 12 and 13 analyze the agreement scores that respondents expressed with each of the listed reasons for selecting "more limits on imports" as a "Most Preferred" policy, when directed to this set of follow-up questions. The dependent variable is the agreement score (on an integer scale of 1 to 5) of respondent i with reason r, where  $r=0,1,\ldots,5$ . Using OLS regressions with individual and reason fixed effects, Appendix Table 12 shows that respondents expressed the highest agreement with "imports often compete for jobs with U.S. workers" and "I am concerned about U.S. imports from countries such as China". Note that the samples in Columns 1-2 comprise the participants who received either the "Trade Hurts Jobs" or "Trade Hurts Jobs sans China" treatments, with "I was persuaded that imports have hurt jobs in the U.S." being the omitted reason category. The sample in Columns 3-4 comprises the "Trade Helps Jobs" and its "sans China" variant, while that in Columns 5-6 comprises the "Trade Helps Prices" and its "sans China" variant; the omitted category in these columns is "I was not persuaded". Each even-numbered column examines whether there were differences in the propensity to agree with a particular reason across the "with China" and "sans China" versions of the same narrative.

Appendix Table 13 reports the OLS regressions that underpin Figure 4 in the main text. These are based on the specification spelled out in equation (3) in Section 6.2 of the main paper, which examines if there are differences across Republican and Democrat supporters in their degree of agreement with each of the reasons proposed for choosing "more limits on imports" as a "Most Preferred" policy. Columns 1-2 introduce an interaction with the Republican supporter dummy, while Columns 3-4 do so with the Democratic supporter dummy. All columns control for individual fixed effects, with odd-numbered columns further controlling for treatment group and reason r dummies, and even-numbered columns accounting for these forces with treatment-by-reason dummies.

Appendix Figures 1 and 2 are the analogues of Figures 1 and 2 in the main paper, that are constructed by using all rounds 2-4 respondents in the control, "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" groups, rather than restricting to those who spent an above-median duration on the treatment screen. These figures respectively illustrate the level effects and the interaction coefficients of each covariate.

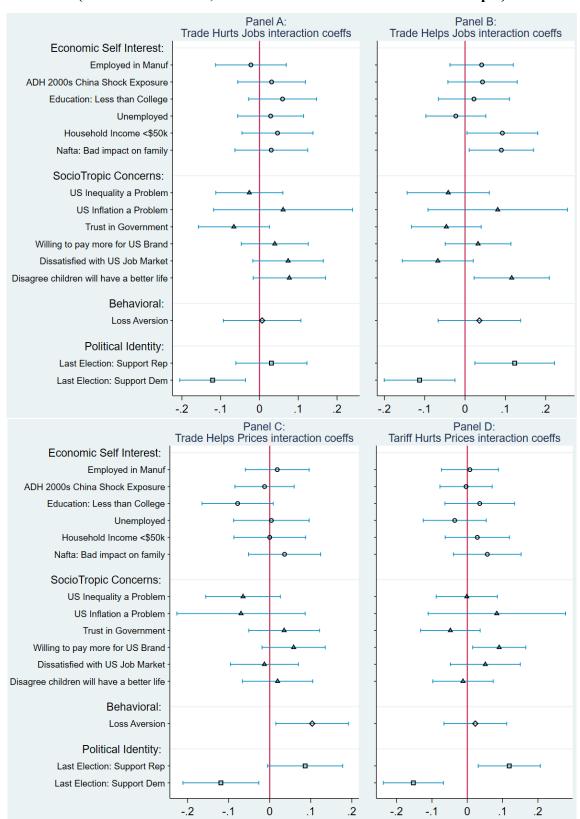
Appendix Figure 3 presents additional word clouds. Panel A illustrates text responses on other reasons for choosing "more limits on imports" as a "Most Preferred" policy, separately for respondents who received a jobs-related treatment ("Trade Hurts Jobs", "Trade Helps Jobs", and their "sans China" variants, on the left), and for respondents who received a prices-related treatment ("Trade Helps Prices" and its "sans China" variant, on the right). Panel B illustrates text responses for the countries the participant would support placing more import limits on. This is shown separately for the "with China" treatment groups ("Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", on the left) and for the three respective "sans China" narratives (on the right).

Figure 1
Exploring Mechanisms: Respondent Characteristics and Preferences for Protection (Level Effects)



**Notes:** Coefficient point estimates with 90% confidence intervals are illustrated; standard errors are clustered by respondent county. Each coefficient is from a separate OLS regression; sample comprises respondents in the "Control" group, and respondents in the "Trade Hurts Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatment groups who spent an above-median duration on the treatment screen, from Round 2 (2020), Round 3 (2021), and Round 4 (2022). Each respondent characteristic is expressed as a z-score.

Figure 2
Exploring Mechanisms: Respondent Characteristics and Preferences for Protection (Interaction Effects, above-median treatment duration sample)



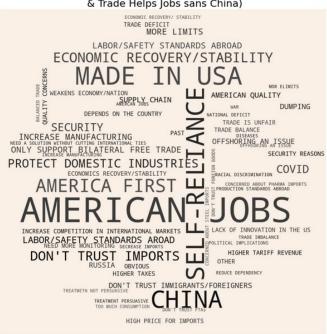
**Notes:** Coefficient point estimates with 90% confidence intervals are illustrated; standard errors are clustered by respondent county. Each coefficient is from a separate OLS regression with treatment group indicators interacted with the respondent characteristic in question; sample comprises respondents in the "Control" group, and respondents in the "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatment groups who spent an above-median duration on the treatment screen, from Round 2 (2020), Round 3 (2021), and Round 4 (2022). Each respondent characteristic is expressed as a z-score.

# Figure 3 **Word Clouds**

# A: What other reasons led you to select "More limits on imports" as a preferred policy?

#### Treatments about Jobs

Why MP limit imports: Other (Trade Hurts Jobs, Trade Hurts Jobs sans China, Trade Helps Jobs, & Trade Helps Jobs sans China)



# Treatments about Prices

Why MP limit imports: Other (Trade Helps Prices & Trade Helps Prices sans China)



#### B: On which countries do vou support placing more limits on imports?

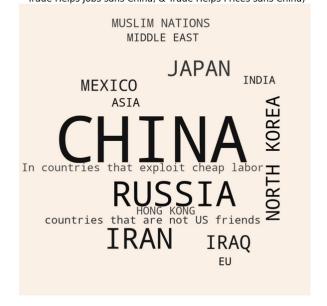
#### "With China" in the treatment wording

Which Countries to limit imports from? (Trade Hurts Jobs,



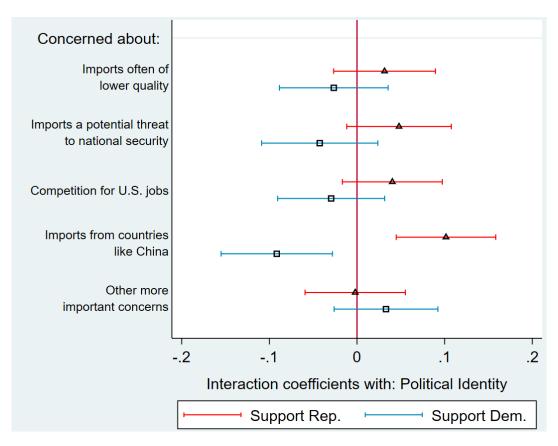
#### "Sans China" in the treatment wording

Which Countries to limit imports from? (Trade Hurts Jobs sans China, Trade Helps Jobs sans China, & Trade Helps Prices sans China)



Notes: The top panel compares the occurrence of "Jobs" in the written responses across groups that received treatments about jobs versus treatments about prices. The bottom panel compares the occurrence of "China" in the written responses across treatment groups with versus sans China in the treatment wording.

Figure 4
Why "More Limits on Imports"? The Role of Political Identity (Interaction Effects)



**Notes:** Coefficient point estimates with 90% confidence intervals are illustrated; standard errors are clustered by respondent county. Based on OLS regressions on the Round 3 (2021) and Round 4 (2022) samples; comprising all respondents in the "Control" group, and the "Trade Hurts Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatment groups. The dependent variable in each column is the agreement score (on a scale of 1-5) with a given reason for selecting "More limits on imports" as a top-three Most Preferred policy. All regressions include individual fixed effects, as well as a full set of treatment-group-by-reason dummies. Interaction coefficients with whether one supported the Republican candidate (respectively, Democratic candidate) in the most recent presidential election are illustrated; the "Support Rep." and "Support Dem." variables are expressed as z-scores.

Table 1
Summary Statistics: Respondent Characteristics by Survey Round

SURVEY:	Round 1, 2018-19 (N=2,277)	Round 2, 2020 (N=6,009)	Round 3, 2021 (N=4,058)	Round 4, 2022 (N=6,005)
Biodata				
Gender: Male	0.49 [0.50]	0.47 [0.50]	0.49 [0.50]	0.48 [0.50]
Gender: Female	0.51 [0.50]	0.52 [0.50]	0.51 [0.50]	0.52 [0.50]
Age: Average (approx.)	47.55 [16.78]	45.45 [16.61]	46.55 [16.69]	46.45 [16.78]
Race: White	0.61 [0.49]	0.67 [0.47]	0.62 [0.48]	0.62 [0.49]
Race: African-American	0.11 [0.32]	0.13 [0.33]	0.12 [0.32]	0.12 [0.33]
Race: Hispanic	0.17 [0.37]	0.13 [0.34]	0.18 [0.38]	0.17 [0.38]
Born in US?	0.92 [0.27]	0.92 [0.27]	0.91 [0.28]	0.92 [0.28]
Socio-Economic Characteristics				
Household Income: Average \$ (approx.)	58,196 [47,585]	64,886 [54,093]	62,010 [49,462]	58,785 [45,827]
Education: Average years (approx.)	11.81 [4.91]	11.56 [4.86]	11.71 [4.87]	11.70 [4.86]
Employment Status: Not in Labor Force	0.40 [0.49]	0.39 [0.49]	0.39 [0.49]	0.39 [0.49]
Employment Status: Unemployed	0.10 [0.30]	0.11 [0.32]	0.10 [0.30]	0.10 [0.30]
Employment Status: Employed	0.50 [0.50]	0.50 [0.50]	0.50 [0.50]	0.51 [0.50]
Employment Sector: Manufacturing	0.08 [0.26]	0.09 [0.28]	0.07 [0.26]	0.07 [0.26]
Employment Sector: Services	0.39 [0.49]	0.36 [0.48]	0.39 [0.49]	0.40 [0.49]
Student?	0.03 [0.17]	0.04 [0.20]	0.04 [0.20]	0.03 [0.17]
Loss aversion (Scale: 1 to 5)		3.11 [1.47]	3.07 [1.50]	3.06 [1.50]
<b>Baseline Socio-Political Attributes</b>				
Last Presidential election: Supported Dem.	0.41 [0.49]	0.41 [0.49]	0.49 [0.50]	0.44 [0.50]
Last Presidential election: Supported Rep.	0.34 [0.47]	0.36 [0.48]	0.33 [0.47]	0.34 [0.47]
Trust in government? (Scale: 1 to 5)	2.50 [1.05]	2.79 [1.13]	2.69 [1.11]	2.55 [1.08]
Impact of NAFTA on family (Scale: 1 to 5)	3.16 [0.90]	3.35 [0.90]	3.31 [0.87]	3.11 [0.91]
Children born into better life? (Scale: 1 to 5)		3.23 [1.10]	3.16 [1.15]	2.95 [1.14]
Satisfied with health of US job market?	0.48 [0.50]	0.35 [0.48]	0.40 [0.49]	0.41 [0.49]
Willing to pay more for US brand?	0.59 [0.49]	0.65 [0.48]	0.63 [0.48]	0.61 [0.49]
Inequality in US a problem? (Scale: 1 to 4)	3.01 [0.96]	2.96 [0.95]	2.97 [0.96]	2.99 [0.94]
Inflation in US a problem? (Scale: 1 to 4)				3.42 [0.80]
News consumption patterns				
Number of days per week (approx.)	5.02 [2.47]	5.29 [2.34]	5.01 [2.43]	4.87 [2.52]
Main tv source: Broadcast tv	0.29 [0.45]	0.26 [0.44]	0.25 [0.43]	0.26 [0.44]
Main tv source: CNN, MSNBC	0.17 [0.37]	0.21 [0.40]	0.20 [0.40]	
Main tv source: Fox News	0.16 [0.36]	0.17 [0.38]	0.15 [0.36]	0.16 [0.37]
Location Characteristics				
Share with college and above (age>=25)	0.30 [0.11]	0.31 [0.12]	0.31 [0.11]	0.30 [0.10]
Autor-Dorn-Hanson measure for 2000s	2.56 [1.82]	2.57 [2.11]	2.54 [1.77]	2.61 [2.02]
Share of manufacturing in employment	0.16 [0.11]	0.16 [0.11]	0.16 [0.11]	0.16 [0.11]
Urban?	0.86 [0.35]	0.87 [0.33]	0.86 [0.35]	0.85 [0.35]
Survey Characteristics				
Duration to complete (secs.)	727 [1,513]	912 [2,292]	888 [1,015]	897 [925]
Treatment duration	47 [66]	28 [84]	28 [58]	26 [64]
Mobile device?	0.61 [0.49]	0.70 [0.46]	0.58 [0.49]	0.54 [0.50]

**Notes:** Mean values reported, with standard deviations in brackets. For respondent age, household income, and frequency of news consumpton, this is approximated by a weighted average of the midpoint values of the response option bins, using the share of respondents picking each bin as weights. For respondent years of education, an analogous weighted average is taken that assigns 6 years to "High school or less", 14 years to "Some college", 16 years to "College graduate", and 18 years to "Post graduate". The average treatment duration is longer in Round 1 due to a longer treatment preamble (which was shortened in later rounds).

Table 2
Expressed Policy Preferences: Respondent Shares

SURVEY:	Round 1, 2018-19 (N=2,277)	Round 2, 2020 (N=6,009)	Round 3, 2021 (N=4,058)	Round 4, 2022 (N=6,005)
Do you support placing more limits on imports? Would you support an increase in the US tariff rate?	0.57 [0.49] 0.28 [0.45]	0.62 [0.49] 0.25 [0.43]	0.59 [0.49] 0.25 [0.43]	0.58 [0.49] 0.32 [0.47]
Prefer: Higher tariff rates on foreign countries? Prefer: More progressive taxes? Would you support signing more FTAs?	0.44 [0.50] 0.68 [0.46] 0.68 [0.47]	0.50 [0.50] 0.65 [0.48] 0.65 [0.48]	0.47 [0.50] 0.68 [0.47] 0.65 [0.48]	0.48 [0.50] 0.68 [0.47] 0.64 [0.48]
Would you support a minimum wage?	0.78 [0.41]	0.80 [0.40]	0.74 [0.44]	0.78 [0.42]
Most Preferred Policies (pick 3 out of 8)				
More limits on foreign imports	0.23 [0.42]	0.27 [0.44]	0.28 [0.45]	0.28 [0.45]
Exiting from FTAs	0.13 [0.34]	0.12 [0.33]	0.13 [0.34]	0.12 [0.33]
More limits on immigration	0.34 [0.47]	0.31 [0.46]	0.37 [0.48]	0.35 [0.48]
Weaken the USD	0.07 [0.26]	0.09 [0.29]	0.09 [0.28]	0.08 [0.28]
Higher taxes on top income earners	0.51 [0.50]	0.46 [0.50]	0.50 [0.50]	0.53 [0.50]
Higher minimum wage	0.61 [0.49]	0.60 [0.49]	0.56 [0.50]	0.61 [0.49]
More unemployment benefits	0.30 [0.46]	0.34 [0.47]	0.29 [0.45]	0.30 [0.46]
Improve education and worker training	0.59 [0.49]	0.49 [0.50]	0.52 [0.50]	0.56 [0.50]

**Notes:** Values reported are equal to the share of respondents pooled across the control and all treatment groups, who expressed a preference for the policy in question; standard deviations are in brackets. The shares for "Prefer: Higher tariff rates on foreign countries?" and "Prefer: More progressive taxes?" do not sum to one, as respondents were allowed to select both policies.

Table 3
Effect of Information Treatments on Preferences Towards Trade Policy
(Round 1, 2018-2019)

Trade Policy Questions:	(1)	(2)	(3)	(4)	(5) Most Pref.:	(6)
	More limits on imports	US tariff rate increase	Support higher tariff	Support more FTAs	More limits on Imports	First principal component
	Logit	Logit	Logit	Logit	Logit	OLS
Treatment dummies:						
Trade Hurts Jobs	0.060*	0.045*	0.083***	-0.046	0.080***	0.282***
	[0.032]	[0.026]	[0.032]	[0.030]	[0.024]	[0.076]
Trade Helps Jobs	0.007	0.033	0.064	0.017	0.040	0.135
	[0.035]	[0.034]	[0.041]	[0.032]	[0.027]	[0.098]
Trade Helps Prices	0.057*	0.018	0.071*	-0.007	0.069**	0.211**
	[0.034]	[0.030]	[0.039]	[0.032]	[0.028]	[0.089]
Most Pref., Randomization Order					-0.003	0.003
,					[0.003]	[0.011]
Last Pres. Election:	-0.042	-0.043*	-0.043	0.091***	-0.064***	-0.259***
Supported Democrat	[0.029]	[0.022]	[0.026]	[0.027]	[0.019]	[0.075]
Last Pres. Election:	0.224***	0.147***	0.219***	-0.034	0.092***	0.728***
Supported Republican	[0.030]	[0.028]	[0.029]	[0.029]	[0.023]	[0.081]
Individual, county, week controls?	Υ	Υ	Υ	Υ	Υ	Υ
Observations	2,277	2,277	2,277	2,277	2,277	2,277
(Pseudo) R-squared	0.0970	0.103	0.0742	0.0746	0.0783	0.183

Notes: Based on the Round 1 (2018-2019) sample; comprising respondents in the "Control" group who received no information treatment (the omitted category), as well as those who received the "Trade Hurts Jobs", "Trade Helps Jobs" and "Trade Helps Prices" treatments. The dependent variable in Columns 1-4 is an indicator equal to 1 if the respondent indicated support for the policy in a directly-posed question; that in Column 5 is an indicator equal to 1 if the respondent identified "More limits on imports" among his/her three "Most preferred" out of the list of eight policies; while that in Column 6 is the first principal component constructed to be increasing in preferences for more limits on trade. The controls included (but not reported) are: individual dummies for gender, age group, race, level of studies, household income bins, employment status (including broad sector), survey answered on mobile device, BEA region of birth (including foreign-born category), frequency following current affairs, and news program source; county controls for share of college educated, ADH exposure to China imports (2000-2007), manufacturing share of employment, urban dummy, missing county information dummy; survey response week dummies. The "Most Pref., Randomization Order" variable is the rank order in which "More Limits on Imports" was presented among the eight policy options to the respondent in question. Columns 1-5 report marginal effects from logit regressions, evaluated with the treatment dummies at a base value of zero, while setting all other right-hand side controls at their in-sample mean values. Column 6 reports an OLS regression. Standard errors are clustered by respondent county, and computed where necessary by the delta method; \*\*\*\*, \*\*\* and \* denote significance at the 1%, 5% and 10% levels respectively.

Table 4
Effect of Information Treatments on Preferences Towards Trade Policy
(Pooled: Round 2, 2020; Round 3, 2021; Round 4, 2022)

Trade Policy Questions:	(1) More limits on imports	(2) US tariff rate increase	(3) Support higher tariff	(4) Support more FTAs	(5) Most Pref.: More limits on Imports	(6) First principal component	(7) Did information affect views?	(8) Impact of trade for most Americans?
	Logit	Logit	Logit	Logit	Logit	OLS	Ordered logit	Ordered logit
Treatment dummies:								
Trade Hurts Jobs	0.091*** [0.017]	0.071*** [0.015]	0.036** [0.017]	-0.038** [0.018]	0.033** [0.015]	0.242*** [0.043]	0.048*** [0.015]	-0.248*** [0.016]
Trade Helps Jobs	0.023 [0.018]	0.023 [0.015]	0.026 [0.018]	-0.006 [0.019]	0.009 [0.015]	0.081* [0.044]	0.030* [0.016]	-0.025* [0.015]
Trade Helps Prices	0.057*** [0.017]	0.027* [0.014]	-0.005 [0.017]	-0.001 [0.017]	0.031** [0.015]	0.109*** [0.042]	0.028* [0.015]	-0.058*** [0.015]
Tariff Hurts Prices	0.040** [0.017]	0.020 [0.014]	0.017 0.017 [0.017]	-0.004 [0.017]	0.023 [0.016]	0.099** [0.042]	0.046*** [0.016]	-0.164*** [0.016]
Most Pref., Randomization Order					-0.011*** [0.002]	-0.019*** [0.006]		
Last Pres. Election:	0.003	0.006	-0.042***	0.124***	-0.040***	-0.141***	0.093***	0.089***
Supported Democrat	[0.014]	[0.011]	[0.016]	[0.014]	[0.012]	[0.035]	[0.013]	[0.012]
Last Pres. Election:	0.193***	0.122***	0.143***	-0.037**	0.141***	0.625***	0.084***	-0.002
Supported Republican	[0.016]	[0.013]	[0.015]	[0.015]	[0.015]	[0.040]	[0.013]	[0.013]
Individual, county, week controls?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Observations	9,275	9,275	9,275	9,275	9,275	9,275	9,275	9,275
(Pseudo) R-squared	0.0766	0.0801	0.0471	0.0698	0.0796	0.153	0.0488	0.0569

Notes: Based on the Round 2 (2020), Round 3 (2021), and Round 4 (2022) samples; comprising respondents in the "Control" group who received no information treatment (the omitted category), as well as those who received the "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatments. The dependent variable in Columns 1-4 is an indicator equal to 1 if the respondent indicated support for the policy in a directly-posed question; that in Column 5 is an indicator equal to 1 if the respondent identified "More limits on imports" among his/her three "Most preferred" out of the list of eight policies; that in Column 6 is the first principal component constructed to be increasing in preferences for more limits on trade; that in Column 7 is a categorical variable for degree of agreement with the statement that the information received affected one's views on trade policy (1="Strongly disagree", 5="Strongly agree"); while that in Column 8 is a categorical variable asked post-treatment on views on the impact that trade has had for most Americans (1="Extremely bad", 5="Extremely good"). The controls included (but not reported) are as listed in the Table 3 footnotes. Columns 1-5 report marginal effects from logit regressions; Columns 7 and 8 report marginal effects from ordered logit regressions, on the predicted probability that either the fourth or fifth highest ordered category is selected as the response. All marginal effects are evaluated with the treatment dummies at a base value of zero, while setting all other right-hand side controls at their in-sample mean values. Column 6 reports an OLS regression. Standard errors are clustered by respondent county, and computed where necessary by the delta method; \*\*\*, \*\* and \* denote significance at the 1%, 5% and 10% levels respectively.

# Table 5 Other Information Treatments

(Pooled: Round 2, 2020; Round 3, 2021; Round 4, 2022)

Trade Policy Questions:	(1) First principal component OLS	(2) Did information affect views? Ordered logit	(3) Impact of trade for most Americans? Ordered logit
Panel A: Mixed Job Treatments		·	
Trade Hurts Jobs	0.237***	0.047***	-0.249***
Trade Helps Jobs	[0.043]	[0.015]	[0.016]
	0.074*	0.030*	-0.022
	[0.045]	[0.016]	[0.015]
Trade Hurts Helps Jobs	0.177***	0.035**	-0.093***
Trade Helps Hurts Jobs	[0.048]	[0.016]	[0.016]
	0.206***	0.043***	-0.208***
	[0.045]	[0.016]	[0.017]
Observations	8,561	8,561	8,561
(Pseudo) R-squared	0.158	0.0467	0.0584
Panel B: "Sans Cheaper" Price Treatment			
Trade Helps Prices	0.111***	0.025	-0.061***
Tariff Hurts Prices	[0.042]	[0.015]	[0.016]
	0.103**	0.045***	-0.168***
	[0.042]	[0.016]	[0.016]
Trade Helps Prices sans Cheaper	0.167***	0.015	-0.059***
	[0.049]	[0.017]	[0.017]
Observations	7,147	7,147	7,147
(Pseudo) R-squared	0.151	0.0518	0.0533
Panel C: "Sans China" Price Treatment			
Trade Helps Prices  Tariff Hurts Prices	0.115***	0.027*	-0.062***
	[0.042]	[0.015]	[0.016]
	0.107**	0.046***	-0.171***
Trade Helps Prices sans China	[0.043]	[0.016]	[0.016]
	0.134***	0.004	-0.056***
	[0.049]	[0.017]	[0.017]
Observations	7,153	7,153	7,153
(Pseudo) R-squared	0.143	0.0492	0.0515
Individual, county, week, rand. order controls?	Y	Υ	Y

Notes: Based on the Round 2 (2020), Round 3 (2021), and Round 4 (2022) samples; comprising respondents in the "Control" group who received no information treatment (the omitted category), as well as those who received the treatments listed in the respective panels. The dependent variable in Column 1 is the first principal component measure (from Column 6 of Table 4) constructed to be increasing in preferences for more limits on trade; that in Column 2 is a categorical variable for degree of agreement with the statement that the information received affected one's views on trade policy (1="Strongly disagree", 5="Strongly agree"); while that in Column 3 is a categorical variable asked post-treatment on views on the impact that trade has had for most Americans (1="Extremely bad", 5="Extremely good"). The controls included (but not reported) are as listed in the Table 3 footnotes, as well as Democrat and Republican dummies for the candidate supported in the last presidential election; Column 1 further includes the randomization rank order in which "More Limits on Imports" appeared in the "Most Preferred" list of 8 policies. Column 1 reports an OLS regression. Columns 2-3 report marginal effects from ordered logit regressions, on the predicted probability that either the fourth or fifth highest ordered category is selected as the response; all marginal effects are evaluated setting the initial values of the treatment dummies to zero, while setting all other right-hand side controls at their in-sample mean values. Standard errors are clustered by respondent county, and computed where necessary by the delta method; \*\*\* and \*\* denote significance at the 1%, 5% and 10% levels respectively.

Table 6
End-of-Survey Recollection of Treatment Information
(Pooled: Round 2, 2020; Round 3, 2021; Round 4, 2022)

Dependent variable:	(1) Info received on jobs?	(2) Info received on prices?	(3) First principal component	(4) First principal component	
	Logit	Logit	OLS Info recall incorrect	OLS Info recall correct	
Trade Hurts Jobs	0.130***	-0.044***	0.086*	0.606***	
	[0.018]	[0.017]	[0.051]	[0.082]	
Trade Helps Jobs	0.149***	-0.062***	-0.016	0.350***	
	[0.016]	[0.017]	[0.055]	[0.083]	
Trade Helps Prices	-0.050***	0.139***	0.070	0.315***	
	[0.015]	[0.018]	[0.061]	[0.077]	
Tariff Hurts Prices	-0.056***	0.125***	0.057	0.313***	
	[0.015]	[0.016]	[0.058]	[0.078]	
Individual, county, week, rand. order controls?	Υ	Υ	Υ	Υ	
Observations	9,275	9,275	5,080	4,195	
(Pseudo) R-squared	0.0422	0.0313	0.147	0.178	

Notes: Based on the Round 2 (2020), Round 3 (2021), and Round 4 (2022) samples; comprising respondents in the "Control" group who received no information treatment (the omitted category), as well as those who received the "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatments. The dependent variable in Column 1 is a dummy variable for whether the respondent indicated the information received was on the relationship between trade and jobs; that in Column 2 is a dummy variable for whether the respondent indicated the information received was on the relationship between trade and prices; while that in Columns 3-4 is the first principal component measure (from Column 6 of Table 4) constructed to be increasing in preferences for more limits on trade. The controls included (but not reported) are as listed in the Table 3 footnotes, as well as Democrat and Republican dummies for the candidate supported in the most recent presidential election. In Columns 1 and 2, the randomization order variable is the rank order in which "about jobs" (respectively, "about prices") appeared in the answer options to the respondent; in Columns 3-4, the randomization variable is the rank order in which "More Limits on Imports" appeared in the "Most Preferred" list of 8 policies. Columns 1-2 report marginal effects from logit regressions, evaluated setting the initial values of the treatment dummies to zero, while setting all other right-hand side controls at their in-sample mean values. Columns 3-4 report OLS regressions. Standard errors are clustered by respondent county, and computed where necessary by the delta method; \*\*\*, \*\* and \* denote significance at the 1%, 5% and 10% levels respectively.

Table 7
Role of Attention Paid as Captured by Treatment Duration
(Pooled: Round 2, 2020; Round 3, 2021; Round 4, 2022)

Trade Policy Questions:	(1) Info correct?	(2) First principal component	(3) First principal component	(4) First principal component
Treatment duration:	Logit All	OLS Below median	OLS Above median	OLS Top quintile
Above-median treatment duration	0.251***			
Above-median survey duration	[0.013] -0.028** [0.012]			
Trade Hurts Jobs		0.162***	0.330***	0.497***
Trade Helps Jobs		[0.050] 0.116** [0.050]	[0.057] 0.051 [0.057]	[0.080] 0.057 [0.087]
Trade Helps Prices		0.141***	0.090*	0.060
Tariff Hurts Prices		[0.050] 0.154*** [0.048]	[0.053] 0.057 [0.058]	[0.076] 0.020 [0.082]
Individual, county, week, rand. order controls?	Υ	Υ	Υ	Υ
Observations	9,275	5,760	5,754	3,643
(Pseudo) R-squared	0.0632	0.143	0.172	0.158

Notes: Based on the Round 2 (2020), Round 3 (2021), and Round 4 (2022) samples; comprising respondents in the "Control" group who received no information treatment (the omitted category), as well as those who received the "Trade Hurts Jobs", "Trade Helps Jobs", "Trade Helps Prices", and "Tariff Hurts Prices" treatments. The dependent variable in Column 1 is a dummy variable equal to one if the respondent correctly identified the nature of the information received in the survey ("about jobs", "about prices", "none"), while that in Columns 2-4 is the first principal component measure (from Column 6 of Table 4) constructed to be increasing in preferences for more limits on trade. The Columns 2-4 samples comprise all "Control" observations and respondents who spent respectively a below median, above median, and top quintile duration on their received information treatment (computed within treatment-by-round). The controls included (but not reported) are as listed in the Table 3 footnotes, as well as Democrat and Republican dummies for the candidate supported in the last presidential election; Columns 2-4 further include the randomization rank order in which "More Limits on Imports" appeared in the "Most Preferred" list of 8 policies. Column 1 reports marginal effects from logit regressions, evaluated setting the initial values of all right-hand side controls at their in-sample mean values. Columns 2-4 report OLS regressions. Standard errors are clustered by respondent county, and computed where necessary by the delta method; \*\*\*\*, \*\*\* and \* denote significance at the 1%, 5% and 10% levels respectively.

Table 8
Reasons for More Limits on Imports as a Most Preferred Policy: Summary Statistics
(Pooled: Round 3, 2021; Round 4, 2022)

Reasons: (5=Strongly agree, 1=Strongly disagree)	Not persuaded	Imports often lower quality	Imports potential threat to National security	Imports often compete for US jobs	Concerned about imports from China	Other more important concerns
Information Treatment received:						
Control (N = 302)		3.54 [1.08]	3.41 [1.12]	3.85 [1.09]	3.96 [1.08]	3.61 [1.01]
Trade Hurts Jobs (N = 270) Trade Hurts Jobs sans China (N = 183)	3.84 [1.02] Pers.	3.74 [0.96]	3.47 [1.00]	4.09 [0.91]	4.04 [0.99]	3.81 [0.94]
	3.65 [1.07] Pers.	3.64 [1.01]	3.56 [1.05]	3.98 [1.01]	3.83 [1.11]	3.70 [1.02]
Trade Helps Jobs (N = 238) Trade Helps Jobs sans China (N = 171)	3.62 [1.04]	3.79 [1.04]	3.69 [1.07]	4.06 [0.98]	4.29 [0.97]	3.80 [0.95]
	3.63 [0.92]	3.63 [1.00]	3.40 [0.99]	3.92 [0.96]	3.94 [1.18]	3.60 [0.99]
Trade Helps Prices (N = 250) Trade Helps Prices sans China (N = 256)	3.30 [1.02]	3.75 [0.99]	3.43 [1.06]	4.06 [0.99]	4.05 [0.98]	3.90 [0.85]
	3.50 [1.08]	3.70 [1.09]	3.53 [1.13]	4.09 [1.00]	4.08 [1.08]	3.81 [1.03]
Tariff Hurts Prices (N = 245) All other Treatments (N = 775)	3.27 [1.06]	3.61 [1.15]	3.50 [1.11]	3.94 [1.05]	4.12 [1.01]	3.70 [0.99]
	3.49 [1.09]	3.72 [1.06]	3.55 [1.05]	4.01 [1.00]	4.09 [0.99]	3.68 [0.95]

**Notes:** Mean values reported, with standard deviations in brackets. Based on the sample of Round 3 (2021) and Round 4 (2022) respondents who selected "More Limits on Imports" as a top three "Most Preferred" policy and were directed to these follow-up questions on their reasons for this preference. For the "Trade Hurts Jobs" and "Trade Hurts Jobs sans China" treatments, the summary statistics in the first column (with superscript "Pers.") are agreement scores with being "persuaded that imports have hurts jobs in the U.S.", rather than being "not persuaded". The "All other Treatments" row pools the agreement scores across the "Trade Hurts Helps Jobs", "Trade Helps Hurts Jobs", and "Trade Helps Prices sans Cheaper" treatment groups.