Economic Anxiety and Trade Policy Preferences

Ryan Powers*

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Abstract

There is now substantial observational and experimental evidence demonstrating that trade policy preferences at the individual level are strongly determined by beliefs about whether trade liberalization will help or hurt the national economy as a whole. Historical public opinion data, however, show that both trade policy preferences and optimism about trade's benefits to the economy vary substantially over time. I argue below that economic anxiety among the public arising from macroeconomic shocks is an important source of this temporal variation. Economic anxiety reduces optimism about trade's ability to help the economy and reduces support for trade openness by increasing the relative salience of the potential adjustment costs of trade liberalization. I test this argument using a novel encouragement experiment embedded in a survey of Americans. In the experiment, I manipulate economic anxiety levels by randomly assigning respondents to think and write about experiencing a significant financial loss and the implications such a loss would have on their quality of life. Those in this loss condition report higher levels of protectionist sentiment and hold more pessimistic views about trade's ability to benefit the U.S. economy than those in a similar gain condition, a placebo condition, or a control condition. Additionally, I use causal mediation analysis to show that economic anxiety and trade optimism mediate the relationship between treatment and support for trade openness. Finally, I show that the observed treatment effects are not conditional on the skill level or sector affiliation of respondents in the ways that our workhorse distributional models of trade policy preference formation would predict. These findings provide a mechanism through which variation in macroeconomic performance can shape support for trade openness and offer new evidence in favor of a sociotropic model of mass trade policy preference formation.

*Post-doctoral associate with the Leitner Program in International and Comparative Political Economy in the MacMillan Center at Yale University. Email: ryan.m.powers@yale.edu; URL: http://ryanpowers.net/.

One of the most robust findings to emerge from the now-vast literature on mass trade preferences is that expectations about how international trade will affect the national economy—whether accurate or not—strongly determine individual-level trade policy preferences (Hainmueller and Hiscox 2006; Mansfield and Mutz 2009). Despite some initial question as to the exogeneity of trade's expected effects (Fordham and Kleinberg 2012), there is increasing experimental evidence that, all else equal, individuals who are relatively more optimistic about the ability of trade to benefit the national economy are more likely to favor increased trade openness (Ardanaz, Murillo, and Pinto 2013; Hiscox 2006; Rho and Tomz 2012; 2015). This is the case even if individuals are reminded that increased trade exposure is not likely to benefit them personally, as Rho and Tomz (2015) show. But while relative optimism about trade's effect on the economy appears to play an important role in determining trade policy preferences, historical public opinion data show that *both* trade optimism and support for trade openness vary substantially over time. Data from Gallup, for example, show that a plurality or majority of the U.S. public views international trade as an "opportunity for economic growth" in certain periods, but as a "threat to the economy" in others. Similar variation, as I document below, is observed in historical data on the public's trade policy preferences. This sort of variation is not anticipated by our current and largely cross-sectional explanations of trade policy preferences and raises the question of what causes temporal variation in mass trade expectations and trade policy preferences.

I argue in this paper that negative employment and growth shocks can lead to less optimism about trade's benefits for the economy as a whole and lower support for trade openness across the population. This suggests that *both* assessments of trade's effect on the economy and trade policy preferences are conditional on the public's level of concern about the state of the broader economy. Such conditional expectations and policy preferences may seem illogical at first blush. For example, if an individual views trade as beneficial to the economy in times of good macroeconomic performance and, as a result, favors increased trade openness, then negative economic shocks should intensify—rather than moderate—demands for more liberal trade policy. But trade liberalization entails an intertemporal trade-off in which long-term efficiency gains are purchased with short-term adjustment costs. These costs are often denominated in terms of increased unemployment among individuals working in import-competing sectors. Research on trade policy preferences suggests that the relative salience of these costs are, in part, determined by one's spatial and temporal proximity to individuals bearing them (Margalit 2011; Scheve and Slaughter 2001; 2004; Walter 2010). For example, home owners

in areas that employ individuals in industries that are expected to lose as a result of trade liberalization exhibit higher levels of protectionist sentiment (Scheve and Slaughter 2001). Likewise, those living in areas that have suffered job losses as a result of foreign economic competition are less likely to support incumbent policy makers (Margalit 2011). These and other findings suggest that optimism about trade's benefits to the economy and trade policy preferences depend critically on the relative *salience* of the costs and benefits of openness. To the extent that individuals are aware of the potential short-run employment costs of increased openness, they are likely to be less willing endorse increased trade openness in periods of high or increasing unemployment. As such, regardless of where one sits in the economy, support for trade openness should decline as her concern about the condition of the economy increases.

In what follows, I investigate the relationship between economic anxiety, trade optimism, and trade policy preferences at the individual level using a survey experiment that employs a novel manipulation of individual-level economic anxiety. To focus on the link between economic anxiety and trade policy preferences, I use a parallel encouragement design (Imai et al. 2011) in which I manipulate concerns about the national economy by assigning respondents to one of four treatment conditions. In the first two conditions, I attempt to simulate the effect of macroeconomic shock by asking respondents to think and write about experiencing a significant financial loss (or gain) as a result of the national economy doing poorly (or well). In the third treatment condition, I ask respondents to think and write about an average day as a placebo. The final condition serves as a control and includes no thinking or writing task. Nothing in the gain/loss treatments makes reference to trade, trade policy, or the international economy. Following treatment, I asked respondents about their trade policy preferences and two mediators on the casual pathway between poor macroeconomic performance and trade policy preferences: 1) concern about the national economy and 2) optimism about trade's ability to benefit the economy. The results show that those in the loss treatment are less likely to report supporting trade openness and a causal mediation analysis shows that elevated concerns about the national economy and reduced optimism about trade's ability to benefit the economy mediate this effect. The results are not conditional on one's skill level or sectoral affiliation in the ways that our workhorse distributional models of trade policy preference formation would predict. This between-group differences design also has the benefit of fixing all macro-level political and economic variables across the respondent pool.

The findings that I present here help clarify how anxiety about the condition of the national economy among the public as a whole shapes support for trade openness. This is important since much of the previous work on economic anxiety and policy preferences focuses only on those individuals who are expected to bear the costs of increased trade openness directly (Margalit 2011; Scheve and Slaughter 2001). By manipulating economic anxiety more broadly, I provide a mechanism through which we can explain increases in aggregate protectionist sentiment during times of poor macroeconomic performance and provide a hard test of sociotropic theories of trade policy preferences (Mansfield and Mutz 2009). While the magnitude of effects that I report below are—in some cases—modest, they tend to be consistent in their direction and implications: even small changes in one's economic outlook brought about by a short thinking/writing task can have measurable effects on support for trade openness and trade optimism. Below, I briefly situate this paper in the broader literature on mass trade policy preferences, draw on past work to develop a number of expectations about how variation in macroeconomic performance should affect support for trade openness, and then test these expectations using a parallel encouragement experiment embedded in a public opinion survey. I conclude with a discussion of the results and directions for future research.

1 Mass Trade Policy Preferences

There is now a substantial literature investigating the sources of mass trade policy preferences.[1] Perhaps the most significant debate in this literature in recent years has been over the relative importance of expectations about trade's economic effect on individuals (myopic self-interest) compared to expectations of trade's effect on aggregate welfare (sociotropic concerns) in determining individual-level trade policy preferences. Early work on individual-level trade policy preferences focused on testing self-interest based theories of trade policy preferences. Often scholars derived predictions about the expected income effects of increased trade openness

[1]Sources of trade policy preferences identified by scholars in recent years include individual-level characteristics like out-group sentiment (Mansfield and Mutz 2009; Margalit 2012), ideology (Rathbun 2014), and risk orientation (Ehrlich and Maestas 2010; Mansfield, Mutz, and Silver 2015; O'Rourke and Sinnott 2001; Schaffer and Spilker 2014). There is a gender gap in trade policy preferences for men and women with similar political and economic circumstances (Burgoon and Hiscox 2008), which is attributed to differences in risk orientation across genders (Guisinger 2015; Mansfield and Mutz 2013) and to differences in the weight that men and women place on individual self-interests relative to societal-level concerns (Gidengil 1995). Variables at higher-levels of aggregation are also shown to affect trade policy sentiment including local economic conditions (Mansfield and Milner 2015; Margalit 2011), elite opinion (Hiscox 2006), and mobilization by political parties and elected leaders (Hicks, Milner, and Tingley 2014; Naoi and Urata 2013; Urbatsch 2013).

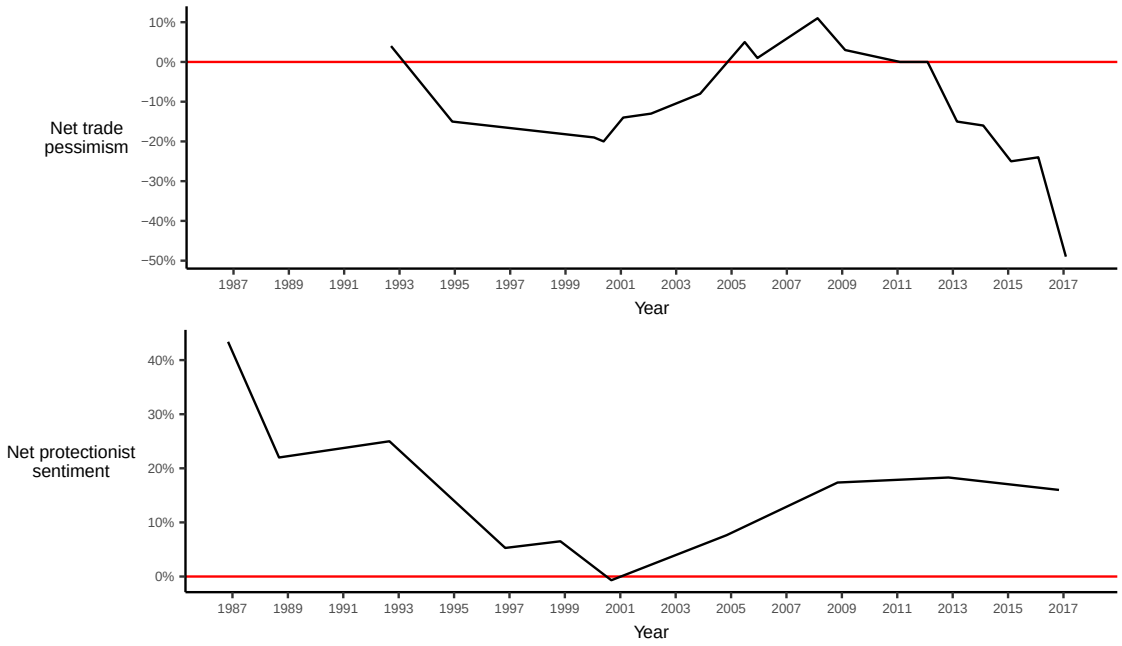


Figure 1: Variation in trade sentiment. The top panel plots net trade pessimism over time. This is the difference between the percentage of the public that views trade as a "threat to the economy" and the percentage of the public that views trade as an "opportunity for growth." The series is from Gallup and ranges from a high of +11.0 to a low of −49.0. The bottom panel plots net protectionist sentiment over time. This is the difference between the percentage of the public supporting "new limits on imports" and the percentage of the public that does not. This series is from the American National Election Studies (ANES) and ranges from a high of +42.0 to a low of −0.6.

on the basis of two workhorse distributional models of trade: the specific factors model and the factor endowments model. This work found variously that skill level (Mayda and Rodrik 2005; O'Rourke and Sinnott 2001; Scheve and Slaughter 2001) and industry of employment (Mayda and Rodrik 2005) help drive trade policy preferences.[2]

Rodrik (2001), however, argued that findings related to economic self-interest should be interpreted with caution since the correlation between skill level and trade policy preferences does "not constitute direct evidence in favor of Stolper-Samuelson." For example, Rodrik continues, "[i]t could well be that higher skilled individuals prefer free trade for other reasons than its anticipated distributive effect: they could simply be better informed about its efficiency benefits, for example." The implication is that trade policy preferences might

[2]Scheve and Slaughter (2001) found that, at least in the U.S. case, trade preferences are correlated with skill level (wage level and educational attainment), but not industry of employment. Scheve and Slaughter interpret these findings as evidence that the effects predicted by specific-factors model are not as salient as those predicted by the factor-endowments model and other non-material determinants of trade preferences. O'Rourke and Sinnott (2001) and Mayda and Rodrik (2005) find similar results in their cross-national studies; individuals in high-skill occupations and/or higher levels of eduction are more likely to favor more open trade policies. Mayda and Rodrik (2005) also found some evidence to support the specific factors model.

be determined not by expectations about trade's economic effects on individuals themselves, but by the expected economic benefits of trade on the economy as a whole. Framing their argument in terms of economic literacy, Hainmueller and Hiscox (2006) provide the first systematic test of this aggregate welfare hypothesis. Hainmueller and Hiscox argue that the correlation between skill level and trade preferences is not the result of skill-based interests, but stems instead from the fact "that more educated respondents tend to be more exposed to economic ideas about the overall efficiency gains for the national economy associated with greater trade openness." As a primary piece of evidence, they show that labor market status does not change the estimated effect of educational attainment on free trade sentiment even though, for example, retirees who did not earn a college degree should only gain from increased trade openness.

Mansfield and Mutz (2009) outline the first explicit aggregate welfare theory of individual trade policy preferences by drawing on sociotropic theories of policy preferences. They show that trade policy preferences are strongly determined by individual-level optimism about the ability of globalization, membership in the World Trade Organization, and foreign direct investment to help the national economy. For example, individuals who expect globalization to hurt the economy as a whole are more likely to favor trade protection. The magnitude of this effect is substantial, with relatively small variations in perceptions of how trade affects the economy having dramatic effects on trade policy preferences.[3] There is some debate as to how to interpret the Mansfield and Mutz (2009) findings. Their aggregate welfare theory requires assuming that individuals use their experiences and information to derive expectations about trade's effect on the national economy and, only then, arrive at a policy preference for or against increased trade openness. It could be, however, that individuals justify their trade policy preferences in a *post hoc* fashion by telling themselves that their policy position would benefit the national economy, whether or not they favor increased trade openness. Alternatively, Fordham and Kleinberg (2012) note that, "[S]ome individuals might have heard trusted political leaders or media figures express support for a liberal (protectionist) trade policy and then inferred that trade is good (bad) for the country as a whole." A pair of studies show that changing beliefs about trade's potential costs and/or benefits do, in fact, have a causal effect on trade policy preferences. In the first, Hiscox (2006) asks a representative sample of Americans about their trade policy preferences. He randomly assigns respondents to different frames that variously

[3] Mansfield and Mutz (2009) explain, "A change from not being sure whether trade benefits the U.S. economy (a score of 3) to the view that trade has helped the economy 'a little' (a score of 4) yields about a 50 percent increase in the probability that a respondent consistently supports free trade; a change to the belief that trade helps the economy 'a lot' (a score of 5) yields roughly a 100 percent increase in this probability."

highlight potential benefits, potential costs, or both benefits and costs of trade. A control group received no question frame. Those in the costs frame were 17 percentage points less likely to support trade openness than those who received the potential benefits frame. The treatment effects were most pronounced among those with relatively low levels of education. In the second, Rho and Tomz (2015) test the limits of aggregate welfare frames, by randomly assigning respondents to a series of frames that highlight both distributional and aggregate welfare effects of changes in trade policy. As Rho and Tomz (2015) write, the addition of aggregate welfare cues, "not only generated enthusiasm for free trade but also weakened the association between self-interest and policy preferences." Thus, increasing optimism about trade's ability to benefit the national economy appears to have effects that are independent of and potentially contrary to self-interest alone.

While this experimental evidence lends substantial support to aggregate welfare theories of trade preference formation, historical public opinion data show that *both* expectations about trade's ability to benefit the national economy and trade policy preferences vary substantially over time. In the United States, for example, Gallup has a long-running survey question about the public's view of trade's effect on the national economy. They ask, "What do you think foreign trade means for America? Do you see trade more as an opportunity for economic growth through increased U.S. exports or threat to the economy from foreign imports?" I construct a measure of "net trade pessimism" by taking the difference between the proportion of the public that views trade as a threat and the proportion of the public that views trade as an opportunity and plot the resulting data points in the top panel of Figure 1. Over the last 25 years, there has been considerable variation in this measure. In some periods, the public is broadly optimistic about trade's potential for growth, while in others they are much less so. As one would expect given the theoretical and empirical links between trade expectations and trade policy preferences reviewed above, there is similarly substantial temporal variation when the public is asked directly about their trade policy preferences (bottom panel of Figure 1). The data in this second series is from the American National Election Studies (ANES), which has asked "Some people have suggested placing new limits on foreign imports in order to protect American jobs. Others say that such limits would raise consumer prices and hurt American exports. Do you favor or oppose placing new limits on imports, or haven't you thought much about this?" I use the data from each wave of the ANES since they began asking this question in 1986 to construct a measure of "net protectionist sentiment," which is the difference between the proportion of

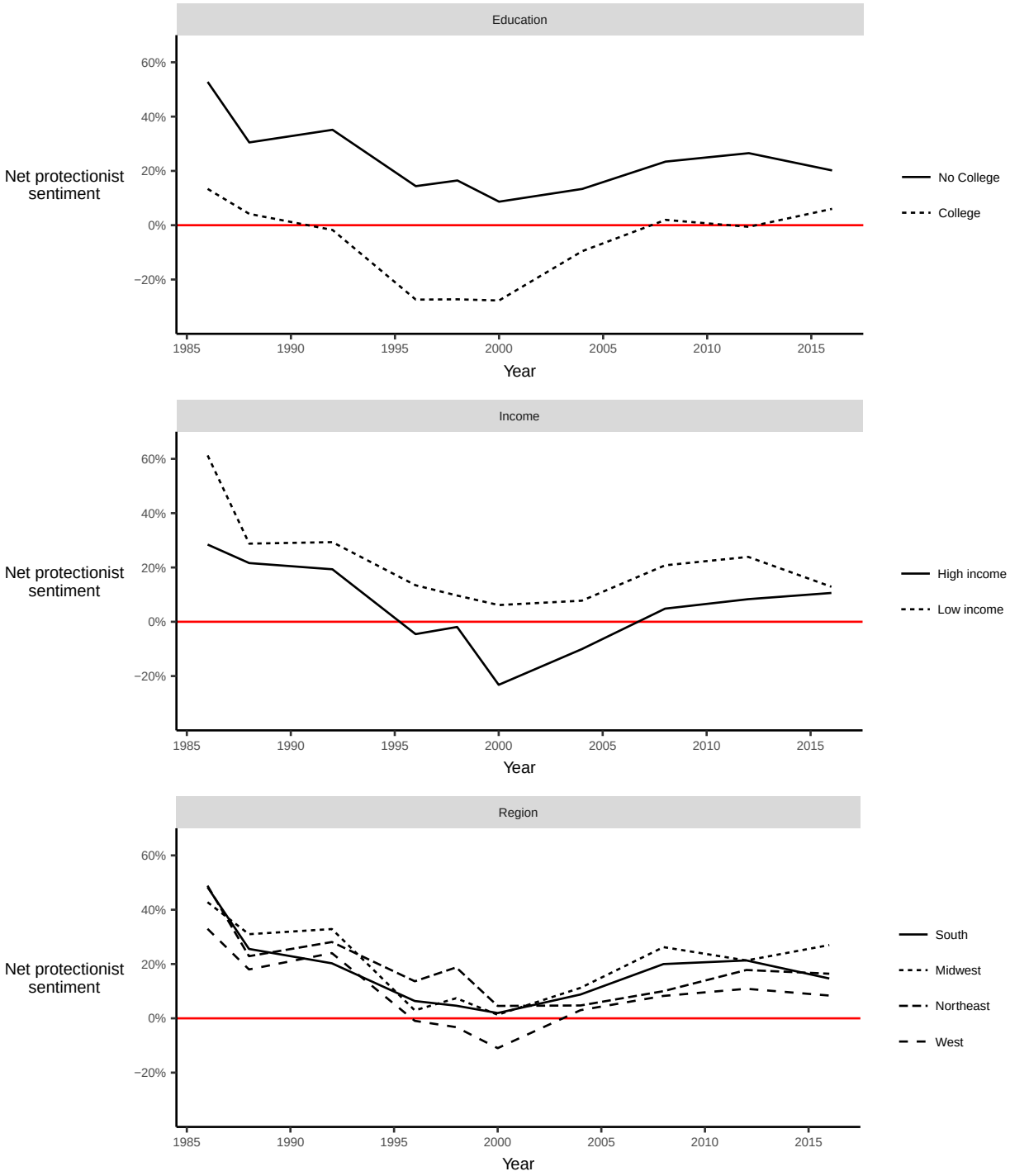


Figure 2: Variation in protectionist sentiment by education level, income level, and region.

individuals favoring new limits on imports and those that oppose new import limits. Again, we see substantial temporal variation.

Importantly, this variation in both optimism about trade's benefits to the economy and trade policy preferences is not anticipated by our traditional distributional models of trade preferences. For example, average skill levels and industry affiliations do not change quickly enough to account for the speed with which these changes occur. Further, given the broader macroeconomic trends in the United States over the last 30 years, we would expect average views on trade's effects on the economy to trend in an increasingly optimistic direction over time as average education levels increased and/or employment in import-competing sectors has declined. Instead, we see that trade sentiment appears to be moving in a somewhat cyclical pattern. This variation also does not appear to be the result of anti-trade views periodically intensifying among those who expect to lose from increased trade openness. For example, one explanation for the cyclic pattern in aggregate support for trade openness might be that protectionist views among those expected to directly bear trade's adjustment costs are periodically "activated" by economic downturns, widespread discussion of a new international trade agreement, or some other factor. This does not appear to be the case. Figure 2, which plots "net protectionist sentiment" by education level, income level, and geographic region shows that variation in trade policy preferences occurs across the skill distribution and is not concentrated in an particular geographic region.

In sum, the literature on trade policy preferences has generally moved away from purely self-interest based theories and toward explanations that incorporate or even privilege the role of individual-level evaluations of trade's ability to benefit the national economy. Further, there is significant evidence that the public's relative level of trade optimism is causally important in determining trade policy preferences, but historical public opinion data shows that these expectations and policy preferences change substantially over relatively short periods of time.

2 Explaining temporal variation in support for trade and trade optimism

Increased trade openness gives consumers access to a wider variety of goods at lower prices and stimulates economic growth. As a result, most models of the political economy of trade expect the public to generally support liberal trade polices. Of course, changes in trade policy have distributional implications as well: trade

liberalization increases wages and productivity in export sectors, but can displace workers and slow down or reverse wage growth in import-competing sectors. This gives rise to an inter-temporal trade off in which some concentrated portions of the economy bear short-run adjustment costs in order to buy long-run aggregate welfare benefits. The public's evaluation of trade's ability to benefit the economy and, consequently, their trade policy preferences, should depend critically on the relative salience of those costs.

One source of variation in the salience of the costs of trade openness is spatial, economic, and temporal proximity to the short-run costs of changes in trade exposure and increased globalization. Scheve and Slaughter (2004) show that individuals in industries with significant foreign direct investment activity report higher levels of economic insecurity. Walter (2010) shows that economic insecurity arising from exposure to globalization has implications for policy preferences. It increases support for expanding the social welfare state and support for left parties. But the adjustment costs of liberalization can also affect the policy preferences of those who are not directly affected. For example, Scheve and Slaughter (2001) show that homeowners, regardless of their industry of employment or skill level, are more protectionist if they are located in counties with substantial employment in sectors that are likely to be negatively affected by increased trade openness. Margalit (2011) shows further that these effects drive vote choice. Individuals living in areas of the United States that experienced job losses as a result of foreign competition are less likely to vote for incumbent political leaders. Strikingly, however, this effect is reduced in regions where the government has taken steps to reduce the salience of the costs of openness by providing displaced workers with income support and job training via the U.S. Trade Adjustment Assistance program. Ahlquist, Clayton, and Levi (2014) show similarly that long-term socialization in labor unions increases protectionist sentiment even among those workers who are most likely to benefit from increased trade. They note a high level of protectionist sentiment among dock workers at ports on the American west cost. Ostensibly, these workers have a lot to gain from increased trade openness since increased trade would increase demand for their services. Despite this, International Longshore and Warehouse Union (ILWU) members report relatively high levels of protectionist sentiment. Using original survey data, Ahlquist, Clayton, and Levi show that this is the result of socialization into the ILWU culture of "broad labor solidarity"—the longer dock workers remain union members, the more likely they are to oppose increased trade openness. Thus, protectionist policy preferences can be "provoked" by highlighting the adjustment costs of increased trade openness even among individuals who will realize clear and direct gains from liberalization.

But variation in the relative salience of the costs and benefits of openness likely arises from other sources as well. In particular, macroeconomic performance may be a key source of this variation. As I note above, the short-run adjustment costs of increased trade openness are often denominated in terms of lost jobs. In times of economic stagnation or decline the public is likely to be more concerned about job losses regardless of their source. To the extent that individuals are aware of the potential short-run employment costs of increased openness, they may be unwilling to support increased trade openness in periods that are already exhibiting high or increasing levels of unemployment. In part, this may be because the expected value of the adjustment costs for each directly affected individual is likely higher in times of economic stagnation or decline. Those workers displaced by foreign competition in an economic downturn, for example, are likely to be unemployed for a longer period of time than if they would be if they needed to find new work in a period of relative national economic prosperity. Those who do not directly bear the costs of increased openness, like those in the non-traded sector, may also be concerned about increased labor market competition stemming from job losses in the traded sector. Finally, given the stresses that economic downturns place on the social welfare system, individuals across the economy might be relatively more concerned about shouldering the costs of social welfare services for workers displaced by increased trade openness in times of poor macroeconomic performance.

At the same time that macroeconomic slow downs make the short-run costs of liberalization *more* salient to the general public, they should also make the potential consumer-side benefits of trade openness *less* salient. During recessions, for example, individuals often delay or forego spending on broad classes of consumer goods. In the Great Recession, consumer spending declined in nearly all consumer goods categories: durable, non-durable, and services (Petev and Pistaferri 2012). These effects stem from declines in income due to job losses or cuts in hourly work, but they also result from diverting disposable income to pay off debt (Brown et al. 2010), increase savings (Barello 2014), help support family members who are in need (Taylor 2010), and general increases in uncertainty about future earnings. These effects can last for long periods of time. After the Great Recession, for example, it took 15 quarters for spending to return to pre-recession levels (Petev and Pistaferri 2012). Such declines in current and planned consumer spending during macroeconomic slow downs—especially on durable goods that tend to be both more expensive and manufactured abroad—should make the consumer benefits of increased openness less salient to the public over the short-run. The above discussion yields the following immediate and testable implications:

Implication 1. *Individuals experiencing increased economic anxiety will be less likely to support trade openness.*

Implication 2. *Individuals experiencing increased economic anxiety will be less optimistic about trade's ability to help the national economy.*

To the extent that the causal argument made in sociotropic of trade policy preference formation is accurate, we should observe the following as well:

Implication 3. *Individuals who are less optimistic about trade's ability to help the national economy will be less likely to support increased trade openness.*

3 Evidence from a survey experiment

I test the above implications using a survey experiment fielded in the United States in the spring and summer of 2016. Survey experiments are now widely used in political science in general and in the mass trade preferences literature in particular (Hiscox 2006; Kuo and Naoi 2015; Naoi and Kume 2011; 2015; Rho and Tomz 2015; Schaffer and Spilker 2014). Most commonly, researchers rely on framing experiments which randomly assign respondents to be exposed to information about one or more implications of trade openness and then check for differences in support for trade openness across treatment conditions. This approach has its advantages, but it also sacrifices external validity in two ways. First, it provides respondents with information about the effects of trade openness to which they might not normally have access to when forming opinions "in the wild." That is to say that many respondents may not normally link some positive and negative implications of trade openness with changes in trade policy and thus the treatment effects that we observe may not reflect how respondents weigh the costs and benefits of trade openness in their daily lives. And second, these kind of framing experiments can suffer from social desirability bias. If, for example we informed respondents that increased trade openness will reduce economic growth and then ask about whether they support or oppose trade openness, it is hard to discern the extent to which the observed treatment effects reflect policy preferences of respondents and not the respondent's desire to avoid being seen as endorsing policies that will hamper the national economy.

In addition to the issues above, a separate issue makes framing experiments less than ideal in the present context. Experimentally testing theories related to the economic anxiety in respondents can be difficult. For

example, information about the economy is widely available in most contexts and there is normally significant news coverage of changes in a variety of national and sub-national macroeconomic performance indicators like economic growth, unemployment, inflation, and poverty. While many individuals are unaware of the exact unemployment rate, most individuals are generally aware of the direction in which the economy is headed (e.g., Sanders 2000). As a result, it is unlikely that trying to manipulate the perceptions of the broader economy using framing-style treatments is possible.

To avoid these issues and to focus attention on the causal effect of economic concerns on trade policy preferences, I take a different approach. I employ a parallel encouragement design (Imai et al. 2011) in which I ask respondents to imagine a realistic situation in which they might experience a significant financial loss or gain as a result of variation in macroeconomic performance. I then ask respondents to write for a short period of time about how that experience might affect their day-to-day life if it actually occurred. To make the exercise slightly more concrete, I also ask respondents to rank a several expenditure categories in the order in which they would decrease (for the loss condition) or increase (for the gain condition) spending if they actually lived through the experience about which they just wrote. Following this manipulation, I ask respondents about their trade policy preferences. In addition to the gain and loss conditions, I also include a "placebo" condition in which respondents are asked to write about an average day and then to rank a series of colors. Here, the goal is to ensure that any observed treatment effects are not simply the result of the cognitive load of the essay and ranking tasks. Finally, I also include a control condition in which respondents receive no manipulation prior to being asked about their trade policy preferences.

This parallel encouragement design also allows me to isolate the effect of individual-level concerns about the state of the economy from other potential sources of temporal variation in trade policy preferences including changes in the country's political leadership and/or news coverage of trade issues. The one-shot nature of this design fixes all political and economic contextual variables and allows me to precisely estimate the effect of treatment on several outcomes of interest.

These experiments rely on a convenience sample of approximately 4,200 Americans. I programmed the survey in Qualtrics and recruited respondents from two survey pools. First, in the early Spring of 2016, I recruited 1,120 respondents on Amazon.com's Mechanical Turk service. I paid these respondents $1.50 for their time. Second, in the Summer of 2016, I recruited an additional 3,127 respondents using Survey Sampling Inter-

national (SSI). These respondents were compensated via SSI's points system.[4] Respondents from both sources completed exactly the same questionnaire. I used this two-pronged recruitment strategy in order to maximize internal and external validity. On the one hand, my *ex ante* expectations were for respondents recruited on Mechanical Turk to more faithfully follow the treatment instructions. Mechanical Turk workers are aware that their work can be "rejected" if there is clear evidence that they did not comply with the instructions and so rates of compliance are relatively high. This high rate of compliance should increase our confidence in the internal validity of the study. That being said, the respondents that I recruited via Mechanical Turk live in lower income households and are better educated than the average American (See Table 4). While there is substantial evidence that the results found in studies conducted on samples drawn from Mechanical Turk are generalizable (Berinsky, Huber, and Lenz 2012; Huff and Tingley 2015), the nature of the manipulation and the importance of education and income to models of trade policy preference formation may give rise to concerns about the external validity of these particular results. By recruiting participants via SSI as well, I gain access to respondents that look more like the average American. As shown below, however, I pay a cost in terms of compliance among individuals in the SSI sample. I report the results of the combined sample below, but include sub-sample analyses in the appendix.

Below, I describe the experimental protocol in detail and then proceed to a discussion of the relative compliance of the respondents, the results of my manipulation check, the treatment effects of the manipulation on trade policy preferences and optimism about trade's effect on the economy, and the results of a causal mediation analysis that systematically estimates the effect that economic concerns and trade optimism have on support for trade openness.

Experimental design

Manipulation

I randomly assign respondents to one of four treatment conditions: control, gain, loss, or placebo. Those in the control condition receive no manipulation. Those in the other conditions are asked to complete a short thinking and writing task. In the loss condition, I present respondents with the following prompt:

[4]Respondents are awarded points for completing surveys. These points can then be redeemed for cash and/or other rewards on a periodic basis.

> Think about a possible situation in which you might experience a significant financial loss as a result of the national economy doing poorly. For example, you might think about the possibility of losing your current job, having to take a significant cut in your level of pay, or a significant cut in the number of hours that you can work.
>
> What sorts of experiences and possessions would you no longer be able to afford for yourself and/or your family? Would you be able to remain in your current home?
>
> Again, we'd like you to focus on a realistic situation in which you experience a significant financial loss as a result of the national economy doing poorly and how it would affect you personally. Spend the next two minutes writing about how you would feel if you suffered such a financial loss and how your quality of life would suffer.

I then ask respondents to rank the order in which they would cut back on their expenses if they actually experienced the loss about which they wrote. The instructions read, "Think again about the situation you just wrote about in which you might experience a significant financial loss. Imagine you needed to decrease or delay some of your expenses as a result of that loss. Rank the categories of expenses listed below from 1 (the first thing you would cut) to 6 (last thing you would cut)." The expense categories were:

- spending on housing,
- spending on household appliances, electronics, and/or furniture,
- spending on food,
- saving for future/retirement,
- spending on entertainment,
- spending on transportation.

I presented those in the gain condition with a prompt similar to that in the loss condition, but instead of asking respondents to write about a potential financial loss, I ask them to write about experiencing a potential financial gain. The ranking task for those in the gain condition was similar to that in the loss condition as well, but asked about the order in which respondents would increase expenses rather than decrease them. Finally, I asked those in the placebo condition to write about an average day. The placebo prompt read:

> We'd like you to think about an average or normal day for you and/or your family. For example, you might think about where would you spend most of your time, who you would most likely interact with, or how you would feel.
>
> What sorts of experiences do you normally have?
>
> Again, we'd like you to focus on an average or normal day for you and/or your family and how you spend your time. Spend the next two minutes writing about what you would do and how you would feel on an average day.

To make the placebo manipulation parallel to the gain and loss conditions, I then asked respondents to rank several colors in order from their least favorite to their most favorite.

A crucial element of each of these manipulations is that they avoid linking the economy, finances, or the gains or losses about which respondents are thinking to foreign commerce, international trade, or the global economy. To that end, these manipulations do not provide respondents with any information about the potential effects of changes in trade policy and do not attribute the state of the domestic macroeconomy to that of the international economy or economic conditions in other countries. Instead, these manipulations focus attention on causes of economic anxiety that might stem from poor macroeconomic performance like losing or finding a job or getting a raise or having to take a pay cut. To the extent that increased economic anxiety affects the relative salience of the potential costs and benefits of increased trade openness, it is through linkages that already exist in the minds of respondents.

Dependent variable: trade policy preferences

Immediately following the manipulations, I asked respondents in all conditions to report their trade policy preferences: "Do you support or oppose the United States government working to increase trade with other countries?" Respondents were given a seven point response scale ranging from "Support a great deal" to "Oppose a great deal."

Two aspects of the question wording are worth highlighting. First, the question specifically refers to "the United States government working to increase trade" in order to highlight the fact that trade would be increased or decreased a result of some deliberate policy choice on the part of political leaders. And second, the question refers to "trade" rather than import or export policies in order to highlight the reciprocal nature of the trade policy choices that are generally available to political leaders in the modern economy.

Mediators: economic concerns and trade optimism

As I outlined above, I expect the effect of treatment to be mediated through economic anxiety. To measure respondent economic anxiety levels, I asked respondents a battery of questions similar to those used by the University of Michigan Consumer Sentiment Index. The questions were:

- Would you say that you are better off or worse off financially than you were a year ago?

- Do you think that a year from now you (and your family living there) will be better off financially, or worse off, or just about the same as now?
- Do you think that during the next twelve months we'll have good times financially or bad times?
- Do you think that, in the country, as a whole we'll have continuous good times during the next five years or so, or that we will have periods of widespread unemployment or depression?
- Generally speaking, do you think now is a good or bad time for people to buy major household items?

The response options for each question were on a five-point bad-to-good scale with higher values representing relatively higher levels of economic optimism.

I also asked respondents about a number of potential mechanisms through which economic anxiety might affect trade policy preferences. The first of these was a subjective assessment of the effect that international trade has on the economy, "Overall, do you think that trade between the United States and other countries helps or hurts the U.S. economy?" This mediator is meant to capture the respondent's level of optimism about trade's ability to benefit the national economy and speak to the role of sociotropic expectations in determining trade policy preferences. Finally, I asked respondents a variety of questions designed to measure alternative causal mechanisms including isolationist sentiment, outgroup sentiment, risk orientation, and the respondent's underlying beliefs about how trade openness affects prices and employment. The complete questionnaire is in Appendix D.

Results

Compliance

I begin by assessing compliance. Compliance checks are critical to accurately estimating the effect of treatment when respondents have the freedom to ignore or disregard treatment instructions.[5] In the analysis that I present below, I report both complier average causal effect (CACE) based on two-stage least squares estimates that

[5]In the present setting, the chief concern here is one-sided non-compliance, which occurs when respondents who were assigned a thinking and writing treatment task do not follow the task instructions (e.g., writing about some other topic than what was requested) or completely disregarded treatment instructions (e.g., entering random text). If this kind of non-compliance occurs and is not addressed, the true effect of treatment will be underestimated. Because respondents had no interaction with one another and had no-knowledge of the content of the other treatments, the risk of other potential forms of non-compliance like defiance or interference between units is minimal. For a more detailed discussion of this kind of one-sided non-compliance see Imbens and Rubin (2015). For a discussion of instrumental variables in the context of experiments in political science, see Sovey and Green (2011). And for an approachable treatment of the underlying logic of estimating treatment effects in the presence of non-compliance see Angrist (2006).

accounts for one-sided non-compliance as well as "per protocol" treatment effects (PPTE) which are based only on the respondents that complied with the treatment instructions.[6] To that end, I coded all treatment responses that appeared to be either random text entry, copied and pasted, or that were not about the requested topic as non-compliers.[7] This coding of the treatment responses shows that about 8 percent of respondents did not follow the treatment instructions.[8] Among compliers, the average length of a treatment responses was 296 characters.[9] The contrast between the sort of topics that respondents wrote about in each treatment is immediately apparent when looking at the raw data:

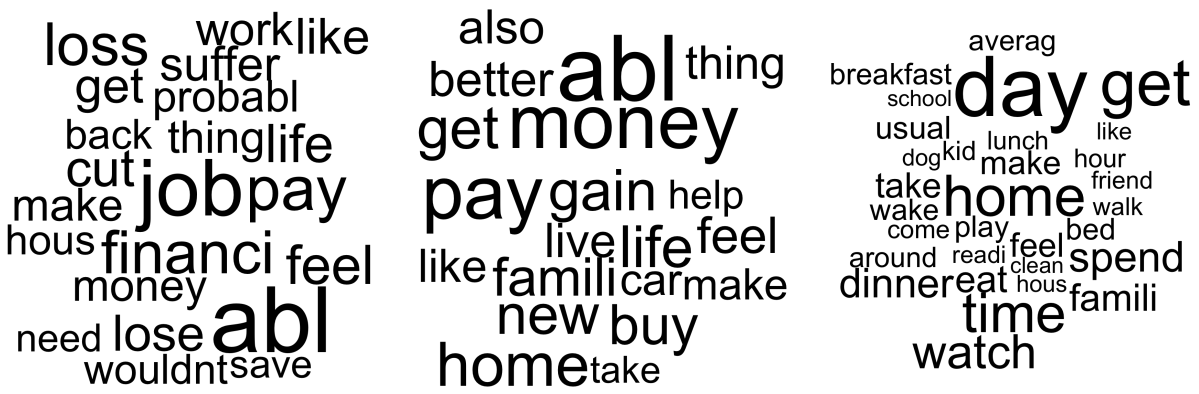
- Example response from loss condition. "Well, actually I am in a bind right now. I am currently looking for a job because my husband was the sole bread winner while I stayed home and took care of our kids. I am currently looking for something, anything just to pay the bills right now. I think soon we will have to give up our electronics just to have a little extra money. No, cell phones, internet or cable tv. We are alright as long as my husband has his disability check because it pays for the mortgage. Everything else will slowly be leaving us. We live on a modest income so we are used to not having much so that helps. Our cars are paid for so that is alright. We would not change too much because of it, we would just be more creative."
- Example response from gain condition. "I would feel grateful for having more money. My family would build our dream home in the country. We would also increase charitable donations to causes we care

[6] Imbens and Rubin (2015) urge caution in relying on PPTE since the estimator "discards only those noncompliers who do not comply with their observed treatment assignment and not those noncompliers who were assigned to the control group." I present PPTE along side the CACE estimates because the two estimators yield main effects that are roughly equivalent and the PPTE is an intuitive way to motivate the sub-sample analyses by treatment response length that I present later in the paper. In general, PPTE estimates are less reliable estimates of the effect of randomized interventions because they are less likely to represent how individuals take up treatment in the real world and because compliance is often not random. Given that the manipulation employed here is already an abstraction of how individuals experience economic downturns in the real world and that the collection of a number of causally-relevant demographic characteristics allows for controlled comparisons of the treatment and control groups, a focus on the effect of treatment among those who most faithfully took up the treatment may yield more useful information about how elevating economic anxiety affects support for trade openness.

[7] Most commonly, non-compliance presents as respondents entering random text. Some wrote things like "blah" over and over again. Others pasted text from various websites. For example, one respondent supplied text from a Wikipedia entry on the state of Florida, while another copied and pasted text from "free-college-essays.com." In general, I took a fairly permissive view of what constituted compliance with some treatment responses consisting of just one word. This should have the effect of underestimating any effects that may appear. As such, I also present results in which the sample is truncated to include only responses over a certain length. While this does not dramatically change the results, the estimated treatment effects are generally larger than those based on the complete set of compliers.

[8] Compliance varied somewhat by treatment group. In the gain treatment, about 14 percent of respondents were non-compliers. In the placebo, non-compliance stands at about 8 percent. Finally, in the loss treatment, about 12 percent of respondents failed to comply. The difference between compliance rates for the gain and the loss condition was not statistically significant ($t = -1.27$, $p = .202$), the difference between rates of compliance in the placebo condition is different from that of the rate of compliance in both the gain ($t = -4.66$, $p < .000$) and the loss conditions ($t = -3.41$, $p < .000$). This may have implications for the validity of the 2SLS estimates presented below. As such, I also report "per protocol" estimates that are based only on the sub-population that fully complied with treatment instructions. Compliance rates varied dramatically by recruitment arm with just one-half of a percent of respondents in the mTurk respondent pool failing to comply, while in the SSI respondent pool non-compliance was about 8 percent.

[9] The length differed somewhat by treatment group. Those in the gain condition wrote an average of 279 characters, those in the loss condition wrote an average of 299 characters and those in the placebo wrote an average of 306 characters.



(**a**) Loss (**b**) Gain (**c**) Placebo

Figure 3: Word clouds of treatment responses by treatment condition. Larger words are used more frequently. I pre-processed treatment responses to remove punctuation and common stop words and then stemmed. Words used less than 150 times per treatment condition are omitted.

about. I would enjoy having more money to travel so we could enjoy more experiences. I would also want to expand our family by adopting A child or children."

- Example response from placebo condition. "I get up very early breakfast with my wife and my son, then I take my son to school and I go to my work in my office, my wife stays at home preparing lunch, at noon I look at my son and go home to lunch. In the afternoon return to my work, until 5:00 pm I go to the store to get food back home I help my wife with something preparing dinner and watch TV with family or see a movie."

Figure 3 shows that these contrasts hold more systematically.[10] Respondents in the loss condition often used words likely to be associated with a financial set back like "hard," "lose," "devast," and "cut," while those in the gain used words likely to be associated with a financial windfall like "better," "new," and "buy." Those in the placebo used words that are associated with discussion of common daily activities like "work," "eat," and "watch."

Was manipulation successful?

To what extent then did each of the treatment conditions actually affect the level of economic anxiety in respondents? If the writing and ranking tasks were effective, we would expect those in the placebo condition

[10] I pre-processed the treatment responses by removing all punctuation and common stop words. I then stemmed the remaining words and constructed a word cloud of the most common words used in each treatment condition. Those words that were used most often are displayed in larger text, while those words used less frequently are displayed in smaller text. Words used less than 60 times in each treatment condition are omitted.

	Complier average causal effect (2SLS)		Per protocol treatment effect (OLS)	
	(1)	(2)	(3)	(4)
Treatment				
Control	ref.	ref.	ref.	ref.
Gain	-0.03	0.01	0.01	0.03
	(0.04)	(0.03)	(0.03)	(0.03)
Loss	-0.12**	-0.09**	-0.08**	-0.07*
	(0.04)	(0.03)	(0.03)	(0.03)
Placebo	-0.04	-0.03	-0.00	-0.01
	(0.03)	(0.03)	(0.03)	(0.03)
Constant	3.28**	3.66**	3.24**	3.62**
	(0.03)	(0.08)	(0.02)	(0.08)
Observations	4389	3673	4030	3434

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 1: Estimated effect of treatment on economic anxiety.

to have levels of economic anxiety approximately similar to those in the control condition, those in the loss condition to be more economically anxious than those in the control, those in the gain condition to be less economically anxious than those in the control condition. While the loss and placebo treatments appear to have been effective, the gain treatment does not appear to have made respondents any less concerned about the economy. In order to show this, I estimate the effect of treatment on economic anxiety levels in two ways. First, because I encouraged respondents to take up the treatment, but could not force respondents to do so, I rely on two-stage least squares instrumental variables regression to estimate the compliers average causal effect (CACE). And second, I show that similar conclusions about the effect of treatment on economic anxiety among respondents can be drawn from "per protocol" analyses which are based on a sample that is pruned to include only those respondents that faithfully took up the treatment.

Columns 1 and 2 of Table 1 display the CACE of treatment on economic anxiety estimated with and without pre-treatment covariates. The results show that individuals in the loss treatment were about .12 units more anxious about the economy than those in the control group. Once pre-treatment covariates are accounted for, the estimated effect is smaller in magnitude, but still statistically significant at conventional levels. In contrast to the loss treatment condition, the economic anxiety levels of those in the placebo and gain treatments appear to have been unaffected by the treatment. Similar results can be seen in columns 3 and 4 which report the "per protocol" treatment effects. Among those who complied with the treatment, respondents in the loss condition

were about .07 points more economically anxious than those in the control condition. In this case, the estimated effects are less dependent on whether or not pre-treatment covariates are included. As with the CACE analysis, we observe no effect of treatment on economic anxiety among those in the placebo and gain groups.

A final set of analyses are worth considering at this stage. Given the nature of the treatment—taking time to think and write about a financial loss—we might expect that the observed treatment effect would be conditional on the amount of effort or attention that the respondents put into the treatment task. This is broadly the pattern that emerges if we look at respondents' average level of economic anxiety by treatment response length. Figure 4 shows the average effect of treatment on economic concerns relative to the control condition. The dots represent the estimated treatment effects, while the thick and thin bars represent 90 percent and 95 percent confidence intervals respectively. For the sub-sample analyses by length, X, I limit the sample to those respondents who supplied a treatment response essay of at least X characters in length.[11] The effect of treatment, while not dramatically different as the length of the treatment essay increases, does appear to be trending slightly upward and remains statistically significant despite the loss of power that comes with trimming the sample.[12] From this analysis, it is clear that the loss treatment put those in the loss condition in a state of elevated economic anxiety and this was especially true for those that supplied relatively longer treatment essays.

Effect of treatment on support for trade

I now turn to the analysis of the main experimental effects. I present the CACE and PPTE estimates with and without pre-treatment covariates in Table 2. The dependent variable measures support for trade on a seven point scale from "oppose a great deal" to "support a great deal". As column 1 shows, the CACE of treatment on support for trade in the loss condition is negative and statistically significant. Those in the loss treatment were about .16 units less supportive of trade openness than those in the control. This translates into about an 8 percentage point drop in those respondents reporting that they support trade a little bit, a moderate amount, or a great deal. As with the economic anxiety analysis, no similar effect obtains for the other treatment conditions. The estimated CACE for both the gain and the placebo treatments is close to zero with large standard errors. Adding pre-treatment covariates to the analysis increases the estimated magnitude of the treatment effect of

[11]This is, in effect, an estimate of the PPTE where compliance is defined as writing a treatment response of at least X characters long.

[12]Note that for the control condition, where respondents were not asked to write anything, I simply compare the truncated loss sample to the full set of control responses.

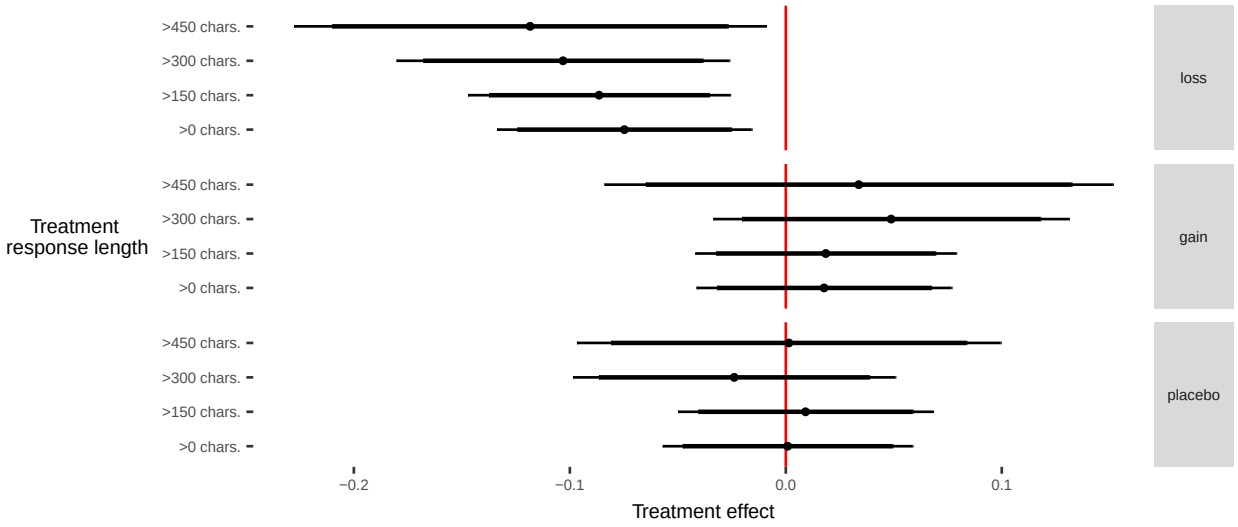


Figure 4: Effect of treatment on economic concerns. I plot the effect of treatment on economic anxiety relative to the control group. Those in the loss treatment, reported more higher levels of economic anxiety than those in any other treatment group.

the loss condition such that those in the loss condition are about .27 units less supportive of trade openness. In addition, the model that includes the pre-treatment covariates returns a marginally statistically significant effect on the gain treatment. Contrary to expectations, those in the gain treatment are estimated to be less supportive of trade openness than those in the control. The effect, however, is only about half the size of that for the loss condition. The addition of pre-treatment controls did not change the estimated treatment effect of the placebo. Results for the PPTE estimates follow a similar pattern.

I display the results of sub-sample analyses by length in Table 2. Here each of the treatment samples are trimmed so that they include only observations from respondents who provided a treatment response of at least X characters in length.[13] The figure suggests that those that spent more time thinking and writing about a particular loss were marginally more affected by the treatment, though the differences are not statistically significant in most cases. No similar pattern emerges for the gain or placebo treatments.[14]

These initial results suggest substantial support for Implication 1. Those in the loss treatment and especially those who took relatively more time to think and write about experiencing a significant financial loss as a result of the national economy doing poorly were less likely to support trade openness. In contrast, those in the

[13] As above with the sub-sample analysis of economic anxiety, these estimates are effectively PPTE estimates with compliance defined as providing a treatment response of at least X length. For simplicity, these effect sizes are based on t-tests, but similar effects obtain using regression with pre-treatment controls.

[14] Of course, there is some movement in the gain condition, but the effect size bounces around as the length of the treatment responses increase.

	CACE (2SLS)		PPTE (OLS)	
	(1)	(2)	(3)	(4)
Treatment				
Control	ref.	ref.	ref.	ref.
Gain	-0.03	-0.14^{+}	-0.08	-0.17*
	(0.08)	(0.08)	(0.07)	(0.07)
Loss	-0.16*	-0.25**	-0.21**	-0.29**
	(0.08)	(0.08)	(0.07)	(0.07)
Placebo	-0.01	-0.08	-0.06	-0.12^{+}
	(0.08)	(0.08)	(0.07)	(0.07)
Constant	4.85**	5.71**	4.90**	5.89**
	(0.06)	(0.18)	(0.06)	(0.18)
Pre-treatment covariates	No	Yes	No	Yes
Observations	4484	3673	4120	3434

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 2: Effect of treatment on support for trade. Those in the loss treatment condition are consistently less supportive of trade openness.

placebo and gain conditions—whose level of economic anxiety was not affected by the treatment—showed no similar movement against trade openness.

Effect of treatment on trade optimism

A similar pattern of results emerges when we consider the effect of treatment on trade expectations, as Table 3 shows. The dependent variable in these analyses is a subjective assessment of the ability of international trade to help or hurt the national economy on a seven point scale. The scale ranges from "hurts a great deal" at the low end to "helps a great deal" at the high end. Columns 1 and 2 report CACE estimates. Those in the loss treatment are less likely to view trade as beneficial to the national economy, but the effect is only statistically significant when pre-treatment covariates are not included. The PPTE estimates presented in columns 3 and 4 are of similar magnitude and statistically significant. Sub-sampling the responses by treatment length generates a now-familiar pattern of results. As the length of the treatment response increases, so to does the estimated magnitude of the treatment effect for those in the loss treatment. Again, we see no similar pattern for those in the placebo or the gain treatments. These results suggest that expectations about trade's ability to benefit the national economy are conditional on the level of economic anxiety that an individual is experiencing at any given time.

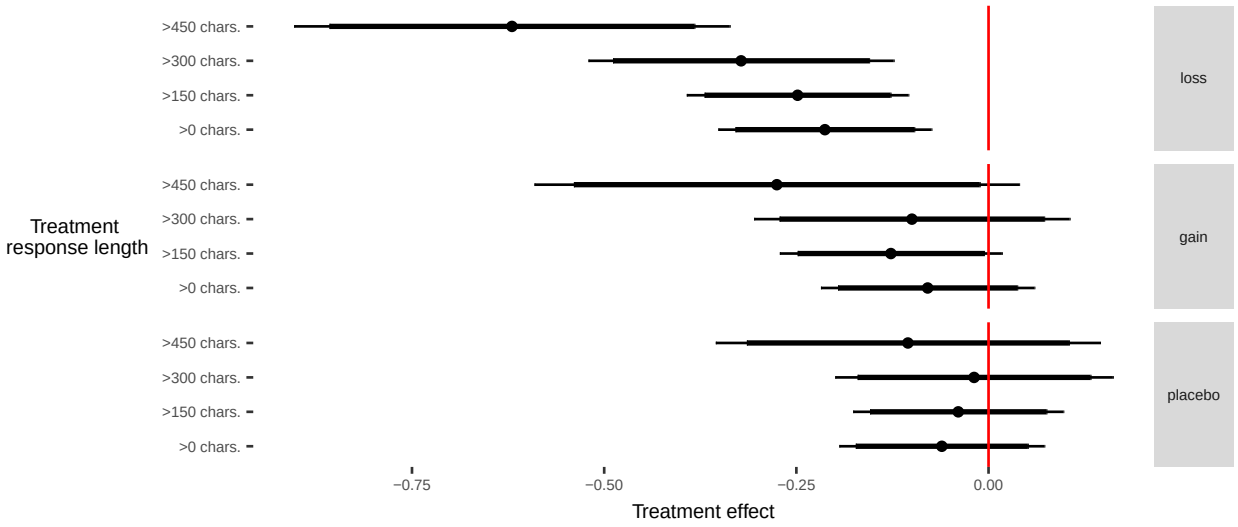


Figure 5: Effect of treatment on support for trade. I plot the effect of treatment on economic anxiety relative to the control group. Those in the loss treatment reported more higher levels of economic anxiety than those in any other treatment group.

	CACE (2SLS)		PPTE (OLS)	
	(1)	(2)	(3)	(4)
Treatment				
Control	ref.	ref.	ref.	ref.
Gain	-0.03	-0.04	-0.06	-0.07
	(0.09)	(0.09)	(0.08)	(0.08)
Loss	-0.15^{+}	-0.11	-0.17*	-0.14^{+}
	(0.09)	(0.08)	(0.07)	(0.08)
Placebo	-0.04	-0.02	-0.06	-0.06
	(0.08)	(0.08)	(0.07)	(0.07)
Constant	4.62**	4.96**	4.66**	4.95**
	(0.06)	(0.18)	(0.06)	(0.19)
Pre-treatment covariates	No	Yes	No	Yes
Observations	4345	3673	3990	3434

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 3: Effect of treatment on trade optimism.

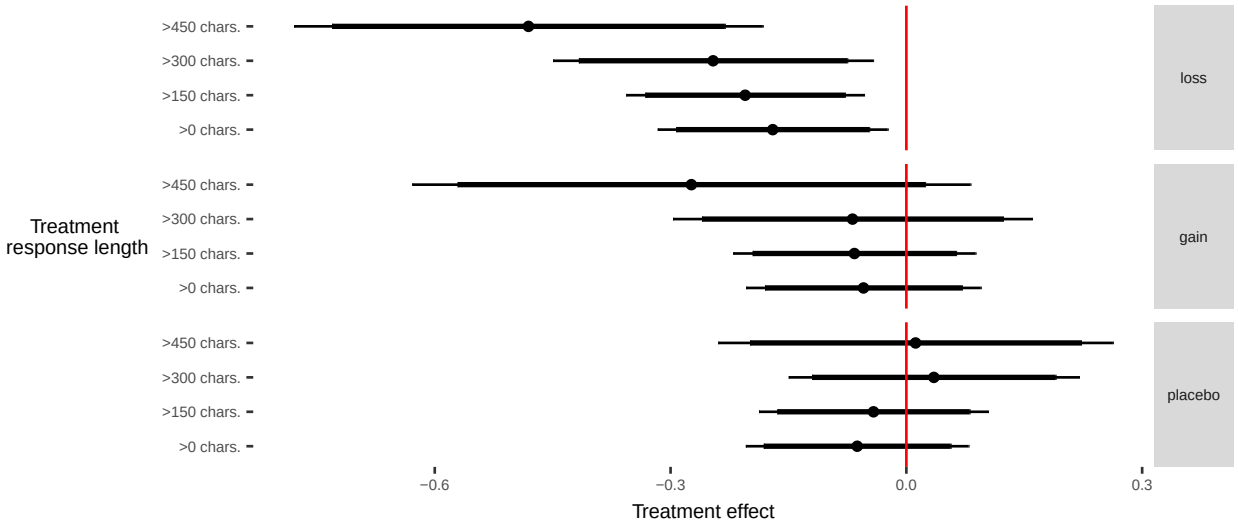


Figure 6: Effect of treatment on trade optimism.

Causal mediation analysis

Having seen that the treatment—to varying degrees—affected the level of economic concern among individuals, trade preference, and optimism about trade's ability to benefit the national economy, I now turn to a systematic test of the argument that I presented in the first part of this paper. Recall that I argued macroeconomic slow downs affect the relative salience of the costs and benefits of trade openness. In times of poor macroeconomic performance, the short-run employment side costs of trade openness are relatively more salient than the longer term economic growth and consumer-side benefits. As a result, optimism about trade's ability to benefit the economy and support for trade openness decline.

While I randomly assigned respondents to the treatment conditions, I did not randomize concerns about the economy per se and so I have not yet demonstrated that the treatment effects that we observed are mediated through increased concern about the economy or that trade optimism mediates the relationship between economic concerns and support for trade openness. To do that, I turn to causal mediation analysis methods developed by Imai et al. (2011). These methods allow for the estimation of average causal mediation effects (ACME). In brief, the ACME is an estimate of the degree to which the average value of the dependent variable would change if the average value of the mediator of interest in the treatment group had taken on the average value that would have been expected of similar respondents in the control group. In the context of this experiment, the ACME of economic anxiety on support for trade openness is an estimate of how much support for

trade openness would change if we could set the level of economic anxiety among those in the loss treatment to the level that we would have expected of them, all else equal, had they been assigned to the control group. I implement this analysis using software developed by Imai et al. (2010) and display the estimated ACME of economic concerns on trade optimism and support for trade openness in figure Figure 7.[15] The estimated AMCE is displayed relative to the control treatment, with the dots representing the point estimate and the bars representing 95 percent confidence intervals.[16] The results show that increased economic concerns do, in fact, mediate the relationship between treatment and support for trade openness and trade optimism. The ACME for both outcomes is positive and, while modest, is statistically significant. The results show that if we could set the level of economic anxiety among respondents in the loss condition to that which we would have likely observed for them in the control condition, support for trade and trade optimism would have been lower on average. I take this as further evidence in support of Implication 1 and Implication 2, which predicted that economic anxiety would decrease support for trade openness and trade optimism, respectively.

A final step in the analysis is to estimate the ACME of trade optimism on support for trade openness. Recall that a secondary implication of the argument that I made above was that if sociotropic theories of trade policy preferences are correct, we should see that variation in economic anxiety should lead to decreased support for trade openness, in part, through its effect on trade optimism. The results of this CMA analysis are displayed in Figure 8. Again the estimated ACME is represented by a dot while the bars represent 95 percent CI. The results show that relative to the control condition of no writing task, trade optimism mediates the observed treatment effect on support for trade openness. When the other measured mediators are added to the the model, the

[15]The models used to estimate these effects always include pre-treatment covariates. In the "economic anxiety only" models, the only post-treatment mediator that I include is the respondent's level of economic anxiety. In the "all mediators" models, I also include the other mediators that I measured. I conduct the analysis both ways because the causal mediation models require that the mediators be what Imai et al. (2010) call "sequentially ignorable." That is to say that all mediators must be causally independent of one another. This is likely not plausible given the set of mediators that I measured. However, since both sets of analyses yield similar conclusions, we ought to be less concerned that the results are driven by a violation of the sequential ignorability assumption.

[16]These results are generated using software developed by Imai et al. (2010). In brief, the software works in the following manner. First, it estimates the effect of treatment on the mediator of interest while controlling for relevant pre-treatment covariates. Second, it estimates the effect of treatment on the dependent variable while controlling for relevant pre-treatment covariates and the mediator. Third, it uses the mediator model to make two predictions: 1) the predicted value of the mediator for the observed treatment assignment and 2) the predicted value of the mediator had the respondent been assigned to the opposite treatment group. Fourth, the software uses the outcome model and the two predicted mediator values to make two additional predictions: 1) the value of the dependent variable for the observed treatment condition and 2) the of value dependent variable had the respondent been assigned to the opposite treatment group. Finally, by taking the difference between these to predicted values for the dependent variable and averaging over the sample the software obtains, a sample-wide estimate of the ACME. For a more detailed discussion of potential applications of this method in political science, see Imai et al. (2011). For a formal treatment of the model and the assumptions that it entails, see Imai, Keele, and Tingley (2010).

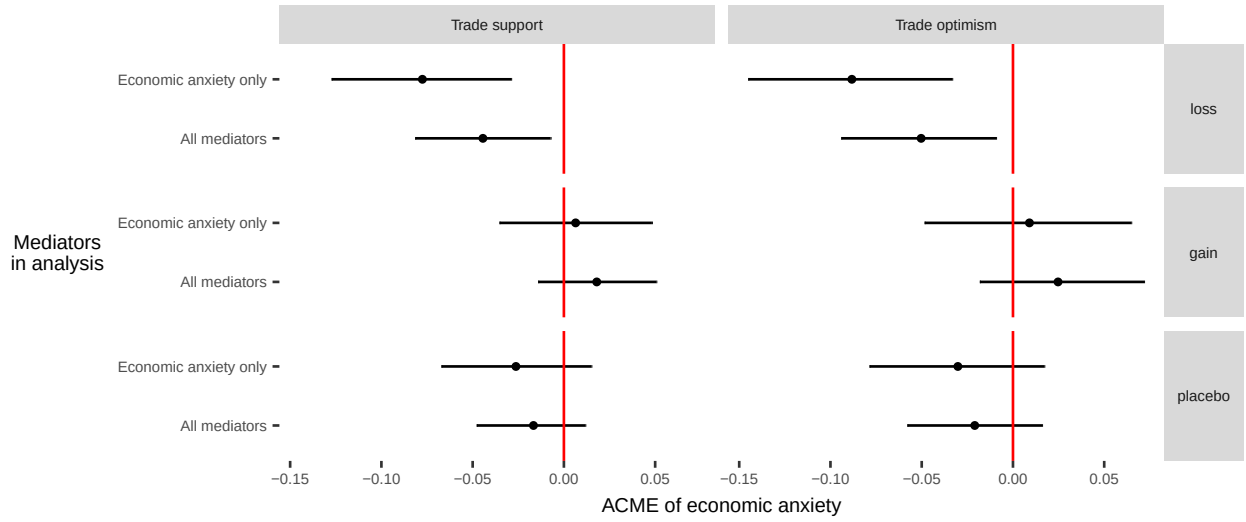


Figure 7: Estimated ACME of economic concerns on support for trade openness and trade optimism. All models include the following pre-treatment covariates: education, age, income, ideology, union membership, and gender. The "economic anxiety only" estimates include only pre-treatment covariates and economic anxiety. The "all mediators" estimates include all other measured mechanisms (risk orientation, isolationist sentiment, outgroup sentiment, and expected effect of trade on prices and employment).

effect is no longer statistically significant for those who supplied relatively shorter treatment responses. That being said, the effect is distinguishable from zero among the sub-sample of respondents that supplied relatively longer essays. I take this is suggestive evidence in favor of Implication 3.

Heterogeneous treatment effects?

Finally, to what extent did the effect of treatment vary according to the predictions of our workhouse models of the political economy of trade? To motivate the theoretical argument in this paper, I used historical public opinion data from the ANES that showed that support for trade openness varies over time on an economy-wide basis. That is to say that individuals with both high and low skill levels appear to support trade openness in some periods, but oppose it in others. Similarly, temporal variation in support for trade openness occurs among individuals in all parts of the United States and is not limited to regions in which comparatively disadvantaged industries tend to cluster. I argued that this variation is puzzling because it is not anticipated by our long-standing distributional models of mass trade policy preferences (e.g., Mayda and Rodrik 2005; Scheve and Slaughter 2001) or by any of the other dominant explanations that have come to prominence more recently (e.g., Baker 2005; Guisinger 2017; Hainmueller and Hiscox 2006; Mansfield and Mutz 2009)). To account for

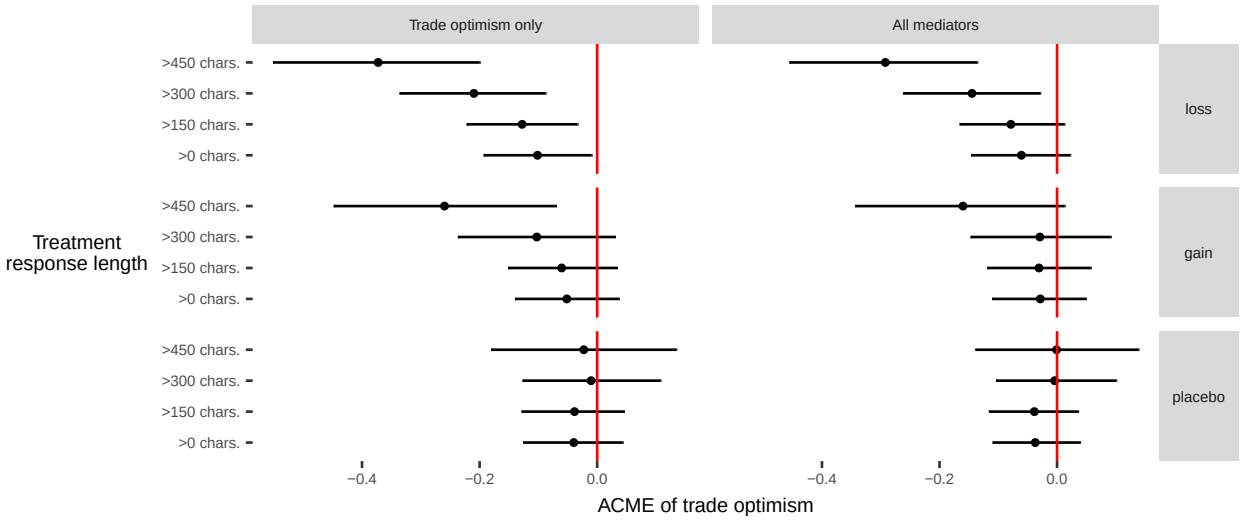


Figure 8: Estimated ACME of trade optimism on support for trade openness by treatment response length. All models include the following pre-treatment covariates: education, age, income, ideology, union membership, and gender. Estimates on the left also include all other measured mechanisms (risk orientation, isolationist sentiment, outgroup sentiment, and expected effect of trade on prices and employment). Estimates on the right include only pre-treatment covariates and the trade optimism mechanism).

this variation, I outlined a theory of mass trade policy preferences in which support for trade openness varies over time in response to the state of the economy. The theory makes no distributional predictions and, as such, we should observe that the treatment effects recovered in this experiment are not conditional on one's skill-level or sectoral affiliation. To test for this possibility, I estimate models in which I interact alternative measures of skill-level (income and education levels) and sector affiliation with treatment assignment while controlling for all other pre-treatment covariates. In both cases, I find that the effect of treatment is not conditional on skill-level or sectoral affiliation in ways consistent with what our political economy models of trade would predict.

I find little support for skill-based explanations. I present the full results of the models interacting treatment with education level and income level in Tables 13 and 14 respectively, but present the results graphically in the left two panels of Figure 9.[17] At all levels of income and education, the estimated treatment effect of the loss treatment is negative and—with the exception of the most highly educated and most highly paid individuals in the sample—is statistically significant. Had skill-based explanations been responsible for the treatment effects that we observe, we would have expected the loss treatment to move the most highly skilled individuals towards

[17]In relying on income and education to measure skill level, I follow past work. As I note in Section 1, there is substantial disagreement over what education levels are measuring. As Hainmueller and Hiscox (2006) argue, education may measure familiarity with the concepts like comparative advantage. Whether education captures skill level or economic sophistication, however, I find that it does not account for the treatment effects that we observe.

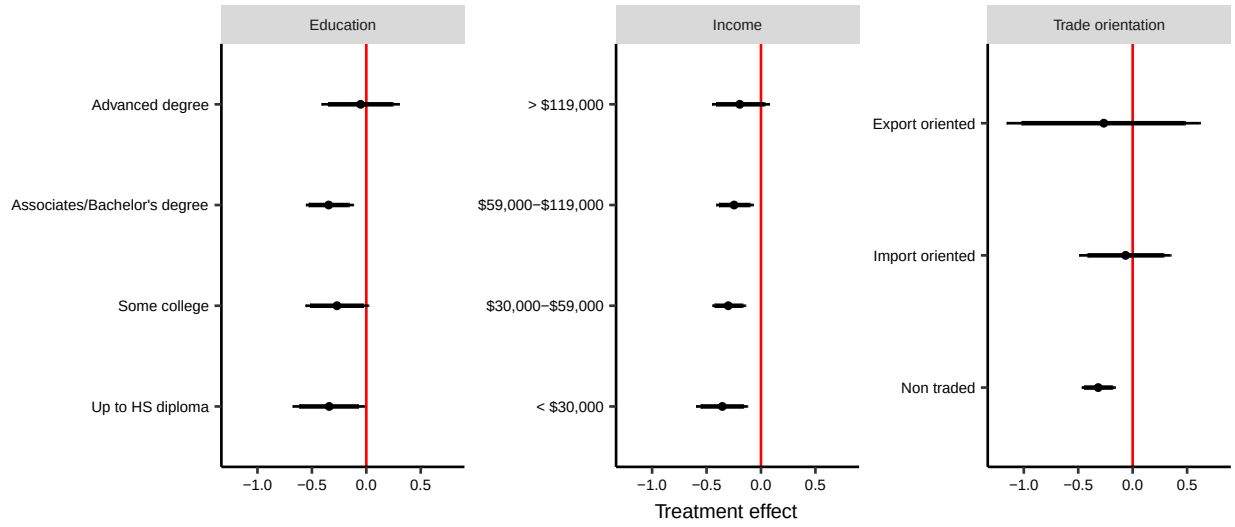


Figure 9: Estimated treatment effect by education level, income level, and sector trade exposure.

support for trade openness in order to increase demand for their skills, while those those with fewer skills to move against trade openness. Such a pattern would be consistent with the idea that economic concerns clarify one's material interests and, as a result, cause individuals to hold preferences that are more in line with their self-interest than otherwise might be the case (Gourevitch 1986; Mansfield, Mutz, and Brackbill 2016; Walter 2010). The fact that we do not observe such a pattern, suggests that skill-based models of trade openness do not explain the treatment effects that we observed.

I find similarly little support for sector-based arguments. As part of the survey questionnaire, I asked respondents about their industry affiliation. I used industry-level data from the U.S. International Trade Commission to determine if the respondent worked in an import-oriented sector (in which imports are greater than exports), an export-oriented sector (in which exports are greater than imports), or in a non-trade sector (in which there are neither imports nor exports).[18] Were an important moderator of the treatment effects that we

[18]For exports, I rely on the ITC's "domestic exports" measure which includes all "goods that are grown, produced, or manufactured in the United States, and commodities of foreign origin that have been changed in the United States." For imports, I rely on the ITC's "imports for consumption" measure which is the "total of merchandise that has physically cleared through Customs immediately or after withdrawal for consumption from bonded warehouses or FTZs under Customs custody" (United States International Trade Commission 2014). This coding is consistent with that of Mansfield, Mutz, and Brackbill (2016), who study individual attitudes toward trade in response to the Great Recession and is a widely-used operationalization of industry trade orientation. The distribution of trade orientation in my sample is similar to that of respondents in the Mansfield, Mutz, and Brackbill (2016) sample and to the country as a whole. For example, in 2015 approximately 2 percent of all non-farm workers in the U.S. were employed in export-oriented industries, while approximately 8 percent of all non-farm workers were employed in import-oriented industries (United States Bureau of Labor Statistics 2017). The same figures are approximately 2 percent and 10 percent, respectively, in the combined SSI and mTurk samples. A list of industries at the 3-digit NAICS level and their ultimate value on the trade orientation variable is in Table 6.

observed, we would expect individuals in import competing sectors to move against trade openness in response to the loss treatment while those in the export sector move to support it. For those in the non-trade sector, the predictions are less obvious; while they might not have producer-side interests at stake, they clearly have consumer-side reasons to support trade openness in the wake of a negative economic shock, since less expensive goods would allow them to stretch their dollar further. The right-most panel in Figure 9 shows that we do not observe these patterns. Instead, regardless of the respondent's trade orientation, the loss treatment reduced support for trade openness. While the estimated effects of the import and export oriented sectors are not statistically significant, the direction of the effects relative to the non-traded sector are telling. The estimated effect for those in export sectors is larger than that of the non-traded sector (though the confidence intervals are extremely large). At the same time, the estimated effect for those in the import sector is smaller than that of the non-traded sector. Furthermore, the null results among the export and import oriented sectors are not driven by ceiling or floor effects. It is not the case, for example, that trade is especially popular among those in export sectors or especially unpopular among those working in import sectors. Indeed, as Table 8 shows, trade support for trade among *both* those in import- and export-oriented sectors is marginally lower than support for trade among those in the non-traded sector. As before, this is not what we would expect if sector-based arguments explained the treatment effects that we observed.

4 Conclusion

Mass trade preferences and expectations about trade's effect on the economy vary quite substantially over time. This variation is not anticipated by our traditional political economy models of trade policy. Recent work on the individual-level determinants of trade policy preferences shows that spatial and temporal proximity to the adjustment costs of trade liberalization increases protectionist sentiment. Such proximity appears to increase the relative salience of the short-run adjustment costs of openness and, as a result, makes individuals less likely to view international trade as beneficial to the economy. I extend this work by arguing that variation in macroeconomic performance has important implications for the relative salience of the costs of increased trade openness as well. Economic slow downs increase the public's concerns about job losses regardless of their source. Because the adjustment costs of trade openness are so often denominated in terms of job losses,

I argue, the public is less optimistic about and less willing to endorse increased trade openness in the wake of poor macroeconomic performance.

I tested this argument using a parallel encouragement experiment embedded in a survey of the U.S. public. I simulated the effect of a macroeconomic shock by assigning respondents to one of four treatment groups. In the first two treatment groups, I asked respondents to think and write about potentially experiencing a significant financial loss or gain as a result of the national economy doing poorly or well, respectively. In the second two treatment groups, I asked respondents to write about an average day (as a placebo) or assigned respondents no thinking or writing task as all (as a control). Relative to the control group, those in the loss condition reported higher levels of economic anxiety, higher levels of protectionist sentiment, and less optimism about trade's ability to help the U.S. economy. A causal mediation analysis shows that the effect of treatment was mediated through concerns about the economy and that trade optimism mediates the relationship between economic concerns and trade policy preferences. The treatment effects in the loss condition were realized across the skill distribution and is not conditional on sectoral affiliation in the ways that our political economy models of trade would predict. Thus, even among those that are likely to benefit from trade openness, increasing economic anxiety reduces support for trade openness.

These findings contribute to the literature on mass trade preferences in several ways. First, they show that economic anxiety stemming from sources other than foreign competition is an important determinant of trade policy preferences. This finding complements those Naoi and Kume (2011) who show that some economically insecure portions of the public may project their economic insecurity onto those likely to be negatively affected by trade liberalization and, as a result, are more likely to oppose it. Second, these results further work by Mansfield, Mutz, and Brackbill (2016) in exploring the role that macroeconomic performance has on trade policy preferences. While they show that personal changes in unemployment among those working on import competing industries led to more protectionist sentiment among that narrow sector of the public, I show that economic anxiety can have implications for trade policy preferences among the public more generally. And third, these findings provide further evidence of the role of sociotropic concerns in trade policy preference formation (Mansfield and Mutz 2009). Not only did increased concern about the economy result in decreased support for trade openness, but I provided evidence that this effect is mediated through optimism about trade's ability to benefit the national economy.

These results also suggest that variation in macroeconomic performance could have important implications for trade policy. Indeed, a key assumption in a wide swath of the political economy literature on trade is that policy makers are unable to fully accommodate demands for trade protection for fear that doing so will shorten or end their tenure in office (e.g., Grossman and Helpman 1994). Policy makers in democracies, for example, try hard to signal their commitment to trade openness by signing international trade agreements (Henisz and Mansfield 2006; Mansfield and Milner 2015; Mansfield, Milner, and Rosendorff 2002), while at the same time attempting to obfuscate their use of protectionist trade policy (Kono 2006; Magee, Brock, and Young 1989). To the extent that the trade policy choices of policy makers are constrained by mass trade policy preferences, the results that I report here suggest that policy makers may be able to exploit protectionist political moments brought on by negative economic shocks in order to supply trade protection to those seeking it. Despite the aggregate welfare gains that economic openness is likely to entail, the broader public may not be as constrained by collective action problems as past accounts generally assume. Instead, the public may simply have taste for protection, or at least less appetite for increased liberalization, in the wake of macroeconomic shocks. At the same time, however, these results also suggest that policy makers should be reticent to implement protectionist trade policy in periods of relative prosperity. The current era of increased protectionist rhetoric among political leaders in the United States and elsewhere will be a key test of the role of public opinion in trade policy. Should the global economy continue on its trajectory of slow but relatively steady growth, we ought to observe protectionist appeals yield few results. Should the economic clouds darken, however, we may enter a period in which protectionist appeals tend to result in protectionist trade policy.

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A Sample Demographics

Table 4: Demographic Characteristics

	mTurk Sample	SSI Sample	2010 U.S. Census
Gender	Percent	Percent	Percent
Male	45.5	48.9	49.2
Female	50.8	51.0	50.8
Not Listed	0.0	0.12	—
Region	Percent	Percent	Percent
Northeast	—	18.0	17.9
Midwest	—	22.0	21.7
South/Central	—	36.4	37.1
West	—	23.0	23.3
Race	Percent	Percent	Percent
White	78.2	64.0	63.7
Hispanic/Latino	4.3	13.0	16.3
Black	6.6	12.0	12.6
American Indian or Alaskan Native	0.5	1.7	0.9
Asian	4.7	5.0	4.8
Native Hawaii or Pacific Islander	0.4	0.4	0.2
Other	1.5	1.7	6.2
Education	Percent	Percent	Percent
Up to some High School	0.5	3.5	13.7
High School graduate/GED	9.5	19.8	31.0
Some college	21.9	23.1	19.3
Associate degree	12.6	12.0	8.6
Bachelor's degree	37.5	24.8	18.0
Masters, Doctorate, etc.	14.4	16.9	9.3
Income	Percent	Percent	Percent
Up to $29,999	25.5	28.9	31.5
$30,0000–$59,999	33.2	27.2	26.8
$60,000–$99,999	23.8	21.8	21.3
$100,000–$149,999	10.4	15.0	12.0
More than $150,000	3.4	7.1	8.3

B Summary statistics

Table 5: Summary statistics.

	mean	sd	min	max	count
Treatment: Gain	0.23	0.42	0	1	4484
Treatment: Loss	0.24	0.43	0	1	4484
Treatment: Control	0.29	0.45	0	1	4484
Treatment: Placebo	0.24	0.43	0	1	4484
Treatment response length	206.73	318.09	0	16571	4484
Support for trade	4.80	1.67	1	7	4484
Trade optimism	4.57	1.73	1	7	4345
Trade effect prices	4.04	1.58	1	7	4345
Trade effect employment	3.74	1.48	1	7	4344
Average isolationist sentiment	3.20	0.82	1	5	4345
Out group sentiment	2.03	1.42	0	9	4484
Risk orientation	4.01	1.66	1	7	4345
Economic anxiety	3.19	0.71	1	5	4389
SSI	0.75	0.44	0	1	4488
Age	41.46	15.79	1	99	3744
Gender: male	0.48	0.50	0	1	4421
Gender: female	0.51	0.50	0	1	4421
Gender: non-binary	0.00	0.05	0	1	4421
Ideology	3.85	1.73	1	7	3739
Race: White	0.68	0.47	0	1	4337
Race: Black	0.11	0.32	0	1	4337
Race: American Indian or Alaskan Native	0.01	0.11	0	1	4337
Race: Asian	0.05	0.22	0	1	4337
Race: Native Hawaiian or Pacific Islander	0.01	0.07	0	1	4337
Race: Other	0.02	0.13	0	1	4337
Race: Hispanic/Latino	0.11	0.32	0	1	4337
Unemployed	0.06	0.25	0	1	3744
XM: Import oriented	0.10	0.30	0	1	4488
XM: Non-traded	0.88	0.33	0	1	4488
XM: Export oriented	0.02	0.15	0	1	4488
Income: Up to $30,000	0.30	0.46	0	1	4419
Income: $30,0000-$59,000	0.20	0.40	0	1	4419
Income: $59,000-$119,000	0.37	0.48	0	1	4419
Income: More than $119,000	0.13	0.33	0	1	4419
Union member: current	0.08	0.27	0	1	3744
Union member past	0.75	0.43	0	1	3744
Union member: never	0.17	0.38	0	1	3744

Table 6: Trade orientation by 3-digit NAICS industry (2016)

Industry	Trade orientation	Exports (blns. USD)	Imports (blns. USD)
Crop Production	Export-oriented	650.45	351.44
Food Manufacturing	Export-oriented	600.48	579.46
Forestry and Logging	Export-oriented	23.36	22.41
Mining (except Oil and Gas)	Export-oriented	116.92	52.29
Paper Manufacturing	Export-oriented	231.48	218.87
Petroleum and Coal Products Manufacturing	Export-oriented	657.99	552.13
Publishing Industries (except Internet)	Export-oriented	2.35	0.55
Textile Mills	Export-oriented	80.78	80.03
Animal Production and Aquaculture	Import oriented	18.04	57.99
Apparel Manufacturing	Import oriented	28.74	845.15
Beverage and Tobacco Product Manufacturing	Import oriented	73.95	223.59
Chemical Manufacturing	Import oriented	1733.01	2063.80
Computer and Electronic Product Manu...	Import oriented	1165.80	3841.11
Electrical Equipment, Appliance, and Component Manu...	Import oriented	372.18	941.19
Fabricated Metal Product Manufacturing	Import oriented	404.85	650.70
Fishing, Hunting and Trapping	Import oriented	50.48	148.00
Furniture and Related Product Manufacturing	Import oriented	41.75	370.98
Leather and Allied Product Manufacturing	Import oriented	28.66	385.96
Machinery Manufacturing	Import oriented	1129.58	1498.72
Miscellaneous Manufacturing	Import oriented	436.39	1177.35
Nonmetallic Mineral Product Manufacturing	Import oriented	104.89	221.67
Oil and Gas Extraction	Import oriented	225.86	876.07
Plastics and Rubber Products Manufacturing	Import oriented	281.32	466.26
Primary Metal Manufacturing	Import oriented	461.96	790.20
Printing and Related Support Activities	Import oriented	48.24	54.01
Textile Product Mills	Import oriented	28.09	203.64
Transportation Equipment Manufacturing	Import oriented	2544.58	3762.99
Wood Product Manufacturing	Import oriented	68.05	188.42
Accommodation	Non-traded	0.00	0.00
Administrative and Support Services	Non-traded	0.00	0.00
Air Transportation	Non-traded	0.00	0.00
Ambulatory Health Care Services	Non-traded	0.00	0.00
Amusement, Gambling, and Recreation Industries	Non-traded	0.00	0.00
Broadcasting (except Internet)	Non-traded	0.00	0.00
Building Material and Garden Equipment and Supplies...	Non-traded	0.00	0.00
Clothing and Clothing Accessories Stores	Non-traded	0.00	0.00
Construction of Buildings	Non-traded	0.00	0.00
Couriers and Messengers	Non-traded	0.00	0.00
Data Processing, Hosting, and Related Services	Non-traded	0.00	0.00
Educational Services	Non-traded	0.00	0.00
Electronics and Appliance Stores	Non-traded	0.00	0.00
Food and Beverage Stores	Non-traded	0.00	0.00
Food Services and Drinking Places	Non-traded	0.00	0.00
Funds, Trusts, and Other Financial Vehicles	Non-traded	0.00	0.00
Furniture and Home Furnishings Stores	Non-traded	0.00	0.00
Gasoline Stations	Non-traded	0.00	0.00
General Merchandise Stores	Non-traded	0.00	0.00
Health and Personal Care Stores	Non-traded	0.00	0.00
Heavy and Civil Engineering Construction	Non-traded	0.00	0.00
Hospitals	Non-traded	0.00	0.00
Insurance Carriers and Related Activities	Non-traded	0.00	0.00
Lessors of Nonfinancial Intangible Assets...	Non-traded	0.00	0.00

Table 6: Trade orientation by 3-digit NAICS industry (2016)

Industry	Trade orientation	Exports (blns. USD)	Imports (blns. USD)
Management of Companies and Enterprises	Non-traded	0.00	0.00
Merchant Wholesalers, Durable Goods	Non-traded	0.00	0.00
Merchant Wholesalers, Nondurable Goods	Non-traded	0.00	0.00
Miscellaneous Store Retailers	Non-traded	0.00	0.00
Monetary Authorities-Central Bank	Non-traded	0.00	0.00
Motor Vehicle and Parts Dealers	Non-traded	0.00	0.00
Museums, Historical Sites, and Similar Institutions	Non-traded	0.00	0.00
Nonstore Retailers	Non-traded	0.00	0.00
Nursing and Residential Care Facilities	Non-traded	0.00	0.00
Other Information Services	Non-traded	0.00	0.00
Performing Arts, Spectator Sports, and Related Industries	Non-traded	0.00	0.00
Personal and Laundry Services	Non-traded	0.00	0.00
Pipeline Transportation	Non-traded	0.00	0.00
Postal Service	Non-traded	0.00	0.00
Private Households	Non-traded	0.00	0.00
Professional, Scientific, and Technical Services	Non-traded	0.00	0.00
Rail Transportation	Non-traded	0.00	0.00
Real Estate	Non-traded	0.00	0.00
Religious, Grantmaking, Civic, Professional...	Non-traded	0.00	0.00
Rental and Leasing Services	Non-traded	0.00	0.00
Repair and Maintenance	Non-traded	0.00	0.00
Scenic and Sightseeing Transportation	Non-traded	0.00	0.00
Securities, Commodity Contracts, and Other Financial...	Non-traded	0.00	0.00
Social Assistance	Non-traded	0.00	0.00
Specialty Trade Contractors	Non-traded	0.00	0.00
Sporting Goods, Hobby, Musical Instrument, and	Non-traded	0.00	0.00
Support Activities for Agriculture and Forestry	Non-traded	0.00	0.00
Support Activities for Mining	Non-traded	0.00	0.00
Support Activities for Transportation	Non-traded	0.00	0.00
Telecommunications	Non-traded	0.00	0.00
Transit and Ground Passenger Transportation	Non-traded	0.00	0.00
Truck Transportation	Non-traded	0.00	0.00
Utilities	Non-traded	0.00	0.00
Warehousing and Storage	Non-traded	0.00	0.00
Water Transportation	Non-traded	0.00	0.00
Wholesale Electronic Markets and Agents and Brokers	Non-traded	0.00	0.00

C Results tables

Table 7: Effect of treatment on economic concerns.

	CACE (2SLS)				PPTE (OLS)			
	(1)		(2)		(3)		(4)	
Treatment								
Control	ref.		ref.		ref.		ref.	
Gain	-0.03	(0.04)	0.01	(0.03)	0.01	(0.03)	0.03	(0.03)
Loss	-0.12**	(0.04)	-0.09**	(0.03)	-0.08**	(0.03)	-0.07*	(0.03)
Placebo	-0.04	(0.03)	-0.03	(0.03)	-0.00	(0.03)	-0.01	(0.03)
SSI	-0.05*	(0.02)	0.04	(0.02)	-0.06**	(0.02)	0.02	(0.02)
Education								
Up to HS diploma			-0.06	(0.04)			-0.09*	(0.04)
Some college			-0.07*	(0.04)			-0.09*	(0.04)
Associate/Bachelor degree			-0.05	(0.03)			-0.05	(0.03)
Advanced degree			ref.				ref.	
Age			-0.01**	(0.00)			-0.01**	(0.00)
Gender								
Male			ref.				ref.	
Female			-0.13**	(0.02)			-0.12**	(0.02)
Not listed			-0.02	(0.22)			0.02	(0.21)
Ideology			-0.08**	(0.01)			-0.07**	(0.01)
Union Membership								
Current			ref.				ref.	
Never			-0.12*	(0.05)			-0.14**	(0.05)
Past			-0.12*	(0.05)			-0.11*	(0.05)
Race/Ethnicity								
White			ref.				ref.	
Black			0.19**	(0.04)			0.21**	(0.04)
American Indian or Alaskan Native			-0.09	(0.11)			-0.03	(0.11)
Asian			-0.10*	(0.05)			-0.09+	(0.05)
Native Hawaiian or Pacific Islander			-0.13	(0.18)			-0.26*	(0.13)
Other			-0.18*	(0.08)			-0.16*	(0.08)
Hispanic/Latino			0.03	(0.04)			0.04	(0.04)
Income			0.12**	(0.01)			0.12**	(0.01)
Unemployed			-0.18**	(0.05)			-0.19**	(0.05)
Trade orientation								
Import oriented			ref.				ref.	
Non traded			0.05	(0.03)			0.05	(0.04)
Export oriented			-0.02	(0.08)			0.02	(0.08)
Constant	3.28**	(0.03)	3.66**	(0.08)	3.24**	(0.02)	3.62**	(0.08)
Observations	4389		3673		4030		3434	

Standard errors in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 8: Effect of treatment on support for trade.

	CACE (2SLS)				PPTE (OLS)			
	(1)		(2)		(3)		(4)	
Treatment								
Control	ref.		ref.		ref.		ref.	
Gain	-0.03	(0.08)	-0.14^{+}	(0.08)	-0.08	(0.07)	-0.17*	(0.07)
Loss	-0.16*	(0.08)	-0.25**	(0.08)	-0.21**	(0.07)	-0.29**	(0.07)
Placebo	-0.01	(0.08)	-0.08	(0.08)	-0.06	(0.07)	-0.12^{+}	(0.07)
SSI			0.16**	(0.06)	-0.00	(0.06)	0.18**	(0.06)
Education								
Up to HS diploma			-0.51**	(0.10)			-0.64**	(0.10)
Some college			-0.33**	(0.09)			-0.41**	(0.09)
Associate/Bachelor degree			-0.16*	(0.08)			-0.21**	(0.08)
Advanced degree			ref.				ref.	
Age			-0.00	(0.00)			-0.00	(0.00)
Gender								
Male			ref.				ref.	
Female			-0.36**	(0.05)			-0.38**	(0.05)
Not listed			0.25	(0.89)			0.24	(0.89)
Ideology			-0.19**	(0.02)			-0.17**	(0.02)
Union member								
Current			ref.				ref.	
Never			0.09	(0.11)			-0.02	(0.11)
Past			0.03	(0.12)			-0.03	(0.12)
Race/Ethnicity								
White			ref.				ref.	
Black			0.03	(0.09)			0.02	(0.09)
American Indian or Alaskan Native			-0.30	(0.27)			-0.34	(0.23)
Asian			0.21^{+}	(0.11)			0.18	(0.12)
Native Hawaiian or Pacific Islander			-0.41	(0.47)			-0.49	(0.41)
Other			-0.22	(0.21)			-0.20	(0.20)
Hispanic/Latino			0.20*	(0.09)			0.20*	(0.09)
Income			0.10**	(0.03)			0.09**	(0.03)
Unemployed			-0.28*	(0.12)			-0.29*	(0.11)
Trade orientation								
Import oriented			-0.05	(0.08)			-0.09	(0.08)
Non traded			ref.				ref.	
Export oriented			-0.28	(0.17)			-0.27^{+}	(0.16)
Constant	4.85**	(0.06)	5.71**	(0.18)	4.90**	(0.06)	5.89**	(0.18)
Observations	4484		3673		4120		3434	

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 9: Effect of treatment on trade optimism.

	CACE (2SLS)				PPTE (OLS)			
	(1)		(2)		(3)		(4)	
Treatment								
Control	ref.		ref.		ref.		ref.	
Gain	-0.03	(0.09)	-0.04	(0.09)	-0.06	(0.08)	-0.07	(0.08)
Loss	-0.15^{+}	(0.09)	-0.11	(0.08)	-0.17*	(0.07)	-0.14^{+}	(0.08)
Placebo	-0.04	(0.08)	-0.02	(0.08)	-0.06	(0.07)	-0.06	(0.07)
SSI			0.16*	(0.06)	-0.02	(0.06)	0.17**	(0.06)
Education								
Up to HS diploma			ref.				ref.	
Some college			0.21*	(0.09)			0.25**	(0.09)
Associate/Bachelor degree			0.38**	(0.08)			0.46**	(0.08)
Advanced degree			0.63**	(0.10)			0.74**	(0.10)
Gender								
Male			ref.				ref.	
Female			-0.31**	(0.05)			-0.33**	(0.06)
Not listed			0.44	(0.63)			0.41	(0.61)
Ideology			-0.18**	(0.02)			-0.17**	(0.02)
Union member								
Current			ref.				ref.	
Never			0.15	(0.11)			0.12	(0.12)
Past			-0.02	(0.13)			0.01	(0.14)
Race/Ethnicity								
White			ref.				ref.	
Black			0.15	(0.09)			0.14	(0.09)
American Indian or Alaskan Native			-0.15	(0.22)			-0.15	(0.24)
Asian			0.09	(0.12)			0.08	(0.12)
Native Hawaiian or Pacific Islander			-0.75^{+}	(0.44)			-0.83^{+}	(0.47)
Other			-0.12	(0.20)			-0.12	(0.20)
Hispanic/Latino			0.35**	(0.09)			0.36**	(0.10)
Income			0.12**	(0.03)			0.12**	(0.03)
Unemployed			-0.16	(0.11)			-0.19^{+}	(0.12)
Trade orientation								
Import oriented			-0.05	(0.09)			-0.07	(0.09)
Non traded			ref.				ref.	
Export oriented			-0.10	(0.19)			-0.01	(0.18)
Constant	4.62**	(0.06)	4.96**	(0.18)	4.66**	(0.06)	4.95**	(0.19)
Pre-treatment covariates	No		Yes		No		Yes	
Observations	4345		3673		3990		3434	

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 10: Sub-sample results by treatment response length.

	>= 150 chars.		>=300 chars.		>=450 chars	
	Trade support	Trade optimism	Trade support	Trade optimism	Trade support	Trade optimism
Treatment						
Control	ref.	ref.	ref.	ref.	ref.	ref.
Gain	-0.13+	-0.13+	-0.16	-0.16	-0.40*	-0.37*
	(0.07)	(0.07)	(0.11)	(0.11)	(0.16)	(0.18)
Loss	-0.25**	-0.25**	-0.37**	-0.37**	-0.71**	-0.55**
	(0.07)	(0.07)	(0.10)	(0.10)	(0.14)	(0.15)
Placebo	-0.04	-0.04	-0.06	-0.06	-0.19	-0.05
	(0.07)	(0.07)	(0.09)	(0.09)	(0.13)	(0.13)
SSI	-0.03	-0.03	-0.19**	-0.19**	-0.26**	-0.19*
	(0.06)	(0.06)	(0.07)	(0.07)	(0.08)	(0.09)
Constant	4.93**	4.93**	5.04**	5.04**	5.10**	4.78**
	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.08)
Observations	3833	3833	2279	2279	1738	1658

Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<.01

Table 11: Sub-sample results by treatment response length — mTurk only.

	>= 150 chars.		>=300 chars.		>=450 chars	
	Trade support	Trade optimism	Trade support	Trade optimism	Trade support	Trade optimism
Treatment						
Control	ref.	ref.	ref.	ref.	ref.	ref.
Gain	-0.46**	-0.27*	-0.35*	-0.19	-0.64**	-0.31
	(0.13)	(0.14)	(0.14)	(0.15)	(0.18)	(0.20)
Loss	-0.62**	-0.30*	-0.56**	-0.30*	-0.81**	-0.50**
	(0.13)	(0.14)	(0.14)	(0.15)	(0.18)	(0.19)
Placebo	-0.34**	-0.14	-0.24+	0.02	-0.30+	ref.
	(0.13)	(0.14)	(0.14)	(0.15)	(0.17)	(0.18)
Constant	5.16**	4.76**	5.16**	4.76**	5.16**	4.76**
	(0.09)	(0.09)	(0.08)	(0.09)	(0.08)	(0.09)
Observations	1072	1059	848	838	597	589

Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<.01

Table 12: Sub-sample results by length — SSI only.

	>= 150 chars.		>=300 chars.		>=450 chars	
	Trade support	Trade optimism	Trade support	Trade optimism	Trade support	Trade optimism
Treatment						
Control	ref.	ref.	ref.	ref.	ref.	ref.
Gain	-0.01	0.01	0.01	-0.03	0.11	-0.46
	(0.09)	(0.09)	(0.16)	(0.19)	(0.25)	(0.34)
Loss	-0.12	-0.17+	-0.26+	-0.28+	-0.65**	-0.60*
	(0.09)	(0.09)	(0.14)	(0.15)	(0.21)	(0.24)
Placebo	0.06	-0.01	0.04	-0.03	-0.12	-0.10
	(0.08)	(0.09)	(0.13)	(0.13)	(0.21)	(0.21)
Constant	4.82**	4.60**	4.82**	4.60**	4.82**	4.60**
	(0.05)	(0.06)	(0.05)	(0.06)	(0.05)	(0.06)
Observations	2761	2654	1431	1358	1141	1069

Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<.01

Table 13: Treatment effect by education level.

	(1)	
Treatment		
Control	ref.	
Gain	-0.20	(0.17)
Loss	-0.33*	(0.17)
Placebo	-0.18	(0.17)
Education		
Up to HS diploma	ref.	
Some college	0.24	(0.15)
Associate/Bachelor degree	0.37**	(0.14)
Advanced degree	0.56**	(0.16)
Interactions		
Control × Up to HS diploma	ref.	
Control × Some college	ref.	
Control × Associate/Bachelor degree	ref.	
Control × Advanced degree	ref.	
Gain × Up to HS diploma	ref.	
Gain × Some college	-0.06	(0.24)
Gain × Associate/Bachelor degree	0.16	(0.21)
Gain × Advanced degree	-0.09	(0.25)
Loss × Up to HS diploma	ref.	
Loss × Some college	0.05	(0.23)
Loss × Associate/Bachelor degree	-0.01	(0.21)
Loss × Advanced degree	0.28	(0.24)
Placebo × Up to HS diploma	ref.	
Placebo × Some college	-0.07	(0.22)
Placebo × Associate/Bachelor degree	0.11	(0.20)
Placebo × Advanced degree	0.18	(0.25)
SSI	0.18**	(0.06)
Age	-0.00	(0.00)
Gender		
Male	ref.	
Female	-0.38**	(0.05)
Not listed	0.28	(0.92)
Ideology	-0.17**	(0.02)
Union member		
Current	ref.	
Never	-0.01	(0.12)
Past	-0.02	(0.13)
Race/Ethnicity		
White	ref.	
Black	0.01	(0.09)
American Indian or Alaskan Native	-0.33	(0.29)
Asian	0.17	(0.11)
Native Hawaiian or Pacific Islander	-0.50	(0.51)
Other	-0.18	(0.21)
Hispanic/Latino	0.21*	(0.09)
Income	0.09**	(0.03)
Unemployed	-0.28*	(0.12)
Trade orientation		
Import oriented	-0.08	(0.09)
Non traded	ref.	
Export oriented	-0.26	(0.18)
Constant	5.28**	(0.20)
Observations	3434	

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 14: Treatment effect by income level.

	(1)	
Treatment		
Control	ref.	
Gain	-0.23^{+}	(0.14)
Loss	-0.46**	(0.14)
Placebo	-0.22^{+}	(0.13)
Income		
Up to $30,000	ref.	
$30,0000-$59,000	-0.24	(0.15)
$59,000-$119,000	0.10	(0.12)
More than $119,000	0.14	(0.16)
Interactions		
Control × Up to $30,000	ref.	
Control × $30,0000-$59,000	ref.	
Control × $59,000-$119,000	ref.	
Control × More than $119,000	ref.	
Gain × Up to $30,000	ref.	
Gain × $30,0000-$59,000	0.30	(0.22)
Gain × $59,000-$119,000	-0.05	(0.18)
Gain × More than $119,000	0.16	(0.24)
Loss × Up to $30,000	ref.	
Loss × $30,0000-$59,000	0.46*	(0.22)
Loss × $59,000-$119,000	0.09	(0.18)
Loss × More than $119,000	0.35	(0.25)
Placebo × Up to $30,000	ref.	
Placebo × $30,0000-$59,000	0.18	(0.20)
Placebo × $59,000-$119,000	0.17	(0.17)
Placebo × More than $119,000	0.01	(0.25)
Education		
Up to HS diploma	ref.	
Some college	0.22**	(0.08)
Associate/Bachelor degree	0.43**	(0.08)
Advanced degree	0.63**	(0.10)
SSI	0.17**	(0.06)
Age	-0.00	(0.00)
Gender		
Male	ref.	
Female	-0.38**	(0.05)
Not listed	0.22	(0.93)
Ideology	-0.17**	(0.02)
Union member		
Current	ref.	
Never	-0.02	(0.12)
Past	-0.03	(0.13)
Race/Ethnicity		
White	ref.	
Black	0.02	(0.09)
American Indian or Alaskan Native	-0.33	(0.28)
Asian	0.17	(0.11)
Native Hawaiian or Pacific Islander	-0.49	(0.50)
Other	-0.20	(0.21)
Hispanic/Latino	0.20*	(0.09)
Unemployed	-0.30*	(0.12)
Trade orientation		
Import oriented	-0.08	(0.09)
Non traded	ref.	
Export oriented	-0.27	(0.18)
Constant	5.49**	(0.19)
Observations	3434	

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

Table 15: Treatment effect by trade orientation level.

	(1)	
Treatment		
Control	ref.	
Gain	-0.22	(0.23)
Loss	-0.06	(0.23)
placbo	-0.05	(0.23)
Trade orientation		
Import oriented	ref.	
Non traded	0.14	(0.15)
Export oriented	0.01	(0.34)
Interactions		
Control × Import oriented	ref.	
Control × Non traded	ref.	
Control × Export oriented	ref.	
Gain × Import oriented	ref.	
Gain × Non traded	0.08	(0.24)
Gain × Export oriented	-0.50	(0.54)
Loss × Import oriented	ref.	
Loss × Non traded	-0.25	(0.24)
Loss × Export oriented	-0.20	(0.53)
Placebo × Import oriented	ref.	
Placebo × Non traded	-0.07	(0.24)
Placebo × Export oriented	-0.09	(0.53)
Income	0.09**	(0.03)
Education		
Up to HS diploma	ref.	
Some college	0.22**	(0.08)
Associate/Bachelor degree	0.42**	(0.08)
Advanced degree	0.63**	(0.10)
SSI	0.17**	(0.06)
Age	-0.00	(0.00)
Gender		
Male	ref.	
Female	-0.38**	(0.05)
Not listed	0.19	(0.96)
Ideology	-0.17**	(0.02)
Union member		
Current	ref.	
Never	-0.02	(0.12)
Past	-0.03	(0.13)
Race/Ethnicity		
White	ref.	
Black	0.02	(0.09)
American Indian or Alaskan Native	-0.35	(0.29)
Asian	0.18	(0.11)
Native Hawaiian or Pacific Islander	-0.49	(0.51)
Other	-0.19	(0.21)
Hispanic/Latino	0.21*	(0.09)
Unemployed	-0.28*	(0.12)
Constant	5.12**	(0.23)
Observations	3434	

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$

D Questionnaire

Treatment conditions

1. Only seen by those in loss condition: Think about a possible situation in which you might experience a significant financial loss as a result of the national economy doing poorly. For example, you might think about the possibility of losing your current job, having to take a significant cut in your level of pay, or a significant cut in the number of hours that you can work. What sorts of experiences and possessions would you no longer be able to afford for yourself and/or your family? Would you be able to remain in your current home? Again, we'd like you to focus on a realistic situation in which you experience a significant financial loss as a result of the national economy doing poorly and how it would affect you personally. Spend the next two minutes writing about how you would feel if you suffered such a financial loss and how your quality of life would suffer.

2. Only seen by those in loss condition: Think again about the situation you just wrote about in which you might experience a significant financial loss. Imagine you needed to decrease or delay some of your expenses as a result of that loss. Rank the categories of expenses listed below from 1 (the first thing you would cut) to 6 (last thing you would cut). Enter your ranking as numbers in the text boxes below.

    - Decrease spending on housing
    - Decrease spending on household appliances, electronics, and/or furniture
    - Decrease spending on food
    - Decrease saving for future/retirement
    - Decrease spending on entertainment
    - Decrease spending on transportation

3. Only seen by those in gain condition: Think about a possible situation in which you might experience a significant financial gain as a result of the national economy doing well. For example, you might think about the possibility of finding a new job, getting a significant raise in your level of pay, or a significant increase in the number of hours that you can work. What sorts of experiences and possessions would you now be able to afford for yourself and/or your family? Would you remain in your current home? Again, we'd like you to focus on a realistic situation in which you experience a significant financial gain as a result of the national economy doing well and how it would affect you personally. Spend the next two minutes writing about how you would feel if you experienced such a financial gain and how your quality of life would benefit.

4. Only seen by those in gain condition: Think again about the situation you just wrote about in which you might experience a significant financial gain. Imagine you were able to increase some of your expenses as a result of that gain. Rank the categories of expenses listed below from 1 (the first thing you would increase) to 6 (last thing you would increase). Enter your ranking as numbers in the text boxes below.

    - Increase spending on housing
    - Increase spending on household appliances, electronics, and/or furniture
    - Increase spending on food

- Increase saving for future/retirement
- Increase spending on entertainment
- Increase spending on transportation

5. Only seen by those in placebo condition: We'd like you to think about an average or normal day for you and/or your family. For example, you might think about where would you spend most of your time, who you would most likely interact with, or how you would feel. What sorts of experiences do you normally have? Again, we'd like you to focus on an average or normal day for you and/or your family and how you spend your time. Spend the next two minutes writing about what you would do and how you would feel on an average day.

6. Only seen by those in placebo condition: Think about the colors you see listed below. Which ones do you like? Which ones do you dislike?Rank the colors below from 1 (most favorite) to 6 (least favorite). Enter your ranking as numbers in the text boxes below.

    - Blue
    - Green
    - Yellow
    - Red
    - Orange
    - Black

Post-treatment questions

7. Do you support or oppose the United States government working to increase trade with other countries?

    - Support a great deal
    - Support a moderate amount
    - Support a little bit
    - Neither support nor oppose
    - Oppose a little bit
    - Oppose a moderate amount
    - Oppose a great deal

8. We are interested in how people are getting along financially these days. Would you say that you are better off or worse off financially than you were a year ago?

    - Much better off
    - Moderately better off
    - About the same
    - Moderately worse off
    - Much worse off

9. Now looking ahead... Do you think that a year from now you (and your family living there) will be better off financially, or worse off, or just about the same as now?

    - Much better off
    - Moderately better off
    - About the same
    - Moderately worse off
    - Much worse off

10. Now turning to business conditions in the country as a whole... Do you think that during the next twelve months we'll have good times financially or bad times?

    - Nothing but good times
    - Mostly good times
    - Equal split between good and bad times
    - Mostly bad times
    - Nothing but bad times

11. Looking ahead, which would you say is more likely... That in the country as a whole we'll have continuous good times during the next five years or so, or that we will have periods of widespread unemployment or depression?

    - Continuous good times
    - Mostly good times
    - Equal split between good times and periods of widespread unemployment or depression
    - Mostly times of widespread unemployment or depression
    - Continuous widespread unemployment or depression

12. About the big things people buy for their homes, such as furniture, a refrigerator, stove, television, and things like that... Generally speaking, do you think now is a good or bad time for people to buy major household items?

    - Very good time
    - Moderately good time
    - Neither good nor bad time
    - Moderately bad time
    - Very bad time

13. You indicated that you [trade preference answer] the U.S. government working to increase free trade with other countries. Can you explain why that is the case in a few words? [Open Response]

14. Overall, do you think that trade between the United States and other countries helps or hurts the U.S. economy?

    - Helps a great deal

- Helps a moderate amount
- Helps a little
- Makes no difference
- Hurts a little
- Hurts a moderate amount
- Hurts a great deal

15. Do you think that trade between the United States and other countries increases or decreases unemployment among the following groups?

    - The country as a whole
    - Your industry
    - Your region

16. Do you think that trade between the United States and other countries increases or decreases consumer prices for the following groups? [Increase to Decrease]

    - The country as a whole
    - Your region

Demographic questions

17. Please enter your age on your last birthday. [Open numeric response]
18. How many people, including yourself, live in your household? (Please do not count individuals for which you are not financially responsible.) [Open numeric response]
19. What is your five digit zip code? [Open numeric response]
20. What is the highest level of school you have completed?

    - No schooling completed
    - Kindergarten to 8th grade
    - Some high school, but did not graduate
    - High School graduate or equivalent (GED)
    - Some college, but did not complete a degree
    - Associate degree
    - Bachelor's degree (BA/BS)
    - Master's degree (MA/MS/MBA, etc)
    - Medical (MD), law (JD), or other doctorate degree (PhD)

21. Are you a member of a labor union?

    - Yes

- No, but I was a union member previously
- No, I've never been a union member

22. Which of the following best describes your current employment status?

    - Working full time
    - Working part time
    - Temporarily laid off
    - Unemployed
    - Retired
    - Raising children and/or managing the household
    - Student
    - Not working because of a disability
    - Other [Open Response]

23. Are you now married, widowed, divorced, separated, never married, or living with a partner?

    - Married
    - Widowed
    - Divorced
    - Separated
    - Never married
    - Living with a partner

24. Do you own your home, pay rent, or something else?

    - Own a home
    - Pay rent
    - Other

25. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs ... ?

    - Most of the time
    - Some of the time
    - Only now and then
    - Hardly at all

26. In general, do you think of yourself as...

    - Very liberal
    - Liberal

- Slightly liberal
- Moderate, middle of the road
- Slightly conservative
- Conservative
- Very Conservative

27. Not including this current study, about how many research studies have you been a part of in the last...

    - In the last week... [Open numeric response]
    - In the last year... [Open numeric response]
    - In your life... [Open numeric response]

28. Generally speaking, do you think of yourself as Democrat, a Republican, an Independent, or what?

    - Democrat
    - Republican
    - Independent
    - Other [Open response]

29. In what industry are you currently or most recently primarily employed? In this question, your answer should be based on the good or service that is produced or offered by the business or organization for which you work even if you don't personally help produce it. For example, someone who works as an accountant for a car manufacturing company would select "manufacturing." Likewise, an IT person for a real estate firm would select "real estate and rental."

    - Agriculture, Forestry, Fishing and Hunting (1)
    - Mining, Quarrying, and Oil and Gas Extraction (2)
    - Utilities (power generation, water supply and treatment, etc) (3)
    - Construction (residential, commercial, roads, etc) (4)
    - Manufacturing (including cars, trucks, food, beverages, textiles, electronics, metal fabrication, chemical processing, books and other paper products, consumer goods, etc) (5)
    - Wholesale Trade (6)
    - Retail Trade (including gas stations, most retail stores, car dealers, and grocery stores, etc) (7)
    - Transportation and Warehousing (includes delivery and postal services, does not include any manufacturing or repair services) (8)
    - Information (journalism, publishing, data hosting and processing, etc) (9)
    - Finance and Insurance (including banking) (10)
    - Real Estate and Rental and Leasing (including rental/leasing of machinery and consumer goods) (11)
    - Professional, Scientific, and Technical Services (including, law firms, accounting firms, tax services, veterinarians, public relations/advertising, web design, app development, and architecture services) (12)

- Management of Companies and Enterprises (holding companies) (13)
- Administrative and Support (employment agencies, travel agencies, call centers, bill processing firms, etc) (14)
- Waste Management and Remediation Services (waste collection, disposal, remediation) (21)
- Educational Services (schools, colleges, and other educational service companies) (15)
- Health Care and Social Assistance (16)
- Arts, Entertainment, and Recreation (17)
- Accommodation and Food Services (including hotels, restaurants, fast food, hospitality, etc) (18)
- Other Services (including car repair, dry cleaning, religious organizations, non-profits, community and business organizations, etc) (19)
- Public Administration (courts, police, fire, space, military, and other government offices and operations that are not categorized elsewhere) (20)

30. Only seen if industry is: Agriculture, Forestry, Fishing and Hunting Is Selected. You indicated that you are in the Agriculture, Forestry, Fishing and Hunting sector. How would you categorize the establishment that you work for within that sector?

    - Crop Production (1)
    - Animal Production and Aquaculture (2)
    - Forestry and Logging (3)
    - Fishing, Hunting and Trapping (4)
    - Support Activities for Agriculture, Forestry, Fishing and Hunting (5)

31. Only seen if industry is: Mining, Quarrying, and Oil and Gas Extraction Is Selected. You indicated that you are in the Mining, Quarrying, and Oil and Gas Extraction sector. How would you categorize the establishment that you work for within that sector?

    - Oil and Gas Extraction (1)
    - Mining/Quarrying (except Oil and Gas) (2)
    - Support Activities for Mining, Quarrying, and Oil and Gas Extraction (3)

32. Only seen if industry is: Utilities (power generation, water supply and treatment, etc) Is Selected. You indicated that you are in the Utilities sector. How would you categorize the establishment that you work for within that sector?

    - Electric Power Generation, Transmission and Distribution (1)
    - Natural Gas Distribution (2)
    - Water, Sewage and Other Systems (3)

33. Only seen if industry is: Construction (residential, commercial, roads, etc) Is Selected. You indicated that you are in the Construction sector. How would you categorize the establishment that you work for within that sector?

    - Construction of Buildings (1)

- Heavy and Civil Engineering Construction (2)
- Specialty Trade Contractors (perform a specific task, but don't oversee whole project) (3)

34. Only seen if industry is: Manufacturing (including cars, trucks, food, beverages, textiles, electronics, metal fabrication, chemical processing, books and other paper products, consumer goods, etc) Is Selected. You indicated that you are in the manufacturing sector. How would you categorize the establishment that you work for within that sector?

    - Food Manufacturing (1)
    - Beverage and Tobacco Product Manufacturing (including alcohol, soft drinks, and ice) (2)
    - Textile Mills and Textile Product Mills (3)
    - Apparel Manufacturing (including footwear) (4)
    - Leather and Allied Product Manufacturing (5)
    - Wood Product Manufacturing (6)
    - Paper Manufacturing (7)
    - Printing and Related Support Activities (8)
    - Petroleum and Coal Products Manufacturing (9)
    - Chemical Manufacturing (10)
    - Plastics and Rubber Products Manufacturing (11)
    - Nonmetallic Mineral Product Manufacturing (12)
    - Primary Metal Manufacturing (smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap) (13)
    - Fabricated Metal Product Manufacturing (14)
    - Machinery Manufacturing (15)
    - Computer and Electronic Product Manufacturing (16)
    - Electrical Equipment, Appliance, and Component Manufacturing (17)
    - Transportation Equipment Manufacturing (including cars, trucks, aircraft, rail, and ships) (18)
    - Furniture and Related Product Manufacturing (19)
    - Miscellaneous Manufacturing (20)

35. Only seen if industry is: Wholesale Trade Is Selected. You indicated that you are in the Wholesale sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Merchant Wholesalers, Durable Goods – Durable goods merchant wholesale trade establishments are engaged in wholesaling products, such as motor vehicles, furniture, construction materials, machinery and equipment (including household-type appliances), metals and minerals (except petroleum), sporting goods, toys and hobby goods, recyclable materials, and parts. (1)
    - Merchant Wholesalers, Nondurable Goods – Nondurable goods merchant wholesale trade establishments are engaged in wholesaling products, such as paper and paper products, chemicals and chemical products, drugs, textiles and textile products, apparel, footwear, groceries, farm products, petroleum and petroleum products, alcoholic beverages, books, magazines, newspapers, flowers and nursery stock, and tobacco products. (2)

- Wholesale Electronic Markets and Agents and Brokers – Establishments in this subsector arrange for the sale of goods owned by others, generally on a fee or commission basis. They act on behalf of the buyers and sellers of goods. This subsector contains agents and brokers as well as business to business electronic markets that facilitate wholesale trade. (3)

36. Only seen if industry is: Retail Trade (including gas stations, most retail stores, car dealers, and grocery stores, etc) Is Selected. You indicated that you are in the Retail Trade sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Motor Vehicle and Parts Dealers (1)
    - Furniture and Home Furnishings Stores (2)
    - Electronics and Appliance Stores (3)
    - Building Material and Garden Equipment and Supplies Dealers (4)
    - Food and Beverage Stores (5)
    - Health and Personal Care Stores (6)
    - Gasoline Stations (7)
    - Clothing and Clothing Accessories Stores (8)
    - Sporting Goods, Hobby, Musical Instrument, and Book Stores (9)
    - General Merchandise Stores (10)
    - Miscellaneous Store Retailers (11)
    - Nonstore Retailers (12)

37. Only seen if industry is: Transportation and Warehousing (includes delivery and postal services, does not include any manufacturing or repair services) Is Selected. You indicated that you are in the Transportation and Warehousing sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Air Transportation (1)
    - Rail Transportation (2)
    - Water Transportation (3)
    - Truck Transportation (4)
    - Transit and Ground Passenger Transportation (taxis, bus service, etc) (5)
    - Pipeline Transportation (transport crude oil, natural gas, refined petroleum products, and slurry via pipeline) (6)
    - Scenic and Sightseeing Transportation (7)
    - Support Activities for Transportation (air traffic control services, marine cargo handling, and motor vehicle towing) (8)
    - Postal Service (USPS and its subcontractors with universal service obligation) (9)
    - Couriers and Messengers (including shipping services like UPS and FedEx) (10)
    - Warehousing and Storage (storage facilities for general merchandise, refrigerated goods, and other warehouse products) (11)

38. Only seen if industry is: Information (journalism, publishing, data hosting and processing, etc) Is Selected. You indicated that you are in the Information sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Publishing Industries (publish newspapers, magazines, other periodicals, books, software, computer games). (1)
    - Motion Picture and Sound Recording Industries (2)
    - Broadcasting (except Internet) (3)
    - Telecommunications (including satellite communications and internet service providers) (4)
    - Data Processing, Hosting, and Related Services (web site hosting, data processing, etc) (5)
    - Other Information Services (6)

39. Only seen if industry is: Finance and Insurance (including banking) Is Selected. You indicated that you are in the finance and insurance sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Monetary Authorities (Central Bank) (1)
    - Banking, Credit Intermediation, and Related Activities (banks, credit unions, mortgage and loan brokerages, clearinghouse and reserve services, and check cashing services) (2)
    - Securities, Commodity Contracts, and Other Financial Investments and Related Activities (3)
    - Insurance Carriers and Related Activities (4)
    - Funds, Trusts, and Other Financial Vehicles (5)

40. Only seen if industry is: Real Estate and Rental and Leasing (including rental/leasing of machinery and consumer goods) Is Selected. You indicated that you are in the Real Estate and Rental and Leasing sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Real Estate (including renting and leasing real estate) (1)
    - Rental and Leasing Services (rental of tangible goods including machinery and consumer goods) (2)
    - Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) – (licensing rights to assets, such as patents, trademarks, brand names, and/or franchise agreements) (3)

41. Only seen if industry is: Professional, Scientific, and Technical Services (including, law firms, accounting firms, tax services, veterinarians, public relations/advertising, web design, app development, and architecture services) Is Selected. You indicated that you are in the Professional, Scientific, and Technical Services sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Legal Services (1)
    - Accounting, Tax Preparation, Bookkeeping, and Payroll Services (2)
    - Architectural, Engineering, and Related Services (3)
    - Specialized Design Services (including graphic, industrial, interior design services) (4)

- Computer Systems Design and Related Services (including custom computer programming, web design, app development) (5)
- Management, Scientific, and Technical Consulting Services (HR consulting, environmental consulting, etc) (6)
- Scientific Research and Development Services (7)
- Advertising, Public Relations, and Related Services (8)
- Other Professional, Scientific, and Technical Services (veterinarian, translation, market research, public opinion polling) (9)

42. Only seen if industry is: Administrative and Support (employment agencies, travel agencies, call centers, bill processing firms, etc) Is Selected. You indicated that you are in the Administrative and Support sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Office Administrative Services (financial planning, billing and record keeping, personnel, and physical distribution and logistics for others on a contract or fee basis) (1)
    - Facilities Support Services (janitorial, maintenance, trash disposal, guard and security, mail routing, reception, laundry, etc) (2)
    - Employment Services (including temp agencies and employment placement services) (3)
    - Business Support Services (including call centers, collection agencies) (4)
    - Travel Arrangement and Reservation Services (5)
    - Investigation and Security Services (6)
    - Services to Buildings and Dwellings (janitorial, landscaping, etc) (7)
    - Other Support Services (8)

43. Only seen if industry is: Educational Services (schools, colleges, and other educational service companies) Is Selected. You indicated that you are in the Educational Services sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Elementary and Secondary Schools (1)
    - Junior Colleges (2)
    - Colleges, Universities, and Professional Schools (3)
    - Business Schools and Computer and Management Training (4)
    - Technical and Trade Schools (5)
    - Other Schools and Instruction (6)
    - Educational Support Services (7)

44. Only seen if industry is: Health Care and Social Assistance Is Selected. You indicated that you are in the Health Care and Social Assistance sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Ambulatory Health Care Services (including primary care doctors, dentists, and urgent care) (1)
    - Hospitals (2)

- Nursing and Residential Care Facilities (3)
- Social Assistance (including child care, temporary housing, community housing, etc) (4)

45. Only seen if industry is: Arts, Entertainment, and Recreation Is Selected. You indicated that you are in the Arts, Entertainment, and Recreation sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Performing Arts, Spectator Sports, and Related Industries (1)
    - Museums, Historical Sites, and Similar Institutions (2)
    - Amusement, Gambling, and Recreation Industries (3)
    - Performing Arts Companies (4)
    - Spectator Sports (5)
    - Promoters of Performing Arts, Sports, and Similar Events (6)
    - Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (7)
    - Independent Artists, Writers, and Performers (8)
    - Museums, Historical Sites, and Similar Institutions (9)
    - Amusement Parks and Arcades (10)
    - Gambling Industries (11)
    - Other Amusement and Recreation Industries (12)

46. Answer If In what industry are you primarily employed? Your answer should be based on the good or ser... Accommodation and Food Services (including hotels, restaurants, fast food, hospitality, etc) Is Selected. You indicated that you are in the Accommodation and Food Services sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Accommodation (hotels, resorts, RV parks, camp grounds, etc) (1)
    - Food Services and Drinking Places (bars, restaurants, caterers, food trucks, etc) (2)

47. Only seen if industry is: Other Services (including car repair, dry cleaning, religious organizations, non-profits, community and business organizations, etc) Is Selected. You indicated that you are in the Other Services sector. How would you categorize the establishment for which you currently or most recently worked within that sector?

    - Repair and Maintenance (including car repair, computer repair, appliance repair) (1)
    - Personal and Laundry Services (nail salons, barber shops, dry cleaners, laundromats, parking garages) (2)
    - Religious, Grantmaking, Civic, Professional, and Similar Organizations (3)
    - Private Households (4)