Trade Policy Preferences and Concern about Your Job[1]

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Abstract: The public opinion literature on trade policy preference has typically argued that economic self-interest, so-called "pocketbook concerns", determines support or opposition for free trade. The most commonly advanced version of this argument is that those with scarce factors of production, e.g. those with low levels of skill or capital in advanced economies like the U.S., might lose their jobs because of free trade and, therefore, are likely to oppose trade. Recently, this literature has come under increasing criticism, both for its underlying argument that pocketbook concerns drive preferences and for its measures of factors of production. Recent work has suggested that preferences are sociotropic, i.e. driven by beliefs about trade's effect on the overall economy rather than on a person's pocketbook, and that education and income are poor measures of skill and capital. This paper argues that this debate has been difficult to resolve because the existing literature only tests the self-interest argument indirectly: most analyses merely demonstrate that those with characteristics that theory suggests should make them concerned for their job oppose free trade (or have no effect on preferences.) We more directly test the causal story by examining the influence of these factors on self-reported job concerns and then the effect of job concerns on trade policy preferences. We find that though the critical literature correctly identifies additional influences on trade policy preferences, pocketbook concerns have a significant influence on who supports or opposes trade.

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What influences trade policy preferences? This question has been extensively studied and yet there is still significant debate on the topic. An early literature, firmly rooted in economic theory, suggested that trade policy preferences were determined by employment and income concerns: if trade led to the loss of one's job or lower income, an individual would oppose trade and if trade led to higher income an individual would support trade. This suggests that trade policy preferences are determined by what political behavior scholars refer to as "pocketbook" concerns.[2] This early literature focused mostly on debates about which economic theory best explained income effects and on the implications of these findings for policymaking in trade, but a widespread consensus seemed to exist that pocketbook concerns explained much of trade policy preferences. A newer literature, influenced more directly by research in political behavior and political psychology, has question these findings, suggesting that other factors, such as personality, values, or sociotropic concerns about the overall economy,

[2] See, for instance, Scheve and Slaughter (2001) and Mayda and Rodrik (2005) for prominent examples of this early literature and Mutz (1998) for a discussion of "pocketbook" vs. "sociotropic" opinions, with the former characterized by concern about how policy affects one personally and the latter characterized by concern about how policy affects the country as a whole.

influence trade policy preferences in addition to, or even instead of, pocketbook concerns.[3]

This debate has been difficult to resolve in part because the pocketbook hypotheses have largely been only indirectly tested and have used proxies for the underlying concepts that may have considerable measurement error. The causal argument of the economic story for trade policy preferences is that trade will increase job concerns for some while decreasing job concerns for others and that those who are more concerned about their job after trade increases will oppose free trade while those who are less concerned will support it. However, instead of directly testing the effect of job concerns on trade policy preferences, the literature instead examines whether individuals who have characteristics that theory suggests should lead them to be more concerned about their jobs when trade increases, such as low skill levels or working in import-competing industries, are more supportive of protection. Not all individuals with these characteristics, though, may be concerned about their jobs and the newer literature has suggested that there may be other reasons why having these characteristics affects trade policy preferences. While this newer literature has cast significant doubt on the pocketbook arguments of the earlier work, it is unclear whether this is because the economic theory is wrong or because the indirect tests and the poor proxies make it difficult to find pocketbook effects. This article more directly tests the causal chain that underpins the theoretical expectations of the pocketbook argument by examining recent

[3] See, for instance, Baker (2005), Ehrlich and Maestas (Forthcoming), Hiscox and Hainmueller (2006), and Mansfield and Mutz (2009).

public opinion data from the United States about whether respondents are concerned about their jobs or income due to trade and outsourcing.

Thus, instead of assuming that those whom we believe should be concerned about their job are opposed to trade for this reason, we examine whether those who actually are concerned about their job oppose trade and whether the factors that theory suggest should lead to this concern in fact do so. This approach leads to a two-step analysis: first, we use the job concern question as a dependent variable and find that those with lower skill levels are more likely to be concerned about the effects of trade on their job. In this analysis, we also examine other influences on job concerns, such as the effect of evaluations of the local and national economy and levels of trust in government. Second, we use the job concern question as an independent variable and find that those who are more concerned that trade and outsourcing will lead to the loss of their job or their income are more supportive of limiting trade. Here, we also examine the effect of sociotropic concerns and values such as cosmopolitanism. These analyses find strong support for the pocketbook arguments: when measured directly, concern for one's job does influence trade policy preferences. On the other hand, we also find that sociotropic concerns and values such as cosmopolitanism influence both job concerns and trade policy preferences, as suggested by the more recent behavioral and psychological literatures. Thus, despite the recent debate that has taken on an either/or feel, we find that *both* economic and psychological theories predict trade policy preferences.

To illustrate these points, the rest of this article is organized as follows. The next section briefly reviews the literature on trade policy preference formation, highlighting the causal chain that, sometimes implicitly, underlies this research, and derives from the

literature hypotheses about the effects of job concerns on trade policy preferences and the determinants of job concerns. The third section introduces the data and methods used to test these hypotheses and the fourth section presents the results of these tests. The final section concludes by discussing the implication of this research.

Job Concerns and Trade Policy Preferences

Early research on trade policy preferences was motivated, at least in part, by a desire to test the two major competing economic theories on the distributional effects of trade: the Stolper-Samuelson, or Mobile Factors, Theorem and the Ricardo-Viner, or Specific Factors, Theorem. Each of these theories posit that that main distributional effects are employment-based, with trade either increasing or decreasing one's level of employment or income.[4] The main difference between these theories is that the Stolper-Samuelson Theorem predicts that the distributional effects of trade will be determined along class lines while the Ricardo-Viner Theorem predicts that they will be determined along industry lines.

The Stolper-Samuelson Theorem assumes that economic factors, i.e. the main inputs into production like labor and capital, are mobile across industries such that workers can easily change jobs from one industry to another and capital can be reinvested

[4] Technically, both theorems assume full employment, so that trade only affects wages and returns on investment. Relaxing these assumptions to allow unemployment yields that also can decrease or increase unemployment levels for different groups in similar ways to how it affects wages and returns.

in any industry. As a result, it does not matter what industry one works or invests in as one can simply change to a new industry if the old industry is hurt by increased imports of their products. Instead, one is affected by trade based upon what factors one holds: if an individual holds a relatively scarce factor, such unskilled labor in a developed economy like the United States, then the individual will be hurt as increased trade will lead to more imports of products made intensively with unskilled labor as the rest of the world has more unskilled labor. On the other hand, if one holds a relatively abundant factor, such as capital or skilled labor in the United States, then one will gain from increased trade as this will increase demand for products made intensively with these factors in other countries where these factors are less abundant.

The Ricardo-Viner Theorem assumes that factors are specific such that one cannot change jobs or reinvest capital across industries. If one works, for instance, in the steel industry, then it is assumed they have skills specific to this industry that are not easily transferable to, for instance, the biotech industry and vice versa. Similarly, capital is tied to an industry such that one cannot simply turn a steel mill into a pharmaceutical factory. As a result, trade preferences will be determined based on industry lines. If one works or invests in an import-competing industry, one would oppose increased trade as this will increase competition. If one works or invests in an export industry, one will support increased trade as this will increase sales to markets abroad.[5]

[5] Hiscox (2002) argues that factors are partly mobile and partly specific and that individuals' trade preferences will be influenced by both their class and industry with the amount each of these determinants matter depending upon the relative level of factor specificity.

These theories have strong, and distinct, predictions about which individuals should support trade and which should oppose trade if one assumes that trade policy preferences are determined by these employment concerns. Early public opinion research on trade policy, therefore, attempted to test whether, and which, of these effects are present. Scheve and Slaughter (2001) found that in the United States, class-based divisions seemed to predominate, as high-skilled workers were significantly more supportive of free trade than low-skilled workers, with skill measured by education level.[6] They found that their measures of whether industries were export or import-competing were insignificant. Mayda and Rodrik (2005) found that both class and industry mattered, finding that those with high skills, as measured by education, and those with capital endowments, as measured by income, were more likely to support trade and that those who worked in export industries were more likely to support trade than those who worked in import-competing industries.[7] In sum, this research suggested that the effects of trade on one's job prospects were a significant predictor of trade policy preferences, with strong support for the Stolper-Samuelson Theorem and mixed support for the Ricardo-Viner Theorem.[8]

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[6] O'Rourke and Sinnott (2002) similarly find support for the Stolper-Samuelson Theorem in a cross-national context.

[7] Hays, Ehrlich, and Peinhardt (2005) also find that both class and industry matter using the same data but different models and different measures of industry.

[8] This research mirrors an earlier research tradition that examined Congressional votes on trade, started by Pincus (1975) and exemplified in recent research by, for instance, Bailey and Brady (1998) and Ehrlich (2009). This research examines the influence of

Other public opinion research takes these established job-related influences as a starting point to investigate the influence other factors, such as policy options or personality traits, on trade policy preferences. For instance, Hays, Ehrlich, and Peinhardt (2005) investigate whether this job-related opposition to trade is mitigated by government programs that compensate workers if they lose their job and find that low-skilled workers are less likely to oppose trade when they would receive more in unemployment insurance. Mayda, O'Rourke, and Sinnott (2008) and Ehrlich and Maestas (2009) investigate whether risk orientation interacts with risk exposure to determine trade policy preference: some individuals are exposed to more risk of losing their jobs due to trade but they are not expected to lose their jobs with certainty, thus we should expect those who averse to such risk to be more opposed to trade.

All of this research posits a specific causal pathway for the formation of trade policy preferences. The first step in this pathway is that individuals possess some sort of employment-related attribute, whether it is economic factor of production like capital or unskilled labor or whether it is industry of employment, and that increased trade has differential effects on employment and income prospects depending on an individual's attributes. Second, trade will generate job concerns for those who hold a disadvantaged attribute while not creating job concerns for those who hold an advantaged attribute.

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constituency characteristics (and interest group lobbying) on voting patterns and has often found that members of Congress from highly-educated or high-income or export-oriented districts and states support free trade. Typically the inclusion of these variables is motivated by the Stolper-Samuelson and Ricardo-Viner Theorems and the results are taken to be support for these theories.

Third, these job concerns will create opposition to trade and support for protectionism among those who hold the disadvantaged attribute. The existing research typically does not test this actual causal pathway but simply examines whether possessing the employment related attributes is associated with holding the expected trade policy preferences.

This approach might not be problematic if the attributes were directly and precisely measured and if there were no plausible alternative causal pathways by which these attributes might influence trade policy preferences. However, the attributes are typically measured by somewhat imperfect proxies and recent research has suggested numerous alternatives for why these proxy measures might affect trade policy preferences for reasons unrelated to job concerns. Further, the plausibility of some of the assumptions underlying the specific causal pathway has been called into question as well. This newer literature questioning these findings has largely been rooted in research on American political behavior and political psychology and has argued that the straightforward causal story told by economic theory is much more complicated in reality and may be at odds with existing findings in other policy areas.

The most prominent and frequent criticism of the economic-based research tradition is of its use of education as a measure of job skills. Hainmueller and Hiscox (2006) and Baker (2005) both argue that education measures other factors related to trade policy preferences in addition to skill and that skills can be acquired without a formal education, thus making education a poor measure of skills and making it incorrect to infer that because the less educated are more opposed to trade that this means that unskilled workers who are more concerned about their job are more opposed to trade. Specifically,

Hainmueller and Hiscox (2006) argue that education affects trade policy preferences because it measures exposure to free trade ideas in college and levels of cosmopolitanism rather than skill level. Baker (2005) further contends that skills are often acquired on the job or through non-formal educational settings.

In addition, Baker (2005) also suggests that an alternative causal pathway linking income to trade policy preferences exists: individuals with different income levels will consume a different mix of imported and exported goods and those who consume more imported goods, such as low-income individuals in advanced economies like the United States, might support free trade because it lowers the prices of those goods. Rehm (2009) suggests that it is not the industry one works in but the type of job one has that influences whether an individual will have job-related concerns due to trade and finds that job category rather than industry better predicts support for increased welfare spending to address these concerns.

Finally, Mansfield and Mutz (2009) questions the underlying assumptions of this research tradition by arguing that existing research in public opinion typically finds that individuals do not form policy preferences based upon personal prospective factors but, rather, based upon retrospective judgments about the impact of trade on the state of the overall economy, known as sociotropic preferences. They argue, therefore, that the findings in trade policy are anomalous and that it is unlikely that trade would be the only policy area where pocketbook concerns determine preferences. Instead, they find that, in their sample, once one controls for subjective judgments about the effect of trade on the state of the national economy, the effect of job-related attributes like education

disappears.[9] However, Mansfield and Mutz (2009) do not explain what determines these sociotropic considerations, ignoring the possibility that those who believe that trade hurts them personally generalize this to believing that trade hurts the economy as a whole. In addition, Mansfield and Mutz (2009), building on Hainmueller and Hiscox (2006), argue that a number of other non-policy factors, such as cosmopolitanism and social identification and nationalism, influence trade policy preferences instead of pocketbook concerns.

In directly testing the causal story implied by the economic theories, we focus more directly on the role of job concerns. There is limited existing research on what causes individuals to be concerned about their job, but we can derive hypotheses from economic theory on the topic as well as often unstated implication of other work on trade policy. Economic theory suggests that individuals have specific job characteristics that lead to trade increasing their risk of job or income loss if trade increases. The most prominent of these, and the one which we focus on empirically because of data availability, is that those with low levels of skills will feel more concern about their job due to trade because the U.S. economy is scarce in unskilled labor and, thus, increased

[9] Ehrlich and Maestas (2009) find that, in a different sample, controlling for judgments about the national economy does not eliminate the effect of education on trade policy preferences. The analysis in this paper similarly uses measures of judgments of the state of the economy rather than the effects of trade on the national economy. Thus, we do not directly test Mansfield and Mutz's arguments, though one should expect that those who think trade is bad for the economy would also think the economy is doing poorly, so these measures should be strongly correlated.

trade (or outsourcing) should disproportionately hurt those with low skill levels as they will face more imports of goods made with low-skilled labor (or see their factories shut down and moved to locations with more abundant low-skilled labor.) However, sociotropic evaluations of the economy should also affect job concerns: if one believes that the national or local economy is weak, then one is likely to be more concerned about one's job, for trade or any other reason. Also, trust in government institutions should influence job concerns due to trade. The embedded liberalism thesis (Ruggie, 1982) suggests that governments can increase support for trade by compensating workers if they are harmed by trade and recent research has found that this compensation is popular amongst those harmed by trade (Ehrlich, forthcoming) and that it can increase support for trade (Hays, Ehrlich, and Peinhardt, 2005). If one has trust that government will protect you if you lose your job due to trade, or even if one has more general trust in government, then one might be less concerned about trade's impact on one's job security.[10]

All of these considerations suggest a very complicated causal story for the formation of trade policy preferences. Figure 1 below presents this causal relationship pictorially. The typical economic-based pocketbook argument is that job skills influence trade policy preferences through their influence on job security. Thus, if we control for job security directly, then job skills should no longer influence trade policy preferences. Institutional confidence and sociotropic concerns should influence job concerns but also

[10] Since free trade is an important element of current economic policy in the United States, those who trust government in general might be expected to trust that trade will not harm them. Mayda and Rodrik (2005) found that those who support the government were more likely to support free trade, arguing that this effect existed for similar reasons.

should have a direct affect on trade policy preferences. Those who believe that the overall economy is weak will naturally be concerned about their job security but, if Mansfield and Mutz are correct, then it is the concern that trade might weaken the overall national economy and not one's individual job prospects that influences trade policy preferences. Similarly, those who have faith in government might have less concern for their own job but also might believe this can improve the overall economy. If, after controlling for job concerns, these overall economic evaluation and institutional trust variables have no effect, then this would cast doubt upon the sociotropic argument. Finally, the existing literature discusses two other variables, nationalism and consumption, but we do not have direct measures of these in our dataset, so we cannot capture their effects. On the other hand, though, there is no reason to think that either is driving the link between job security and trade, nor should they directly affect job security. Thus, if we could measure them, we would only expect them to have a direct effect on trade preferences.

The causal diagram leads to a number of testable hypotheses, both about the determinants of concerns about job security and the determinants of the causes of trade policy preferences. The former set of hypotheses is as follows:

Hypothesis A1: The lower a respondent's income, the more concerned they will be about losing their job due to trade.

Hypothesis A2: The less educated a respondent is, the more concerned they will be about losing their job due to trade.

The previous two hypotheses flow from the Stolper-Samuelson theorem that low-skilled workers and those without capital are harmed by trade. These hypotheses assume

that education and income are adequate measures of skills and capital although, as has been mentioned above, the validity of both of these measures has been called into question. However, if we find that these measures influence job concerns and that job concerns influence trade policy preferences, this should increase our confidence in these measures of skill and capital despite existing doubts. The following two hypotheses are derived from Mansfield and Mutz's arguments about sociotropic preferences and the embedded liberalism literature's focus on government programs to compensate those hurt by trade.

Hypothesis A3: The more negatively one evaluates the local or national economy, the more concerned one is for one's job.

Hypothesis A4: The more confidence one has in government, the less concerned one is for one's job.

The second set of hypotheses concern trade policy preferences. The first of these tests the standard economic theories that employment-related factors influence trade policy preferences:

Hypothesis B1: The more concerned a respondent is about losing their job due to trade, the more supportive they will be of protecting the economy from trade.

In addition, if sociotropic concerns influence trade policy preferences, we would expect evaluations of the economy and trust in government institutions to directly affect trade policy preferences. Thus:

Hypothesis B2: The more negatively one evaluates the local or national economy, the more supportive they will be of protecting the economy from trade.

Hypothesis B3: The more confidence one has in government, the less supportive they will be of protecting the economy from trade.

Finally, Hainmueller and Hiscox (2006) and Mansfield and Mutz (2009) suggest that education does not measure skill, but instead measures exposure to economic ideas and cosmopolitanism. We, thus, measure these two concepts in order to attempt to leave only the skill-related elements of education in the education measure. Thus:

Hypothesis B4: The more cosmopolitan a respondent is, the less supportive they will be of protecting the economy from trade.

Hypothesis B5: The more exposed a respondent is to economics, the less supportive they will be of protecting the economy from trade.

Once we have controlled for these factors and have directly measured job concerns, then education should no longer have any impact on trade policy preferences. Thus:

Hypothesis B6: Education is unrelated to support for protecting the economy from trade.

Data and Methods

To test these hypotheses, we use data from the 2008 Cooperative Congressional Election Survey (CCES) which included a set of relevant questions on job concerns and trade policy.[11] The first analysis examines the determinants of job concerns; the

[11] The survey data were collected as part of the 2008 Cooperative Congressional Elections Survey, a survey project supported by 31 universities. The survey was

dependent variable in this analysis, *Job Concern*, uses the following survey question: "How concerned are you that you could lose your job or not get a job you want because of outsourcing to a foreign country of because of foreign competition through trade?" Respondents had the choice of five answers, with a 1 being not at all concerned, a 2 being not very concerned, a 3 being somewhat concerned, a 4 being very concerned, and a 5 being extremely concerned. Since these are ordered answered, we analyze these data using ordered probit.

To test Hypotheses A1 and A2, we need measures of factor endowment. It is typical in the literature to use a measure of income to capture capital levels, and we do so here, using a variable that places respondents in 14 different ordered income categories. The standard approach to measuring skill is to use a dummy variable for whether a respondent graduated from college; however, Hainmueller and Hiscox (2006) and Mansfield and Mutz (2009) both argue that this dummy might be hiding non-linearities in the results that undermine the argument that education measures job skills. For instance,

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administered via internet to a randomly selected 1000 person sub-sample from the 31,000 panel respondents who participated in the larger cooperative survey. Subjects for the larger study were selected from an opt-in internet panel based on a propensity matching technique developed by Douglas Rivers and implemented by Polimetrix and YouGov. The CCES matching algorithm was designed to mirror the national voting age population in the United States. Details of the study methodology can be found at http://web.mit.edu/polisci/portl/cces/index.html and details about the matching technique can be found at: http://projects.iq.harvard.edu/cces/book/study-design and http://projects.iq.harvard.edu/cces/book/sample-design

if education imparts skills, then those with some college should have more skills than those without any college education even if they did not graduate. Further, those with post-graduate degrees should have more skills than those with only a bachelor's degree. Thus, both articles argue that a series of dummies for different levels of educational achievement should be used and we follow that convention here. *Some College* is equal to 1 if a respondent attended college but did not graduate and 0 otherwise; *2 Year Degree* is equal to 1 if the respondent has a degree from a 2-year college and 0 otherwise; *4 Year Degree* is equal to 1 if the respondent has a degree from a 4-year degree and no post-graduate degree and 0 otherwise; and *Post-graduate* is equal to 1 if a respondent has an advanced degree and 0 otherwise. Those with no college education at all is the baseline category.

To test Hypothesis A3, we need measures of the respondents' evaluation of the national or local economy. For the national economy, respondents were asked whether they thought that "over the past year, the nation's economy has…gotten much better, gotten better, stayed about the same, gotten worse, or gotten much worse" Measures of the local economy tap both the business conditions in the local area and the labor market in the local area. Both questions asked respondents to rate it as "good" "normal" or bad." Higher values indicate a more positive evaluation of the local economic climate.

To Test Hypothesis A4, we need measures of the respondents' trust in government institutions. Here, we measures two types of trust – generalized trust in government and specific trust in government to protect workers from harms associated with free trade. The latter uses standard question wording asking individuals how often they can trust the U.S. government: "almost never," "only some of the time," "most of

the time," or "just about always." The specific trade question is an index of responses to a series of items asking about confidence in the national government's ability to prevent job loss due to free trade, assist workers who lose their job because of free trade, and promote general economic well-being. The three items are scaled from 1 (not at all confident) to 4 (very confident), and the alpha reliability for combining the items into an index is .8.

The second analysis examines trade policy preferences and we use *Trade Support* as our dependent variable here which is based on the following survey question: "How much do you agree or disagree with each of the following statements? The United States should limit the imports of foreign products in order to protect the U.S. national economy." Respondents had five order choices, from agree strongly to disagree strongly, so we used ordered probit to analyze the results. Higher scores indicate more opposition to protection, i.e. more support for free trade.

The first three hypotheses use variables already discussed. To test Hypothesis B1, we use *Job Concern*; Hypothesis B2 uses the variables used for Hypothesis A3; and Hypothesis B3 uses the variables used for Hypothesis A4. To test Hypothesis B4, we need a measure of cosmopolitanism. Although the CCES survey lacks any direct measure of cosmopolitanism, we use as a proxy a question asking whether respondents feel it is important for individuals to contribute money to help the poor in developing countries. Support for foreign aid is one component used in measures of proxies by other scholars. The response scale provides a "slider" that allows respondents to select from 0 to 100 with visual anchors at 0 (strongly disagree), 25 (disagree), 50 (neutral), 75 (agree), and 100 (strongly agree). To test Hypothesis B5, we use the variable *Any Economic*

Class, which is based on a question that asked respondents who went to college which, if any, of a series of economics, business, or political economy classes they had taken while in college. If they had taken any of these classes, they are scored a 1 and are scored a 0 if they never went to college or did not take any of these classes while in college. *Education* and *Income* are also included in this analysis to test Hypothesis B6, with the expectation that these variables will be insignificant.

In addition to these theoretically informed variables, a number of control variables are included in each analysis drawn from previous public opinion studies of trade policy preferences such as Scheve and Slaughter (2001), Mayda and Rodrik (2005), and Hays, Ehrlich, and Peinhardt (2005). Although it is not always clear how these variables might relate to the job concern question, we included them in both analyses for the sake of comparability between the analyses. Because policy preferences may be related to partisan and ideological issues such as belief in a free market, we include dummy variables for *Democratic* and *Republican* party membership with independents and non-partisans the baseline category. *Unemployment* is a dummy variable measuring whether the respondent is currently unemployed (out of a job and seeking work) or not. *Age* measures the age of the respondent in years. Older respondents have been found to be less supportive of trade, although the theoretical reasons for this are not clear. *Married* equals 1 if the respondent is currently married and 0 otherwise. Married respondents are expected to be less supportive of trade because they will be more sensitive to the costs associated with job loss; similarly we should expect them to be more concerned about their job. *Female* equals 1 if the respondent is female and 0 if the respondent is male: women have consistently been found to be less supportive of free trade, although, as with

age, the theoretical reasons are unclear. *Union* equals 1 if the respondent is a union member and 0 otherwise: union members are typically more opposed to trade as it is often union-jobs at risk to lower-priced labor abroad. On the other hand, union members may be less concerned about their job because of union protections. Finally, *Immigrant* equals 1 if a respondent is a first-generation immigrant and 0 otherwise, and is included as a very weak proxy for nationalistic ties to other countries which might enhance preferences for trade openness.

Results

We test the above hypotheses in the order suggested by the underlying causal story: first, we identify the determinants of job concern and, second, we determine whether job concern influences trade policy preferences. Table 1 presents the results of the first analysis examining the determinants of job concerns. First, we find strong support for Hypotheses A1 and A2, suggesting that the standard proxies for skill and capital influence concerns about losing one's job to trade or outsourcing. For instance, the higher one's income, the less one is concerned about one's job. The education dummies also behave largely as expected: those with some college, those with 4-year degrees, and those with post-graduates degrees all are less likely to be concerned about their job than those without any college education. Further, the size of this effect increases as one obtains more education, i.e. those with 4-year degrees are less concerned than those with only some college and those with post-graduate degrees are even less concerned. The only education category that does not behave as expected is those with a

2-year degree: the coefficient is negative, as expected, but is not statistically significantly different from those with no college education. (The coefficient, though, is also larger than the one for some college and less than that for 4-year degree, as we would expect, but these differences are also not statistically significant.)

Hypotheses A3 and A4 also find support in this analysis, although the sociotropic concerns tested in Hypothesis A3 only seems to be relevant for local rather than national economic conditions. Opinions about the national economy have no significant effect on job concerns, but opinions about the local economy do. Those who have negative evaluations about the local labor market or business conditions are more concerned about their job than those who have positive evaluations. This is suggestive that respondents are more influenced by local economic conditions than the overall national economy, which also suggests that even these sociotropic concerns might have a pocketbook element: a bad local economy is more likely to influence someone directly than a bad national economy. Similarly, only the more specific government trust variable is significant: those who trust the government to assist workers harmed by trade are less concerned about their own job but those who have general trust in government are not statistically significantly different from those who do not. Finally, none of the standard trade preference controls are significant in this analysis, which might suggest that the standard effects of partisanship, gender, age, and marital status on trade policy preferences are not being driven by labor market concerns.

So far, we have only discussed the statistical significance of the coefficients and not their substantive size. Since the analyses are ordered probits, the coefficients cannot be directly interpreted substantively. Thus, we conduct simulations using CLARIFY

(King, Tomz, and Wittenberg, 2001) to demonstrate how the predicted probability of reporting the highest level of job concern changes as one variable of interest is varied and the rest of the variables in the analysis are held constant at their medians or modes. These simulated changes in predicted probabilities are reported in Table 2, the top section of which reports the simulations for this analysis. As can be seen, the size of the substantive effect for many of the variables is substantively meaningful: for example, college graduates are 8% less likely to be extremely concerned about their job while those with postgraduate degrees are 13% less likely. Those with the highest incomes are 7% less likely to be extremely concerned than those with the lowest incomes. Those who are confident in the local labor market are 9% less likely to be extremely concerned while those who are confident in local business conditions are 6% less likely.

Turning now to the second analysis examining trade policy preferences, we report these results in Table 3. Here we report two models, the first not including our job concerns variable as an independent variable and the second including this variable. In the first model, we see that education and income have similar effects to what previous analyses have found: those with higher incomes are more supportive of trade while those with a 4-year college degree are more supportive of trade. (Education has this support despite controlling for levels of cosmopolitanism and exposure to economics courses, which Hainmueller and Hiscox (2006) argue are driving education's influence on trade policy preferences.) Further, confidence in government to protect workers harmed by trade is positively associated with support for trade and national economic evaluations are significant and positive, i.e. those who believe the national economy is strong are more

supportive of trade than those who believe it is week. Local economic evaluations are insignificant in this analysis.

Turning now to the second model in Table 2, we see, first, that job concerns are strongly related to trade policy preferences. Individuals who are concerned that they may lose their jobs or have trouble finding a new job because of competition with imports or because of outsourcing are less supportive of trade and more supportive of protecting the economy from imports, as expected in Hypotheses B1. This result is strongly suggestive that trade policy preferences are at least partly determined by pocketbook concerns. This is reinforced by the fact that education and income are no longer significant in this model: those with higher incomes and more education are less concerned about their job but, once these job concerns are directly included, they are no longer more supportive of free trade, as expected by Hypothesis B6.

Including the job concern variable also shows that Hypotheses B2 and B4 have support but that Hypotheses B3 and B5 are unsupported. The coefficient for evaluation of the national economy remains significant, suggesting that sociotropic concerns do influence trade policy preferences, as suggested by Mansfield and Mutz (2009) and expected in Hypothesis B2. Cosmopolitan respondents are also more supportive of trade, as expected by Hypothesis B4. However, confidence in government becomes insignificant, suggesting that the effect of this variable is only indirect in so far as it influences how concerned someone is for their own job. Finally, exposure to economics has no influence on trade policy preferences.

As opposed to the first set of analyses, here we do find that some of the control variables are significant. In particular, women are more protectionist than men, as all

previous analyses have found. However, since this analysis controls for job concerns and gender remains significant, this suggests that the effect of gender is not because of labor market issues. This finding is supportive of the arguments of Hiscox and Burgoon (2003), although their alternative explanation that the effect of gender is formed by differential exposure to economics in college is not supported given that we control for exposure to economics. Thus, the reason that women are more protectionist remains a mystery, although these analyses enable us to eliminate certain explanations.

As in the analysis of job concerns, we use CLARIFY to run simulations to demonstrate the substantive size of the effects of the variables of interest, which are reported in the bottom half of Table 2. Here, we see that while the effect of changes in job concerns is statistically significant, the size of the effect is rather modest, though certainly not meaningless: those who are extremely concerned about their job are 5% less likely to support free trade than those who are not at all concerned. The effect of the other two variables is even larger: Cosmopolitan individuals are 8% more likely to support free trade and those who believe the national economy is strong are 12% more likely.

Taken together, these two analyses suggest strong support for the causal story that underlies the traditional economic argument that trade policy preferences are motivated by the pocketbook effects of trade. For instance, those with lower levels of education and income are more concerned about their job, and those who are concerned about their job are more protectionist. On the other hand, these analyses also demonstrate that non-pocketbook influences, such as values and sociotropic evaluations of the economy, also affect both job concerns and trade policy preferences.

Conclusions

The results of the analyses conducted in this paper suggest that there are multiple different causal processes determining trade policy preferences. However, by more directly testing the standard economic theory about pocketbook preferences, we find strong support that those who believe that trade will hurt their job prospects are more likely to oppose trade and that the standard proxies for this effect of trade—education and income—behave as expected. Thus, while the critics of these measures and the more general approach of evaluating self-interested preferences have raised important alternative mechanisms influencing trade policy preferences, and we find support for some of these mechanisms like sociotropic evaluations of the national economy and cosmopolitanism, these factors only operate *in addition to* pocketbook concerns and not *instead of* pocketbook concerns. In addition, by finding that education and income have the effects we would expect if they were proxies for skill and capital, this suggests that future analysts can continue to use these measures rather than trying to devise different, more complicated, measures of these concepts. On the other hand, if possible, one should include measures of cosmopolitanism and evaluations of the economy, as these influence trade policy preferences and are likely correlated with education and income. Failure to include these measures may lead to omitted variable bias that might lead analysts to conclude that skill and capital have larger effects than they actually do.

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Figure 1: Influences on Trade Policy Preferences

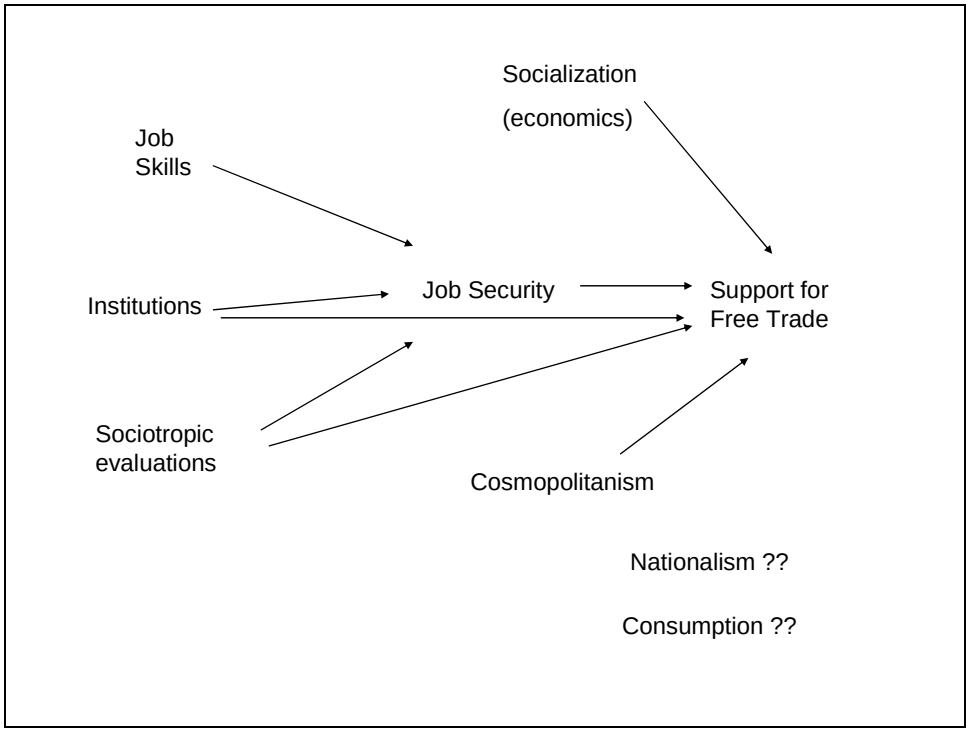

Table 1: Determinants of Job Concerns

How concerned are you that you could lose your job or not get a job you want because of outsourcing to a foreign country of because of foreign competition through trade?

	B	SE	p|z|
Dem	0.15	0.12	0.21
Rep	-0.07	0.11	0.53
Married	0.02	0.08	0.81
Female	0.07	0.09	0.43
Age	0.00	0.00	0.42
Union	-0.07	0.16	0.66
Immigrant (1st Gen or more recent)	0.17	0.11	0.12
EDUCATION AND INCOME (SKILL PROXY)			
Some college	**-0.19**	**0.10**	**0.07**
2 year degree	-0.27	0.20	0.17
4 year degree	**-0.43**	**0.11**	**0.00**
Post Grad	**-0.97**	**0.19**	**0.00**
Income	**-0.03**	**0.02**	**0.08**
SOCIOTROPIC			
National Economy	-0.06	0.07	0.40
Labor market in your area	**-0.29**	**0.05**	**0.00**
business conditions, your area	**-0.22**	**0.08**	**0.01**
INSTITUTIONAL TRUST			
Confidence in Government to Protect Workers from Harm from Free Trade	**-0.12**	**0.06**	**0.03**
Trust Government (general)	0.03	0.06	0.69
/cut1	-2.47	0.27	
/cut2	-1.76	0.28	
/cut3	-1.20	0.28	
/cut4	-0.62	0.27	

SE is clustered on state to account for correlated errors due to state level campaign / information / economic environment effects

Table 2: Simulated Predicted Probabilities

Variable	Change	Predicted Change	95% Confidence Interval
Some College	0 to 1	-0.04	[-0.08, 0.00]
Two Year Degree	0 to 1	-0.05	[-0.12, 0.04]
Four Year Degree	0 to 1	-0.08	[-0.13, -0.04]
Graduate Degree	0 to 1	-0.13	[-0.19, -0.08]
Income	Min to Median	-0.05	[-0.12, 0.00]
Income	Median to Max	-0.02	[-0.05, 0.00]
Confidence in Local Labor Market	0 to 1	-0.09	[-0.13, -0.04]
Confidence in Local Business Conditions	0 to 1	-0.06	[-0.12, -0.01]

Variable	Change	Predicted Change	95% Confidence Interval
Job Concerns	1 to 2	-0.02	[-0.04, -0.01]
Job Concerns	2 to 3	-0.01	[-0.03, -0.00]
Job Concerns	3 to 4	-0.01	[-0.02, -0.00]
Job Concerns	4 to 5	-0.01	[-0.01, -0.00]
National Economic Evaluations	Min to Max	0.12	[-0.01, 0.28]
Cosmopolitanism	Min to Max	0.08	[0.03, 0.16]

Table 3: Determinants of Trade Policy Preferences

Support for Free Trade	B	SE	p|z|	B	SE	p|z|
Dem	-0.13	0.10	0.20	-0.08	0.09	0.36
Rep	0.12	0.14	0.37	0.11	0.13	0.39
Married	-0.14	0.09	0.14	-0.13	0.10	0.20
Female	-0.40	0.08	0.00	-0.40	0.09	0.00
Age	0.00	0.00	0.71	0.00	0.00	0.99
Income	0.02	0.01	0.07	0.02	0.01	0.24
Unemployed	-0.06	0.11	0.62	0.01	0.12	0.96
Union	-0.26	0.10	0.01	-0.27	0.10	0.01
Immigrant (1st gen)	-0.14	0.11	0.20	-0.10	0.11	0.35
Cosmopolitanism (support for foreign aid)	0.01	0.00	0.00	0.01	0.00	0.00
Any economic class	0.13	0.13	0.31	0.17	0.12	0.15
Some College	-0.02	0.12	0.88	-0.07	0.12	0.58
2 year degree	-0.19	0.23	0.40	-0.25	0.23	0.28
4 year degree	0.26	0.11	0.02	0.12	0.12	0.33
Post Grad	0.27	0.17	0.11	0.01	0.19	0.96
Job concerns				-0.24	0.04	0.00
National Economy	0.13	0.07	0.05	0.13	0.07	0.06
Confidence, local business	0.06	0.08	0.44	0.00	0.09	0.99
Local Labor Market	0.11	0.11	0.30	0.04	0.11	0.72
Confidence in Gvt to protect workers from trade	0.10	0.06	0.10	0.07	0.06	0.24
Trust government - general	0.01	0.07	0.87	0.02	0.07	0.77
/cut1	0.14	0.39		-1.00	0.49	
/cut2	1.15	0.39		0.06	0.49	
/cut3	1.95	0.40		0.90	0.48	
/cut4	2.95	0.42		1.95	0.49	