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THE POLITICAL ECONOMY OF TRADE AND MIGRATION: EVIDENCE FROM THE U.S. CONGRESS

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ABSTRACT

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JEL Classification: F1 and F22
Keywords: immigration reforms and trade reforms, Roll-call votes

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Submitted 11 December 2012 Revise il 2 1

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Abstract

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Keywords: Trade reforms, immigration reforms, roll-call votes.

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1 Introduction

What drives politicians' decisions to support or oppose policies that lower barriers to trade and migration flows? Decisions on trade and migration policies are often seen as being shaped by different drivers. For example, in a survey of trade and migration policy, Greenaway and Nelson (2006) argue that "the domestic politics of international trade seems to differ in fundamental ways from the domestic politics of immigration..." (p. 295) and suggest that, while material interests are paramount in explaining the formation of trade policy, non-economic considerations are key to understand migration policy.[1]

In this paper, we show instead that politicians' decisions on trade and migration reforms are shaped by a common economic driver: the skill composition of their constituencies. Standard trade theory suggests that reforms that lower barriers to flows of goods and migrants should have similar distributional effects, hurting low-skilled U.S. workers while benefiting high-skilled workers. To formalize this idea and guide our empirical analysis, we describe a simple two-country, two-goods Heckscher-Ohlin model in which Home – representing the United States – is skilled-labor abundant, whereas Foreign – representing the rest of the world – is unskilled-labor abundant. Home is divided in electoral districts that differ in their endowments of skilled and unskilled labor. Each district is represented by an elected politician, whose objective is to maximize the well-being of voters' in his constituency. We consider politicians' decisions on two reforms: trade liberalization and liberalization of the inflow of unskilled migrants. In this simple setting, as long as factor endowment differences between Home and Foreign are not too large, a legislator is more likely to support trade or migration liberalization the more skilled-labor abundant his district is.

To assess the validity of the model's predictions, we build on a novel dataset that combines final passage votes on trade liberalization and immigration reforms introduced since the early 1970's. We focus on the behavior of U.S. Representatives, matching their votes to a wealth of individual- and district-level characteristics that capture both economic and non-economic drivers.

Our empirical analysis shows that economic drivers that work through the labor market play an important role in shaping legislators' voting behavior on both trade and migration

[1]The important role played by non-economic drivers has also been emphasized by the literature on the determinants of public opinion towards immigration (e.g. Mayda, 2006; Dustmann and Preston, 2007; and Hainmueller and Hiscox, 2006) and in the historical account of the determinants of migration policy by Timmer and Williamson (1996). Looking at the experience of the New World between 1860 and 1930, Collins *et al.* (1999) suggest that "policy did not behave as if New World politicians and voters thought trade and immigration were substitutes" (p. 252).

policies. In particular, we find that representatives from more skilled-labor abundant districts are more likely to support both trade liberalization and a more open stance vis-à-vis unskilled immigration, in line with the key prediction of our model. In terms of magnitudes, our benchmark results indicate that a 1 percentage point increase in the share of skilled individuals in a congressional district leads approximately to a 0.8 percentage points increase in the probability that the district's representative supports trade liberalization, and to a 1.7 percentage point increase in the probability that he supports the liberalization of unskilled immigration. To appreciate the size of the effect, these estimates imply that increasing a district's skill ratio from the 30th to the 70th percentile would increase the probability of a vote in favor of trade and immigration liberalization by 10.6 and and 48.1 percent, respectively.

At the same time, in line with previous studies on trade and migration policies, our results confirm the existence of important differences between the drivers of these policies. First, welfare state considerations play an important role in shaping support for immigration, as representatives of richer and more unequal constituencies are less likely to support open immigration policies, whereas this is not true when it comes to trade. Second, party affiliation plays an important role, but its effect is different across policy areas. Democratic legislators are systematically more likely to support the liberalization of migration policies than their Republican counterparts, whereas the opposite is true when it comes to trade policy. Finally, our findings suggest that non-economic factors linked to the ethnic composition of the district affect legislators' decisions on migration, but have no impact on trade policy choices.

To the best of our knowledge, this paper represents the first attempt to systematically compare the drivers of legislators' decisions on immigration and trade policy in the United States: previous studies examine the determinants of trade and migration policies separately. A large literature examines the trade policy choices in the U.S. Congress. Destler (2005) offers a detailed historical and political account of U.S. trade policy-making since 1934. Several recent papers focus instead on the role of economic determinants of trade policy decisions. Hiscox (2002) considers the impact of factor endowments and industry interests in shaping thirty important trade bills introduced between 1824 and 1994. Baldwin and Magee (2000) investigate the role of lobbying efforts in shaping congressional votes, examining three important trade policy measures introduced in the nineties. Blonigen and Figlio (1998) examine the role of foreign direct investment on U.S. senators' voting behavior on trade policy between 1985-1994. More recently, Conconi *et al.* (2012) analyze the role of strategic delegation motives in shaping the congressmen's support for fast track authority, whereas Conconi *et al.* (2014) consider the impact of term length and election proximity on votes on

trade liberalization.

There is also a growing literature on the political economy of migration policy in the U.S. The study by Goldin (1994) of the introduction of the literacy test represents one of the first contributions in the economics literature. Gimpel and Edwards (1999) is probably the most comprehensive review to date of the politics of immigration policy in Congress, but only limited attention is dedicated to the analysis of economic determinants. Several papers focus on the introduction of a single piece of legislation or a narrow set of legislative initiatives. For instance, Hatton (2015) looks at the 1965 US Immigration and Nationality Act and its long lasting consequences. Gonzalez and Kamdar (2000) analyze instead the 1996 Illegal Immigration Reform and Immigrant Responsibility Act and find that representatives of districts characterized by a higher share of workers employed in low-skill intensive industries tend to favor immigration restrictions. Fetzer (2006) obtains similar results in his analysis of voting on the 2005 Border protection, Anti-terrorism and Illegal Immigration Control Act. Considering all migration policy measures directly affecting the supply of foreign workers in the post 1970 period, Facchini and Steinhardt (2011) find robust evidence that district-level economic determinants play an important role. Similar evidence is also reported by Milner and Tingley (2011), who emphasize also the heterogeneous role played by economic drivers, depending on the nature of the immigration policy being considered.[2]

The remainder of the paper is organized as follows. Section 2 presents a simple theoretical model to guide our empirical analysis. Section 3 describes our data, whereas Section 4 presents our main results and a series of robustness checks. Section 5 concludes.

2 Theoretical framework

In this section, we describe a simple theoretical framework to highlight the fact that, in standard trade models based on differences in factor endowments, the liberalization of migration and trade can have similar labor market implications.[3] Consider a model with two countries $c = H, F$ that use two factors, (human) capital and labor, to produce two goods, X and Y.[4] Both sectors employ constant returns to scale production functions, and the two countries share identical technologies. Good X is labor-intensive, whereas good Y is capital-intensive. Country H and country F are endowed with the same amount of capital $K_H = K_L = K$,

[2]For an interesting account of the impact of immigration on support for the Democratic and Republic parties in U.S. elections, see Mayda *et al.* (2016).

[3]For examples of models where trade and migration are instead complements, see Markusen (1983), Iranzo and Peri (2009), and Bougheas and Nelson (2013).

[4]The theoretical framework is inspired by the work of Benhabib (1996).

whereas the foreign country has more labor L at its disposal, so that $L_F > L_H$. Consumers i share identical homothetic preferences both within and across countries, and as a result their indirect utility takes the simple form $V(p, I_i) = V(p)I_i$ where p is the prevailing price vector and I_i is individual i's income.

The Home country is partitioned in d districts, where $d = 1, ..., D$, each inhabited by the same number N of citizens. Each citizen of the Home country supplies $1/N$ units of labor and K_i units of capital. As a result, $K_d = \sum_{i \in d} K_i$ is the total capital available in the district, whereas the labor supply of each district is given by $L_d = 1 \ \forall d$. For simplicity, we assume instead that individuals in country F are either endowed with labor, or with capital.[5]

Consider two possible scenarios. In the first, country H and F move from autarky to free trade. In the second, the two countries completely liberalize labor flows between each other, and individuals relocating abroad consume their income in the destination country. For simplicity, trade and migration are assumed to be costless.

As long as the initial factor endowment differences are not too big, standard theory (e.g. Mundell, 1957; Dixit and Norman, 1980; and Wellisch and Walz, 1998) suggests that both liberalizing trade and liberalizing labor flows will allow to replicate the integrated equilibrium, i.e. the outcome that would emerge if the two countries were to merge completely. Given that we are in a standard Heckscher-Ohlin setting, moving from autarky to the integrated equilibrium volves a decline in the relative price of good X in Home, a decline in the real return to labor, and an increase in the real return to capital. In the free trade equilibrium, the Home country exports the capital intensive good Y and imports the labor intensive good X. At the same time, in the free migration equilibrium, it receives an inflow of workers from the foreign country, which leads to a decline in the domestic wages and an increase in the return to capital.

Assume now that each district is represented by a legislator. In choosing whether to support a policy that liberalizes migration or trade, district d's representative maximizes the well-being of the citizens of his or her constituency, which is given by $\sum_{i \in d} V(p, I_i) = \sum_{i \in d} V(p)I_i$. It follows that:

Proposition 1 *In the capital-abundant country, the likelihood that a district representative will support a more open trade or migration policy increases in the capital-to-labor ratio of his or her district.*

Proof. The income of district d's average resident is given by $I_d = w\frac{1}{N} + r\frac{K_d}{N}$. In the capital-

[5]As a result, only workers will potentially migrate from F to H, whereas capitalists are assumed to be immobile across countries.

abundant country, trade liberalization leads to a decline in the wage w and an increase in the return to capital r. As a result, the larger is K_d, the greater is the improvement in the representative citizen's income and welfare. An inflow of foreign workers will have the same effect on factor returns and thus on income and welfare. ■

Our simple model thus suggests that legislators' voting behavior on trade and migration liberalization reforms should be crucially affected by their district's skill ratio, which determines the expected labor marker effects of these reforms. In particular, representatives of districts with a higher capital-to-labor ratio should be more likely to support bills that liberalize trade or migration. This is the key prediction that we bring to the data.

3 Data

Our dataset draws on a number of different sources. We collect information on all legislative votes on trade and migration issues in the U.S. House of Representatives during the period 1970-2006 using the Congressional Roll Call Voting Dataset of the Policy Agenda Project and the Library of Congress (THOMAS). Since these datasets provide only limited information about the content of each bill, we have supplemented them using additional sources, like the Congressional Quarterly publications and existing historical accounts like the ones by Gimpel and Edwards (1999) and Destler (2005). Section A-1 in the Appendix briefly reviews the main developments in the congressional history of trade and migration policy in recent decades.

In the case of trade policy, we focus on all major trade bills, covering the ratification of bilateral or multilateral trade agreements and the extension of fast track trade negotiating authority (see Conconi *et al.*, 2012, 2014). With respect to immigration policy, we consider all bills that have a potential impact on the supply of unskilled labor (i.e. that either regulate legal immigration or tackle illegal immigration). In particular, following Facchini and Steinhardt (2011), we focus on bills that can have a direct (positive or negative) impact on the size of the unskilled labor force in the United States.[6] Tables A-1 and A-2 in the Appendix provide details of all the votes included in our analysis.

Next, we combine our data on trade and immigration bills with the corresponding records of individual voting behavior of House representatives. This information is provided by the Voteview project (http://voteview.ucsd.edu) of Poole and Rosenthal (1997). In addition, the

[6]We restrict our attention to final passage votes, which determine whether a bill clears the House or not. In doing so, we exclude votes on amendments, to avoid including multiple decisions on the same legislation.

Voteview database includes information on congressmen's name, party affiliation, state of residence, and congressional district, which enable us to link legislators to their constituencies. Information on districts that have been reapportioned after each census was obtained instead from Jacobson (2004). With respect to information on representatives' age and gender, we use data from three sources: up to 2000, we rely on ICPSR Study number 7803 and the database built by Swift *et al.* (2000); from 2001 onwards, we rely on data provided by the Biographical Directory of the US Congress. Finally, we match our data on individual voting records with information on the economic and non-economic characteristics of electoral constituencies. For this purpose, we use data from the Congressional District Data Files of Adler (2003) and Lublin (1997), who have aggregated Census data at the congressional-district level, taking into account the decennial redistricting. We supplement them using information taken directly from the U.S. Census whenever needed.

Our main sample includes votes on 17 trade bills and 12 migration bills (see Tables A-1 and A-2). In our benchmark analysis, we use all the votes but to insure that our findings are not driven by differences in the timing of the voting and in the sample size across the two types of policies, we also carry out the analysis on a sub-sample of matched bills, restricting our attention to those trade and immigration votes that took place in the same year.[7]

Our dependent variables are the representative's votes on bills regulating trade ($Vote\ Trade_{ijt}$), and immigration ($Vote\ Migration_{ijt}$). In the case of bills liberalizing trade or migration, a vote coded 1 indicates that the district's representative i votes in favor of more open trade or immigration, and 0 otherwise. In the case of legislation restricting trade or immigration, a vote is coded 0 if the representative votes in favor of a restrictive policy and 1 otherwise.

The main explanatory variable of interest is $Skill\ Ratio_{dt}$, which measures the proportion of high-skilled individuals in the total population over 25 years of age at time t in congressional district d. High-skilled individuals are defined as those having earned at least a bachelor's degree. Based on our theoretical model, we would expect this variable to have a significative and positive effect on the likelihood that district representatives support both open trade or immigration policies. We also experiment with an alternative measure, $Skill\ Ratio\ Occupation_{dt}$, which captures the share of individuals over 16 that are employed in executive, administrative, managerial and professional specialty occupations.

[7] In a few instances, more than one immigration or trade policy initiative was voted upon in a given year. In these cases, we use the date of the vote as the selection criterion, matching bills that are chronologically closer to each other. This leaves us with six sets of votes (those denoted with "*" in Tables A-1 and A-2). We have verified that our results are robust to using alternative samples of matched votes.

We include in our analysis a set of standard individual-level controls. To capture ideology, we use the dummy variable $Democrat_i$, which takes value 1 if the representative is a member of the Democratic party. In some specifications, we further account for regional differences among Democrats by including a dummy coded as equal to 1 if the representative belongs to a Northern state ($Northern\ Democrat_i$).[8] As an alternative time-varying measure of a legislator's ideology, we use the first dimension of the DW nominate score, $DW\ Nominate_{it}$, which increases in an individual's conservative orientation.[9] Individual level demographic characteristics have been shown to play a significant role in shaping individual attitudes towards trade and migration (e.g. Mayda and Rodrik, 2005; and Facchini and Mayda, 2009). We thus include the variables Age_{it} and $Female_i$ in our analysis. The last individual-level controls we use are proxies for the influence of lobbying groups on U.S. representatives. In particular, we employ data on labor and corporate Political Action Committees (PACs) contributions received by individual congressmen, provided by the Federal Election Commission starting from 1979. As these campaign contributions are given to politicians to influence their decisions on a variety of policy issues, we use the dummy variable $PAC\ Corporate_{it}$ ($PAC\ Labor_{it}$) to classify a politician to be "influenced" by corporate (labor) contributions if he/she has received contributions that are above the eightieth percentile of all corporate (labor) contributions received by individual representatives in that year.[10]

Although our main focus is on the role of the workforce skill composition, we control for additional economic characteristics of congressional districts. The literature on public opinions on trade and migration has emphasized that the redistribution among different groups within society carried out by the welfare state is an important driver of preferences towards globalization (e.g. Hanson, *et al.*, 2007; and Mayda *et al.*, 2007). Previous studies suggest that legislators from wealthier constituencies are less in favor of unskilled immigration, as they are likely to be net receivers of public benefits and services (Boeri *et al.*, 2002; and Hanson, *et al.*, 2007). Also, congressmen elected in more unequal constituencies should be less likely to support immigration, if inequality leads to more redistribution (Meltzer and Richard, 1981). To capture the role of welfare state drivers in our analysis, we have thus constructed the variables $Median\ Family\ Income_{dt}$ and $Inequality_{dt}$. The first measures the median family income in the district; the second is the ratio between the mean and the

[8]Several studies of U.S. congressmen's votes distinguish between Northern and Southern Democrats (e.g. Peltzman, 1985). We follow Brewer *et al.* (2002) and define the North as including Connecticut, Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.

[9]The DW-nominate score is provided by the Voteview project and is constrained to lie between 1 and -1.

[10]We have experimented with different thresholds, and our key results are unaffected.

median family income.[11]

In some specifications, we include additional economic characteristics of districts, which might affect representatives' trade and migration votes: the variable $Farm\ Worker_{dt}$ measures the share of individuals in the labor force employed in agriculture; the variable $Export\ Ratio_{dt}$ is defined as the ratio between the total manufacturing employment in exporting and import-competing sectors in a district (see Conconi *et al.*, 2014).

Using Census data, we have also constructed proxies for the degree of urbanization of the district and its ethnic composition: the variable $Urban_{dt}$ captures the share of the population living in urban areas; the variable $Foreign\ Born_{dt}$ measures the share of foreign-born in the district's population; $Hispanic_{dt}$ is the share of individuals of Hispanic origin in the total population; and the variable $African\ American_{dt}$ is the share of blacks in the population.

In addition to controlling for the ideological orientation of the individual congressmen, in some robustness checks we use two measures to control for the ideological leaning of a district. The first is $Share\ Democrat_{dt}$, the share of Democratic votes in the past election; the second is instead the dummy variable $Liberal_{dt}$, which is constructed based on a question asked in the American National Election Study to assess the liberal/conservative orientation of individual respondents. $Liberal_{dt}$ takes a value of one if the share of people who identify themselves as liberals in the population is larger than the corresponding national average in a given decade.[12]

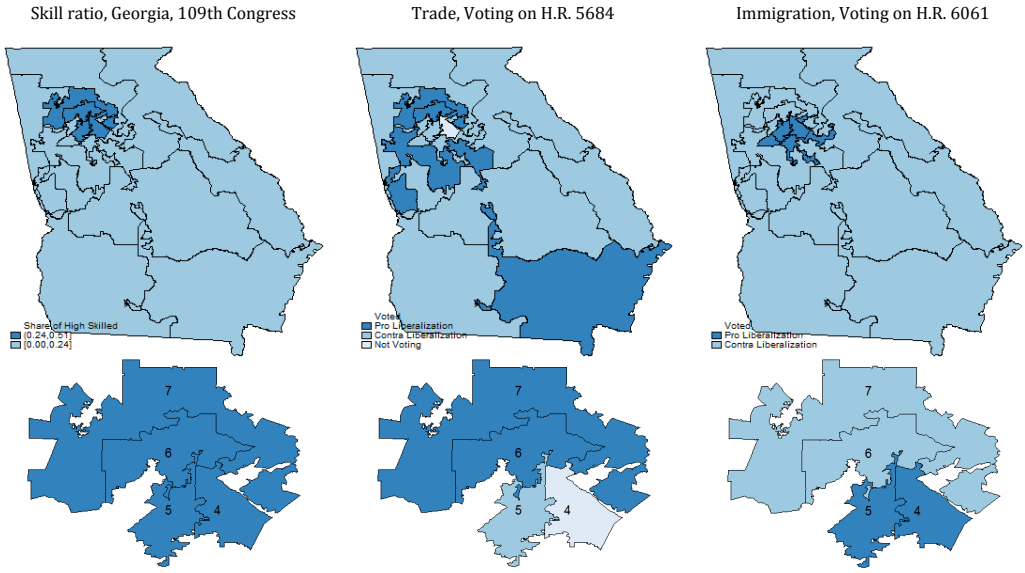
Table A-3 in the Appendix provides summary statistics for all the variables used in our empirical analysis. As we can see, there is a broad difference in support for trade and migration: in only 37% of the observations a representative voted in favor of freer immigration, while the corresponding figure for trade was 65%. Turning to our main explanatory variable, $Skill\ Ratio_{dt}$, on average one out of five Americans holds at least a bachelor's degree. The descriptive statistics also show that there is strong variation in the skill ratio across congressional districts, which we will exploit in our empirical analysis to verify whether there is a systematic relationship between a representative's voting behavior on trade and migration and the skill composition of his/her home district.

[11] Following Hanson *et al.* (2007), we have constructed an alternative measure of fiscal exposure, using state-level information on public spending on Welfare, Health, and Education. If we replace our district-level measures with this state-level proxy for the fiscal burden of migrants, we find that it has no significant impact on House representatives' votes on trade and migration (and our results on skill composition are unaffected).

[12] The exact wording of the question used is "We hear a lot of talk these days about liberals and conservatives. Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this?" We excluded from the analysis the "Don't know" replies. We coded as liberal those respondents who define themselves as being "Extremely liberal", "Liberal", or "Slightly liberal".

Figure 1 illustrates the main mechanism highlighted in our theoretical model. As an example, we focus on the most recent trade and migration votes in our matched sample: the Approval of the US-Oman Free Trade Area of 2006 (H.R. 5684) and the Secure Fence Act of 2006 (H.R. 661). The three figures in the top panel depict the congressional districts in Georgia, a state with a skill composition that closely resembles the U.S. average (the fraction of working age individuals with a college degree or above is in both cases approximately 24%). The figure on the left illustrates the share of highly skilled in the population. The dark-shaded areas are skilled-labor abundant districts in 2006.[13] The figure in the middle captures district representatives who supported the trade liberalization initiative, whereas the figure on the right illustrates representatives who voted against the immigration restrictive measure. As it can be seen, almost all congressmen who supported a more open trade policy and voted against restrictive immigration legislation represented districts with skill ratios above the average.

Figure 1: Example of congressional votes on trade and migration bills



In the three figures in the bottom panel, we magnify the districts around the state's largest city and capital, Atlanta. This figures highlight the divide along party lines on immigration and trade policy. For instance, Republican Congressmen Price and Lindner –

[13]They are defined as those for which more than 24% of the population has at least a college degree.

representing the skilled-labor abundant districts 6 and 7 of the state – supported immigration restrictions. By contrast, Democratic Congressman Lewis, who represented skilled-labor abundant district 5, voted against trade liberalizing H.R. 5684. In our empirical analysis, we will systematically explore the role of skill composition, party affiliation, and other characteristics of the legislators and their constituencies in explaining votes on trade and migration policies.

4 Empirical analysis

Our simple theoretical model shows that a representative's voting behavior on trade and immigration is a function of the skill composition of his constituency. The main prediction is that a district's skill composition affects a representative's voting behavior on trade and migration liberalization bills in the same direction. In particular, legislators from more skilled-labor abundant districts should be more likely to support liberalizing unskilled migration as well as trade. In this section, we assess the empirical relevance of this hypothesis by running separate probit regressions on the full sample of trade and migration votes and verify that the results are robust to a battery of different specifications. Next, we employ alternative econometric techniques, which exploit different sources of variation in the data. First, given the long span of our sample, we can include legislators' fixed effect to control for any time-invariant characteristics of politicians. Second, we focus on a set of matched votes, in which a trade and a migration measure came to the House floor during the same Congress, to study the behavior of the same individuals on votes that occurred close to each other.

4.1 Benchmark results

We start by providing results based on the full sample of all trade and immigration bills, and by comparing the voting behavior of different congressmen on the same bill. More precisely, we estimate two separate probit models for trade and migration bills:

$$Vote\ Trade_{idt} = \beta_{11} X_{it} + \beta_{12} X_{dt} + I_t + I_s + \epsilon_1 \tag{1}$$

$$Vote\ Migration_{idt} = \beta_{21} X_{it} + \beta_{22} X_{dt} + I_t + I_s + \epsilon_2 \tag{2}$$

where $Vote\ Trade_{idt}$ and $Vote\ Migration_{idt}$ are respectively dichotomous variables taking a value of one if representative i from district d votes in favor of a bill liberalizing trade and

unskilled migration, in year t. X_{it} and X_{dt} are matrices of explanatory variables specific to legislator i and district d, I_t and I_s are year and state dummies to account for unobserved time- and state-specific effects, and ϵ_1 and ϵ_2 are error terms clustered by state x decade.[14]

The results of this first set of estimations are shown in Table 1. Columns 1-2 contain the findings for congressmen's votes on trade policy, while columns 3-4 present those on migration policy. In order to simplify the interpretation, we report marginal effects computed at the mean of each variable. Thus, our estimates capture the change in the probability of voting in favor of a more open trade (immigration) policy, due to an infinitesimal change in each continuous explanatory variable, and a discrete change for dichotomous explanatory variables.

Column 1 shows the results of a parsimonious specification for trade votes, in which we only include the skill ratio and the main characteristics of the legislator, together with state and year fixed effects. In line with the key prediction of our model, we find that legislators from more skill-abundant districts are more likely to vote in favor of trade liberalization, and the effect is significant at the one percent level. Furthremore, Republican representatives are more likely to support trade liberalization than their Democratic counterparts – and this result is in line with previous studies highlighting that Democrats are systematically more protectionist than Republicans during the period we consider (e.g. Blonigen and Figlio, 1998; Baldwin and Magee, 2000; Conconi *et al.*, 2012 and 2014). Furthermore, the likelihood to support trade liberalization decreases with the representative's age (see also Conconi *et al.*, 2012) and female members of the House are more protectionist than their male counterparts, in line with previous studies on individuals' attitudes toward trade (e.g. Mayda and Rodrik, 2005).

In columns 2, we control for additional characteristics of the legislators' constituencies. In particular, we include $Log(Median\ Family\ Income_{dt})$ and $Inequality_{dt}$, to proxy for the role of welfare state determinants (see Facchini and Steinhardt, 2011), as well as socio-demographic characteristics of the district (importance of urban centers and ethnic composition). The impact of the district's skill composition remains highly significant, while other district characteristics are mostly insignificant.

[14]The use of district fixed effects over a long time horizon is not feasible since the geographic definition of congressional districts changes following each decennial census. For the same reason, we can not cluster errors at the district level.

Table 1

Trade and migration votes, benchmark results

	(1)	(2)	(3)	(4)
	trade votes		migration votes	
Skill Ratio$_{dt}$	0.798***	0.821***	0.378***	1.707***
	(0.139)	(0.294)	(0.142)	(0.316)
Democrat$_{i}$	-0.432***	-0.411***	0.543***	0.434***
	(0.036)	(0.038)	(0.034)	(0.029)
Female$_{i}$	-0.044**	-0.036*	0.120***	0.063*
	(0.022)	(0.021)	(0.039)	(0.034)
Age$_{it}$	-0.014	-0.013	0.006	0.003
	(0.009)	(0.009)	(0.011)	(0.012)
Log(Median Family Income)$_{dt}$		0.032		-0.485***
		(0.152)		(0.145)
Inequality$_{dt}$		-0.082		-0.389**
		(0.158)		(0.155)
Urban$_{dt}$		0.058		0.053
		(0.110)		(0.110)
Foreign Born$_{dt}$		-0.391		0.836**
		(0.246)		(0.339)
African American$_{dt}$		-0.151		0.574***
		(0.139)		(0.138)
Hispanic$_{dt}$		0.221*		0.513***
		(0.134)		(0.155)
Year effects	Yes	Yes	Yes	Yes
State effects	Yes	Yes	Yes	Yes
Observations	6,986	6,986	4,733	4,733
Pseudo R^2	0.30	0.31	0.34	0.39
Predicted probability	0.71	0.71	0.31	0.31

Notes: The table reports marginal effects of probit regressions. The dependent variable for trade votes (migration votes) is $Vote\ Trade_{idt}$ and ($Vote\ Migration_{idt}$), a dummy equal to 1 if representative i elected in district d votes in favor of a trade liberalization (migration liberalization) bill at time t, 0 otherwise. Robust standard errors, clustered by state x decade, are reported in parentheses. *** Significant at 1%, ** significant at 5%, * significant at 10%.

In terms of magnitude, the results of these specifications suggest that factor endowments play an important role in shaping voting behavior on trade: a 1 percentage point increase in the skill ratio in a congressional district leads to a 0.8 percentage point increase in the probability that the district's representative supports trade liberalization. Taking into account that the predicted probability of a vote in favor of trade liberalization is 71 percent, our estimates imply that the effect is in the order of 1.1 percent increase for every percentage

point increase in the skill ratio.[15] Put differently, increasing a district's skill ratio from the 30th to 70th percentile would increase the probability that its representative votes pro trade by 10.6 percent.

Columns 3-4 of Table 1 follow the same structure as columns 1-2 for votes on immigration policy. In line with the key prediction of our theoretical model, we find that legislators from more skilled-labor abundant districts are more likely to support immigration policies aiming to liberalize the inflow of unskilled migrants. This finding mirrors our previous results for trade votes, and highlights an important common driver of politicians' decisions on trade and immigration policies. In terms of magnitude, based on the results reported in column 4, a 1 percentage point increase in the skill ratio in a congressional district leads to a 1.7 percentage point increase in the probability that the district's representative supports immigration liberalization. Given that the predicted probability a pro-migration vote is 31 percent, these estimates imply that increasing a district's skill ratio from the 30th to 70th percentile would increase the probability of a pro-migration vote by 48.1 percent.

Concerning the other determinants of migration votes, we find that Democratic representatives are more likely to support immigration liberalization than their Republican counterparts, in line with previous studies on migration policy (e.g. Mayda *et al.*, 2016). This result stands in sharp contrast with what we have found for trade policy bills.[16] Furthermore, our estimates suggest that female members of Congress are more likely to support immigration liberalization. As for the welfare state variables, our results suggests that legislators from wealthier constituencies are less likely to support unskilled immigration, as they are likely to be net contributors of public benefits and services (Boeri *et al.*, 2002; Hanson, *et al.*, 2007). We also find that congressmen elected in more unequal constituencies are less likely to support immigration, in line with the idea that more inequality leads to more redistribution (Meltzer and Richard, 1981). Finally, legislators representing districts with a higher share of foreign-born, Hispanics, and African-Americans are more likely to support liberalization of unskilled immigration. These results are likely to be driven by social and family networks, as well as by the identification with ethnic minorities.[17]

To summarize, the estimates from the full sample provide strong support for the predictions of our model. In particular, we find robust evidence that the district's skill composition

[15] This result is obtained by dividing the marginal effect of the variable $Skill\ Ratio_{dt}$ (0.8) by the average predicted probability of a vote in favor of trade liberalization reported at the bottom of the table (0.71).

[16] One possible explanation is that Democratic congressmen are aware of the fact that unskilled immigration changes the electoral composition in a way that increases the political support for redistribution in the long run (Ortega, 2005 and 2010). The latter is likely to strengthen the future position of the Democratic party.

[17] For a detailed discussion see Facchini and Steinhardt (2011).

affects legislators' voting behavior on trade and migration liberalization bills in the same direction. Our results also indicate the presence of three important differences in the drivers of support for the two facets of globalization. First, members of the Democratic party are more likely to favor liberal immigration legislation than members of the Republican party, while the opposite is true for trade liberalization. Second, female representatives are more likely to support immigration liberalization, but they are less likely to support trade liberalization. Finally, welfare state considerations and the districts' ethnic composition affect congressmen's decisions on immigration policy, but have no impact on trade policy.

4.2 Robustness checks

In the remaining of this section, we discuss a series of estimations we have carried out to verify the robustness of our results on the determinants of trade and migration votes. In particular, we address possible concerns about omitted variables and the possible inclusion of additional political and economic controls. To save on space, we focus on our preferred specification, which includes district-level controls.

4.2.1 Omitted variable concerns

The results of Table 1 show that the variable $Skill\ Ratio_{dt}$ has always a positive and significant effect on legislators' support for both trade and migration reforms. Our interpretation of this finding is that these two types of reforms have similar labor effects for the legislators' constituencies, in line with the theoretical model described in Section 2.

One might be concerned that, instead of reflecting the labor market effects of trade and migration reforms, the positive coefficient of the $Skill\ Ratio_{dt}$ variable could be driven by the fact that skilled workers tend to be more liberal open minded, and generally more supportive of globalization (e.g. Hainmueller and Hiscox, 2006, 2007). If this is the case, our results could be driven by an omitted variable, the open-mindedness of voters in a legislator's constituency, correlated with both the skill composition of the district and the voting behavior of the legislator. To deal with this concern, in Table 2, we reproduce the benchmark specifications of Table 1, including two alternative proxies for how liberal voters in a district are.

Table 2

Trade and migration votes, dealing with omitted variables concerns

	(1) trade votes	(2) migration votes	(3) trade votes	(4) migration votes
Skill Ratio$_{dt}$	0.805***	1.701***	0.818***	1.695***
	(0.297)	(0.316)	(0.297)	(0.313)
Democrat$_{i}$	-0.412***	0.433***	-0.381***	0.381***
	(0.038)	(0.029)	(0.036)	(0.034)
Female$_{i}$	-0.036*	0.064*	-0.034	0.064*
	(0.021)	(0.034)	(0.021)	(0.033)
Age$_{it}$	-0.013	0.003	-0.013	0.002
	(0.009)	(0.012)	(0.009)	(0.012)
Log(Median Family Income)$_{dt}$	0.036	-0.484***	0.029	-0.467***
	(0.153)	(0.146)	(0.154)	(0.143)
Inequality$_{dt}$	-0.107	-0.397***	-0.076	-0.405***
	(0.156)	(0.153)	(0.160)	(0.156)
Urban$_{dt}$	0.045	0.046	0.055	0.058
	(0.109)	(0.111)	(0.109)	(0.110)
Foreign Born$_{dt}$	-0.395	0.834**	-0.356	0.804**
	(0.251)	(0.341)	(0.247)	(0.348)
African American$_{dt}$	-0.152	0.572***	-0.117	0.529***
	(0.137)	(0.138)	(0.137)	(0.141)
Hispanic$_{dt}$	0.234*	0.518***	0.223*	0.527***
	(0.137)	(0.155)	(0.131)	(0.160)
Liberal$_{dt}$	0.045**	0.018		
	(0.022)	(0.017)		
Share Democrats$_{dt}$			-0.092	0.141**
			(0.074)	(0.072)
Year effects	Yes	Yes	Yes	Yes
State effects	Yes	Yes	Yes	Yes
Observations	6,986	4,733	6,937	4,717
Pseudo R^2	0.31	0.39	0.31	0.39
Predicted probability	0.71	0.31	0.70	0.30

Notes: The table reports marginal effects of probit regressions. The dependent variable for trade votes (migration votes) is $Vote\ Trade_{idt}$ and ($Vote\ Migration_{idt}$), a dummy equal to 1 if representative i elected in district d votes in favor of a trade liberalization (migration liberalization) bill at time t, 0 otherwise. Robust standard errors, clustered by state x decade, are reported in parentheses. *** Significant at 1%, ** significant at 5%, * significant at 10%.

In columns 1-2, we directly control for the degree of open-mindedness of citizens in a constituency by including the variable $Liberal_{dt}$, constructed based on voter's opinions recorded in the American National Election Study. This dummy variable takes a value of 1 if the share of people who identify themselves as liberal in the population of a given district

is larger than the corresponding national average in a given decade.[18] We find that, while districts with a more liberal electorate tend to support both more open trade and migration policies, the effect is not statistically significant for the latter. Importantly, the variable $Skill\ Ratio_{dt}$ continues to have a positive and significant effect (at the 1 percent level) on both trade and immigration votes, thus suggesting that the effect we have uncovered is not simply due to the fact that more skilled abundant districts are simply more open minded.

In columns 3-4, we include instead the variable $Share\ Democrats_{dt}$ as a proxy for the district's ideological orientation. We find that congressmen from districts with a higher share of Democratic voters are more likely to support bills liberalizing immigration, while we do not find any significant influence on trade voting behavior. Again, the coefficient of the variable $Skill\ Ratio_{dt}$ remains positive and significant at the 1 percent level.

4.2.2 Alternative or additional political and economic controls

We now verify whether our result are robust to using alternative or additional political and economic controls. In Table 3, we start with political determinants. In columns 1-2, we replace the party affiliation dummy with the DW nominate score, to control for the time-varying ideological stance of a lawmaker. We find that more conservative politicians are more likely to support trade liberalization and less likely to support immigration liberalization. The marginal effects for $Skill\ Ratio_{dt}$ are larger in magnitude in comparison with the specifications of Table 1 and remain significant at the 1 percent level.

In columns 3-4, we include a dummy coded as equal to 1 if the representative belongs to a Northern state ($Northern\ Democrat_i$), in line with some previous studies on congressional votes (e.g. Brewer *et al.*, 2002). Ceteris paribus, Southern Democrats are around 32 percentage points less likely to support trade liberalization than Republicans, and that this effect increases to around 54 percentage points for Northern Democrats. $Skill\ Ratio_{dt}$ continues to have a positive and significant effect on the likelihood that legislators support both trade and migration reforms.

Finally, in columns 5-6 we include information on organized lobbying groups, which have received great attention both in the trade literature (e.g. Grossman and Helpman, 1994; Goldberg and Maggi, 1999; Gawande and Bandyopadhyay, 2000) and in the literature on migration (e.g. Facchini, and Willmann, 2005; Hanson and Spilimbergo, 2001; Facchini *et al.*, 2011). In particular, we include variables focusing on the role played by contributions offered by corporations ($PAC\ Corporate_{it}$) and by unions ($PAC\ Labor_{it}$). In line with

[18] The correlation between $Liberal_{dt}$ and $Skill\ Ratio_{dt}$ is 0.24.

previous studies (e.g. Baldwin and Magee, 2000), we find that larger contributions by labor organizations are associated with a more protectionist stance on trade liberalization, whereas larger contributions by business related lobbies have the opposite effect. By contrast, the variables $PAC\ Corporate_{it}$ and $PAC\ Labor_{it}$ are not significant for migration policy. This is in line with the findings of Facchini *et al.* (2011), who show that PAC contributions are not a significant driver of immigration policy, whereas the opposite is true for lobbying expenditure directly related to migration policy. Again, we find that representatives of districts with a more skilled labor force are more likely to support both trade and migration reforms.

Table 3

Trade and migration votes, political controls

	(1)	(2)	(3)	(4)	(5)	(6)
	trade votes	migration votes	trade votes	migration votes	trade votes	migration votes
Skill Ratio$_{dt}$	1.145***	1.300***	0.695**	1.715***	0.694**	1.635***
	(0.279)	(0.303)	(0.291)	(0.323)	(0.302)	(0.374)
Democrat$_i$			-0.321***	0.427***	-0.358***	0.479***
			(0.048)	(0.042)	(0.044)	(0.035)
Northern Democrat$_i$			-0.222***	0.015		
			(0.069)	(0.070)		
DW Nominate$_{it}$	0.528***	-0.677***				
	(0.052)	(0.040)				
PAC Labor$_{it}$					-0.111***	0.028
					(0.026)	(0.031)
PAC Corporate$_{it}$					0.178***	-0.019
					(0.027)	(0.030)
Female$_i$	-0.015	0.035	-0.047**	0.064*	-0.027	0.080**
	(0.021)	(0.030)	(0.020)	(0.033)	(0.021)	(0.036)
Age$_{it}$	-0.006	-0.005	-0.014	0.003	-0.018**	-0.000
	(0.009)	(0.012)	(0.008)	(0.012)	(0.009)	(0.014)
Log(Median Family Income)$_{dt}$	-0.047	-0.336**	0.018	-0.484***	0.043	-0.416**
	(0.137)	(0.139)	(0.148)	(0.144)	(0.162)	(0.175)
Inequality$_{dt}$	-0.121	-0.278*	-0.033	-0.391**	-0.094	-0.451***
	(0.165)	(0.156)	(0.149)	(0.154)	(0.154)	(0.169)
Urban$_{dt}$	0.068	0.005	0.140	0.049	0.109	0.008
	(0.106)	(0.103)	(0.106)	(0.105)	(0.115)	(0.115)
Foreign Born$_{dt}$	-0.357	0.727**	-0.332	0.831**	-0.305	1.166***
	(0.224)	(0.336)	(0.268)	(0.339)	(0.218)	(0.399)
African American$_{dt}$	0.005	0.324**	-0.190	0.576***	-0.170	0.853***
	(0.129)	(0.130)	(0.131)	(0.138)	(0.139)	(0.155)
Hispanic$_{dt}$	0.321**	0.384**	0.128	0.520***	0.200	0.570***
	(0.130)	(0.155)	(0.130)	(0.152)	(0.144)	(0.214)
Year effects	Yes	Yes	Yes	Yes		
State effects	Yes	Yes	Yes	Yes		
Observations	6,985	4,730	6,986	4,733	6,659	4,155
Pseudo R^2	0.31	0.42	0.31	0.39	0.32	0.42
Predicted probability	0.70	0.29	0.70	0.31	0.71	0.34

Notes: The table reports marginal effects of probit regressions. The dependent variable for trade votes (migration votes) is $Vote\ Trade_{idt}$ and ($Vote\ Migration_{idt}$), a dummy equal to 1 if representative i elected in district d votes in favor of a trade liberalization (migration liberalization) bill at time t, 0 otherwise. Robust standard errors, clustered by state x decade, are reported in parentheses. *** Significant at 1%, ** significant at 5%, * significant at 10%.

Next, Table 4 reports the results when further economic controls are added to our preferred specification. In columns 1-2, we replace the share of highly skilled individuals in a district with a variable based on occupation. In particular, *Skill Ratio Occupation*$_{dt}$ measures the percentage of individuals over 16 employed in executive, administrative, managerial and professional specialty occupations. Once again, we find that representatives of districts characterized by a larger share of high skilled individuals are more likely to support the liberalization of both trade and immigration.

Table 4

Trade and migration votes, economic controls

	(1) trade votes	(2) migration votes	(3) trade votes	(4) migration votes	(5) trade votes	(6) migration votes
Skill Ratio$_{dt}$			0.841***	1.709***	0.818***	1.706***
			(0.287)	(0.314)	(0.293)	(0.316)
Skill Ratio Occupation$_{dt}$	0.609*	2.359***				
	(0.358)	(0.408)				
Democrat$_i$	-0.410***	0.435***	-0.410***	0.435***	-0.410***	0.434***
	(0.038)	(0.029)	(0.038)	(0.029)	(0.038)	(0.029)
Female$_i$	-0.012	0.003	-0.010	0.003	-0.036*	0.063*
	(0.009)	(0.012)	(0.009)	(0.012)	(0.021)	(0.034)
Age$_{it}$	-0.012	0.003	-0.010	0.003	-0.013	0.003
	(0.009)	(0.012)	(0.009)	(0.012)	(0.009)	(0.012)
Log(Median Family Income)$_{dt}$	0.121	-0.510***	0.050	-0.470***	0.031	-0.487***
	(0.151)	(0.153)	(0.150)	(0.140)	(0.151)	(0.146)
Inequality$_{dt}$	0.021	-0.532***	-0.124	-0.408***	-0.084	-0.389**
	(0.160)	(0.173)	(0.159)	(0.158)	(0.110)	(0.110)
Urban$_{dt}$	0.073	0.033	0.155	0.089	0.057	0.052
	(0.110)	(0.108)	(0.114)	(0.133)	(0.158)	(0.154)
Foreign Born$_{dt}$	-0.304	1.035***	-0.320	0.852**	-0.383	0.841**
	(0.231)	(0.325)	(0.239)	(0.339)	-0.153	0.572***
African American$_{dt}$	-0.147	0.651***	-0.147	0.580***	(0.246)	(0.339)
	(0.138)	(0.133)	(0.136)	(0.135)	(0.139)	(0.138)
Hispanic$_{dt}$	0.181	0.519***	0.173	0.499***	0.215	0.510***
	(0.134)	(0.143)	(0.134)	(0.161)	(0.133)	(0.155)
Farm Worker$_{dt}$			1.566***	0.521		
			(0.544)	(0.761)		
Export Ratio$_{dt}$					0.023	0.018
					(0.040)	(0.040)
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
State effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,986	4,733	6,986	4,733	6,986	4,733
Pseudo R^2	0.31	0.39	0.31	0.39	0.31	0.39
Predicted probability	0.70	0.30	0.71	0.30	0.71	0.31

Notes: The table reports marginal effects of probit regressions. The dependent variable for trade votes (migration votes) is $Vote\ Trade_{idt}$ and ($Vote\ Migration_{idt}$), a dummy equal to 1 if representative i elected in district d votes in favor of a trade liberalization (migration liberalization) bill at time t, 0 otherwise. Robust standard errors, clustered by state x decade, are reported in parentheses. *** Significant at 1%, ** significant at 5%, * significant at 10%.

In column 3-4, we add to our benchmark specification the share of farm workers within a district. The results indicate that this variable has a positive effect on legislator's support for trade liberalization, but no significant effect on their stance on migration votes. The effect of $Skill\ Ratio_{dt}$ continues to be positive and significant for both trade and migration votes.

Finally, in columns 5-6 we include the variable $Export\ Ratio_{dt}$, which captures a district's dependence on export relative to import-competing jobs. This is constructed as the ratio between the total manufacturing employment in exporting and import-competing sectors in district d and year t (see Conconi *et al.*, 2014). The results indicate that export orientation has no significant effect on trade and migration votes, while the effect of skill composition continues to be in line with our model's prediction. In conclusion, neither extra political and economic controls affect our benchmark findings, though some provide further insights on the determinants of congressmen's voting behavior.

4.3 Alternative econometric methodologies

In our analysis so far, we have controlled for a variety of individual-level characteristics of the legislator, but we may still be concerned that individual level unobservables might influence representatives' voting behavior, biasing our estimates. Since our sample spans a period of four decades, we have information on the votes that the same representative has cast on different migration and trade bills. We can thus exploit the time variation in the voting behavior of individual representatives, estimating the following linear probability models:

$$Vote\ Trade_{idt} = \beta_{11} X_{it} + \beta_{12} X_{dt} + I_t + I_i + \epsilon_1 \tag{3}$$

$$Vote\ Migration_{idt} = \beta_{21} X_{it} + \beta_{22} X_{dt} + I_t + I_i + \epsilon_2 \tag{4}$$

where I_i is a congressman's fixed effect.[19] In these specifications, we only exploit time variation in districts' skill composition to verify the key prediction of our theoretical model. However, the inclusion of legislator fixed effects implies that we cannot account for observable time-invariant individual characteristics like gender or party affiliation (or age since we always include year effects). We can, however, control for the time-varying ideological stance of the lawmaker by using his DW nominate score, as we have done in Table 3.

[19] Due to the incidental parameter problem, we cannot run a probit estimation with individual fixed effects. However, we have experimented using a conditional logit specification, and the patterns are similar.

Table 5

Trade and migration votes, alternative econometric methodologies

	Linear probability model		Bivariate probit	
	(1)	(2)	(3)	(4)
	trade votes	migration votes	trade votes	migration votes
Skill Ratio$_{dt}$	0.653*	1.421**	2.090**	4.804***
	(0.347)	(0.626)	(1.022)	(1.223)
DW Nominate$_{it}$	0.852***	-0.490**		
	(0.173)	(0.190)		
Democrat$_{i}$			-1.488***	1.676***
			(0.088)	(0.128)
Log(Median Family Income)$_{dt}$	-0.211	-0.436**	0.014	-1.721***
	(0.138)	(0.213)	(0.393)	(0.621)
Inequality$_{dt}$	-0.187	-0.150	-0.422	-1.358**
	(0.223)	(0.328)	(0.637)	(0.541)
Urban$_{dt}$	0.098	-0.382*	-0.012	0.710
	(0.138)	(0.229)	(0.314)	(0.468)
Foreign Born$_{dt}$	-0.311	0.796	-1.076	3.219**
	(0.381)	(0.590)	(0.987)	(1.420)
African American$_{dt}$	-0.180	0.071	-0.392	0.523
	(0.198)	(0.391)	(0.439)	(0.635)
Hispanic$_{dt}$	0.295	-0.265	0.795**	0.534
	(0.314)	(0.558)	(0.349)	(0.652)
Year effects	Yes	Yes	Yes	Yes
Legislator effects	Yes	Yes	No	No
State effects	No	No	Yes	Yes
Observations	6,987	4,751	2,297	
R^2	0.60	0.66		
Predicted probability			0.65	0.32
Wald test (p-value)			0.09	

Notes: The first two columns report the coefficients from a linear probability model, while the last two columns reports the coefficients of a bivariate probit model. The dependent variable for trade votes (migration votes) is $Vote\ Trade_{idt}$ and ($Vote\ Migration_{idt}$), a dummy equal to 1 if representative i elected in district d votes in favor of a trade liberalization (migration liberalization) bill at time t, 0 otherwise. Robust standard errors are reported in parentheses, clustered by legislator in columns 1-2, and by state x decade in columns 3-4. *** Significant at 1%, ** significant at 5%, * significant at 10%.

The results of estimating the linear probability model are reported in columns 1-2 of Table 5.[20] As it can be immediately seen, our key findings continue to hold. In particular,

[20]The small difference in the number of observations between these specifications and the corresponding specifications in columns 2 and 4 of Table 1 is due to the fact that congressmen from two states (i.e. New Hampshire and Wyoming) have voted in every instance in favor of trade and against immigration. These observations are dropped in the probit model because of the inclusion of state fixed effects.

our analysis indicates that an increase in the share of highly skilled residents in a district increases the probability that the representative supports both measures liberalizing trade and immigration. We also find that welfare state considerations continue to play a role in shaping voting behavior on immigration policy, but not on trade policy. Finally, the results confirm that legislators' ideology has a different impact on their voting behavior on trade and migration reforms: more liberal legislators are more likely to support opening borders to goods, but less likely to support opening borders to unskilled migrants.

Our analysis so far has been based on the full sample of all trade and immigration votes. One may be concerned that our findings could be driven by dissimilarities in sample structure, i.e. differences in the number of trade and immigration reforms and in the timing of these reforms. The latter in particular could imply that different individuals are called upon voting on trade and immigration initiatives. Furthermore, the decisions on trade and immigration of each legislator might be interrelated, i.e. might be affected by common characteristics of the legislator and of his or her district. If this is the case, the error terms of the two probit models in (1) and (2) are likely to be correlated. To address these concerns, we restrict our attention to the sample of matched bills (described in Tables A-1 and A-2 in the Appendix[21]) and estimate a bivariate probit model. This estimator assumes that the error terms in the regressions on trade and migration votes consist of one component (u_k, $k = 1, 2$) that is unique to each model and a second component (η) that is common to both models. More specifically,

$$\epsilon_1 = \eta + u_1$$
$$\epsilon_2 = \eta + u_2$$

with the covariance between the errors tested as part of the estimation results.

The coefficient estimates of the bivariate probit regressions are reported in columns 3-4 of Table 5. Note that the Wald test for whether the covariance of the error terms ϵ_1 and ϵ_2 is equal to zero is only borderline significant at 10 percent (i.e. p-value of 0.09 reported at the

[21] We have also tried to restrict the analysis to matches that involve at least one major trade and/or immigration reform (*H.R. 10710/H.R. 891*, *H.R. 4800/H.R. 3810*, *H.R. 4848/H.R. 4222* and *H.R. 4340/H.R. 4437*). Also, in constructing our matched sample, we used chronological proximity as the matching criterion. In 1988 two important pieces of trade legislation came to the floor within less than a month: H.R. 4848, i.e. the Omnibus Trade and Competitiveness Act and H.R. 5090, the approval of the Canada U.S. Free Trade Area. In the same year, H.R. 4222, a bill extending the legalization program introduced by IRCA came to the floor. In our benchmark analysis H.R. 4848 was matched with H.R. 4222; matching H.R. 5090 with H.R. 4222 yields very similar results. Our results are robust to using these two alternative samples of matched votes. In particular, the effects of the district's skill composition are almost identical in size for trade and immigration reforms.

bottom of the table), indicating that there is limited evidence that congressmen's decisions on trade and migration policies are correlated. In addition, the results are very similar to those in the corresponding specifications of Table 1, based on the probit regressions using the full sample of votes. In particular, legislators from more highly skilled districts are more likely to support liberalization of both trade and immigration. Our estimates also confirm the important differences in the drivers of the two policies: Democratic legislators are more likely to support liberal immigration legislation than Republican legislators; fiscal exposure and ethnic networks have a significant impact on congressmen's votes on immigration reforms, but have no effect on their decisions on trade reforms.

In terms of estimated magnitude, the conditional marginal effect of a one percentage point increase in the share of skilled individuals on support for trade liberalization is between 0.85 and 0.94 percentage points while the corresponding effect for migration liberalization is between 1.72 and 1.86 percentage points.[22] Interestingly, these effects and the implied changes on probability of passing a bill are almost identical to the ones obtained in our benchmark regressions. In conclusion, the impact of the skill measure obtained from the matched sample using the bivariate probit model is very close to the one obtained running separate probit models using the entire sample of votes.

5 Conclusions

This paper represents the first attempt to systematically investigate and compare the drivers of legislators' choices on trade and migration policy.

To guide our empirical analysis, we have developed a simple theoretical model that emphasizes the importance of the skill composition of a constituency. Our framework indicates that representatives of constituencies in which skilled labor is more abundant should be more likely to favor a policy liberalizing trade or increasing unskilled immigration. We have empirically assessed this prediction using a new dataset, which includes all U.S. House of Representatives final passage votes on trade and immigration policy over the period 1970-2006.

While the earlier literature emphasizes the differences between policy making in these two areas, our analysis suggests the presence of an important common driver, namely a district's factor endowment. In particular, we find evidence consistent with the predictions

[22]Marginal effects for each outcome of a bivariate probit model should be calculated conditional on the other outcome (i.e. conditional marginal effects) because the two equations are not independent. For this reason, we report two conditional marginal effects for our variable of interest in each of the two set of votes.

of a standard trade model: representatives of more skilled-labor abundant constituencies are more likely to support liberalizing both trade and immigration. This finding is robust to including a variety of controls, and using different econometric methodologies and sample structures. Importantly, the effect of the skill composition also continues to hold when we directly control for the constituency's liberal orientation, suggesting that it cannot simply be driven by the fact that more skilled abundant districts tend to be more open minded.

Our results also confirm important differences in the drivers of trade and migration policy, which can help explaining why politicians are often more reluctant to reduce barriers to low-skilled migrants than to goods, notwithstanding the large potential gains from further migration liberalization.[23] In particular, our analysis suggests that welfare state considerations play an important role in shaping the support for immigration, whereas this is not true when it comes to trade liberalization. We also highlight significant ideological differences: Democratic legislators are systematically more likely to support the liberalization of migration policies than their Republican counterparts, while the opposite is true when it comes to trade policy. Finally, non-economic factors that work through immigrant networks have an impact on legislators' support for migration, but not for trade.

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[23] As pointed out by Rodrik (2002), "the gains from liberalizing labor movements across countries are enormous, and much larger than the likely benefits from further liberalization in the traditional areas of goods and capital. If international policymakers were really interested in maximizing worldwide efficiency, they would spend little of their energies on a new trade round or on the international financial architecture. They would all be busy at work liberalizing immigration restrictions" (p. 314).

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Appendix

A-1 An overview of U.S. trade and migration policy

The votes included in our sample cover four decades, a period during which the United States has engaged in a series of important measures to further liberalize trade, and immigration flows have soared to levels seen only at the beginning of the twentieth century. In this section, we provide a brief overview of the main policy initiatives that have been introduced in this period in the two areas. For a list of the bills considered in our study, see Tables A-1 and A-2.

1970-1980

The early seventies saw the U.S. economy in a deep recession following the first oil crisis. In dealing with the consequences of this shock, Congress reacted differently when it turned to trade and migration policies. Concerning the former, a liberal agenda was pursued, whereas for the latter, lawmakers tried to put limits to the substantial increase in immigrant flows that had followed the 1965 Immigration and Nationality Act.

The two main trade bills introduced in the House during this period were the Trade Act of 1974, which established Fast Track Authority (FTA), and the ratification of the GATT Tokyo Round agreements in 1979. Under FTA, Congress' delegates to the U.S. President the power to carry out trade negotiations for a certain time period, constraining itself to only accept or reject the agreements that have been submitted for approval. Many observers have argued that FTA has been a key instrument in the successful completion of the trade negotiations carried out by the U.S. since its introduction. The ratification of the Tokyo Round of the GATT resulted instead in major multilateral tariff reductions for industrial products (averaging 35%), some important reduction in tariffs for tropical agricultural products, a series of measures involving non technical barriers to trade, and the implementation of the so called "Anti-Dumping code".

As for migration policy, Congress reacted to the first major oil crisis introducing two restrictionist amendments to the Immigration and Nationality Act (INA) of 1965: the first (H.R. 392 of 1973) contained provisions to tackle the growing number of illegal immigrants, whereas the second (H.R. 891 of 1973) extended the applicability of the 20,000 per-country cap to migrants from the Western hemisphere. This initiative was aimed at limiting immigration from Mexico (Gimpel and Edwards, 1999).

1980-1990

The eighties started with the U.S. experiencing the deepest downturn since the Great Depression. However, when President Reagan was re-elected to a second term in 1984, the economy was growing again. When the 99th Congress convened in 1985, trade was very high on the political agenda, and lawmakers were broadly inclined to increase the competitiveness of the U.S. economy in the international market place. However, the Omnibus Trade Bill of 1986 (H.R. 4800) included some clearly protectionist measures, like the famous Gephardt (D, MO) amendment prescribing the introduction of quotas on imports from countries that maintained both a large bilateral trade surplus with the United States and unfair import barriers (Schwab, 1994). The legislation easily passed in the House and was labeled by the White House as "pure protectionism", an "action that would be trade destroying, not trade creating" (Destler, 2005). Notwithstanding initial support, the bill stalled in the Senate, and the measure died with the 99th Congress.

By 1987, both chambers had a Democratic majority and trade became once again a priority. Work started swiftly on new legislation, resulting in the introduction of H.R. 4848, which followed closely in the steps of H.R. 4800, but contained important pro-trade provisions and removed the most protectionist measures (in particular the controversial Gephardt amendment). After a back and forth with the Reagan administration, which resulted in some further watering down of the most protectionist provisions, H.R. 4848 cleared the House in July 1988, with very strong bipartisan support. The last important trade provision introduced in this decade is H.R. 5090 of 1989, with which the House ratified the creation of the Canada-U.S. free trade area (CUSFTA). The bill led to a substantial liberalization of trade with Canada.[24]

Turning to international migration, following the introduction of restrictive measures on immigration from the Western hemisphere and the growing arrivals of refugees, much of the policy debate during the eighties focused on illegal immigrants and asylum seekers (Tichenor, 1994). While we exclude bills focusing on refugees from our analysis, we capture the discussion on illegal migration by looking at various measures that have been voted on in the House of Representatives. The two most important ones are the Simpson-Mazzoli Bill (H.R. 1510), introduced in 1982, and the Immigration Reform and Control Act (H.R. 3810) of 1986. The two initiatives are closely intertwined, since the latter is a revised version of the former. The first important provision of H.R. 1510 was to make it illegal to knowingly hire or recruit undocumented immigrants, and sanctions were introduced for those employing illegal aliens. A second major component was the requirement for employers to attest their employees' immigration status. Last but not least, the proposed legislation

[24]We do not consider in our analysis the 1985 bill on the ratification of the U.S.-Israel free trade area, as it received unanimous approval in the House.

granted an amnesty to certain agricultural seasonal workers and immigrants. The initiative was highly controversial and Mazzoli decided to pull it from the floor and reintroduce it in the new Congress in 1984 (Lowell *et al.*, 1986; Gimpel and Edwards, 1999). Most of the debate during this session focused on the employer sanctions and the amnesty provisions and the bill ended up clearing the House with a 216 to 211 vote, one of the narrowest in the whole immigration debate. The measure passed the Senate in a different version, and no compromise was reached in the House-Senate conference committee. The push for a comprehensive immigration reform was strong enough for a new version of the bill to be introduced in the 99th Congress in both chambers. The Immigration Reform and Control Act of 1986 (H.R. 3810, IRCA) introduced a temporary program for agricultural workers, which was requested by the agricultural lobby and strongly opposed by organized labor (Gimpel and Edwards, 1999). Furthermore, it implemented a controversial guest-worker initiative in the tradition of the Bracero program,[25] which enabled a legal temporary inflow of unskilled farm workers. The bill allowed almost 3.5 million illegal immigrants to be legalized as permanent residents (LeMay, 2006). The other bill included in our analysis (H.R. 4222) was aimed at a more generous handling of illegal immigrants and extended the legalization provisions of the IRCA act by six months.

1990-2000

The "roaring" nineties saw the U.S. economy experiencing one of its longest, continuous expansions. During this period, Congress embraced globalization by liberalizing both trade and migration.

In this decade, the first trade measure included in our analysis is the extension of Fast Track Authority, which passed the House on May 23, 1991. This initiative was important for the conclusion of the negotiations of the North American Free Trade Agreement (NAFTA) and the approval of the agreements reached in the Uruguay Round of GATT negotiations. NAFTA was seen by many congressmen as unpopular, and the Clinton administration had to work very hard to build support for it. In the end, Republican votes proved to be decisive in insuring the 234-200 approval of H.R. 3450 on November 17, 1993. Negotiations on the final touches of the Uruguay Round of the GATT lasted instead until mid December, and led to a major trade liberalization, involving substantial tariff cuts (averaging almost 40%), the requirement that agricultural quotas be converted in tariffs, and the phasing-out of restrictions to textile trade over a ten-year period. The actual implementation of the agreement turned out to be more controversial than initially expected and voting on the bill

[25]The Bracero Program was a temporary guest worker program covering the farming sector, which was in operation from 1942 until 1964. It allowed migrant farmworkers to come to the United States for up to nine months annually. At its peak in 1956, it involved more than 440,000 Mexican citizens.

took place only during the lame duck session in late 1994. Still, H.R. 5110 gained broad bi-partisan support and cleared the floor with a comfortable 288-146 margin.

One of the reasons for the delay in the implementation of the Uruguay Round bill was the proposal to include a seven-year extension of Fast Track Authority, deemed necessary to implement the administration's trade agenda. The measure immediately appeared to be controversial, and had to be eliminated from the text of H.R. 5110. Three years later, the Clinton administration started once again to push for renewal of Fast Track Authority, but conflicting views led the proposal to be withdrawn in November 1997. Just before the 1998 midterm elections, the house speaker Newt Gingrich put it on the floor as H.R. 2621 to embarrass the administration, and the measure was clearly defeated (Destler, 2005).

The nineties saw also two major initiatives concerning migration. The first was the Immigration Act of 1990 (IMMACT). In contrast to IRCA, this bill focused mainly on legal immigration and had two main goals: the revision of the existing visa allocation system and the introduction of new provisions for skilled immigration. The major change introduced by the legislation was the increase of the annual cap for legal permanent residents from approximately 500,000 to 700,000. Finally, the act established also a short-term amnesty program to grant legal residence to up to 165,000 spouses and minor children of immigrants, who were legalized under the IRCA.

The second immigration legislation of the nineties is the Illegal Immigration Reform and Immigrant Responsibility Act (H. R. 2202), which entered into force on September 30, 1996 and which was meant to address the problem of undocumented immigration. The act increased the size of the U.S. Border Patrol, mandated the construction of fences at the most heavily trafficked areas of the U.S.-Mexico border and introduced a pilot program to check the immigration status of job applicants. Furthermore, it restricted the federal benefits to illegal and legal migrants and made the deportation of illegal immigrants substantially easier.

2000-2006

The new century started with the burst of the dot-com bubble, and with the terrorist attacks of September 11, 2001. The reaction of the U.S. Congress has been to further push trade liberalization – mainly on a bilateral basis – and to introduce a series of measures to deal with illegal immigration, reflecting also broad national security concerns.

During most of the Clinton administration, the executive branch did not enjoy Fast Track Authority, and the newly elected President Bush made regaining it one of the priorities during the first year in office. The negotiations dragged on longer than expected, and the final passage vote took place only on July 27, 2002, with the measure clearing the House with a very narrow margin of three votes (215-212). Fast track authority was then used to negotiate and gain approval for a series of bilateral trade agreements, including a broad

push to promote the creation of a Middles-East Free Trade Area. On July 24, 2003 the House ratified the U.S.-Chile Free Trade Area and the U.S.-Singapore Free Trade Area. A year later, it was the turn of the U.S.-Australia Free Trade Area and of the U.S.-Morocco Free Trade Area. The negotiations and final approval of the the Central American Free Trade Agreement (CAFTA) was instead much more controversial, with final passage vote taking place on strict party lines and with the Democrats very concerned about labor and environmental issues. The bill cleared the House on July 28, 2005, with a very narrow majority of two votes (217-215). Two other free trade areas were ratified during this period: the one with Bahrain (December 7, 2005), and the one with Oman (July 20, 2006). While the former was uncontroversial, the approval of the agreement with Oman was subject to a much closer scrutiny in the aftermath of a National Labor Committee report suggesting that labor rights violations were widespread in Jordan's export zones (Bolle, 2006).

The congressional debate on immigration policy in this period has been mainly influenced by concerns about illegal immigration and national security. All of the bills included in our analysis (H.R. 418, H.R. 4437, H.R. 6061, H.R. 6094, and H.R. 6095) are aimed at reducing illegal immigration and at tightening immigration law enforcement. The most controversial and substantial legislative proposal was the Border Protection, Anti-terrorism, and Illegal Immigration Control Act of 2005 (H.R. 4437). The bill required the building of a fence along the U.S.-Mexican border up to 700 miles long and called the federal government to take custody of undocumented aliens detained by local authorities. The measure passed the House of Representatives on December 16, 2005 by a vote of 239 to 182. However, it did not pass the Senate and is therefore the only major immigration bill that did not became public law in the period considered in our analysis. Among the other initiatives introduced, the Real ID Act (H.R. 418) established regulations for State driver's licenses and new security standards for identification documents. The Community Protection Act of 2006 (H.R. 6094) contained various measures simplifying the detention of dangerous aliens, ensuring the removal of deportable criminal aliens, and enhancing police officers' ability to fight alien gang crime. The Secure Fence Act (H.R. 6061) reignited the debate on a fence at the Southern border, and led to the construction of over 700 miles of double-reinforced fence along the border with Mexico in areas that have experienced illegal drug trafficking and illegal immigration. Finally, the Immigration Law Enforcement Act of 2006 (H.R. 6095) intended to strengthen the position of state and local authorities in dealing with the enforcement of immigration laws.

Table A-1

Final passage votes on trade liberalization reforms in the House of Representatives

	Cong.	Date	Bill	Description	Dir.	Yes	No	Sum
1*	93	11.12.1973	H.R.10710	Trade Act of 1974	Pro	272	140	412
2	96	11.07.1979	H.R.4537	Approval of Tokyo Round Agreements	Pro	395	7	402
3*	99	22.05.1986	H.R.4800	Omnibus Trade Bill, incl. fast track authority	Contra	295	115	410
4*	100	13.07.1988	H.R.4848	Omnibus Trade and Competitiveness Act, incl. fast track authority	Pro	376	45	421
5	100	09.08.1988	H.R.5090	Approval of CUSFTA	Pro	366	40	406
6	103	22.06.1993	H.R.1876	Extension of fast track authority	Pro	295	126	421
7	103	17.11.1993	H.R.3450	Approval of NAFTA	Pro	234	200	434
8	103	29.11.1994	H.R.5110	Approval of Uruguay Round Agreements	Pro	288	146	434
9	105	25.09.1998	H.R.2621	Approval of fast track authority	Pro	180	243	423
10	107	27.07.2002	H.R.3009	Approval of fast track authority; other provisions: Andean Trade Preference Act, trade adjustment assistance, GSP	Pro	215	212	427
11	108	24.07.2003	H.R.2738	Approval of US-Chile FTA	Pro	270	156	426
12	108	24.07.2003	H.R.2739	Approval of US-Singapore FTA	Pro	272	155	427
13	108	14.07.2004	H.R.4759	Approval of US-Australia FTA	Pro	314	109	423
14	108	22.07.2004	H.R.4842	Approval of US-Morocco FTA	Pro	323	99	422
15*	109	28.07.2005	H.R.3045	Approval of CAFTA	Pro	217	215	432
16*	109	07.12.2005	H.R.4340	Approval of US-Bahrain FTA	Pro	327	95	422
17*	109	20.07.2006	H.R.5684	Approval of US-Oman FTA	Pro	221	205	426
Total number of individual roll call votes on trade legislation:								7,168

Notes: *Cong.* and *Date* describe the congress/date in which/when the vote took place. *Bill* shows the bill number in the House of Representatives. *Description* provides some basic information about the content of the legislation. *Dir.* indicates whether the bill was pro or against trade liberalizion. *Yes/No* is the overall number of Yes/No votes. *Sum* shows the overall number of votes. All figures are calculated on the basis of individual voting records. FTA stands for free trade area. * denotes votes included in the matched sample of trade and migration votes.

Table A-2

Final passage votes on immigration reforms in the House of Representatives

	Cong.	Date	Bill	Description	Dir.	Yes	No	Sum
1	93	03.05.1973	H.R.392	Employer Sanctions	Contra	297	63	360
2*	93	26.09.1973	H.R.891	Rodino Bill	Contra	336	30	366
3	98	20.06.1984	H.R.1510	Simpson-Mazzoli Bill	Contra	216	211	427
4*	99	09.10.1986	H.R.3810	Immigration Reform and Control Act (IRCA)	Pro	230	166	396
5*	100	21.04.1988	H.R.4222	Extension of legalization by 6 months	Pro	213	201	414
6	101	03.10.1990	H.R.4300	The 1990 Immigration Act (IMMACT)	Pro	230	192	419
7	104	21.03.1996	H.R.2202	Illegal Immigration Reform and Immigrant Responsibility Act	Contra	333	87	420
8*	109	10.02.2005	H.R.418	Real ID Act	Contra	261	161	422
9*	109	16.12.2005	H.R.4437	Border Protection, Anti-terrorism and Illegal Immigration Control Act	Contra	239	182	421
10*	109	14.09.2006	H.R.6061	Secure Fence Act	Contra	283	138	421
11	109	21.09.2006	H.R.6094	Community Protection Act of 2006	Contra	328	95	423
12	109	21.09.2006	H.R.6095	Immigration Law Enforcement Act of 2006	Contra	277	140	417
Total number of individual roll call votes on immigration legislation:								4,909

Notes: *Cong.* and *Date* describe the congress/date in which/when the vote took place. *Bill* shows the bill number in the House of Representatives. *Description* provides some basic information about the content of the legislation. *Dir.* indicates whether the bill was pro or against immigration liberalizion. *Yes/No* is the overall number of Yes/No votes. *Sum* shows the overall number of votes. All figures are calculated on the basis of individual voting records. FTA stands for free trade area. * denotes votes included in the matched sample of trade and migration votes.

Table A-3

Summary statistics

	Trade votes				
	Obs.	Mean	Std. Dev.	Min	Max
Vote Trade$_{idt}$	6,986	0.65	0.48	0.00	1.00
Skill Ratio$_{idt}$	6,986	0.20	0.09	0.02	0.57
Democrat$_i$	6,986	0.53	0.50	0.00	1.00
Female$_i$	6,986	0.11	0.31	0.00	1.00
Age$_{it}$	6,986	5.39	1.00	2.70	8.80
DW Nominate$_{it}$	6,985	0.01	0.44	-0.88	1.33
Northern Democrat$_i$	6,986	0.24	0.43	0.00	1.00
PAC Labor$_{it}$	6,659	0.18	0.39	0.00	1.00
PAC Corporate$_{it}$	6,659	0.18	0.38	0.00	1.00
Log(Median Family Income)$_{dt}$	6,986	10.39	0.56	8.52	11.42
Inequality$_{dt}$	6,986	1.22	0.10	0.86	1.97
Urban$_{dt}$	6,986	0.77	0.21	0.13	1.00
Foreign Born$_{dt}$	6,986	0.09	0.10	0.00	0.59
African American$_{dt}$	6,986	0.12	0.15	0.00	0.92
Hispanic$_{dt}$	6,986	0.10	0.15	0.00	0.84
Liberal$_{dt}$	6,986	0.38	0.49	0.00	1.00
Share Democrats$_{dt}$	6,937	0.51	0.25	0.00	1.00
Export Ratio$_{dt}$	6,986	0.31	0.46	0.00	9.36
	Migration votes				
	Obs.	Mean	Std. Dev.	Min	Max
Vote Migration$_{idt}$	4,733	0.37	0.48	0.00	1.00
Skill Ratio$_{idt}$	4,733	0.19	0.09	0.02	0.57
Democrat$_i$	4,733	0.52	0.50	0.00	1.00
Female$_i$	4,733	0.10	0.30	0.00	1.00
Age$_{it}$	4,733	5.41	1.02	2.90	8.80
DW Nominate$_{it}$	4,730	0.03	0.43	-0.72	1.18
Northern Democrat$_i$	4,733	0.24	0.25	0.00	1.00
PAC Labor$_{it}$	4,155	0.19	0.39	0.00	1.00
PAC Corporate$_{it}$	4,155	0.18	0.39	0.00	1.00
Log(Median Family Income)$_{dt}$	4,733	10.26	0.61	8.52	11.42
Inequality$_{dt}$	4,733	1.21	0.10	1.02	1.97
Urban$_{dt}$	4,733	0.77	0.21	0.13	1.00
Foreign Born$_{dt}$	4,733	0.08	0.09	0.00	0.59
African American$_{dt}$	4,733	0.12	0.15	0.00	0.92
Hispanic$_{dt}$	4,733	0.09	0.14	0.00	0.84
Liberal$_{dt}$	4,733	0.37	0.48	0.00	1.00
Share Democrats$_{dt}$	4,717	0.53	0.25	0.00	1.00
Export Ratio$_{dt}$	4,733	0.24	0.33	0.00	4.97

Notes: The table reports descriptive statistics for all the variables used in our empirical analysis (see Section 3 for a definition of the variables).