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**Conference Paper**

# The political economy of trade and migration:Evidence from the U.S. Congress

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

Paola Conconi, Giovanni Facchini,
Max Steinhardt and Maurizio Zanardi

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

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## ABSTRACT

# The political economy of trade and migration: Evidence from the U.S. Congress*

Over the last decades, the United States has become increasingly integrated in the world economy. Very low trade barriers and comparatively liberal migration policies have made these developments possible. What drove US congressmen to support the recent wave of globalization? While much of the literature has emphasized the differences that exist between the political economy of trade and migration, in this paper we find that important similarities should not be overlooked. In particular, our analysis of congressional voting between 1970 and 2006 suggests that economic drivers that work through the labor market play an important role in shaping representatives' behavior on both types of policies. 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. Still, important systematic differences exist: welfare state considerations and network effects have an impact on the support for immigration liberalization, but not for trade; Democratic lawmakers are systematically more likely to support a more open migration stance than their Republican counterparts, and the opposite is true for trade liberalization.

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# 1 Introduction

Over the past decades, the United States has become increasingly integrated in the world economy. Trade flows have grown faster than GDP for most of this period, and according to the latest figures released by the U.S. Census bureau, the stock of foreign born residents has reached in 2010 almost 40 million, or 13% of the total population, a figure last observed in 1920.[1] Very low trade barriers and comparatively liberal migration policies have made these developments possible. How did these policies come into being? In particular, what drove U.S. congressmen to support the recent wave of globalization?[2] The goal of this paper is to answer this question by carrying out a comparative analysis of congressmen's voting behavior on trade and migration policy.

Many observers have emphasized the differences that exist between the two facets of globalization we study in this paper. For instance, looking at the experience of the New World between 1860 and 1930, Collins, O'Rourke, and Williamson (1999) suggest that "policy did not behave as if New World politicians and voters thought trade and immigration were substitutes" (p. 252). In a recent survey, 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. The important role played by non-economic drivers has also been emphasized by the literature on the determinants of public opinion towards immigration (see for instance Mayda 2006, Dustmann and Preston 2007, and Hainmueller and Hiscox 2007) and in the historical account of the determinants of migration policy by Timmer and Williamson (1996). Focusing on economic drivers, we highlight instead the important similarities in the forces that shape voting decisions in the two policy areas.

To guide our empirical analysis, we develop a simple two-country, two-goods Heckscher-Ohlin theoretical framework in which Home – representing the United States – is skilled-labor abundant, whereas Foreign – representing the rest of the world – is unskilled-labor abundant. Furthermore, we assume that Home is subdivided in electoral districts that differ in their endowments of skilled and unskilled labor. Each district is represented by an elected politician, who supports a new policy if it increases the well being of voters' in his constituency. We consider two alternative policy scenarios: a trade liberalization and the liberalization of the inflow of unskilled migrants. As long as factor endowment differences between Home and Foreign are not too large, we show that a legislator is more likely to support trade or migration liberalization the more skilled-labor

[1] The very large recent inflows of foreign nationals have also contributed to substantially change the ethnic mix in the country. In May 2012, the U.S. Census Bureau announced that more than half of the newborn in 2011 belonged to ethnic minorities.

[2] For a historical perspective, see Faini, de Melo, and Zimmermann (1999) and Hatton and Williamson (2007).

abundant his district is.

We assess the empirical predictions of our model using a novel dataset that combines final passage votes on trade liberalization and immigration reforms introduced over the 1970-2006 period. 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 analysis suggests that, despite significant differences in congressmen's voting patterns on trade and migration policy, important similarities in their determinants should not be overlooked. In particular, economic drivers that work through the labor market do play an important role in shaping legislators' voting behavior on both types of policies. Consistently with our model's predictions, 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 terms of magnitudes, the effects are sizeable. Our preferred specification suggests that a 1 percentage point increase in the share of skilled individuals in a congressional district leads approximately to a 0.8 percentage point increase in the probability that the district's representative supports trade liberalization, and to a 1.5 percentage point increase in the probability that he supports the liberalization of unskilled immigration. At the same time, we also find that there are significant differences between the drivers of voting on trade and migration policy. First, our results suggest that welfare state considerations play an important role in shaping support for immigration: in particular, 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 liberalization. Second, ideological differences play an important role: 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. Third, non-economic factors linked to immigrant networks 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 investigate and compare the drivers of legislators' decisions on immigration and trade policy in the United States. The post 1970 era on which we focus is particularly interesting, as the 1965 Immigrant and Nationality Act and the 1974 Trade Act introduced reforms that changed in fundamental ways policy making in the two areas.

A large literature has studied trade policy choices in the U.S. Congress. Destler (2005) offers a detailed historical and political account of U.S. trade policy-making in the post 1934 area. Several recent papers have focused instead on the role of economic determinants of trade policy decisions. Hiscox (2002) has considered the impact of factor endowments and industry interests in shaping thirty important trade bills introduced between 1824 and 1994. Baldwin and Magee (2000) have emphasized the role of lobbying efforts in shaping congressional votes, examining three important

trade policy measures introduced in the nineties. Blonigen and Figlio (1998) have examined the role of foreign direct investment on U.S. senators' voting behavior on trade policy between 1985-1994. More recently, Conconi, Facchini, and Zanardi (2012) have analyzed the role of strategic delegation motives in shaping the congressmen's support for fast track authority, whereas Conconi, Facchini, and Zanardi (2011) have considered 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 study to date of the Congressional Politics of immigration policy, but only limited attention is dedicated to the analysis of district-level economic determinants. Several papers focus on the introduction of a single piece of legislation or a narrow set of legislative initiatives. For instance, Gonzalez and Kamdar (2000) analyze 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. Similar results have been obtained by Fetzer (2006) in his analysis of voting on the 2005 Border protection, Anti-terrorism and Illegal Immigration Control Act. In a comprehensive study of the immigration legislation introduced in the post 1970 period, Facchini and Steinhardt (2011) also obtain robust evidence that district-level economic determinants do play an important role in shaping immigration policy.

The remainder of the paper is organized as follows. Section 2 briefly reviews the recent developments in the congressional history of trade and migration policy. Section 3 presents a simple theoretical model to guide our empirical analysis. Section 4 describes our data, whereas Section 5 presents our main results. In Section 6 we carry out a series of robustness checks, and Section 7 concludes.

## 2 U.S. Trade and migration policy 1970-2006: An overview

The votes included in our sample cover the years 1970-2006, 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 summary of the bills considered in our study, see Tables 1 and 2.

## 2.1 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 of Representatives during the seventies were the Trade Act of 1974, which established fast track authority, and the ratification of the agreements reached in the Tokyo Round of GATT negotiations in 1979. Under Fast Track Authority, 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. Furthermore, a mandatory limitation is placed on floor debate (90 legislative days from the day in which the implementing bill is put forward). As a result, many observers have argued that Fast Track Authority has been a key instrument in the successful completion of the trade negotiations carried out by the U.S. since its introduction.[3]

The second trade liberalization bill introduced in the 1970's was the ratification of the Tokyo Round of the GATT. Its implementation resulted 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 with the the introduction of two amendments to the Immigration and Nationality Act (INA) of 1965. INA abolished the national-origin quota system, which was replaced by a system emphasizing the importance of family ties, resulting in a great simplification of the family reunification process. In the aftermath of the first oil crisis, the House took a more restrictionist stance on migration policy, approving in 1973 H.R. 392 and H.R. 891. While the first bill contains provisions to tackle the growing number of illegal immigrants, the second measure extended the applicability of the 20,000 per-country cap to migrants from the Western hemisphere contained in the 1965 act. This initiative was particularly aimed at limiting immigration from Mexico (Gimpel and Edwards 1999).

[3] As Bhagwati has recently argued, "Every time there's been something big and complicated, certainly the big multilateral ones, and even the big bilateral ones like NAFTA – they had to go through fast track." (see www.cfr.org/publication/12592/bhagwati.html).

## 2.2 1980-1990

The eighties started with the U.S. experiencing the deepest downturn since the Great Depression. When the 99th Congress convened in 1985, it became immediately clear that trade was very high on the political agenda, and that lawmakers were broadly inclined to increase the competitiveness of the U.S. economy in the international market place. This drive resulted in the introduction of the Omnibus Trade Bill of 1986 (H.R. 4800) which 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 as "pure protectionism" and an "action that would be trade destroying, not trade creating" (Destler 2005) by the White House. 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. House speaker Wright (D, TX) made it clear that trade was once again going to be a priority in the new Congress, and work started swiftly on new legislation. The result was the introduction of H.R. 4848, which followed closely in the steps of H.R. 4800, but introduced 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 on July 13 1988, with very strong bipartisan support.

The last important trade provision introduced in this decade is HR 5090, 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 and cleared the House with a large majority on August 9, 1988. CUSFTA entered into effect on January 1, 1989.[4]

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

[4]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.

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 granted an amnesty to certain agricultural seasonal workers and immigrants. The bill proposal was highly controversial and the House leadership did not favor the idea of it reaching the floor for final voting in an election year. For these reasons, Mazzoli decided to pull it from the floor and to reintroduce it in 1984 (Lowell, Bean, and Garza 1986 and 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,[5] 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.

## 2.3 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 policies.

The first pro-trade measure included in our analysis is the extension of Fast Track Authority, which passed the House on May 23, 1991. Retaining Fast Track Authority was important for the conclusion of the negotiations that led to the creation of the North American Free Trade Agreement (NAFTA) and the approval of the agreements reached in the Uruguay Round of GATT negotiations. During the 1992 campaign, candidate Clinton stated his support for NAFTA, but pushed for labor and environmental standards to be included in the trade agreement. Once in office, the new Democratic administration offered its full support for NAFTA only by the end of the 1993 summer, when the environmental and labor agreements had been finalized. Still, NAFTA

[5] The Bracero Program was a temporary guestworker 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 thousand Mexican citizens.

was seen by many congressmen as unpopular, and the 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 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 between the Republicans, which were mainly in favor of granting the authority with a focus restricted to trade issues, and the Democrats, which were either against the measure or favored a broader scope to include the "trade and..." agenda, led the proposal to be withdrawn by the administration 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 proposal 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. In particular, the IMMACT established a new preference scheme with three categories: family-based immigration (approximately 74 percent of the total), employment and business related immigration (20 percent of the total) and a new diversity category (6 percent of the total). Under the second category, people are admitted on the basis of skills and occupations, while the third category allocates green cards through a lottery program. The goal of the last category is to increase the number of immigrants from countries that previously had a low number of admissions. In practice, the role of family reunification and labor market shortages driven immigration was not altered substantially (Gimpel and Edwards 1999). 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 major immigration legislation of the nineties is the Illegal Immigration Reform and Immigrant Responsibility Act (H. R. 2202) of 1996, which was meant to address the problem of undocumented immigration. The act increased the size of the U.S. Border Patrol and mandated the construction of fences at the most heavily trafficked areas of the U.S.-Mexico border. Furthermore, it introduced a pilot program to check the immigration status of job applicants. A third and very important provision made the deportation of illegal immigrants substantially easier. Last but not least the law restricted the federal benefits to illegal and legal migrants and entered into force on September 30, 1996.

## 2.4 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 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 by the administration 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 (FTA). On July 24, 2003 the House ratified the U.S.-Chile FTA and the U.S.-Singapore FTA. A year later, it was the turn of the U.S.-Australia FTA and of the U.S.-Morocco FTA. 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. In the end 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. The events of September 11, 2001 and

the fear of additional terrorist attacks have been very powerful catalysts, which have led Congress to adopt a number of new measures. All of the bills from this period which are 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 (1120 km) long, at points with the highest number of illegal border crossings. It also 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 less pervasive initiatives introduced during the same period, the Real ID Act (H.R. 418) established regulations for State driver's licenses and new security standards for identification documents. It mainly addressed illegal immigration, by requiring every driver's license applicant to present a proof of lawful immigration status. 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.

# 3 A simple theoretical framework

Consider a model with two countries $c = H, F$ that use two factors, (human) capital and labor, to produce two goods, $X$ and $Y$. 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 (human) capital $K_H = K_L = K$, 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 districts $d$, where $d = 1, ..., D$, each inhabited by the same number $N$ of domestic 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.[6]

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 (see 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. Moving from autarky to the integrated equilibrium has important implications for the Home country. In fact, given that we are in a standard Heckscher-Ohlin setting, compared to autarky the integrated equilibrium involves 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 constituency, which is represented by $\sum_{i \in d} V(p, I_i) = \sum_{i \in d} V(p) I_i$. This leads immediately to the main prediction of our theoretical model:

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

Across jurisdictions, the representative of a district with a higher capital-to-labor ratio is more likely to support a bill liberalizing trade or migration. Our simple model thus suggests that a legislator's voting behavior on trade and migration liberalization should be crucially affected by

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

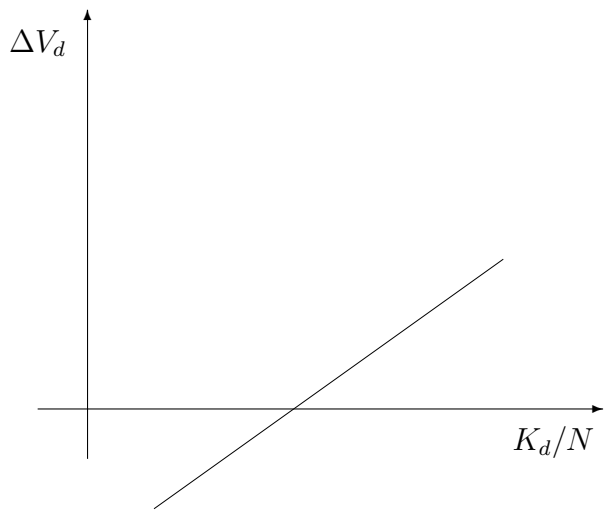


Figure 1: The effects of liberalizing trade or immigration policy

his district's skill ratio and the expected effect of these reforms on the factor market. The working of Proposition 1 is illustrated in Figure 1. On the horizontal axis we depict the average capital-labor ratio of district $d$, whereas on the vertical axis we measure the change in the indirect utility of the average individual in the district resulting from the liberalization of trade or migration. As it can be seen from the picture, more labor-abundant districts will lose from the policy change, whereas more capital-abundant districts will gain and the more so the larger is their ratio $\frac{K_d}{N}$.

# 4 Data description

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 using the Congressional Roll Call Voting Dataset of the Policy Agenda Project and the Library of Congress (THOMAS). Since these datasets provide only rough information about the content of the bills, 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).

As for legislation related to trade, we focus on all major trade bills[7] introduced in the U.S. Congress between 1970 and 2006 (see Table 1 and the discussion in Section 2). With respect to immigration, we restrict our analysis to bills with a potential impact on the supply of unskilled labor (i.e. that either regulate legal immigration or tackle illegal immigration). In particular, we follow the same methodology as in Facchini and Steinhardt (2011) and focus on bills that can

[7]In particular we cover bills granting or extending fast track authority and ratifying bilateral or multilateral trade agreements.

have a direct (positive or negative) impact on the size of the unskilled labor force in the U.S. We thus exclude, for instance, bills that deal primarily with the provision of public goods to illegal migrants or the federal reimbursement of health and education costs to states.

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. We follow this approach because voting on amendments is often connected to strategic voting and therefore is less likely to distinctly reflect the interests of the a legislator's constituency. Tables 1 and 2 summarize votes on trade and immigration legislation that took place in the U.S. House of Representatives between 1970 and 2006, which constitute the basis of our empirical analysis. As it can be easily seen, most of the votes on immigration are relatively close, and this reflects the controversial nature of immigration policy in the United States, as discussed in Section 2.

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 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. 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 data base 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 dependent variables are the representative's votes on bills regulating trade ($VoteTrade_{it}$), and immigration ($VoteImmigration_{it}$). In the case of bills liberalizing trade or migration, a vote coded 1 indicates that the district's representative 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.

Two set of drivers are used to explain voting behavior. The first is a set of standard individual-level controls. We start with a measure of ideology, which is proxied by *Democrat*, a dummy variable taking a value of one if the representative is a member of the Democratic party. We have also used two alternative measures: the first dimension of the DW nominate score, which increases in an individual's conservative orientation; and the ADA score, which assesses every legislator on a

scale from 0 to 100, with higher figures assigned to more liberal politicians.[8] Age and gender have been shown to play a significant role in shaping individual attitudes towards trade and migration (see for instance Mayda and Rodrik 2005 and Facchini and Mayda 2009). For this reason, we also include these demographic characteristics of legislators 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, which are provided by the Federal Election Commission (http://www.fec.gov/) starting from 1979.

The second set of controls focuses on district-level characteristics. The main explanatory variable in our analysis is the skill ratio of a congressional district, $SkillRatio_{it}$, which measures the proportion of high-skilled individuals in the total population over 25 years of age at time $t$ in congressional district $i$. High-skilled individuals are defined as those having earned at least a bachelor's degree. Our theoretical model suggests that support for immigration and trade liberalization should increase with the share of highly skilled in the district's population. We have also experimented using an alternative measure, i.e. $SkillRatio\ Occupation_{it}$, which captures the share of individuals over 16 that are employed in executive, administrative, managerial and professional specialty occupations. To proxy for the sectoral structure of a district we include the share of individuals in the labor force employed in agriculture, a sector which employs large shares of foreign born workers.

The literature on public opinions towards trade and migration States has emphasized that the redistribution among different groups within society carried out by the welfare state is an important driver of preferences towards globalization (Hanson, Scheve, and Slaughter 2007, Rodrik 1998 and Mayda, O'Rourke, and Sinnott 2007). To capture the role of welfare state drivers in our analysis, we use three variables. First, we consider the median family income within a district. Second, we include the ratio of average to median family income, which measures the extent of inequality within a district. Third, we have also experimented including direct controls for the extent of state-level redistribution, measured by public spending on Welfare, Health and Hospitals, and Elementary and Secondary Education as a share of average personal income.

In addition to controlling for the ideological orientation of the individual congressmen, we also account for the share of Democratic votes in the past election to capture the ideological stance of the congressional district. Our last set of controls includes proxies for the the degree of urbanization of the district and its ethnic composition. To this end we use Census data, and construct the variable $Urban_{it}$ that captures the share of the population living in urban areas, to

[8]The DW-nominate measure is provided by the VOTEVIEW project (http://voteview.ucsd.edu), whereas the ADA score is constructed by the American for Democratic Action, a lobby group. The main difference between the former and the latter is that the ADA score uses only votes on a sub-sample of bills, whereas the DW nominate score employs every roll call votes in each congress, and is based on a more sophisticated estimation procedure.

account for potential differences in attitudes towards immigration and trade between rural and urban areas. Next, we define the variable $Foreign - born_{it}$, which measures the the share of foreign-born in the district's population, to account for possible network effects influencing both support for trade and immigration liberalization. Finally, we explore the existence of possible coalitions among minorities in shaping migration policy by including $African - American_{it}$, i.e. the share of blacks in the population.

We have collected data for the 17 trade bills listed in Table 1 and for the 12 migration bills listed in Table 2. 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 initiatives, we carry out most of our analysis on a sub-sample of matched bills, which are described in Table 3. In particular, we restrict our attention to those trade and immigration votes that took place in the same year. As it turns out, 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. We focus on the behavior of those individuals who have cast a vote on both the trade and immigration policy initiative, to ensure that we compare the voting behavior of the same group of individuals on the two measures.[9]

Table 4 provides summary statistics for the matched sample used in our analysis. The first stylized fact that emerges is the broad differences in support for trade and migration, which closely reflect the differences in congressional action on trade and migration policy discussed in Section 2: while in only 39% of our observations a representative voted in favor of freer immigration, the corresponding figure for trade was 61%. Turning to our main explanatory variable, namely the district's skill composition, on average almost one out of five Americans over 25 in our sample holds at least a bachelor's degree.[10] The skill ratio of the population shows, like the voting behavior on immigration and trade policy, a strong variation across congressional districts, and the main goal of our paper is to investigate whether there exists a systematic relationship between a representative's voting behavior on these two policy dimensions and the relative skill composition of his/her home district.

Figures 2a, 2b and 2c illustrate the main economic mechanism highlighted in our theoretical model, focusing as an example, on the most recent trade and migration votes in our matched

[9]Of course, not participating in a vote or abstaining from it could be the result of a conscious choice by the representative and in this case our estimates would suffer from sample selection bias. As it turns out, in less than 8% of the votes we consider, we observe a congressperson casting his/her ballot only on the trade or the migration reform. As a result, selection does not appear to be a major source of concern.

[10]This figure is in part due to the fact that out of the six bills included in our matched sample, four have been introduced during the 109th congress i.e. between 2005 and 2006.

sample. The top portion of each presents the characteristics in 2006 of congressional districts in Georgia, a state with a skill composition that closely resembles the US average (the fraction of working age individuals with a college degree or above is in both cases approximately 24%). In the bottom part we instead magnify the district around the state's largest city and capital, Atlanta. In Figure 2a, we use Census data to illustrate the share of highly skilled in the population in 2006. The dark-shaded areas are skilled-labor abundant districts.[11] In Figure 2b we depict the voting behavior on the on the Approval of the US-Oman Free Trade Area of 2006 (H.R. 5684), and in Figure 2c that on the Immigration Law Enforcement Act of 2006 (H.R. 6095). Dark-shaded areas capture in Figure 2b the behavior of district's representatives who supported the trade liberalization initiative, whereas in Figure 2c they illustrate the behavior of representatives who voted against the immigration restrictive measure. As it can be seen, almost all congressmen who supported more open trade policy and voted against restrictive immigration legislation represented districts with skill ratios above the average. However, Figures 2b and 2c illustrate also that not all representatives from districts with high skill ratios behaved in this manner. For instance, Congressmen Price and Lindner – representing the skilled-labor abundant districts 6 and 7 of the state (see the bottom of Figure 2b) – supported immigration restrictions. Both were members of the Republican party (see Table 5). On the other hand, Congressmen Lewis, who represented skilled-labor abundant district 5, voted against trade liberalizing H.R. 6406 (see the bottom of Figure 2b). He belonged to the Democratic party (see Table 5). This evidence highlights the key role played by the district's skill composition in explaining voting behavior, as well as the profound divide along party lines on immigration and trade policy. In the remainder of the paper, we will systematically exploit the role of these and other economic and non-economic characteristics in explaining the voting behavior of elected members of Congress.

# 5 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 will assess the empirical relevance of this hypothesis in two ways. First, we will consider the entire set of votes on trade and immigration bills included in our sample. This will allow us to identify the broad patterns in the data. Next, we will focus our analysis on a set of

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

matched votes, in which a trade and a migration measure came to the House floor during the same Congress. This will allow us to study the behavior of the same individual in the two policy areas we are considering in this paper.

## 5.1 Full sample

We start by providing results based on the full sample of all trade and immigration bills, for which roll call votes are available. We will assess our theoretical prediction by estimating two separate probit models for trade and migration:

$$VoteT^*_{it} = \beta_{11} SkillRatio_{it} + \beta_{12} X_{it} + I_t + I_s + \epsilon_1 \tag{1}$$

$$VoteM^*_{it} = \beta_{21} SkillRatio_{it} + \beta_{22} X_{it} + I_t + I_s + \epsilon_2 \tag{2}$$

where $VoteT^*_{it}$ and $VoteM^*_{it}$ are latent variables ($VoteJ^*_{it}$, where $J = \{T, M\}$) which are related to the value of the observed binary variables $VoteT_{it}$ and $VoteM_{it}$ ($VoteJ_{it}$ where $J = \{T, M\}$) according to the following scheme:

$$VoteJ^*_{it} = \begin{cases} 1 & , \quad VoteJ_{it} > 0 \\ 0 & , \quad VoteJ_{it} \leq 0 \end{cases} \tag{3}$$

where $VoteT_{it}$ and $VoteM_{it}$ are dichotomous variables taking a value of one if the representative of district $i$ votes in favor of a bill liberalizing trade, respectively unskilled migration, at time $t$. $SkillRatio_{it}$ is the share of the population over 25 years of age with at least a bachelor's degree, $X_{it}$ is a vector of additional explanatory variables specific to a district $i$ and/or its congressperson and $\beta$ is the vector of parameters to be estimated. $I_t$ and $I_s$ are respectively time and state dummies to account for unobserved time- and state-specific effects,[12] and $\epsilon_1$ and $\epsilon_2$ are error terms. The corresponding results are provided in Tables 6 and 7. In order to simplify the interpretation of our findings, we report marginal effects. 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.

First, in Table 6 we report our findings on the determinants of the voting behavior on trade policy. Column 1 presents the results of a parsimonious specification focusing on individual characteristics of the representative. Some important results emerge. In particular, we find that Republican representatives are more likely to support trade liberalization than their Democratic

[12]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.

counterparts. This result is in line with previous studies highlighting that Democrats are systematically more protectionist than Republicans during the period we consider in our analysis (e.g. Blonigen and Figlio 1998, Baldwin and Magee 2000, Conconi, Facchini, and Zanardi 2012). Our results also suggest that the likelihood to support trade liberalization decreases with age (see also Conconi, Facchini, and Zanardi 2012), while gender does not seem to play a robust role. In column 2, we focus on the role of the channel highlighted in our theoretical model, by examining the impact of the district's skill composition. We find strong support for the predictions of our model: legislators from more skill-abundant districts are more likely to vote in favor of trade liberalization, and the effect is significant at the 1% level. In columns 3 we additionally explore the role played by welfare state considerations, controlling for mean family income and inequality at the district level. Our results suggest that this channel does not affect the voting behavior on trade policy. The same holds true when we include non-economic drivers that capture the district's ethnic composition and its degree of urbanization (column 4). Importantly, the inclusion of additional controls in columns (3) and (4) does not affect the sign and significance of our main explanatory variable. As for the magnitude of the effect, the results of our benchmark specification (column 4) suggest that a one percentage point increase in the skill ratio in a congressional district leads approximately to a 0.8 percentage point increase in the probability that the district's representative supports trade liberalization.

Table 7 presents the estimates of our empirical model for immigration policy, and follows the same structure as Table 6. First, concerning the individual characteristics of the legislators, we find that Democratic representatives are more likely to support immigration liberalization than their Republican counterparts. This result stands in sharp contrast with what we have found for trade policy bills and is robust to the inclusion of district controls (see columns 2-4). Furthermore, our estimates suggest that female members of Congress are more likely to support immigration liberalization. However, once we start controlling for district characteristics, gender differences in voting behavior become less significant. Importantly, as predicted by our theoretical model, legislators from more skilled-labor abundant districts are more likely to support immigration policies aiming to liberalize the inflow of unskilled immigrants (column 2). This relationship has already been highlighted by Facchini and Steinhardt (2011). In column 3, we examine also the role of the welfare state channel, which the literature suggests should play an important role in determining legislators' voting behavior on immigration (Boeri, McCormick, and Hanson 2002 and Hanson, Scheve, and Slaughter 2007). In particular, we expect legislators from wealthier constituencies to exhibit less favorable attitudes towards unskilled immigration, as unskilled immigrants are likely to be net receivers of public benefits and services. Economic theory also suggests that inequality within a constituency should increase the redistribution carried out

by a government (Meltzer and Richard 1981). Thus, representatives of districts characterized by higher inequality should support unskilled immigration less, as the burden of poor, unskilled immigrants is likely to be larger. Our findings support these predictions: representatives elected in wealthier districts are less likely to favor policies liberalizing unskilled immigration; the same is true for congresspersons from districts characterized by higher inequality, as soon as we account for geographic and network factors (see column 4 in Table 7).

While we do not find any significant differences between legislators representing urban and rural districts, our results show that a higher share of foreign-born and African-Americans within a district leads to a higher likelihood to support liberalization of unskilled immigration. This relationship is likely to be driven by social and family networks as well as by the identification with ethnic minorities.[13] Importantly, including additional controls in columns (3) and (4) does not affect the sign and significance of our main explanatory variable. As for the magnitude of the effect, our benchmark specification (column 4) suggests that a one percentage point increase in the skill ratio in a congressional district leads approximately to a 1.5 percentage point increase in the probability that the district's representative supports the liberalization of unskilled immigration.

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 affects legislative voting behavior on trade and migration liberalization bills in the same direction. In addition, two important differences emerge: first, Democratic party members are more likely to support liberal immigration legislation than their Republican counterparts, whereas they are less likely to vote for free trade. Second, our results highlight that welfare state considerations and a district's ethnic composition affect decisions on immigration policy, but have no impact on trade policy decisions.

## 5.2 Matched sample

Up to this point, our results have been based on the entire sample, covering all trade and immigration roll call votes that took place in the post-1970 period. However, Table 1 and 2 show that the number and the timing of the introduction of immigration and trade policy initiatives are very different. As a result, the findings discussed in Section 5.1 could be driven by sample differences, i.e. differences in the number of policy initiatives involving trade and immigration and differences in the timing of the various reforms. The latter in particular could imply that different individuals are called upon voting on trade and immigration initiatives. To address this concern, we restrict our attention on the sample of matched bills described in Table 3 (see Section 4 for more details

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

on its construction).

Furthermore, one might be concerned that the decisions on trade and immigration of each legislator might be interrelated, i.e. they might both be affected by common unobserved characteristics of the congressman or his district. If this is the case, the error terms of the two probit models in (1) and (2) are likely to be correlated. Following Greene (2011), we will assume that the two error terms consist of one component ($u_j$, $j = 1, 2$) that is unique to each model and a second component ($\eta$) that is common to both models. More specifically,

$$\epsilon_1 = \eta + u_1$$

$$\epsilon_2 = \eta + u_2$$

After the estimation of a bivariate probit, it is possible to test whether the covariance of between the error terms $\epsilon_1$ and $\epsilon_2$ is equal to zero, a result that would imply that two probit models can be estimated independently. In our case, using our preferred specification the formal test shows that we have to reject the null hypothesis of zero correlation between the two error terms.[14] As a result, our analysis of the matched sample will be carried out using a bivariate probit model.

The results of the bivariate probit regressions based on the matched sample are presented in Table 8, where we report coefficient estimates for the effect of the various controls. Notice that the sign of the effect of the various determinants of the voting behavior on both trade (column 1) and immigration (column 2) are very similar to those obtained in our estimates based on the full sample. We therefore can rule out that our findings in Section 5.1 have been driven by differences in the two samples. Thus, legislators from more highly skilled districts are more likely to support liberalization of both trade and migration, in line with the predictions of our model. Interestingly, the estimated magnitude of the impact of our skill measure obtained from the matched sample using the bivariate probit methodology is very close to the one obtained running separate probit models using the entire sample of votes.[15] In fact, the conditional marginal effect of a one percentage point increase in the share of skilled individuals on support for trade liberalization is comprised between 0.88 and 0.98 percentage points,[16] whereas the conditional marginal effect of a one percentage point increase in the share of skilled individuals on support for migration liberalization is comprised between 1.61 and 1.76 percentage points.[17] Our estimates also

[14]The corresponding Wald test for $\rho = 0$ is $\chi^2(1) = 3.08408$ and $Prob > \chi^2 = 0.0791$.

[15]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.

[16]In particular, the marginal effect conditioning on not supporting migration liberalization is 0.88, whereas the marginal effect conditioning on supporting migration liberalization is 0.98. The unconditional effect is 0.55.

[17]In particular, the marginal effect conditioning on not supporting trade liberalization is 1.76, whereas the

confirm the important differences concerning the welfare-state and non-economic determinants. In particular, it is worth highlighting the significant impact of fiscal exposure and ethnic networks for immigration reforms, which is instead absent for votes on trade reforms.

# 6 Additional results

In this section, we assess the robustness of our empirical findings by implementing a number of additional specifications. We start by introducing an alternative measure of districts' skill composition and by investigating the role played by additional economic drivers. We next turn to political drivers, exploring in greater details the influence of ideological factors at the individual and constituency level, and the role of lobbying in shaping trade and migration policies. Third, we explore to what extent our findings are sensitive to changes in the sample structure. Last, we account for unobservable characteristics at the individual level, by considering a specification that includes individual legislator fixed effects. All our robustness checks focus on the sample of matched votes, with the exception of the last one, where we use the full sample of bills to maximize the number of observations for each individual.

## 6.1 Economic drivers

In column 1 of Table 9, we start by replacing the share of highly skilled individuals in a district defined as based on educational achievement with a definition that is based on occupation. In particular, $SkillRatioOccupation_{it}$ describes the percentage of individuals over 16 employed in executive, administrative, managerial and professional specialty occupations. Once again, our results strongly support the predictions of the theoretical model: a representative of a district characterized by a larger share of high skilled individuals is more likely to support the liberalization of both trade and immigration. The effects of the other district and individual characteristics are comparable to what we have found in our benchmark specification (see Table 8).

In columns 2 and 3, we add information about sectoral employment at the district level and about the extent of redistribution carried out at the state level. In particular, in column 2, we include the share of farm workers within a district, as this is a sector that often received special treatment in trade policy making and also employs large numbers of immigrant workers (see Hanson and Spilimbergo 2001). Our results indicate that the extent of employment in agriculture does not affect the voting decision of representatives on trade and immigration reforms. In column 3, we account also for the possible impact of the amount of redistribution carried out at the state

marginal effect conditioning on supporting migration liberalization is 1.61. The unconditional effect is 0.93.

level ($Welfare_{it}$), which does not appear to affect the voting behavior of elected officials on trade and immigration policy.[18] In all specifications, the sign and significance of our key explanatory variable, namely the skill measure at the district level, are unaffected.[19]

## 6.2 Political drivers

We turn next to consider in Table 10 several robustness checks concerning political determinants. In column 1, we start by replacing the legislator's party affiliation, with his/her DW nominate score, where a higher figure indicates that the politician is more conservative (see Section 4 for the definition). Our results suggest that more conservative politicians are more likely to support trade liberalization, whereas they are more likely to vote against pro-immigration measures. Once again, the sign and significance of our main explanatory variable are not affected. In column 2 the representative's ideological leaning is instead measured using the ADA score, where a higher figure indicates that the politician is more liberal (see Section 4 for the definition). The findings in column 2 are broadly comparable to those reported in column 1. To account for the ideological orientation of the voting population within a district, in column 3 we also control for the extent of party strength in the previous congressional election. Although the signs of the coefficients are as expected, we do not find any evidence that the constituency's ideology has a separate impact on the voting behavior on immigration and trade legislation. Once again, our main results are not affected.

So far, our analysis has focused on the role played by the characteristics of the districts' average voter. In column 4 of Table 10, we include information on organized groups, which have received great attention both in the trade literature[20] and in the literature on migration.[21] Our measure of the intensity of the lobbying activity is given by Political Action Committee Contributions (PACs) which are available since 1979 and can be easily traced to elected officials. In particular, we focus on the role played by contributions offered by corporations (*PacCorporate*) and by unions (*PacLabor*). As PACs measure lobbying effort on a variety of different issues, we have considered a politician to have been "influenced" if the corporate (labor) contributions he/she has received are at or above the eightieth percentile of all corporate (labor) contributions in that year.[22]

[18] This result is hardly surprising since we are including state and year fixed effects in the specification.

[19] We have also run a series of specifications that included additional district level controls, like unemployment and different measures of the size of the redistribution carried at the state level. Our main results were unaffected and these models are available upon request from the authors.

[20] See for instance the theoretical analysis by Grossman and Helpman 1994 and the empirical implementations by Goldberg and Maggi 1999 and Gawande and Bandyopadhyay 2000.

[21] See Facchini and Willmann (2005), Hanson and Spilimbergo (2001) and Facchini, Mayda, and Mishra (2011).

[22] We have experimented with different thresholds, and the qualitative results are unaffected. With respect to the missing observations for 1973, to retain enough observations in our matched sample we have assumed that

In line with the existing literature, we find that lobbying activities do affect the voting behavior of elected representatives on trade policy. In particular, larger contributions by labor organizations tend to result in a more protectionist bias by the politician, whereas larger contributions by business related lobbies have the opposite effect. This result confirms earlier findings by Baldwin and Magee (2000). At the same time, we find that neither corporate nor labor PAC contributions affect the voting behavior of elected officials on immigration policy. This is in line with the findings of Facchini, Mayda, and Mishra (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.[23]

## 6.3 Sample

So far we have implicitly assumed that all proposed bills carry the same impact on the economic interests of the constituency. This is of course a simplification, and we are concerned that our results might be driven by bills of minor importance. To account for this, we have carried out our analysis on a restricted sample, focusing only on matches that involve at least one major trade and/or immigration reform (*H.R. 10710/H.R. 891*, *H.R. 4800/H.R. 3810* and *H.R. 4340/H.R. 4437*). The results are reported in column 1 of Table 11 and show that our initial findings are remarkably robust. Interestingly, when focusing only on the most important bills, the effects of the district's skill composition are almost identical in size for trade and immigration reforms.

In constructing our matched sample, we followed 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, and in column 2 of Table 11 we show that matching instead H.R. 5090 with H.R. 4222 yields very similar results.

representatives who received contributions at or above the eightieth percentile in 1979 also belonged to the "top" receivers in 1973.

[23]Facchini, Mayda, and Mishra (2011) use a dataset that allows to identify the purpose of the lobbying activity in the United States, showing that pressure groups at the sectoral level have a statistically significant and important effect on the allocation of work and related visas. Unfortunately, this data cannot be used in our analysis of congressmen's voting behavior, since it does not contain information on the identity of politicians contacted by lobbies.

### 6.4 Legislator fixed effects

Following the existing literature, we have so far controlled for a variety of individual-level characteristics of the legislator, including age, gender and political orientation (measured by party affiliation as well as by ADA and DW-Nominate scores). However, we are concerned that a number of other individual characteristics that we cannot observe could also influence the representative's voting behavior. In particular, some of these unobservable features might be correlated with the skill composition of a district, and lead to parameter estimates that suffer from an omitted variable bias. For example, a liberal representative may be more likely to be elected in a skilled labor abundant district. To account for unobserved time-invariant individual characteristics, we include individual fixed effects in the specification reported in Table 12, where our analysis is carried out using the full sample of bills to maximize the number of observations per individual.[24] The inclusion of legislator fixed effects implies that we are not able to control for observable (essentially) time-invariant characteristics at the individual level like gender or party affiliation. We can, however control for the time-varying ideological stance of the lawmaker by using his DW nominate score. In the specification with individual fixed effects and time dummies we are also not able to explicitly account for representatives' age, which is perfectly collinear with the time dummies. Our estimation strategy instead exploits the variation in the skill composition at the district level to identify the latter's effect on the congressperson's voting behavior on trade and migration policies.

We find that an increase in the share of highly skilled residents in a district positively affects the probability that each representative supports both measures liberalizing trade and immigration.[25] This finding strongly suggests the existence of a causal link between a districts' skill composition and a representative's voting behavior.

## 7 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 analysis, we have developed a simple theoretical model that emphasizes the importance of the skill composition of a constituency. Our framework predicts that representatives of constituencies in which skilled labor is more abundant should be more likely to favor a policy

[24] Due to the incidental parameter problem, we cannot run a probit estimation with individual level fixed effects. Since all the results reported in the paper are marginal effects, for comparison purposes Table 12 contains estimates from a linear probability model, but we have also used a conditional logit specification, obtaining similar results.

[25] The results are similar in nature if we use ADA scores instead of DW nominate scores.

liberalizing trade or increasing unskilled immigration. We have empirically assessed this predictions 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 some earlier literature emphasizes the differences between policy making in these two areas, our analysis suggests that important similarities should not be overlooked. In particular, we find that labor market factors, as captured by the complementarity and substitutability between the domestic factor supplies and changes in those factor supplies brought about (directly or indirectly) through trade and migration, are key drivers of legislators' voting behavior. In particular, representatives of more skilled-labor abundant constituencies are more likely to vote for liberalizing trade and immigration. Our results also confirm important differences in the drivers of trade and migration policy, which can help to explain why politicians are often more reluctant to lower barriers to low-skilled migrants than to goods, notwithstanding the large potential gains from further migration liberalization.[26] 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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[26] 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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**Table 1: Final passage votes on trade reforms in the House of Representatives 1970-2006**

| | 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 |

*Cong.* and *Date* describe the congress/date in which/when the vote took place. *Bill* shows the name under which the bill is originating in the House of Representatives ("H.R."). *Description* provides some basic information about the content of the legislation. *Dir.* shows whether the bill is pro or contra liberalizing trade. *Yes/No* show 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.

**Table 2: Final passage votes on immigration reforms in the House of Representatives 1970-2006**

| | 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 | 227 | 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: 4,906

*Cong.* and *Date* describe the congress/date in which/when the vote took place. *Bill* shows the name under which the bill is originating in the House of Representatives ("H.R."). *Description* provides some basic information about the content of the legislation. *Dir.* shows whether the bill is pro or contra liberalizing immigration. *Yes/No* show 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.

**Table 3: Matched final passage votes on trade and immigration reforms in the House of Representatives 1970-2006**

| | Cong. | Date | Bill | Description | Dir. | Yes | No | Sum Trade | Sum Immigration |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 93 | 11.12.1973 | H.R.10710 | Trade Act of 1974 | Pro | 272 | 140 | 412 | |
| 1 | 93 | 26.09.1973 | H.R.891 | Rodino bill | Contra | 336 | 30 | | 366 |
| 2 | 99 | 22.05.1986 | H.R.4800 | Omnibus Trade Bill, Incl. fast track authority | Contra | 295 | 115 | 410 | |
| 2 | 99 | 09.10.1986 | H.R.3810 | Immigration Reform and Control Act (IRCA) | Pro | 230 | 166 | | 396 |
| 3 | 100 | 13.07.1988 | H.R.4848 | Omnibus Trade and Competitiveness Act, incl. fast track authority | Pro | 376 | 45 | 421 | |
| 3 | 100 | 21.04.1988 | H.R.4222 | Extension of legalization by 6 months | Pro | 213 | 201 | | 414 |
| 4 | 109 | 28.07.2005 | H.R.3045 | Approval of DR-CAFTA | Pro | 217 | 215 | 432 | |
| 4 | 109 | 10.02.2005 | H.R.418 | Real ID Act | Contra | 261 | 161 | | 422 |
| 5 | 109 | 07.12.2005 | H.R.4340 | Approval of US-Bahrain FTA | Pro | 327 | 95 | 422 | |
| 5 | 109 | 16.12.2005 | H.R.4437 | Border Protection, Anti-terrorism and Illegal Immigration Control Act | Contra | 239 | 182 | | 421 |
| 6 | 109 | 20.07.2006 | H.R.5684 | Approval of US-Oman FTA | Pro | 221 | 205 | 426 | |
| 6 | 109 | 14.09.2006 | H.R.6061 | Secure Fence Act | Contra | 283 | 138 | | 421 |
| Total number of individual roll call votes on trade legislation: | | | | | | | | 2,523 | |
| Total number of individual roll call votes on immigration legislation: | | | | | | | | | 2,440 |
| Total number of matched votes | | | | | | | | 2,369 | 2,369 |

*Cong.* and *Date* describe the congress/date in which/when the vote took place. *Bill* shows the name under which the bill is originating in the House of Representatives ("H.R."). *Description* provides some basic information about the content of the legislation. *Dir.* shows whether the bill is pro or contra liberalizing trade/immigration. *Yes/No* show 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.

**Table 4: Summary Statistics**

| Variable | Obs. | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| *Vote Trade*$_{ijt}$ | 2,369 | 0.61 | 0.49 | 0.00 | 1.00 |
| *Vote Immigration*$_{ijt}$ | 2,369 | 0.39 | 0.49 | 0.00 | 1.00 |
| *Democrat*$_{it}$ | 2,369 | 0.52 | 0.50 | 0.00 | 1.00 |
| *DW Nominate*$_{it}$ | 2,369 | 0.04 | 0.44 | -0.72 | 1.68 |
| *ADA*$_{it}$ | 2,313 | 46.80 | 38.24 | 0.00 | 100.00 |
| *Female*$_{it}$ | 2,369 | 0.10 | 0.30 | 0.00 | 1.00 |
| *Age*$_{it}$ | 2,369 | 54.17 | 10.15 | 29.00 | 88.00 |
| *PacLabor*$_{it}$ | 2,039 | 0.20 | 0.40 | 0.00 | 1.00 |
| *PacCorporate*$_{it}$ | 2,039 | 0.20 | 0.40 | 0.00 | 1.00 |
| *SkillRatio*$_{it}$ | 2,369 | 0.19 | 0.09 | 0.02 | 0.57 |
| *SkillRatio Occupation*$_{it}$ | 2,369 | 0.28 | 0.08 | 0.10 | 0.58 |
| *Farm Worker*$_{it}$ | 2,369 | 0.02 | 0.03 | 0.00 | 0.21 |
| *Mean Family Income*$_{it}$ | 2,369 | 34,756 | 19,822 | 4,660 | 91,571 |
| *Median Family Income*$_{it}$ | 2,369 | 43,020 | 26,252 | 5,939 | 141,671 |
| *Inequality*$_{it}$ | 2,369 | 1.21 | 0.10 | 1.02 | 1.97 |
| *Welfare*$_{it}$ | 2,369 | 0.09 | 0.02 | 0.05 | 0.14 |
| *Share Democrat Votes*$_{it}$ | 2,369 | 0.53 | 0.25 | 0.00 | 1.00 |
| *Urban*$_{it}$ | 2,369 | 0.76 | 0.21 | 0.19 | 1.00 |
| *Foreign-born*$_{it}$ | 2,369 | 0.08 | 0.10 | 0.00 | 0.57 |
| *African-American*$_{it}$ | 2,369 | 0.11 | 0.15 | 0.00 | 0.92 |

*Vote Trade*$_{jit}$ is coded as 1 if the representative of district *i* at time t votes on bill *j* in favor of trade liberalization, 0 otherwise. *Vote Migration*$_{jit}$ is coded as 1 if the representative of district *i* at time *t* votes on bill *j* in favor of immigration liberalization, 0 otherwise. *Democrat*$_{it}$ is a dummy coded as 1 if the representative of the district belongs to the Democratic Party. *DW Nominate*$_{it}$ is an individual ideology score increasing in conservatism. *ADA*$_{it}$ ranks every house representative on a scale from 0 to 100, with higher scores assigned to politicians that are more liberal. *Female*$_{it}$ is a dummy taking the value of 1 for female congresspersons, zero otherwise. *Age*$_{it}$ measures the age of congressperson *i* at time *t*. *PacLabor*$_{it}$ and *PacCorporate*$_{it}$ are dummy variables that take the value 1 if the contributions from labor, respectively corporate, related Political Action Committees (PACs) of congressman *i* are above the 80th percentile of all Labor/Corporate PAC contributions in year *t*. *SkillRatio*$_{it}$ measures the percentage of the population over 25 with at least a bachelor degree. *SkillRatio Occupation*$_{it}$ describes the percentage of individuals over 16 employed in executive, administrative, managerial and professional specialty occupations. *Farm Worker*$_{it}$ measures the share of farm workers in the total labor force. *Mean Family Income*$_{it}$ measures the mean family income within a district in dollars. *Median Family Income*$_{it}$ measures the median family income within a district in dollars. *Inequality*$_{it}$ describes the ratio between mean and median family income within a district. *Welfare*$_{it}$ measures the state and local expenditures on public welfare, Health and Hospital, elementary and secondary education in relation to state personal income at the state level. *Share Democrat Votes*$_{it}$ is the Democratic share of the two-party vote at the past House elections. *Foreign-born*$_{it}$ is the share of foreign-born individuals in the total population. *African-American*$_{it}$ is the share of African-American individuals in the total population.

**Table 5: Congressional districts of Georgia, 109th Congress, Voting on Trade and Immigration**

| District | Skill Ratio | Representative | Party | Trade | Immigration |
|---|---|---|---|---|---|
| 1 | 0.18 | Jack Kingston | Republican | pro | contra |
| 2 | 0.14 | Sanford Bishop | Democrat | contra | contra |
| 3 | 0.13 | Jim Marshall | Democrat | contra | contra |
| 4 | 0.36 | Cynthia McKinney | Democrat | not voted | pro |
| 5 | 0.37 | John Lewis | Democrat | contra | pro |
| 6 | 0.51 | Tom Price | Republican | pro | contra |
| 7 | 0.32 | John Linder | Republican | pro | contra |
| 8 | 0.23 | Lynn Westmoreland | Republican | pro | contra |
| 9 | 0.19 | Charlie Norwood | Republican | contra | contra |
| 10 | 0.16 | Nathan Deal | Republican | contra | contra |
| 11 | 0.17 | Phil Gingrey | Republican | contra | contra |
| 12 | 0.19 | John Barrow | Democrat | contra | contra |
| 13 | 0.19 | David Scott | Democrat | contra | pro |

*Skill Ratio* measures the percentage of the population over 25 with at least a bachelor degree. Voting on trade and immigration refers to the representative`s roll call vote on H.R. 5684, respectively H.R. 6061.

**Table 6: Trade, Full Sample Results**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| $Democrat_{it}$ | -0.408*** | -0.395*** | -0.389*** | -0.376*** |
| | (0.029) | (0.029) | (0.031) | (0.031) |
| $Female_{it}$ | -0.022 | -0.043* | -0.038* | -0.033 |
| | (0.023) | (0.023) | (0.022) | (0.021) |
| $Age_{it}$ | -0.013* | -0.015* | -0.015* | -0.015* |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| $SkillRatio_{it}$ | | 0.788*** | 0.722*** | 0.810*** |
| | | (0.136) | (0.258) | (0.265) |
| $ln(Family\ Income_{it})$ | | | 0.058 | -0.001 |
| | | | (0.103) | (0.142) |
| $Inequality_{it}$ | | | -0.120 | -0.093 |
| | | | (0.134) | (0.157) |
| $Urban_{it}$ | | | | 0.000 |
| | | | | (0.076) |
| $Foreign\text{-}born_{it}$ | | | | -0.111 |
| | | | | (0.244) |
| $African\text{-}American_{it}$ | | | | -0.158 |
| | | | | (0.127) |
| Observations | 7,168 | 7,165 | 7,152 | 7,152 |
| Pseudo R-squared | 0.296 | 0.305 | 0.306 | 0.307 |
| Model $chi^2$ | 1,097 | 1,124 | 1,170 | 1,248 |
| Log Likelihood | -3,259 | -3,214 | -3,208 | -3,202 |

The table reports marginal effects of probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

**Table 7: Immigration, Full Sample Results**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| *Democrat*$_{it}$ | 0.472*** | 0.480*** | 0.455*** | 0.387*** |
| | (0.027) | (0.027) | (0.026) | (0.024) |
| *Female*$_{it}$ | 0.136*** | 0.128*** | 0.110*** | 0.068* |
| | (0.040) | (0.042) | (0.040) | (0.035) |
| *Age*$_{it}$ | 0.00363 | 0.0038 | -0.0023 | 0.0010 |
| | (0.011) | (0.011) | (0.011) | (0.012) |
| *SkillRatio*$_{it}$ | | 0.360*** | 1.716*** | 1.518*** |
| | | (0.139) | (0.313) | (0.293) |
| *ln*(*Family Income*$_{it}$) | | | -0.668*** | -0.599*** |
| | | | (0.122) | (0.145) |
| *Inequality*$_{it}$ | | | 0.0713 | -0.369** |
| | | | (0.170) | (0.154) |
| *Urban*$_{it}$ | | | | 0.134 |
| | | | | (0.103) |
| *Foreign-born*$_{it}$ | | | | 1.294*** |
| | | | | (0.350) |
| *African-American*$_{it}$ | | | | 0.456*** |
| | | | | (0.140) |
| Observations | 4,884 | 4,880 | 4,876 | 4,876 |
| Pseudo R-squared | 0.334 | 0.335 | 0.353 | 0.383 |
| Model chi$^2$ | 931.3 | 925.0 | 984.6 | 1,201 |
| Log Likelihood | -2,134 | -2,127 | -2,069 | -1,974 |

The table reports marginal effects of probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

**Table 8: Trade and Immigration, Matched Sample Results**

| | (1)<br>Trade | (2)<br>Immigration |
|---|---|---|
| *Democrat*$_{it}$ | -1.452*** | 1.605*** |
| | (0.143) | (0.126) |
| *Female*$_{it}$ | -0.094 | 0.161 |
| | (0.084) | (0.144) |
| *Age*$_{it}$ | -0.022 | 0.016 |
| | (0.031) | (0.049) |
| *SkillRatio*$_{it}$ | 2.194** | 4.624*** |
| | (0.999) | (1.154) |
| *ln(Family Income*$_{it}$*)* | -0.291 | -1.846*** |
| | (0.381) | (0.608) |
| *Inequality*$_{it}$ | -0.495 | -1.342** |
| | (0.626) | (0.534) |
| *Urban*$_{it}$ | 0.110 | 0.749 |
| | (0.290) | (0.466) |
| *Foreign-born*$_{it}$ | -0.520 | 3.826*** |
| | (0.879) | (1.424) |
| *African-American*$_{it}$ | -0.598 | 0.486 |
| | (0.438) | (0.604) |
| Observations | 2,369 | 2,369 |
| Log Likelihood | -1,856 | -1,856 |

The table reports results from bivariate probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

**Table 9: Robustness Checks, Economic Drivers**

| | (1) | | (2) | | (3) | |
|---|---|---|---|---|---|---|
| | Trade | Immigration | Trade | Immigration | Trade | Immigration |
| *Democrat*$_{it}$ | -1.450*** | 1.615*** | -1.447*** | 1.618*** | -1.452*** | 1.605*** |
| | (0.143) | (0.128) | (0.143) | (0.119) | (0.143) | (0.126) |
| *Female*$_{it}$ | -0.077 | 0.205 | -0.088 | 0.167 | -0.094 | 0.161 |
| | (0.083) | (0.150) | (0.084) | (0.145) | (0.085) | (0.144) |
| *Age*$_{it}$ | -0.022 | 0.017 | -0.020 | 0.019 | -0.023 | 0.016 |
| | (0.032) | (0.048) | (0.031) | (0.049) | (0.032) | (0.049) |
| *SkillRatio*$_{it}$ | | | 2.185** | 4.663*** | 2.126** | 4.597*** |
| | | | (0.985) | (1.144) | (1.003) | (1.165) |
| *SkillRatio Occupation*$_{it}$ | 3.042*** | 6.779*** | | | | |
| | (1.044) | (1.311) | | | | |
| *Farm Worker*$_{it}$ | | | 2.074 | 2.621 | | |
| | | | (1.905) | (2.929) | | |
| *ln*(*Family Income*$_{it}$) | -0.355 | -2.013*** | -0.233 | -1.758*** | -0.273 | -1.839*** |
| | (0.352) | (0.559) | (0.382) | (0.601) | (0.381) | (0.608) |
| *Inequality*$_{it}$ | -0.676 | -1.826*** | -0.551 | -1.451*** | -0.469 | -1.333** |
| | (0.583) | (0.536) | (0.631) | (0.531) | (0.632) | (0.541) |
| *Welfare*$_{it}$ | | | | | -2.780 | -1.571 |
| | | | | | (5.186) | (7.068) |
| *Urban*$_{it}$ | 0.112 | 0.740 | 0.249 | 0.922* | 0.116 | 0.755 |
| | (0.291) | (0.463) | (0.306) | (0.540) | (0.290) | (0.468) |
| *Foreign-born*$_{it}$ | -0.271 | 4.385*** | -0.495 | 3.841*** | -0.544 | 3.811*** |
| | (0.857) | (1.394) | (0.870) | (1.411) | (0.890) | (1.437) |
| *African-American*$_{it}$ | -0.562 | 0.643 | -0.575 | 0.538 | -0.600 | 0.487 |
| | (0.424) | (0.601) | (0.432) | (0.595) | (0.438) | (0.603) |
| Observations | 2,369 | 2,369 | 2,369 | 2,369 | 2,369 | 2,369 |
| Log Likelihood | -1,850 | -1850 | -1,855 | -1,855 | -1,856 | -1,856 |

The table reports results from bivariate probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

**Table 10: Robustness Checks, Political Drivers**

| | (1) | | (2) | | (3) | | (4) | |
|---|---|---|---|---|---|---|---|---|
| | Trade | Immigration | Trade | Immigration | Trade | Immigration | Trade | Immigration |
| *Democrat*$_{it}$ | | | | | -1.395*** | 1.549*** | -1.332*** | 1.678*** |
| | | | | | (0.167) | (0.166) | (0.141) | (0.138) |
| *DW Nominate*$_{it}$ | 1.890*** | -2.254*** | | | | | | |
| | (0.210) | (0.210) | | | | | | |
| *ADA*$_{it}$ | | | -0.022*** | 0.024*** | | | | |
| | | | (0.002) | (0.002) | | | | |
| *Share Democrat Votes*$_{it}$ | | | | | -0.154 | 0.147 | | |
| | | | | | (0.298) | (0.307) | | |
| *PacLabor*$_{it}$ | | | | | | | -0.265*** | 0.056 |
| | | | | | | | (0.076) | (0.123) |
| *PacCorporate*$_{it}$ | | | | | | | 0.413*** | 0.024 |
| | | | | | | | (0.120) | (0.118) |
| *Female*$_{it}$ | -0.038 | 0.090 | -0.096 | 0.112 | -0.092 | 0.159 | -0.129 | 0.135 |
| | (0.073) | (0.130) | (0.073) | (0.117) | (0.085) | (0.143) | (0.088) | (0.153) |
| *Age*$_{it}$ | -0.013 | 0.003 | -0.046 | 0.035 | -0.021 | 0.014 | -0.031 | 0.012 |
| | (0.032) | (0.052) | (0.030) | (0.054) | (0.031) | (0.049) | (0.037) | (0.057) |
| *SkillRatio*$_{it}$ | 3.158*** | 3.444*** | 1.992** | 4.217*** | 2.205** | 4.629*** | 2.378** | 3.440*** |
| | (0.966) | (1.210) | (0.926) | (1.292) | (1.008) | (1.155) | (0.979) | (1.317) |
| *ln*(*Family Income*$_{it}$) | -0.656* | -1.322** | -0.115 | -1.774*** | -0.298 | -1.849*** | -0.444 | -1.453** |
| | (0.348) | (0.563) | (0.324) | (0.640) | (0.387) | (0.608) | (0.384) | (0.674) |
| *Inequality*$_{it}$ | -0.593 | -1.067* | -0.015 | -1.363** | -0.483 | -1.363*** | -0.914 | -0.800 |
| | (0.679) | (0.575) | (0.710) | (0.585) | (0.627) | (0.529) | (0.576) | (0.562) |
| *Urban*$_{it}$ | 0.194 | 0.559 | 0.359 | 0.406 | 0.099 | 0.771 | 0.355 | 0.882* |
| | (0.272) | (0.416) | (0.287) | (0.443) | (0.289) | (0.471) | (0.291) | (0.505) |
| *Foreign-born*$_{it}$ | -0.103 | 3.351** | -0.329 | 3.363** | -0.478 | 3.796*** | -0.288 | 4.093*** |
| | (0.780) | (1.447) | (0.764) | (1.456) | (0.873) | (1.455) | (0.860) | (1.459) |
| *African-American*$_{it}$ | -0.233 | -0.094 | -0.344 | -0.025 | -0.543 | 0.427 | -0.732 | 0.563 |
| | (0.430) | (0.576) | (0.401) | (0.580) | (0.418) | (0.629) | (0.449) | (0.686) |
| Observations | 2,369 | 2,369 | 2,313 | 2,313 | 2,368 | 2,368 | 2,039 | 2,039 |
| Log Likelihood | -1,812 | -1,812 | -1,757 | -1,757 | -1,855 | -1,855 | -1,568 | -1,568 |

The table reports results from bivariate probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

**Table 11: Robustness Checks, Sample**

| | (1) | | (2) | |
|---|---|---|---|---|
| | Trade | Immigration | Trade | Immigration |
| *Democrat*$_{it}$ | -1.834*** | 1.302*** | -1.901*** | 1.626*** |
| | (0.199) | (0.149) | (0.135) | (0.125) |
| *Female*$_{it}$ | -0.237 | 0.196 | -0.144 | 0.162 |
| | (0.150) | (0.168) | (0.101) | (0.145) |
| *Age*$_{it}$ | -0.065 | -0.029 | -0.057 | 0.011 |
| | (0.053) | (0.052) | (0.039) | (0.049) |
| *SkillRatio*$_{it}$ | 4.198*** | 4.363*** | 3.467*** | 4.680*** |
| | (1.549) | (1.216) | (1.175) | (1.152) |
| *ln*(*Family Income*$_{it}$) | 0.154 | -1.859*** | -0.540 | -1.858*** |
| | (0.628) | (0.691) | (0.454) | (0.600) |
| *Inequality*$_{it}$ | 1.544 | -0.926 | -0.527 | -1.297** |
| | (0.955) | (0.685) | (0.646) | (0.530) |
| *Urban*$_{it}$ | -0.325 | 0.780 | 0.296 | 0.737 |
| | (0.476) | (0.539) | (0.342) | (0.460) |
| *Foreign-born*$_{it}$ | -0.934 | 2.111 | -0.985 | 3.809*** |
| | (0.996) | (1.397) | (1.075) | (1.413) |
| *African-American*$_{it}$ | -0.801 | -0.539 | -0.664 | 0.487 |
| | (0.695) | (0.667) | (0.553) | (0.599) |
| Observations | 1,133 | 1,133 | 2,358 | 2,358 |
| Log Likelihood | -834.5 | -834.5 | -1,695 | -1,695 |

The table reports results from bivariate probit regressions. Robust standard errors, clustered by state/decade, are presented in parentheses. All specifications include year and state fixed effects. The age regressor is divided by 10. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables. In column (1) we include only voting records that involve matches between major trade and/or immigration reforms (H.R. 10710/H.R.891, H.R. 4800/H.R. 3810 and H.R. 4340/H.R. 4437). In column (2), we match H.R. 4222 with H.R. 5090 instead of H.R. 4848.

**Table 12: Trade and Immigration, Legislator Fixed Effects**

| | **(1)** Trade | **(2)** Immigration |
|---|---|---|
| *SkillRatio*$_{it}$ | 0.651** | 1.411** |
| | (0.332) | (0.555) |
| *DW Nominate*$_{it}$ | 0.860*** | -0.468*** |
| | (0.165) | (0.177) |
| *ln*(*Family Income*$_{it}$) | -0.154 | -0.401* |
| | (0.134) | (0.219) |
| *Inequality*$_{it}$ | -0.227 | -0.157 |
| | (0.220) | (0.318) |
| *Urban*$_{it}$ | -0.122 | -0.244* |
| | (0.081) | (0.143) |
| *Foreign-born*$_{it}$ | 0.049 | 0.590 |
| | (0.286) | (0.414) |
| *African-American*$_{it}$ | -0.074 | 0.086 |
| | (0.214) | (0.392) |
| Observations | 7,151 | 4,898 |
| R-squared | 0.203 | 0.119 |
| F test | F(18,1432) = 60.39 | F(14,1320) =28.57 |
| | Prob > F = 0.0000 | Prob > F =0.0000 |

The table reports coefficients from a linear probability model based on the full sample. Robust standard errors, clustered by legislators, are presented in parentheses. All specifications include year and legislator fixed effects. *** Significant at 1%, ** significant at 5%, * significant at 10%. See end of table 4 for the definition of the variables.

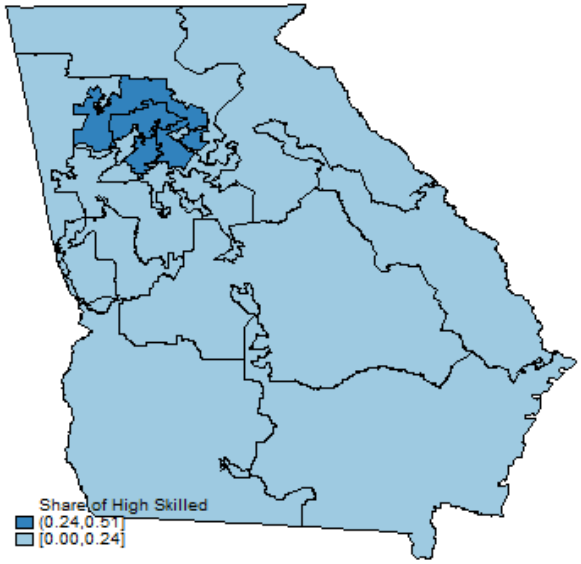



**Figure 2a: Skill ratio, Georgia, 109th Congress.**

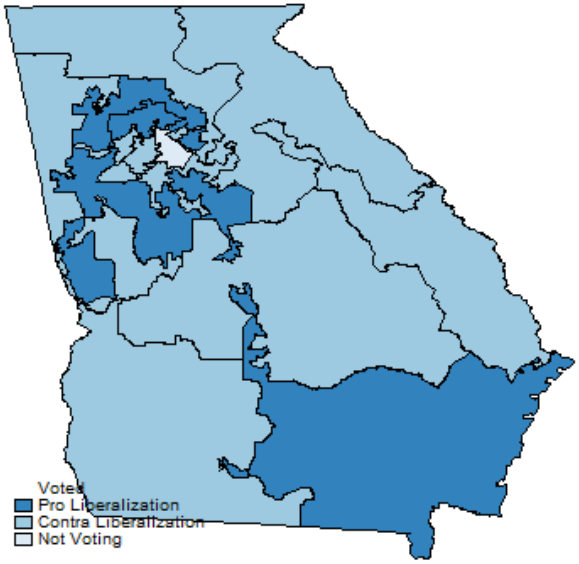
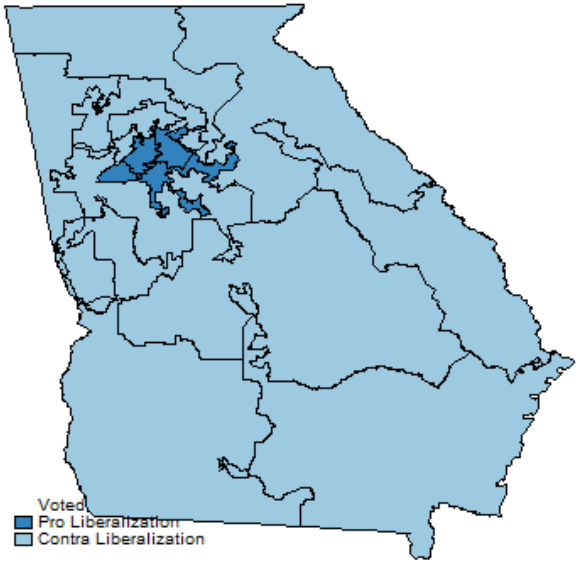



**Figure 2b: Trade, Voting on H.R. 5684.**



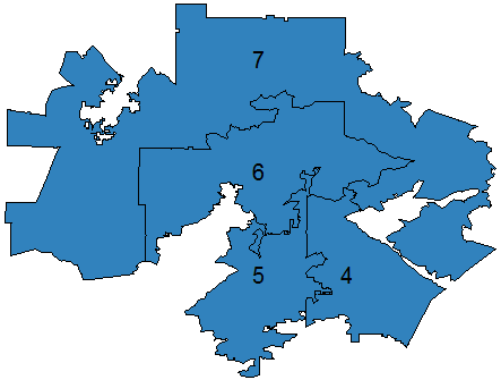
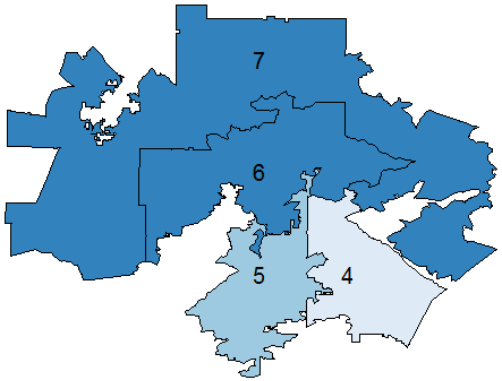
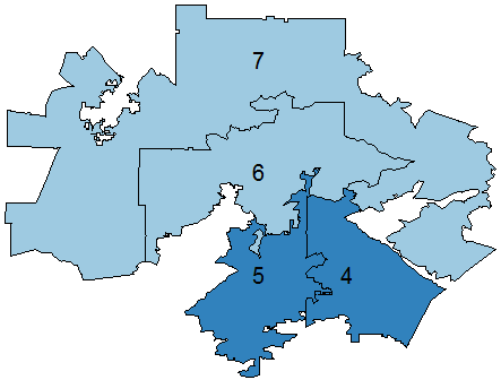


**Figure 2c: Immigration, Voting on H.R. 6061.**