Immigration to the U.S.: A problem for the Republicans or the Democrats?*

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June 3, 2016

*The authors would like to thank Michel Beine, Claudia Goldin, Daniel Hopkins, Alexander Wagner and seminar participants at Vanderbilt University, Banque de France, Georgetown University, Duke University, Universite Libre de Bruxelles (ECARES), Lancaster University and the OECD 5th Annual International Conference "Immigration in OECD Countries" for useful suggestions. The views expressed in this paper are those of the authors alone and do not reflect those of the Banque de France or the Eurosystem.

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Résumé

Cet article étudie l'incidence de l'immigration sur le résultat de toutes les élections ayant eu lieu en 1994 et 2012 aux États-Unis. Nous analysons la variation à travers les États et les années et contrôlons pour l'endogénéité des flux d'immigration en utilisant un nouvel ensemble d'instruments basé sur la distance entre le pays d'origine et la communauté d'accueil historique des immigrants. Cette méthode permet de créer un choc d'offre du flux d'immigrants. Nos résultats révèlent que l'immigration a un effet négatif sur la part de vote du Parti républicain. Ce résultat est conforme au point de vue dominant au sein des analystes politiques américains. Cependant, cet effet moyen est principalement observé lors des élections au Congrès et est caractérisé par deux composantes. Si le taux de croissance de la population immigrante est causé par une augmentation des individus naturalisés, l'effet sur le vote républicain est négatif. Pourtant, si la part d'immigrants non-citoyens dans la population local est élevée et en croissance – faisant de l'immigration un sujet prépondérant dans le débat public – l'effet sur le vote républicain est positif. Ces résultats sont cohérents avec des préférences électorales pour le Parti démocrate plus élevées chez les immigrants naturalisés que chez les natifs des États-Unis, mais aussi avec les préférences électorales des natifs des États Unis se déplaçant en faveur du Parti républicain dans les localités où la part d'immigrants non-citoyens est élevée. Nos estimations démontrent que le deuxième effet est seulement significatif quand une grande partie de la population locale est composée d'immigrants..

Classifications JEL: F22, J61
Mots-clés: Élection, Immigration, Parti Républicain, Citoyenneté

Abstract

This article studies the impact of immigration on the share of votes to the Republican and Democratic Party in US elections between 1994 and 2012. Our analysis is based on the variation across states and years and addresses the issue of endogeneity of immigrant flows using a set of instruments that leverage distance from country of origin and historical settlements of foreign-born to obtain a proxy for supply-driven immigration flows. Pooling all elections, immigration to the U.S. had a negative average impact on the vote share to the Republican Party. This is consistent with the typical view of political analysts in the U.S. However, this average effect – mainly detectable in House elections – has two components. When the growth of the immigrant population is due to an increase in *naturalized* migrants, the effect on Republican vote is clearly negative. Yet, when the share of *non-citizen migrants* in the population increases *and* their share in the state population is large – making immigration a salient policy issue – the impact on the Republican vote share is positive. These results are consistent with stronger voting preferences of naturalized immigrants for the Democratic Party relative to native voters, but also with native voters' political preferences shifting towards the Republican Party in places with *high* immigration of non-citizens. In our estimates, the second effect is only significant when immigrants are a large portion of the local population.

JEL classifications: F22, J61
Keywords: Elections, Immigration, Republican Party, Citizenship.

Non-technical summary

The aggressive stance of Republican candidates towards undocumented immigrants in the U.S. and the belligerent positions of right wing candidates against refugees in Europe are well known. Immigration can have a defining effect on political outcomes (see Ortega (2005)) and politicians are certainly aware of that.

The existing studies in the literature have focused on individual countries, mainly in Europe, and they provide evidence consistent with the idea that right wing parties stand to gain votes from more immigrants. Three recent papers found that recent immigration was correlated with the increased political success, measured as shares of votes, of the extreme right-wing parties[1]. The anti-immigration stance of those parties, it appears, has become more appealing to citizens as new immigrants have grown to be a larger local presence. Does this rhetoric work in the U.S.? Are voters in a country built on successive generations of immigrants driven to vote Republican because of increasing immigration pressure?

One crucial element to understand the effect of immigrants is to decompose their impact on votes in two channels, each of them captured by a specific group of immigrants. The first channel captures the indirect political effect of immigration working through the impact on existing voters who are mainly natives. The social and economic impact of immigrants affects how they cast their vote. The second channel is related to the direct political role of immigrants as voters. As they become naturalized, immigrants affect elections to the extent that they vote differently from natives. Immigration, therefore, may have different impacts depending on the balance of immigrant citizens and non-citizens. In the U.S., media and political analysts have focused mainly on the direct effect, pointing out the potential adverse impact that migrants can have on the electoral success of the Republican Party, as immigrants seem more likely to vote for the Democratic Party. Some political commentators even see an inevitable demise of the GOP in the long-run, as first-generation immigrants become more numerous and vote for the Democrats. We confirm this prediction by showing that, on average, immigration to the U.S. has a significant and negative impact on the Republican vote share.

However, an important aspect of the political effect of migration is that natives' votes, too, can be affected by the increase in the share of immigrants, through the indirect channel described above. When we distinguish between the effect of naturalized and non-naturalized immigrants, our empirical analysis shows that the previous channel works. Indeed, the impact of immigration on Republican votes in the House is negative when the share of naturalized migrants in the voting population increases. Yet, it is positive when the share of non-citizen migrants increases above a threshold. Our results are consistent with naturalized migrants being less likely to vote for the Republican Party than native voters and with native voters' political preferences moving in favor of the Republican Party but only at high levels of non-citizen immigrant share. This effect is significant only for (non-citizen) immigrant shares above 0.132.[2]

[1] Barone et al. (2014),Halla et al. (2012), and Otto and Steinhardt (2014). These papers are focused respectively on Austria, Italy, and on the city of Hamburg, Germany.

[2] According to CPS data as of 2012, only in 6 U.S. states (California, District of Columbia, Nevada, New Jersey, New York and Texas), this share was sufficiently high to push natives towards the Republican Party. For the other

The differential impact of citizen and non-citizen migrants helps us to reconcile the contrasting empirical evidence coming from Europe and the U.S.. According to our results, the political effect of immigration crucially depends on the extent to which immigrants participate in the political process. To the extent that in Europe naturalization rates and/or political participation of immigrants are low, the indirect political effect, working through the impact on existing voters, dominates. This effect exists in the US too but it appears to be weaker and only positive for the Republican vote share at very high shares of non-naturalized citizens. Overall, on average, the direct effect of immigrants dominates. When we differentiate across states/years cells, according to their share of non-naturalized migrants, we find that only six states have a high enough share of non-naturalized immigrants to generate a positive effect on Republican vote shares.

For the most part, Republicans are opposed to reforms, especially if they include a path to citizenship for currently undocumented immigrants. In addition, in electoral times, Republicans' average attitude towards migrants is to talk "tough" about the presence of undocumented immigrants. Our results shed light on these issues. First, naturalized immigrants are a liability for conservative politicians, as they tend to vote for liberal parties. Hence the incentive of Republicans to turn eleven million undocumented immigrants into voters for the Democratic Party is low. Second, at the same time, the presence of undocumented immigrants and the blame on them for negative economic and social outcomes is the raison d'être of some conservative politicians. Right-wing parties in Europe and vocal anti-immigration Republicans in the U.S. flourish in localities and times characterized by a high non-citizen immigrant share. In the U.S., Republicans gain votes when the high local share of undocumented migrants makes American voters more conservative. However, the political returns of making undocumented immigration a salient issue may be limited – according to our calculations the non-citizen immigrant share is high enough to help Republican votes only in a handful of states.

states, the corresponding impact on Republican votes of non-citizen immigrants was null to negative.

"... the enormous flow of legal immigrants to the country has remade and continues to remake the nation's electorate in favor of the Democratic Party."(Center for Immigration Studies (CIS) Background by James G. Gimpel, April 2014)

"Many white Americans see that America is changing, believe that immigration is driving many of the negative changes and know that one party stands largely on the side of immigrants while the other party stands largely in opposition. For many whites, this is a powerful motivation to vote Republican."(New York Times Op Ed article, November 20, 2014)

1 Introduction

Political leaders' stand vis-a-vis the issue of immigration can be one of the important determinants of their electoral success or failure. Immigration policy has been a recurring topic of Presidential Debates during election years in the United States, manifesting in issues ranging from illegal immigrants to birthright citizenship. That immigration has a defining effect on political outcomes has already been pointed out in the literature (see for example Ortega (2005) and other works discussed in Section 2) and, as noted above, is definitely taken into account by politicians. Yet, to our knowledge, no empirical study has looked directly at one crucial aspect of the political effect of immigrants; namely, their impact on U.S. election outcomes, and specifically on the share of votes received by the Republican and Democratic parties.[3] Against this background, this paper contributes to the literature by analyzing the link between immigration and the vote share received by the Republican and Democratic parties in every US election between 1994 and 2012. To that end, we exploit the large variation in immigration across states and over years, and the corresponding variation in electoral outcomes. We use data from the Current Population Survey merged with election data from the National Library of Congress and rely on a set of instrumental variables – some of them new in this literature – to estimate the causal effect of immigrants on the share of votes received by each party.

The number and share of immigrants among the U.S. adult population and labor force have been rising steadily over the last four decades. Based on data from the U.S. Census, in 1980 there were 6.2 million (7.1 percent) foreign-born adults in the U.S. labor force, growing to 10.3 million (10.1 percent) in 1990, to 15.6 million (14.4 percent) in 2000, and then to 22.4 million (19.1 percent) in 2010. Given its magnitude, immigration to the U.S. is likely to have sizable effects on different aspects of its economy and society. Immigrants may affect native workers' opportunities in the labor market, as investigated by a large body of literature (see, for example the book by Borjas (2014) and the surveys by Blau and Kahn (2012) and Lewis and Peri (2014) as overviews of this literature). Immigrants may also impact the destination country's government budget by paying taxes, receiving transfers and using public goods (see for instance Edmonston et al. (1997) and Boeri et al. (2002)). In addition, the literature points out several potential social effects of immigration on culture, social norms, crime and security.[4] Finally, immigrants can

[3]One partial exception (that we know of) is a recent paper, Baerg et al. (2014), which estimates a negative impact of the share of unauthorized workers on the proportion of votes going to the Democrats focusing only on the U.S. state of Georgia.

[4]Examples are Giuliano (2007), Alesina and Giuliano (2011) which show how immigrants affect the transmission

produce political changes in the destination country, for example through their impact on election outcomes. These changes can affect the democratic support for institutions and policies in the destination country and, hence, produce lasting effects.

In this paper, we study the impact of immigrants on election outcomes through two channels, associated with two different groups of foreigners. The first channel is the *indirect* political effect which works through the impact of a growing population of new immigrants on existing voters' political preferences. The *perceived* effect of immigrants on natives' welfare, economic opportunities, local amenities and culture may affect how citizens cast their vote – and this perceived effect is likely to be stronger the more numerous migrants are. Voters can perceive the local presence of immigrants as associated with local amenities or dis-amenities, such as cultural effects, or with changes in economic conditions, such as wages, employment, taxes and public goods. Voters may reward or punish a party for its stand on immigration policies as long as immigration is a salient political issue. These policies may be directly related to immigration, like immigration policy, or may be other types of government interventions. For example, if voters think immigrants generate a net fiscal transfer from citizens, they might vote for the Republican candidate, who favors less redistribution and fewer safety net policies, when immigration increases.[5] It is likely that voters' perception of the presence of immigrants is made more acute in correspondence of recent inflows of new, non-citizen immigrants. The perception can be even stronger when their socioeconomic characteristics differ markedly from those of voters.

The second channel through which immigrants affect elections, instead, is related to the direct political role of immigrants. Once naturalized, immigrants cast their vote expressing their electoral preferences, which can be different from those of existing voters. This affects the aggregate election outcome, and such impact becomes stronger in the long run as more immigrants naturalize. In the U.S., where naturalization rates are high, this second channel is likely to already be important. Immigration, therefore, may have different impacts depending on the balance of immigrant citizens and non-citizens, and on the intensity of the voting response of citizens to their presence.

The U.S. press and media, as well as academic studies by political scientists (e.g. Gimpel (2014)), have primarily focused on the direct effect of immigrants – the second channel described above. Their analysis described the potential adverse impact that immigrants can have on the electoral success of the Republican Party, as immigrants are more likely to vote for the Democratic Party.[6] Many political commentators even predict the eventual demise of the Republican Party as inevitable unless the GOP substantially improves its appeal to immigrants and minorities. Our analysis confirms this prediction by showing, on average, the share of votes received by Republican Party candidates is reduced significantly as the share of immigrants in the population increases. In particular, we find a significant effect on House elections, but a lesser impact on Senate, Presidential and Gubernatorial races.

of social norms. Butcher and Piehl (1998), Chalfin (2015) and Spenkuch (2013) analyze the effect of immigration on crime rates in U.S. cities.

[5] At the same time, if immigrants have only limited access to the welfare system, as can be the case with illegal immigrants, voters might vote for the party in favor of redistribution and safety net policies if they believe that immigration is negatively affecting their incomes.

[6] See first quote at the beginning of the paper.

However, the indirect effect of immigrants (first channel described above), which is an important aspect of the political effect of immigration, has received much less attention. Existing voters' political preferences could be affected by the increase in the share of immigrants.[7] Our empirical analysis shows that this is the case, but for this effect to be significant the share of non-citizen immigrants has to be quite large. In our empirical analysis we allow for a nonlinear (quadratic) effect of the share of non-naturalized immigrants. We find a positive impact on Republican votes when the share of non-citizen immigrants in the population is large (above 0.137).[8] In other words, existing voters' political preferences move towards the Republican Party when immigration of non-citizens, as a share of the population, is already high and increasing. This is interesting and plausible. When non-naturalized immigrants –most of them recently arrived – become a significant population group in a state, the perceptions of voters about the potential consequences of immigration become acute, making immigration a salient feature in their choice of party.

Our estimates reveal that in states characterized by a very high non-naturalized immigrant share (equal to about 13.7%, of which only California, Nevada, New Jersey, New York and Texas meet this in 2012), the share of votes received by Republicans in House elections are positively and significantly affected by additional increases in the immigrant share. Instead, when the percentage of non-naturalized immigrants is less than 13.7%, the impact of an increase in this share on the share of votes received by Republicans is null to negative. Overall, our results are consistent with the hypothesis that naturalized immigrants are less likely to vote for the Republican Party than existing voters – many of whom are natives – and that existing voters' political preferences shift towards Republicans, but only in states where the presence of non-naturalized immigrants is significant. The average U.S. state is one in which the negative direct impact of naturalized immigrants on Republican votes is combined with a nonsignificant impact of non-naturalized immigrants. In the year 2012, the average share of non-citizen immigrants was 6.8%, significantly below the 13.7% threshold value.

Our results, differentiating the electoral impact of citizen and non-citizen immigrants, are also helpful in understanding the difference between the political differences between the U.S. and Europe, where several studies have shown that larger inflows of immigrants *improve* the electoral success of right-wing parties (see Barone et al. (2014) and Halla et al. (2012)). Our explanation for this is that the political effect of immigration crucially depends on the extent to which immigrants can participate in the political process. In Europe, naturalization rates and immigrant political participation are low and slow to achieve, hence the indirect political effect of immigration working through its impact on natives' preferences prevail. In the U.S., however, where the naturalization rate is high and integration in the political system is faster, the direct effect of immigrants is sizable and dominates.[9] However, when we differentiate across states according to their share of

[7] See second quote at the beginning of the paper.

[8] On the other hand, when we use a linear specification, there is no significant effect of the non-citizen migrant share.

[9] According to the American Community Survey (ACS), in 2008 the U.S. naturalization rate was 43%. The rate of naturalization was lower in many European countries in the same year; for example, in Italy (14%) and in Austria (34%) (Reichel (2012)). The analysis of the difference in the political impact of immigration in the U.S. vs. Europe is beyond the scope of this paper and is the focus of Mayda et al. (2015).

non-naturalized migrants, we also find, in the more extreme cases, the positive effect of non-citizens on Republican votes, consistent with the European findings.

The key identification concerns in the empirical analysis relate to (1) omitted variables, affecting electoral outcomes and immigration, as well as (2) reverse causality, where immigrants self-select into geographical areas that tend to vote in favor of the immigration-friendly party. To address these issues, we exploit only within-area variation over time (including state and year fixed effects in panel estimation), and we use a somewhat novel set of instruments for our main explanatory variables: the number of naturalized and non-naturalized immigrants as a share of the population in a state. Shift-share instruments à la Card (2001) – based on the size of pre-period settlement of immigrants from a given country of origin across U.S. states – have been widely used in the literature based on the idea that one important determinant of immigration is networks of family and friends (Munshi (2003)). However, one concern that has been raised is that the past location of immigrants across destinations might be correlated with past local economic and political conditions. To the extent that these conditions are persistent over time, this would invalidate the exclusion restriction of a shift-share instrument à la Card (2001). Therefore, we address this concern with a proxy for the *past* size of settlements of immigrants from specific countries with functions of the distance between the state and the origin itself. This distance is not likely to be correlated with time-varying economic and political factors affecting the political preferences in the state.[10] We construct the instrument for the share of immigrants from a country in a U.S. state, apportioning national inflows from that country across states by distance. We then adjust for the national *naturalization rate* of that group to obtain the share of naturalized immigrants. We use the variation of these predicted variables over the considered period, 1994-2012. For the change in non-naturalized immigrant shares – which include, especially after 1990, illegal immigrants – we combine data on yearly border apprehensions, providing a proxy for total undocumented immigration in a year, with information on the distance between each U.S. state and the U.S.–Mexico border. The instrument for newly-arrived, non-naturalized immigrants mainly captures the change in Mexicans and Central Americans. This is a strength of our identification. First, this is a very large and significant group among non-naturalized immigrants.[11] Second, this is the group that likely encourages the strongest political response from citizens in terms of their vote. After all, it is by leveraging the discomfort of citizens in the presence of large numbers of undocumented immigrants that several Republican candidates try to rally their base.

The rest of the paper is as follows. Section 2 surveys the existing literature. In Section 3, we lay out a simple framework that characterizes the indirect and the direct effect of immigrants and introduces the estimating equation. We then describe the data and how we construct the key variables in Section 4. In Section 5 we present, respectively, the naive and the model-based empirical specifications we use for estimation. We also discuss identification and present the main empirical results. In section 6, we calculate the effect of different policies on the vote share of the Republican Party as predicted by our estimates. We also use data on immigration and

[10] In gravity models of migration, distance consistently appears as a significant determinant of migration flows, see Ortega and Peri (2013).

[11] According to the PEW research center (Passel and D'Vera (2011)), in 2010 the number of illegal immigrants in the U.S. labor force was 8 million people, which represents more than 61 percent of non-citizen immigrants in the U.S. labor force in our data during the same year.

voting behavior in some representative U.S. states in 2008 and 2012 to illustrate the relevance and plausibility of the estimated effects. In Section 7, we investigate potential channels through which non-naturalized immigrants affect the voting behavior of existing voters. In section 8 we perform several robustness checks. Finally, Section 9 concludes the paper.

2 Related Literature

Our analysis is related to the theoretical and empirical contributions in the economics literature that analyze the effect of immigrants on voting behavior.[12]

A large part of the theoretical economic literature has focused on voting behavior on immigration policy as a function of the skill composition of immigrants and natives. The seminal paper in this literature is Benhabib (1996), which derives the skill composition requirements that would be imposed on potential immigrants, under majority voting, assuming that the only effect of migration is through the labor market. Ortega (2005) analyzes the trade-off arising in a dynamic version of Benhabib (1996) model in which immigrants gain the right to vote and, therefore, affect the political balance of the destination country. The arrival in the destination country of immigrants, whose skill composition depends on the existing immigration policy, alters the skilled-to-unskilled labor ratio of the work force in the destination country. This, in turn, affects the current-period skill premium as well as the skill composition of next period's electorate, and thus the political balance and migration policies in the future. On the one hand, skilled (unskilled) natives prefer an immigration policy that admits unskilled (skilled) immigrants to their country because of their wage effects. On the other hand, the arrival of unskilled (skilled) immigrants potentially shifts the political equilibrium by increasing the number of unskilled (skilled) voters in the next period. These two opposite effects could produce a cycle equilibrium in which the political majority switches from one group to the other. Alternatively, a quota equilibrium could prevail in which the group in the majority – either skilled or unskilled – admits immigrants of the opposite type but limits their number through quotas, in order to retain future political power. Finally, Razin et al. (2011) focus on the joint decision of voters on immigration and redistribution policies, respectively. They emphasize how, in terms of immigration and redistribution, a democratic state would produce policies that are consistent with each other so that, when immigration is more open, natives restrict redistribution for fear of net transfers to immigrants, while when immigration is more restricted, they are willing to allow more redistribution. The theoretical models provide predictions on how natives of different skills prefer more or less immigrants, also as a function of the amount of redistribution provided by the state.

The existing empirical literature for the U.S. provides indirect evidence for the effect of immigrants on voting behavior, mainly by analyzing what determines the preferences of U.S. individuals about immigrants. For example, Scheve and Slaughter (2001) analyze the labor-market drivers of individual preferences on immigration policy – using the 1992 NES survey – and find that

[12]While our work is related to contributions in the political science literature on the same topic, for the sake of space our survey focuses on economics papers. Importantly, though, to our knowledge, no works in the political science literature carry out the same type of analysis.

more-skilled respondents are significantly less likely to be anti-immigration.[13] Hanson et al. (2007) extend the previous analysis by accounting for the impact of public finance considerations on U.S. immigration attitudes. This paper shows the negative impact of individual skill on anti-immigration preferences is weaker in states characterized by high exposure to immigrant fiscal pressures.[14] Looking at similar surveys for European countries, Card et al. (2012) show that while the perception of economic gains from immigrants vary by skill-level across natives, it is the perception of the impact of immigrants on local communities, culture and amenities that drives the policy preference of natives on immigration (stricter or looser immigration policies).[15].

More directly related to our work are some papers that analyze, for different European countries, how the inflow of immigrants impacts the electoral success of right-wing parties. In particular, Barone et al. (2014) empirically analyze the effect of immigration to Italy on political outcomes in the 2001, 2006 and 2008 national elections. This paper finds that the inflows of immigrants into a municipality increased the share of votes going to the centre-right party, which was more conservative on immigration issues than the centre-left one. Similarly, Halla et al. (2012) estimate the impact of immigrant inflows in Austria on the share of votes for a far-right-wing party (the Freedom Party of Austria). They find evidence of a positive and significant effect at the neighborhood level. Both papers use shift-share instruments à la Card (2001). Finally, Otto and Steinhardt (2014) analyze the impact of the share of foreign citizens on election outcomes using variation over time across city districts in Hamburg between 1987 and 2000. The authors find evidence of a positive correlation between the population share of immigrants in a district and the share of votes received by extreme right-wing parties with a clearly anti-immigration stand, as well as evidence for a negative correlation between the population share of immigrants in a district and the share of votes received by the Green Party, which held a pro-immigration position. The authors give a causal interpretation to these results based on a fixed-effects empirical strategy and additional robustness checks, which account for the endogeneity of the location decision of natives and immigrants. They do not instrument the flow of immigrant.

Relative to these papers, our paper is the first to analyze the effect of naturalized and non-naturalized immigrants separately. It is also the first to focus on U.S. elections, using variation across U.S. states instrumented with a distance-based proxy for immigration from different countries.

3 Framework

In this section we present a simple framework that illustrates the effects of immigrants on the share of votes received by the Republican Party, separating citizen immigrants and non-citizen

[13]Given that in the U.S. immigrants are on average less skilled than natives, respondents' perceptions are in line with the predictions of the multi-cone HO model (without factor-price insensitivity) and of the factor-proportions-analysis model.

[14]For papers analyzing the labor market and welfare state determinants of public opinion on immigration across countries, see for example Mayda (2006), Facchini and Mayda (2009) and O'rourke and Sinnott (2006)).

[15]A related line of research looks at how U.S. politicians vote on topics related to immigration policies, as a function of the characteristics of their districts. Interesting examples of this literature are Conconi et al. (2012) and Facchini and Steinhardt (2011).

immigrants. The effect of increasing the share of citizen immigrants is due to their inclusion as new voters. This is a "direct" effect since naturalized immigrants may have different voting preferences relative to natives. Naturalized immigrants have been in the country for some time and local economies and societies have assimilated them to a large extent. Thus, the admission of citizen immigrants to vote is not likely to affect much the political preferences and attitudes of natives. To the contrary, non-voting immigrants who are more recent, sometimes temporary and not infrequently undocumented, cannot have a "direct" effect, as they do not vote, but may induce existing voters to react in the polls if they perceive these newer immigrants to be an economic, cultural or social opportunity or threat.

We capture the above intuition in an estimating equation, showing how the Republican Party's share of votes depends on the shares of citizen and non-citizen immigrants. Let's define the variable r_{it} to be the share of votes going to the Republican Party in state i in a given election in year t. That share can be defined as follows:

$$r_{it} = r_{it}^{NAT}\frac{N_{it}}{V_{it}} + r_{it}^{IMMI}\frac{CM_{it}}{V_{it}} = r_{it}^{NAT} + \left(r_{it}^{IMMI} - r_{it}^{NAT}\right)\frac{CM_{it}}{V_{it}} \quad (1)$$

where the variable r_{it}^{NAT} represents the average probability that a U.S.-born individual votes for the Republican Party in state i and year t. For each state i and year t, the variable N_{it} denotes the number of natives, the variable CM_{it} indicates the number of citizen immigrants while the variable V_{it} represents the total voting population, equal to $N_{it}+ CM_{it}$. The term r_{it}^{IMMI} is the average probability that a citizen immigrant votes for the Republican Party in state i and year t.

The right-hand side of expression (1) separates the two components through which citizen immigrants and non-citizen immigrants affect the share of votes going to the Republican Party. The term r_{it}^{NAT} includes only the preferences of natives and, hence, any effect of immigration on this term will be via the *indirect* effect of immigration changing the political preferences of native citizens. The second term, $\left(r_{it}^{IMMI} - r_{it}^{NAT}\right)\frac{CM_{it}}{V_{it}}$ captures the *direct* political effect of immigration. The more different citizen immigrants' preferences are from those of natives ($r_{it}^{IMMI} - r_{it}^{NAT} \neq 0$), and the larger the share of citizen immigrants in the voting population – $\frac{CM_{it}}{V_{it}}$ – the stronger this effect will be.

3.1 *Direct* political effect of immigration

Different voting preferences between immigrants and natives ($r_{it}^{IMMI} - r_{it}^{NAT}$) can exist either because (1) immigrants come from different cultures and may have specific political preferences, or because (2) immigrants differ from natives in terms of economic characteristics, or, finally, (3) natives perceive more hostility towards immigrants in one specific party. According to most existing surveys, especially in the last two decades, voting immigrants seem to have a stronger preference for the Democratic Party, so that $(r_{it}^{IMMI} - r_{it}^{NAT}) < 0$. Note that citizen immigrants have been in the country for a long time, so their skill and income profile is not too different from natives. In our data, the average number of years of education is 14.01 for citizen immigrants compared to 14.07 for natives; the average income in 1999 prices was $37,609 for citizen immigrants compared

to $34,228 for natives.[16] Given the broadly similar socioeconomic and demographic characteristics of natives and citizen immigrants, we surmise that a large part of the difference in the propensity to vote for the Republican Party is driven by different preferences and has a persistent component across states. Emphasizing that immigrants have lower propensity than natives we can, therefore, write:

$$r_{it}^{IMMI} - r_{it}^{NAT} \approx -d \tag{2}$$

3.2 *Indirect* political effect of immigration

Republicans and Democrats differ in the set of social and economic policies they support. The first party is perceived as more pro-market, against taxation, for small government and free economic enterprise, the second for more social justice, stronger regulation and for equality. Many nuances and variations exist, however, across states and over time. Different people, depending on their preferences and their socioeconomic status may prefer either platform. Position on immigration is but one of many considerations voters entertain when choosing a representative to support.

In general, the Republican Party is associated with more restrictive immigration policies[17] which in most people's minds, over the last two decades, implies admitting and allowing fewer new (non-citizen) immigrants as a share of the population either by restricting admission or by toughening their stance on undocumented immigration. If citizens perceive the number of immigrants, especially new immigrants still not integrated, to be a threat to their economic well-being (through competition on the labor market or fiscal cost), or due to their differences in cultural and social values, than increases in the share of non-citizen immigrants in the population are likely to benefit the Republican Party.

Defining NCM_{it} as the number of non-citizen immigrants in state i and year t and M_{it} as the total number of immigrants in state i and year t, the relevant share will be indicated as: $\frac{NCM_{it}}{M_{it}+N_{it}}$. An increase in this share could push voting citizens towards more anti-immigration policies associated with Republican legislators. Note the response of natives and their perception of immigration as an issue may operate in a nonlinear way. When there are only few new immigrants, voters may actually like the additional diversity. Local shops, restaurants, and services may benefit from it. However, this perception may become negative and stronger once non-citizen immigrants grow beyond a certain share of the population, as voters might feel their culture and local environment could be changed and threatened. Hence, the political response of natives to $(\frac{NCM_{it}}{M_{it}+N_{it}})$ could have a concave shape. Either because the perception of immigrants becomes much more acute at higher shares of foreign-born persons in the local population, or because the salience of immigration policies relative to other issues becomes stronger (immigration may become a salient political issue for natives only when the presence of immigrants becomes apparent). In that case the immigration policy of each party becomes one of the deciding factors in voting.

[16] On the other hand, the average number of years of education (12.6) and average income ($25,614) of non-citizen immigrants differ significantly from the native population.

[17] Empirical evidence by Facchini and Steinhardt (2011) and Conconi et al. (2012) suggests that Democratic legislators are more likely than Republicans to vote for pro-immigration policies.

Summarizing the motivations above, we can represent the probability of a native voting for the Republican Party as dependent on an array of factors that vary by state and time, summarized by X_{it} and on the share of non-citizen immigrants $\frac{NCM_{it}}{M_{it}+N_{it}}$ which, at some level, may become a paramount concern for natives, pushing them to prefer more restrictions and, hence, vote for the Republican Party. We can represent these effects as:

$$r_{it}^{NAT} = f_{NAT}\left(\frac{NCM_{it}}{M_{it}+N_{it}}, X_{it}\right) \tag{3}$$

where the function $f_{NAT}(.)$ captures the overall impact of new (non-citizen) immigrants that operate through the described effects and of other policies and economic factors X_{it} in state i and year t, on the probability of voting Republican. Substituting expressions (2) and (3) into the definition of r_{it} given in expression (1), we obtain:

$$r_{it} = f_{NAT}\left(\frac{NCM_{it}}{M_{it}+N_{it}}, X_{it}\right) - d\frac{CM_{it}}{V_{it}} \tag{4}$$

3.3 Empirical specifications

Linearizing (4) and capturing with fixed effects a set of state (s_i) and year (q_t) specific factors, we can derive the following specification for r_{it}:

$$r_{it} = s_i + q_t + \beta_1\frac{NCM_{it}}{M_{it}+N_{it}} + \beta_x X_{it} + \beta_2\frac{CM_{it}}{V_{it}} + \varepsilon_{it} \tag{5}$$

In this specification, we are assuming a linear effect, β_1, of new non-citizen immigrants on the share of Republican votes through their impact on natives. Also the framework implies that the coefficient β_2 is negative if immigrant citizens have stronger preference for the Democratic party relative to natives. However, as mentioned above, we may want to capture the non-linearity implied by the increased salience of immigration in elections, as the share of non-citizen immigrants increases. We can do this in the following linear-quadratic specification:

$$r_{it} = s_i + q_t + \beta_L\frac{NCM_{it}}{M_{it}+N_{it}} + \beta_Q\left(\frac{NCM_{it}}{M_{it}+N_{it}}\right)^2 + \beta_2\frac{CM_{it}}{V_{it}} + \beta_x X_{it} + \varepsilon_{it} \tag{6}$$

Equations (5) and (6) above are the basis of our empirical analysis.

Before discussing the data used, an important point is worth mentioning. In the framework outlined above we make the simplifying assumption that citizen immigrants only affect the Republican vote share through the direct effect – i.e. by adding new voters with possibly different preferences – to the electorate. However, citizen immigrants may also impact voting shares by changing the preferences of existing voters, i.e. through the indirect effect. In that case, $f_{NAT}(.)$ in equation 3 would also be a function of $\frac{CM_{it}}{V_{it}}$. We think this latter channel is likely to be of secondary importance for the following reasons, already mentioned above: Citizen migrants are similar to natives in terms of their socioeconomic characteristics, and they are largely assimilated, as they migrated several years earlier. This implies their presence should not alter the relative supply of skills, nor the relative fiscal burden, and are likely to be integrated, so their presence should not exacerbate the native perception of immigrants. Possibly, they change the degree of

cultural diversity at the local level, and may be perceived more strongly if these immigrants are from specific cultures. Our empirical framework allows the analysis of this effect.

4 Data and definition of key variables

In order to analyze the electoral outcome of state i in year t we analyze three groups of individuals: (1) the group of natives (whose number is equal to N_{it}) who constitute the majority of voters in all states, (2) the group of citizen immigrants (CM_{it}) who can vote and may have different electoral preferences than natives and (3) the group of non-citizen immigrants (NCM_{it}) who cannot vote but whose presence may affect how citizens vote. Thus, the total number of foreign-born is simply the sum of citizen and non-citizens immigrants, i.e. $M_{it} = NCM_{it} + CM_{it}$. Data on natives, immigrant citizens and non-citizens are obtained from the Current Population Survey (CPS). The sample period consists of the years between 1994 and 2012. We aggregate the individual-level data to the state level using the CPS sampling weights. We estimate our model at the state level because the CPS data set is not representative at a lower level of geographical detail, such as county or electoral district[18].

We call msh_{it} the immigrant share of the (adult) population which is defined as follows:

$$msh_{it} = \frac{M_{it}}{M_{it} + N_{it}} \tag{7}$$

It captures the number of foreign-born individuals (both males and females), aged 18-64, as a share of the 18-64 population of that state.[19] This is a measure of the overall presence of foreign-born individuals in state i's population in year t. We also define the immigrant citizen and non-citizen shares of the population, $cmsh_{it}$ and $ncmsh_{it}$, which are equal to $CM_{it}/(M_{it}+N_{it})$ and $NCM_{it}/(M_{it}+N_{it})$, respectively. The sum of the immigrant citizen and non-citizen shares equals msh_{it}. To investigate more directly the channel through which citizen immigrants as new voters affect the electoral vote, we define the citizen immigrants *voting* share, $cmvotesh_{it} = CM_{it}/V_{it}$, which is the share of citizen immigrants in the voting population $V_{it} = (N_{it} + CM_{it})$. According to the framework described in section 3 above, it is the citizen immigrants' *voting* share which has an impact on Republican votes proportional to the difference in average propensity to vote Republican of native and immigrant citizens. Finally, the voting population is related to the total population by the following expression:

$$M_{it} + N_{it} = V_{it} + NCM_{it}$$

i.e., the total population is equal to the number of voters plus the number of non-citizen immigrants.

The election data are from the Congressional Quarterly data set and include presidential, congressional (House and Senate) and gubernatorial elections from 1994 to the present. Our main outcome variable is the share of votes going to the candidate affiliated with the Republican Party:

[18] In the robustness section we investigate the immigration voting relationship at a more disaggregated geographical level (commuting zone level) using Census data in combination with the American Community Survey (ACS).

[19] Note that M_{it} excludes individuals born abroad to American parents.

$$r_{it} = \frac{Republican\ Votes_{it}}{AV_{it}} \tag{8}$$

$Republican\ Votes_{it}$ represents the number of people that voted for the Republican Party, whereas AV_{it} is the number of votes in state i and year t.

4.1 Summary statistics

After matching the election data with the CPS data at the state-year level, the final sample contains 1277 state-year observations across four types of elections[20]. Table 1 contains the summary statistics of the election and population data, including the control variables which will be used in the empirical analysis. The election data shows that, across all elections and years over the period 1994-2012, the average Republican vote share was 48.1 percent, while the Democratic vote share was higher, at 48.3 percent. The remaining small share of votes accrued to third party candidates. Figure 1 in the appendix shows a heatmap of all U.S. states with darker colors for states with larger average Republican vote share, pooling all years and elections between 1994 and 2012. The Republican vote share has been higher in the Southern and Central United States, while having been relatively low on the West Coast and in New England.

Figure 2 plots the corresponding spatial distribution of immigrants across the U.S. between 1994 and 2012. California had the highest share of immigrants in both years: 28 percent in 1994 and 36.1 percent in 2012. New England, as well as some Southern states such as Texas, Arizona and Florida also had high shares. The states with the lowest immigration share are Kentucky in 1994 (0.4 percent) and West Virginia in 2012 (1.3 percent). Overall, the share of immigrants steadily increased over time. The nationwide average share of immigrants in the total population was 9.1 percent in 1994, rising to 17 percent in 2012.

The overall share of immigrants in the population combines the two groups that we want to consider separately. We see from Table 1 that about 61 percent are non-citizens immigrants; the remaining 39 percent are citizens. The share of citizen immigrants has steadily increased over time by more than the number of new immigrants. Over the past decade the share of non-citizen immigrants in the U.S. population increased from 6.3 percent in 1994 to 9.5 percent in 2012, while the share of citizen immigrants went from 2.8 percent in 1994 to 7.5 percent in 2012. As more and more citizens become naturalized, their importance in the voting population increases. In 1994 the average share was 3 percent and climbed to 8.2 percent in the year 2012. The share of immigrants eligible to vote varies greatly across states. Kentucky in 1994 has the lowest share of 0.1 percent and California in 2012 the highest with 20.3 percent. Moreover, there is a strong correlation between the share of non-citizen immigrants and the share of citizen immigrants across states. Those states with a large presence of citizen immigrants as a share of the voting population also had a large presence of non-citizen immigrants as a share of the population. While one might guess this correlation makes it hard to separately identify the impact of each of these two groups

[20]Due to data limitations for some control variables (trade and employment), Alaska and Hawaii are not included. The results presented below are robust to the exclusion of these control variables, and to the inclusion of Alaska and Hawaii.

on voting outcomes, the correlation in the changes of these variables – the variation we use to identify the effects – is much smaller.

In terms of the control variables we include in the voting equation, we follow the existing literature, especially Della Vigna and Kaplan (2007), and include the share of the voting population in each education group (high school dropouts, high school graduates, some college, college graduates and more than college), the share of African Americans and Hispanics, the unemployment rate, the share of the state that is urban, as well as the share of males, the marriage rate and the income level (shown in Table 1). In addition to Della Vigna and Kaplan (2007), we also account for trade and employment effects. As Che et al. (2016) show, trade may push voters preferences towards the Democratic Party because democrats are more likely to vote for trade protectionist policies. To control for trade effects, we include the national industry-specific growth rate of manufacturing imports between 1990 and year t, weighted by the state's sectoral employment composition in manufacturing in the year 1990, see Autor et al. (2013). Similarly for employment, we consider the employment composition of a state in a particular industry in the year 1990 interacted with the growth rate of employment between 1990 and year t in that sector, see Bartik (1992).

5 Empirical Analysis

5.1 The naive regression

Before analyzing the causal relation between different types of immigrants and electoral outcomes, we show some simple correlations. Considering total immigrants as a share of the adult population, we analyze whether one detects a correlation in the data between this variable and the share of votes to the Republican Party. As preliminary evidence, in Figure 3 we show a scatter plot of the change in the share of votes received by Republican candidates in House of Representative elections between 1994 and 2012 and the change in total immigrants as a share of the adult population in the same period across states. The visual impression is clear and is confirmed by the statistical significance of a regression line: there is a significant *negative* correlation between the growth in the immigrant share of the population and the Republican vote share in elections for the House. We focus on House elections in the scatter plot because these are the elections for which we find significant effects throughout the paper. Moreover, immigration policy is a federal issue and important legislation must be passed by the House of Representatives. A more systematic way to show the negative correlation between the overall share of immigrants and the fraction of Republican votes is to pool all types of elections (Presidential (PE), Senate (SE), House of representatives (HE) and Gubernatorial (GE)) and estimate the following specification:

$$r_{ite} = s_i + r_e + q_t + \beta_M msh_{it} + \beta_x X_{it} + \varepsilon_{ite} \tag{9}$$

where the dependent variable r_{ite} is the share of votes for the Republican Party in state i (50 states), year t (10 years) and election e (4 types of elections); $msh_{it} = M_{it}/(M_{it} + N_{it})$ is the share of foreign-born individuals in state i and year t.[21] Controls include a vector of state fixed effects, s_i; a vector of election-type fixed effects, r_e; and a vector of year fixed effects, q_t. These

[21] Note that the total number of votes includes those to parties other than the Republican and Democratic parties.

fixed effects control for systematic differences in election outcomes across states, across election types and across years. These capture, respectively, persistent political differences across states and year-specific or election-specific national tendencies. We also control for variables affecting election outcomes according to the existing literature (see, for example, Della Vigna and Kaplan (2007)). In particular, the vector of controls, X_{it}, for state i in year t includes the share in the voting population of each education group in the state (high school drop-outs, high school graduates, some college, college graduates, more than college), the share of the African American and Hispanic populations in the state, the share living in urban areas, of males, married individuals, the share of unemployed, the average income as well as trade and labor demand shocks. With the exception of the last-mentioned shocks, all the control variables are defined over the population of (potential) voters in each state and year, i.e. natives plus citizen immigrants (aged 18-64 in the civilian labor force). We also estimate a regression separately for each election type, where we include the same vector of control variables as well as year and state fixed effects.

First, we estimate equation (9) with ordinary least-squares, which establishes the correlation between the immigrant share and the Republican vote share, still controlling for an array of confounding factors. Next, we push our "naive" regressions one step further and instrument the share of immigrants, to avoid that unobserved time-varying state characteristics might affect the share of immigrants and at the same time the share of votes for the Republican Party. The instrumental variable methodology we use is based on Card (2001) but, importantly, differs in that we replace the pre-period share of immigrants from a specific country of origin in a specific state with an inverse function of the distance between the origin and the state. More precisely, let M_{ot} be the number of immigrants from source country o who lived in the U.S. in year t and let N_t be the total number of natives in the U.S. in year t[22]. We then construct our shift-share instrument, that we call $(msh_{it})_{IV}$ as follows:

$$(msh_{it})_{IV} = \frac{\widehat{M_{it}}}{\widehat{M_{it}} + \widehat{N_{it}}} \tag{10}$$

where:

$$\widehat{N_{it}} = \lambda_{Ni} N_t \tag{11}$$

and

$$\widehat{M_{it}} = \sum_o \lambda_{oi} M_{ot} \tag{12}$$

The terms λ_{Ni} and λ_{oi} are the constant shares that we use to "apportion" to each state i the natives and the immigrants from country o in each year t. We simply distribute the U.S. native population (N_t) across states proportionally to how they were distributed in 1980, based on data from the 5 percent sample of the U.S. Census (Integrated Public Use Micro Samples compiled by Ruggles et al. (2004)) and focusing on individuals in the civilian labor force aged 18-64. This way we avoid that (potentially endogenous) mobility of natives may affect the instrument. Hence we

[22]To address the possible concern that M_{ot} may be correlated with local conditions at the state level, we also replicate our analysis by omitting the contribution of state i to M_{ot} when constructing the value of the instrument for state i. The results are unaffected.

define:

$$\lambda_{Ni} = \frac{N_{i,1980}}{\sum_i N_{i,1980}} \tag{13}$$

We distribute the immigrant population from each country of origin o in year t (M_{ot}) across states proportionally to how the U.S. native population was distributed in 1980 and, at the same time, we account for the fact that immigrants are more likely to settle in locations closer to their country of origin. The share λ_{oi} of migrants from country o in state i depends inversely on the logarithm of the distance between state i and the capital of the immigrants' country of origin o, d_{oi}, and directly on state i's native population in the year 1980, $N_{i,1980}$.[23]:

$$\lambda_{oi} = \frac{N_{i,1980}/\ln(d_{oi})}{\sum_i N_{i,1980}/\ln(d_{oi})} \tag{14}$$

Note that we aggregate the countries of origin of immigrants into 20 origin-country groups (such as Western Europe or Eastern Africa), thus the index o in λ_{oi} varies across these 20 different groups.

Importantly, the state-by-year variation of the instrument is only driven by national-level trends in the number of migrants from each origin differently weighted. As some origins experienced large increases in migration to the U.S. (Central Americans, Chinese/East Asians, Indians/Southwest Asians) while others experienced large declines (Western and Southern Europeans, Central Eastern Europeans) relative to earlier years the different prevalence of these groups across states in 1980 generate the cross-sectional variation in the instrument. The time-varying aggregate migration trends and the geographic location of a state are likely to be uncorrelated with changes in political climate and preferences in the state. If the instrument affects the share of migrants in a state over time, we assume that this is the only channel through which it affects political election outcomes.

Table 2 shows the OLS estimates of the coefficients in regression (9) including the fixed effects and all controls. The first column pools all types of elections, while Columns (2) through (6) include respectively Presidential, Senate, House and Gubernatorial. Specifications (4) and (5) focus on House elections, but Regression (4) uses the share of votes to the Republicans as the dependent variable, while Regression (5) uses the percentage of seats won by the Republicans. Table 3 shows the same estimates based on the 2SLS strategy. Three results emerge. First, the impact of the share of immigrants on Republican votes is negative in all estimates except in one type of election (Gubernatorial). Second, the negative estimates are significant in both OLS and IV specifications only for the House elections, while for the other elections the effects are not robust. Third, the negative significant estimates from IV are larger than those from OLS, which indicates the presence of omitted variables that both increase immigration and the share of the vote received by Republicans. Such omitted variables could be economic shocks that increase local business income – immigrants are attracted by booming states and higher income is associated with Republican votes – or demographic shifts of the local population – an aging local population

[23]To calculate the bilateral distances, we follow Mayer and Zignago (2011), i.e. we define the distance in kilometers and calculate it by the Great Circle Distance formula. We use 32.19 kilometers as inner-city distance. All data on latitudes and longitudes are from the Global Administrative Areas (GADM) database, see Hijmans et al. (2010).

creates more jobs for immigrants and more votes for Republicans.

Concerning the control variables, the results show that, on average, states with a higher share of high-school dropouts (the omitted reference group of education) tend to have a lower Republican vote share (the significance level varies across types of elections). The average income of voters, labor demand and trade shocks do not have a significant impact in any type of election. Finally, states with higher unemployment rates are more likely to vote Democrat. Overall, these results are in line with the findings of the literature on the determinants of elections and specifically similar to Della Vigna and Kaplan (2007).

At first inspection, the overall share of immigrants has a strong and quantitatively large negative correlation with the share of votes received by Republicans. The IV estimates suggest such correlation is consistent with a negative causal effect. An increase of immigrants by one percentage point of adult population is associated, in House elections, with a decrease of the Republican vote share of 1.36 percentage points (not significantly different from 1). Such a large and negative coefficient is consistent with a situation in which the direct effect of citizen immigrants is negative and the indirect effect either works in the same direction as the direct one, or does not favor Republicans enough to offset the direct effect. In order to analyze those effects in more detail, we turn next to estimating an equation that includes, separately, the two groups of immigrants

5.2 The framework-based estimating equation

In this section we bring to the data the linear and linear-quadratic specifications discussed in our framework. First, we estimate the models with all elections pooled and then focus on House elections only.

In our linear specification, (5), the coefficient β_1 represents the indirect political effect of immigration, which works through the impact of the non-citizen immigrant share. The empirical evidence from some European countries (see Barone et al. (2014), Halla et al. (2012) and Otto and Steinhardt (2014)) – where the indirect political effect of migration seems predominant – suggests that natives become more politically conservative when migration increases. If a similar effect takes place in the United States, the Republican vote share should increase when the fraction of non-citizen immigrants increases, i.e. $\beta_1 > 0$. If, instead, the indirect effect is not very strong, we may observe $\beta_1 = 0$. Alternatively, the indirect political effect may become relevant only for high values of the non-citizen immigrant share, when immigration becomes a visible and salient political issue for voters. If this is the case, we should estimate a zero or negative linear term ($\beta_L <= 0$) and a positive quadratic ($\beta_Q > 0$) coefficient in specification (6).

In both specifications (5) and (6), the coefficient β_2 on the variable $cmvotesh_{it} = \frac{CM_{it}}{V_{it}}$ represents the direct political effect of citizen immigrants which, as naturalized immigrants in the U.S. tend to vote for the Democratic Party, we expect to be smaller than 0.

Finally, note that in the empirical analysis below we will focus on regressions that either pool all election types or that focus on House elections, for which we found the most robust results. House elections are usually more polarized and often focused on specific topics. To the contrary,

Presidential, Gubernatorial and Senate elections tend to be on a broader set of issues, of which immigration may be relatively less important at the state- and national-level.

5.3 Instrumental Variables

Before implementing the IV strategy, we first estimate specifications (5) and (6) using OLS and report these results in Table 4: Column (1) shows the estimates pooling all elections together, while the other columns focus on House elections.

In the 2SLS estimation, we use a set of instruments that extends the approach used in section 5.1 above to proxy the overall share of immigrants, and applies it, respectively, to citizen immigrants as a share of the voting population $\frac{CM_{it}}{V_{it}}$ and to non-citizen immigrants as a share of the adult population $\frac{NCM_{it}}{M_{it}+N_{it}}$. To construct the imputed number of citizen immigrants in state i and year t, $\widehat{CM_{it}}$, we apportion the aggregate time-varying number of citizen migrants from each country of origin in the U.S. in year t, denoted as CM_{ot}, to each state i according to the share λ_{oi} exactly defined as in equation (14).[24] We also construct the imputed number of native citizens in state i and year t, $\widehat{N_{it}}$, by apportioning the total national native population as in equation (11) above. Hence the shift-share instrument for citizen immigrants, as a share of the voting population, which we call $(cmvotesh_{it})_{IV}$, is as follows:

$$(cmvotesh_{it})_{IV} = \frac{\widehat{CM_{it}}}{\widehat{CM_{it}} + \widehat{N_{it}}} \tag{15}$$

where:

$$\widehat{CM_{it}} = \sum_{o} \lambda_{oi} CM_{ot} \tag{16}$$

Similarly to (10), the imputed share (15) varies across years because of national-level time-variation in immigration from each country-group and in their naturalization rate. It varies across states because of the distance of each U.S. state from the country of origin of the immigrants. Distance from the origin affects the share of immigrants – from that country present in the state – because of mobility costs. Differently from the standard instrument based on Altonji and Card (1991), in this case the distribution of immigrants only depends on distance from the country of origin. Hence, preferences of early settlers which threaten the exclusion restriction – they may have been correlated with economic and political characteristics of a state and be persistent over time – do not play any role in this instrument.

Separately we proxy non-citizen immigrants with a somewhat different instrument, leveraging the fact that a large portion of recent immigrants in the considered period was from Mexico and Central America and a substantial share of those was undocumented. We construct a proxy for the inflow of undocumented immigrants to each U.S. state based on its distance to the Mexican

[24] As in the shift-share instrument used for the naive specification, we address the possible concern that CM_{ot} may be correlated with local conditions at the state level and replicate our analysis by omitting the contribution of state i to CM_{ot} when constructing the value of the instrument for state i. The results are unaffected.

border and the likely number of undocumented crossing each year. Let's call UM_t the total inflow of undocumented immigrants to the U.S. through the Mexican border in year t[25]. Since we do not have a measure of this flow, we use the number of apprehensions at the border with Mexico, that we call AP_t, which captures a share of all individuals who tried to cross illegally. These data are from the U.S. Border Patrol Agency. Looking at the period, which goes from 1990 to 2014, there was first a large increase in the number of apprehensions between 1990 and 2001 followed by a steady decline interrupted in 2003-2004. We assume that the number of apprehensions AP_t is proportional to the number of illegal immigrants ($AP_t = \theta UM_t$) who passed the border that year. If there is a certain number of individuals trying to cross the border and only a fraction (constant over time) is apprehended, then our formula is accurate. While the share of undocumented people passing the border and being apprehended can depend on economic and enforcement related conditions, we consider such a share – as a first approximation – to be constant over time. Next, we apportion the estimated number of undocumented immigrants passing the border, across U.S. states, using shares that depend inversely on the logarithm of the distance from the Mexican border, $distbord_i$, and directly on the state native population in 1980, $N_{1980,i}$. The imputed share for state i is:

$$\widehat{sh}_i = \frac{N_{1980,i}/\ln(distbord)_i}{\sum_i \left(N_{1980,i}/\ln(distbord)_i\right)} \tag{17}$$

Thus, the imputed change in undocumented immigrants in state i between year t and $t+1$ is $\widehat{sh}_i \left(AP_t\right)/\theta$. We can use the latter to predict the change in non-citizen immigrants in state i between t and $t+1$ by running an OLS regression of the variable ΔNCM_{it} on $\widehat{sh}_i \left(AP_{t+1}\right)$ and using the predicted values $\Delta\widehat{NCM}_{it}$ to estimate $\widehat{NCM}_{it} = NCM_{i,1990} + \sum_{s=1990}^{t} (\Delta\widehat{NCM}_{is})$ and construct:

$$(ncmsh_{it})_{IV} = \frac{\widehat{NCM}_{it}}{(\widehat{NCM}_{it} + \widehat{N}_{it})} \tag{18}$$

where $\widehat{N}_{it}$ is defined as in (11). The instrument defined in (18) proxies the change in non-citizen immigrants in a state using the imputed inflow of undocumented based on the total inflows (as inferred from apprehensions) and the proximity to the Mexican border. This variable may capture only a part of changes in non-citizen immigrants. However, if these immigrants constitute a significant part of the overall changes, this strategy provides a novel way to analyze the potential impact of undocumented on the vote of U.S. citizens. Finally, in the nonlinear specification we simply use the square value of the imputed non-citizen immigrant share as an instrument for the square of the share of non-citizen.

5.4 Main results

Using both OLS and IV, we estimate a negative and significant effect of immigrants on the Republican vote share through the vote of citizen immigrants. This result is consistent with anecdotal and indirect evidence. For example, Voeten (2012) shows that Asian Americans, as well as Latinos, vote predominantly for the Democratic Party. The negative impact of citizen migrants on

[25]While not all undocumented immigrants enter through the Mexican border, as some of them overstay their visa, about 80% of undocumented immigrants are Mexican or Central American. Hence, our strategy focuses on this group.

Republican votes could be explained by the fact that naturalized immigrants favor a more open immigration policy which would allow them to be joined by family members abroad. An alternative explanation is that immigrants are often from countries where many political parties are to the left of Democrats and few are as socially conservative as Republicans, thus they are voting for the same type of ideology they grew up with.

We also find evidence of nonlinear effects of the population share of non-citizen immigrants so that the marginal impact of new immigrants on the Republican vote turns positive when the share is very high, i.e. when recent immigration becomes a salient feature at the polls.[26] Columns (1) through (3) in Table 4 show the OLS estimates corresponding to the linear specification using data for, respectively, all elections (Regression (1)) and House elections (Regressions (2) and (3)). Columns (4) and (5) present the OLS estimates of the quadratic specification for House elections. While the coefficient on the share of citizen immigrants is very significant and negative in all specifications, the impact of the share of non-citizen immigrants is small and negative or non-significant when entered linearly, but has a significant convex effect when entered as linear-quadratic.

Table 5 focuses on House elections only and shows the 2SLS estimates for the linear specification (Columns (1) to (6)) and for the linear-quadratic specification (Columns (7) to (10)). The top panel of Table 5 shows the second-stage estimates, while the bottom panel shows the first-stage estimates. At the bottom of the top panel, we include the Kleibergen-Paap F statistic, which provides an indication of the significance of the instrument. Note that since our estimation includes robust standard errors, the standard critical values of Stock-Yogo do not apply (Stock and Yogo (2002)). Due to the lack of alternative critical values, we apply the same rule of thumb as suggested by Stock and Yogo, i.e. an F-statistic above 10 indicates that the IV is acceptable. This is the case in the majority of our regressions in Table 5. In addition, we also test for the joint significance of endogenous regressors by including the Anderson Rubin Wald test. A p-value above 0.1 indicates that we cannot reject the null hypothesis that the instruments are jointly insignificant and thus robust to the presence of weak instruments.

One result stands out. In each specification and for each method of estimation we find strong evidence of the negative effect of citizen immigrants on the Republican vote share. Specifically, we estimate a negative and significant value for the coefficient β_2 in all regressions. Using the share of Republican votes in the House elections, the point estimate in Table 5 is, respectively -1.90, -1.36 and -1.73. An increase in immigrant citizens as a share of voters by one percentage point decreases the share of the Republican vote by 1.36 to 1.90 percentage points. These point estimates are significantly larger than 1 suggesting that citizen migrants alter existing voters' preferences through the noneconomic channel, as discussed at the end of section 3. In particular, citizen migrants push existing voters towards the Democratic Party, maybe by having a preference for cultural diversity.

As for the indirect political effect of immigration, when we model the impact of the variable $\frac{NCM_{it}}{M_{it}+N_{it}}$ as linear, in Specification (5), the estimated coefficient is negative but insignificant in

[26]Note that this result is consistent with the finding in Baerg et al. (2014), that the negative reaction in terms of Democratic votes to the presence of unauthorized immigrants is strongest when this presence reaches a certain threshold.

Columns (1), (2), (5) and (6). However, in the nonlinear specification, the impact of the non-citizen immigrant share is significant with a negative linear effect and a positive quadratic effect, i.e. clearly convex, see Columns (7) to (10). For low values of the share of non-citizen immigrants, the impact of non-citizens on Republican votes is either non-significant or negative, while positive for high values. Such a convex relation between the share of non-citizen immigrants and the Republican vote share suggests the perception that new immigrants affect voter behavior only when their share is large and their presence is visible, i.e. a salient issue in voters' minds.[27]

6 Effect of Different Policies

To illustrate the implications of these estimates, it is useful to calculate how these coefficients map into the effects of changes in different types of immigrants on the share of Republican votes. Using the estimated coefficients of the linear (Column (5)) and quadratic specification (Column (9)) in Table 5, we can evaluate which one of the following policies is most beneficial/harmful for the Republican vote share[28].

1) *Increase in newly arrived immigrants:* An inflow of new immigrants, typically entering the U.S. without citizenship rights (hence as non-citizens), by 1 percent of the population will have an impact equal to β_L on the Republican share of votes. This could be driven by a more open immigration policy that admits extra immigrants. The insignificant estimate of β_L implies, on average, the Republican Party is not affected by this increase. However, once we recognize the salient feature of non-citizen immigration, the impact on the Republican vote can turn positive. Given our estimates in Table 5, Column 9, the marginal effect of a 1 percent increase of non-citizen immigrants equals $\beta_L + 2\beta_Q \frac{NCM_{it}}{N_{it}+M_{it}}$. It is positive for values above 13.7%. Figure 4 illustrate the dependence of this effect on the share of non-citizen immigrants. As of the last presidential election, in 2012, 6 states (California, District of Columbia, Nevada, New Jersey, New York and Texas) had values larger than this threshold. At the congressional-district level, using estimates of the non-citizen migrant share based on the American Community Survey for the 114th Congress, we find that for 55 out of 434 congressional districts the impact of the above share is positive. For 26 districts the effect is not significantly different from zero and for the remaining 353 the effect is negative, see Figure 7(a). Figure 7(b) plots the geographical distribution of the impact on the Republican vote share for each Congressional-district using ($\beta_L = -4.35, \beta_Q = 15.98$ and $\beta_2 = -1.73$). Hence, for the majority of states and congressional districts, the potential positive effect of new immigration on the Republican share does not occur at their current level of non-citizen immigrants.

2) *Pure composition (naturalization) effect:* An increase in the share of citizen immigrants, leaving the total number of immigrants and their share in the population constant. In this case, an increase of citizen immigrants by 1 percentage point of the population, accompanied by a corresponding decrease in the share of non-citizen immigrants, will have an impact on the share of

[27]Note that these results are not driven by individual states and are robust to the exclusion of California and Texas, as well as of Florida and New York, from our sample.

[28]The detailed derivation of the marginal effects of each policy, using the definition of the variables and shares, can be found in the Appendix 10

Republican vote equal to $\beta_L - \beta_2 \left(\frac{M_{it}+N_{it}}{VP_{it}} \frac{N_{it}}{VP_{it}}\right)$. This change would be achieved by an increase in the naturalization rate. Given the estimates of Table 5, the first term is negative and the second positive, but β_2 is smaller in absolute value than β_L and as the term $\left(\frac{M_{it}+N_{it}}{VP_{it}} \frac{N_{it}}{VP_{it}}\right)$ is close to one for every state in the 2012 election year, the overall effect of such a policy on the Republican share is negative.

3) *Pure Scale effect:* This is an increase (decrease) in the total number of immigrants (and hence increasing in their share of total voting population) keeping the composition of citizen versus non-citizen immigrants constant. Define as $n_{it} = CM_{it}/M_{it}$ the share of citizens among immigrants, then an increase in immigrants by 1 percentage of the population – keeping the same citizens to non-citizen ratio – will have an impact equal to $\beta_L(1 - n_{it}) + \beta_2 n_{it} \left(\frac{M_{it}+N_{it}}{VP_{it}}\right)^2$ on the share of the Republican vote. Using the estimates from Table 5, this marginal effect is negative for any U.S. state in 2012.

Summarizing the main results, we can emphasize three findings. First, all our estimates suggest that an increase in the share of naturalized immigrants increases the share of votes received by the Democratic party significantly. This might be due to immigrants voting more intensively for the Democratic Party than natives (which is the explanation suggested by our framework). However, we cannot rule out the idea that part of the effect proceeds from an increase in the preference for Democrats for natives in response to more naturalized immigrants. Second, our findings also indicate that when the share of non-citizen immigrants is large, further increases in the non-citizen immigrant share augment the chances of electoral success for the Republican Party. Since non-citizen immigrants do not vote, this result is consistent with the idea that voter preferences move towards a more conservative stance on immigration when immigrants become a large and noticeable presence in the state. If we focus on the combined effect through both channels, we estimate an overall negative effect on the Republican vote share in all districts. However, it is important to understand this average impact as the outcome of two opposing effects. To the extent the presence of undocumented immigrants increases over time, our mechanism rationalizes the frequent attempt of some Republican candidates to make this a salient issue in their election campaigns.

7 Channels

7.1 Labor-market, welfare-state and non-economic channels

Our empirical results so far show that, on average, an increase of the share of non-citizen migrants has a negative or insignificant impact on Republican votes (see Regressions (1)-(2) as well as (5)-(6) in Table 5) when included linearly. In this section, we present evidence that the average impact of the share of non-citizen immigrants on the vote of citizens is consistent with operation through multiple channels. In particular, we consider three of them: the labor-market, the welfare-state and a non-economic one driven by a preference for people with a culture similar to one's own. We provide evidence on the operation of these channels by estimating the following specification:

$$
\begin{aligned}
r_{it} &= s_i + q_t + \beta_1 \frac{NCM_{it}}{M_{it}+N_{it}} + \beta_2 \frac{CM_{it}}{V_{it}} + \beta_{LC}\left(\frac{NCM_{it}}{M_{it}+N_{it}}\right)\left(\frac{US_i}{S_i}\right) + \\
&+ \beta_{WC}\left(\frac{NCM_{it}}{M_{it}+N_{it}}\right) I_i + \beta_{NE}\left(\frac{NCM_{it}}{M_{it}+N_{it}}\right) NE_i + \beta_x X_{it} + \varepsilon_{it}
\end{aligned}
$$

where $\frac{US_i}{S_i}$ is the unskilled-to-skilled labor ratio in state i in 1994 – measured as the share of high school dropouts in the voting population – I_i is the average income of voters in state i in 1994 – where income is measured in 1994 U.S. dollars – NE_i represents a dissimilarity index (along several cultural traits) between immigrants and natives in state i in 1994. We use beginning-of-the-period (1994) values for citizens in each state to minimize endogeneity concerns.

We estimate the equation above using both OLS and IV. In the IV we run into a potential weak-instruments problem as evidenced by the low values of the F statistics at the end of Table 8. Therefore, at this point in the analysis it becomes especially important to investigate the issue of reverse causality. First, we note that reverse causality is not as much of a first-order problem in our type of analysis as it would be in a traditional wage-immigration regression. Second, to alleviate the concerns about potential reverse causality, we provide evidence that immigrant sorting is not driven by electoral outcomes. In particular, we show the Republican vote share at time $t-1$ does not predict the change in the immigrant share from period $t-1$ to t for any group of immigrants (see Table 6). Finally, we are reassured by the fact that the estimates of the OLS (Table 7) and IV specifications (Table 8) are qualitatively similar. Thus, our comments below are based on both the OLS and FE results.

We show that, consistent with non-citizen immigrants being (relatively) unskilled in comparison to the native population[29] in states where voters are less educated, an increase in the share of non-citizen migrants increases the Republican vote share ($\beta_{LC} > 0$). This result is consistent with citizens feeling an increase in labor market competition from immigrants the less educated they are. Thus, an increase in the immigrant share also increases the electoral success of the party less favorable to immigration, i.e. the Republican Party, in states with a large population of less educated voters (see Tables 7 and 8). We also find some evidence that, controlling for education (share of low educated) in states where voters are richer, an increase in the share of non-citizen immigrants increases the Republican vote share. This result is consistent with a rational response of citizens to the welfare state channel under the tax-adjustment model (Facchini and Mayda (2009)). Non-citizen immigrants are (relatively) poor[30], thus they are likely perceived as a fiscal burden, being on the receiving end of the welfare state. The tax adjustment model assumes the welfare state adjusts to immigration through a change in tax rates. Given that immigrants are poorer than voters, they give rise to a deficit in the government's budget constraint, which in the tax-adjustment model is brought back to balance through an increase in tax rates. Higher tax rates hurt all voters, but rich ones to a greater extent (because of progressive taxes). Therefore,

[29] Over the considered period, the average number of years of education of non-citizens immigrants was 12.6 while it was 14.1 for the voting population.

[30] In the period we analyze, the average income at constant 1999 prices is $25,614 USD for non-citizen immigrants compared to $34,228 USD for the voting population.

we should find that in states where voters are richer, an increase in the share of non-citizen immigrants should increase the Republican vote share. Our results in Tables 7 and 8 ($\beta_{WC} > 0$ in all regressions) are consistent with this explanation. Finally, the negative and significant coefficient of the variable "Share of non-citizen immigrants" on the share of Republican votes implies, in states where voters are relatively skilled and low income, the impact of the non-citizen immigrant share on Republican votes is negative. This is, again, consistent with both the labor-market and the welfare state channel under the tax adjustment model. Educated voters do not perceive competition from immigrants in the labor market and, if their income is not too high, they will not be as affected by increases in tax rates. Thus the response of skilled and lower income voters to immigrants will decrease the electoral success of the Republican Party. All these results, from both economic channels, produce a picture of the perceived economic impact of immigration that matches the evidence from the literature on individual attitudes towards immigrants (see Scheve and Slaughter (2001), Hanson et al. (2007), Mayda (2006), and Facchini and Mayda (2009)).

Note that, at the individual level, skill and income tend to be positively correlated, therefore the labor-market and welfare state channels (under the tax-adjustment model) imply opposite effects. For example, the very same skilled and rich Californians will welcome non-citizen immigrants because of their (perceived) labor market effects, and oppose them because of their (perceived) welfare state effects. These effects working in opposite directions could explain why the overall impact of the non-citizen immigrant share is small or not significant in the linear specification.

Finally, we analyze the noneconomic channel by introducing several measures of cultural dissimilarity between immigrants and natives, and interacting each of them with the non-citizen immigrant share. The measures we focus on are, respectively, language, religious and historical differences (see Columns (3) through (8), Tables 7 and 8) – by historical differences we mean lack of a common colonial relationship. We also average these into a composite measure (see Columns (9) and (10)). The different measures of cultural differences deliver the same message captured by the coefficient β_{NE}, which is always positive and often significant. Cultural dissimilarity with immigrants pushes voters to the Republican Party the higher is the non-citizen immigrant share.

7.2 Salience

Our main results show that non-citizen immigrants affect election outcomes nonlinearly and only after a certain threshold, which we consider as evidence that immigration is salient in voters' minds. To provide further evidence on salience, we investigate the impact of citizen and non-citizen immigrants on voter turnout. In line with the previous results, we expect that as the share of non-citizen immigrants increases, natives become increasingly concerned about immigration and participate. To the contrary, the presence of citizen immigrants should not affect citizens turnout much. To shed light on this hypothesis, we estimate the following regression:

$$VT_{it} = s_i + q_t + \beta_L \frac{NCM_{it}}{M_{it} + N_{it}} + \beta_2 \frac{CM_{it}}{V_{it}} + \beta_x X_{it} + \varepsilon_{it} \tag{19}$$

where the dependent variable, Voter Turnout VT_{it} in state i at time t, is defined as the ratio of the number of actual votes divided by the eligible voting population. Note the eligible voting population excludes non-citizen immigrants, prisoners, people on probation, and people on parole

from the voting age population, i.e. everyone residing in the United States, age 18 and older, as defined by the Census Bureau.[31] The independent regressors are the same variables as in the previous regression specification. To account for the endogeneity of immigration on election participation, we estimate equation 19 via 2SLS.

The results in Table 9 show the linear and nonlinear results. In the linear specification, Column (1), voter turnout increases in the share of non-citizen immigrants by 0.89 percent, while the effect of citizen immigrants is not significant. Turning the attention to the nonlinear specification, the results in Column (2) show that non-citizen immigrants increase the voter turnout at a declining rate. Figure 6 plots the marginal effects of 1 percentage point increase of the share of non-citizen immigrants on the Voter Turnout. In the case of California, the state with the highest share of non-citizen immigrants in the year 2012 (18%), the marginal effect can even be negative. On the other hand, in all other states the share of non-citizen immigrants has a positive impact on voters participation. Overall, our results are consistent with migration being a salient policy issues. Higher shares of non-citizen immigrants spur election participation of natives, while having no effect on the participation of citizen immigrants.

As an alternative measure of the extent to which immigration is on voters' minds, we investigate their Internet search behavior via Google. Similar to Da et al. (2011) and Arnold et al. (2016), we think aggregate search frequency from Google represents a direct and objective measure of how much attention people are paying to immigration issues. More precisely, we use the Google Trends score of the search terms "illegal immigration" and "illegal immigrants" in state i during the 2004 to 2013 period to proxy for salience. The precise regression is the following:

$$\frac{GT_{it}}{\bar{GT}_i} = s_i + q_t + \beta_L \frac{NCM_{it}}{M_{it} + N_{it}} + \beta_2 \frac{CM_{it}}{V_{it}} + \beta_x X_{it} + \varepsilon_{it} \tag{20}$$

where the dependent variable is defined as the ratio of the Google Trends score in state i at time t, GT_{it}, relative to the national score, $GT_i = \sum_{i=1}^{I} GT_{it}$. The results in Table 10 show the linear and nonlinear results. In line with our expectations, we find a significant positive effect of the share of non-citizen immigrants on the Google Trends score.

8 Robustness

8.1 Non-parametric evidence

To check that the nonlinear effect of the share of non-citizen immigrants on Republican vote share, which we have so far captured with a quadratic function, becomes significant and positive at high levels of such a share, we consider a nonparametric specification. In particular, we simplify drastically the effect by allowing it to be different below and above a certain threshold. We define the following dummy variable, equal to one when the share of non-citizen immigrants is above 13%, which is a value close to the percentage identified by the quadratic specification, as the threshold for a positive effect. The OLS results are shown in Table 11. The share of citizen immigrants

[31] Our Voter turnout data is publicly available and compiled by McDonald (2002) and freely available at http://www.electproject.org/.

enters all specifications with a negative and significant coefficient, confirming the preferential vote of citizen immigrants for the Democratic Party. Moreover, in the states and years for which the share of non-citizen immigrants exceeds 13%, we estimate a significant positive effect (+2.7%) on the Republican vote share. Thus, the evidence in Table 11 confirms the previous results, namely that in states with shares of non-citizen immigrants above a threshold, the electorate is significantly more likely to vote for the Republican Party.

8.2 Geographic aggregation

While most variables we used in our analysis are available from the CPS at the state level, it is much harder to find representative surveys at smaller geographic levels. Nevertheless, the electoral districts for the House elections, which provide the strongest results to our analysis, are smaller than States. In particular, immigration can be a salient issue in a specific area and not in another within a state, hence diluting the identifying variation when we aggregate our data at the state level. Electoral districts, however, are odd geographic units as they change over time and economic variables are not collected at that level. Hence, to perform robustness checks that rely on finer geographic variation than the States, we re-estimate our model at the commuting zone level. A commuting zone corresponds roughly to a labor market, can be defined consistently over the considered period and approximates a local economy. In order to estimate equation 6 at the commuting zone, we use the demographic data from the 2000 Census in combination with American Community Survey (ACS) data for the years 2006, 2008 and 2010. The definition of the demographic variables is identical to the one used in the case of CPS data. The election data is coming from David Leip's Atlas of U.S. Congressional Elections, which is available at the county level and is aggregated onto the commuting zone level based on population shares as in Autor et al. (2013).

The OLS estimates for the Commuting-Zone level regression are presented in Table 12. The estimates of the coefficients of the non-citizen immigrant shares are ($\beta_L = -1.14, \beta_Q = 6.22$) and the estimate for the citizen-immigrant share is $\beta_2 = -0.58$. Note that these coefficients are not significantly different from the OLS estimates obtained at the state level. This is very reassuring and confirms that the linear-quadratic feature of the non-citizen immigrant effect is detected even at smaller geographic units. Also, consistent with the results in our main specification, the share of citizen immigrants has a negative impact on the Republican vote share in all three specifications, while the share of the non-citizen immigrants has a nonlinear quadratic impact. Using the estimates of Table 12 the threshold above which non-citizen immigrants have a positive impact on the Republican share of votes is 9.2% (not far from the value of 13.2% estimated in the state specification). The effect of the share of citizen immigrants is estimated to be significant and negative in the linear-quadratic specification (about -0.56) which is also not very far from the OLS estimate obtained in the case of the State-level analysis (-0.76). Overall, the results at the commuting zone level strongly support our conclusions based on state level information.

9 Conclusion

Looking at the debate surrounding immigration policy reform in the U.S., one message is clear: For the most part, Republicans are hesitant to push forward with immigration policy reforms, especially those that would give a path to citizenship to currently undocumented immigrants. In addition, in election years, their average attitude towards immigrants is to talk "tough" about the presence of undocumented immigrants. In this paper, we analyze the impact of immigrants on the share of votes received by the Republican Party and find some regularities that may shed light on this political behavior. Political analysts often refer to the pro-Democrat electoral behavior of naturalized immigrants (and second-generation ones) to explain the reluctance of the Republican Party to push forward with immigration policy reform. However, we note that this view is inconsistent with recent research based on European data showing that, actually, high immigrant shares might be driving votes towards conservative parties, which promise a reduction in immigration. We shed light on the difference between these findings for Europe and the views of U.S. political analysts by separately considering two groups of immigrants and their effects.

Our results lead us to two conclusions. First, non-citizen/undocumented immigrants are both the enemy and the raison d'être of some politicians: right-wing parties in Europe and vocal anti-immigration Republicans in the U.S. flourish in localities and times characterized by high non-citizen immigration. Focusing on the U.S., Republicans can gain votes from (non-citizen/undocumented) immigrants as their presence seem to make citizen voters more conservative. Second, the latter finding is consistent with Republicans talking tough about immigration during election years. However, we note that the political returns to talking tough on immigration may be limited since we find the non-citizen immigrant share has a positive impact on Republicans' political success only when this share is high, which presumably makes the topic of immigration salient in voters' minds or increases the citizens concerns. Based on data from 2012, the most recent presidential election year, five states (California, Nevada, New Jersey, New York and Texas) had a non-citizen immigrant population share high enough to make its impact positive. As we only found the effect to be present in House elections, however, it is more meaningful to look at congressional districts, rather than states. At the Congressional-district level, using estimates of the non-citizen immigrant share based on the American Community Survey for the 114th Congress, we find that only 55 out of 434 Congressional districts (fewer than 13%) had a large enough share of non-citizens to produce a positive impact on votes received by Republicans.

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10 Appendix

This section calculates the derivatives for the different policy experiments.

1) ***Increase in newly arrived immigrants:*** An inflow of new immigrants, typically entering the U.S. without citizenship rights (hence as non-citizens), by 1 percent of the voting population will have an impact equal to

$$\frac{\partial \frac{R_{ijt}}{V_{ijt}}}{\partial \frac{MN_{it}}{N_{it}+M_{it}}} = \beta_L$$

under the constraint that $\partial M_{it} = \partial NCM$, $\partial M_{it} = 0$ and $\partial N_{it} = 0$.

2) ***Pure composition effect:*** This is an increase in the share of citizen immigrants, leaving the total number of immigrants constant, and hence their share of the population also constant.

$$\frac{\partial \frac{R_{ijt}}{V_{ijt}}}{\partial \frac{CM_{it}}{M_{it}+N_{it}}} = -\beta_L + \beta_2 \left(\frac{M_{it}+N_{it}}{VP_{it}} \frac{N_{it}}{VP_{it}} \right)$$

under the constraint that $\partial CM_{it} = -\partial NCM_{it}$, $\partial M_{it} = 0$ and $\partial N_{it} = 0$.
Proof:

$$\frac{\partial \frac{NCM_{it}}{M_{it}+N_{it}}}{\partial \frac{CM_{it}}{M_{it}+N_{it}}} = \frac{\left(\frac{\partial NCM_{it}}{M_{it}+N_{it}} - \frac{NCM_{it}\partial M_{it}}{(M_{it}+N_{it})^2} \right)}{\left(\frac{\partial CM_{it}}{M_{it}+N_{it}} - \frac{CM_{it}\partial M_{it}}{(M_{it}+N_{it})^2} \right)}$$

which can be simplified to

$$\frac{\partial \frac{NCM_{it}}{M_{it}+N_{it}}}{\partial \frac{CM_{it}}{M_{it}+N_{it}}} = -1$$

because $\partial M_{it} = 0$ and $\partial CM_{it} = \partial NCM_{it}$. Similarly, the derivative for the third term equals

$$\frac{\partial \frac{CM_{it}}{CM_{it}+N_{it}}}{\partial \frac{CM_{it}}{M_{it}+N_{it}}} = \frac{\left(\frac{\partial CM_{it}}{CM_{it}+N_{it}} - \frac{CM_{it}\partial CM_{it}}{(CM_{it}+N_{it})^2} \right)}{\left(\frac{\partial CM_{it}}{M+N_{it}} \right)}$$

which we can simplify to

$$= \left(\frac{M_{it}+N_{it}}{CM_{it}+N_{it}} \right) \left(1 - \frac{CM_{it}}{CM_{it}+N_{it}} \right) \frac{\partial CM_{it}}{\partial CM_{it}}$$

and, using $CM_{it} + N_{it} = VP_{it}$, we finally get:

$$= \left(\frac{M_{it}+N_{it}}{VP_{it}} \right) \left(\frac{N_{it}}{VP_{it}} \right)$$

3) ***Pure Scale effect:*** This is an increase in the total number of immigrants, keeping the citizen/non-citizen composition constant.

$$\frac{\partial \frac{R_{ijt}}{V_{ijt}}}{\partial \frac{M_{it}}{M_{it}+N_{it}}} = \beta_L(1-n_{it}) + \beta_2 n_{it}\left(\frac{M_{it}+N_{it}}{VP_{it}}\right)^2$$

where the share of non-citizen immigrants $n_{it} = \frac{CM_{it}}{M_{it}}$ is constant, i.e. $\partial n_{it} = 0$.
Proof:

$$\frac{\partial \frac{NCM_{it}}{M_{it}+N_{it}}}{\partial \frac{M_{it}}{M_{it}+N_{it}}} = \frac{\left(\frac{\partial NCM_{it}}{M+N_{it}} - \frac{NCM_{it}\partial M_{it}}{(M_{it}+N_{it})^2}\right)}{\left(\frac{1}{M+N_{it}} - \frac{M_{it}}{(M_{it}+N_{it})^2}\right)\partial M_{it}}$$

because $\partial N_{it} = 0$. Using the fact that $NCM_{it} = (1-n_{it})M_{it}$ and $\partial CM_{it} = n_{it}\partial M_{it}$, we can substitute

$$= \frac{\left((1-n_{it}) - \frac{(1-n_{it})M_{it}}{(M_{it}+N_{it})}\right)\partial M_{it}}{\left(1 - \frac{M_{it}}{(M_{it}+N_{it})}\right)\partial M_{it}}$$

and simplify to

$$= (1-n_{it})$$

.

Similarly, the derivative for the third term is:

$$\frac{\partial \frac{CM_{it}}{CM_{it}+N_{it}}}{\partial \frac{M_{it}}{M_{it}+N_{it}}} = \frac{\left(\frac{1}{CM_{it}+N_{it}} - \frac{CM_{it}}{(CM_{it}+N_{it})^2}\right)\partial CM_{it}}{\left(\frac{1}{M+N_{it}} - \frac{M_{it}}{(M_{it}+N_{it})^2}\right)\partial M_{it}}$$

which we can simplify to

$$= \beta_2\left(\frac{M_{it}+N_{it}}{CM_{it}+N_{it}}\right)\left(\frac{\frac{N_{it}}{CM_{it}+N_{it}}}{\frac{N_{it}}{(M_{it}+N_{it})}}\right)\frac{\partial CM_{it}}{\partial M_{it}}$$

and using the following expressions, $\partial CM_{it} = n_{it}\partial M_{it}$ and $CM_{it}+N_{it} = VP_{it}$, we finally get:

$$= n_{it}\left(\frac{M_{it}+N_{it}}{VP_{it}}\right)^2$$

Tables

Table 1: Summary statistics

		Obs.	Mean	Std. Dev.	Min	Max
Election data	Republican vote share	1277	48,1	11,4	0,0	100,0
	Democrat vote share	1277	48,3	11,8	0,0	87,8
House Election	Republican vote share	490	48,4	10,6	0,0	81,6
	Democrat vote share	490	48,3	11,3	0,0	87,8
Senate Election	Republican vote share	329	47,4	14,0	0,0	100,0
	Democrat vote share	329	48,8	14,4	0,0	80,0
Presidential Election	Republican vote share	245	47,2	9,1	26,6	72,8
	Democrat vote share	245	49,6	8,7	24,8	71,9
Gubernatorial Election	Republican vote share	213	49,3	10,8	18,9	79,2
	Democrat vote share	213	45,8	11,4	0,0	74,0
Demographic data	Share of immigrants	1277	8,9	7,6	0,4	36,1
	Share of non-citizen immigrants	1277	5,5	4,6	0,0	22,4
	Share of citizen immigrants in voting population	1277	4,2	4,6	0,1	25,6
	HS dropouts	1277	8,1	2,7	3,1	17,9
	HS graduates	1277	32,6	4,8	22,0	47,5
	Some college	1277	21,3	3,5	13,3	34,2
	College graduates	1277	29,1	4,9	14,6	44,7
	More than college	1277	8,9	2,7	3,6	18,9
	African American	1277	9,8	9,4	0,0	36,7
	Hispanic	1277	3,7	6,2	0,0	44,4
	Share of urban population	1277	51,7	28,6	0,0	100,0
	Average income	1277	33785	4917	22314	49595
	Unskilled to Skilled ratio	1277	11,12	3,91	5,56	21,06
	Males	1277	52,3	1,5	47,9	57,6
	Married	1277	58,4	3,9	46,0	70,1
	Unemployment rate	1277	5,6	2,0	1,3	14,2
	Barvik instrument for employment	1277	10.9	17.8	-25.4	66.4
	Autor Dorn Hanson instrument for trade	1277	100.9	36.7	18.5	197.7

Table 2: Republican vote share and immigrant share

OLS estimates, all elections 1994-2012

	(1)	(2)	(3)	(4)	(5)	(6)
Election Types	Pooled	PE	SE	HE	HE-seats	GE
Share of Immigrants	-0.422*	-0.137	-0.640	-0.768***	-2.221***	0.765
	[0.229]	[0.158]	[0.439]	[0.269]	[0.686]	[0.665]
Share of HS graduates	0.132	-0.0431	-0.229	0.195	0.432	0.144
	[0.214]	[0.152]	[0.528]	[0.268]	[1.130]	[0.934]
Share of some college	0.519**	0.0677	0.686	0.852***	2.122**	0.640
	[0.254]	[0.247]	[0.619]	[0.281]	[0.944]	[1.160]
Share of college graduates	0.508*	0.139	0.943	0.690**	2.236***	0.430
	[0.288]	[0.209]	[0.580]	[0.307]	[0.742]	[1.180]
Share of more than college	0.719**	0.208	0.762	0.903**	2.677***	0.500
	[0.315]	[0.248]	[0.721]	[0.341]	[0.934]	[1.137]
Share of African American	0.794**	0.0411	2.318**	0.610*	1.571	1.983*
	[0.357]	[0.270]	[1.001]	[0.342]	[1.110]	[1.148]
Share of Hispanics	0.0267	0.269	0.0902	-0.00149	-0.617	0.405
	[0.302]	[0.213]	[0.644]	[0.393]	[0.986]	[0.936]
Share of urban population	0.0578	-0.118**	0.115	0.0967	0.298	0.152
	[0.0649]	[0.0440]	[0.147]	[0.123]	[0.431]	[0.621]
Share of unemployed	0.0736	0.180***	-0.100	0.176**	0.0423	0.0205
	[0.0566]	[0.0526]	[0.131]	[0.0834]	[0.305]	[0.168]
Share of males	-0.442	-0.264	-0.494	-0.426	-1.899	0.180
	[0.301]	[0.216]	[0.758]	[0.329]	[1.136]	[1.383]
Share of married	0.171	0.294	-1.358*	0.365	1.032	2.931**
	[0.277]	[0.178]	[0.729]	[0.270]	[0.768]	[1.237]
Voter income	-0.271*	-0.106	-0.0151	-0.457**	-0.686	-0.483
	[0.160]	[0.107]	[0.408]	[0.211]	[0.488]	[0.410]
Barvik instrument	-0.0342	-0.0393	0.0244	-0.0247	-0.130	-0.0503
for employment	[0.0544]	[0.0460]	[0.149]	[0.0676]	[0.234]	[0.318]
Autor-Dorn-Hanson	0.0119	-0.0145	0.0425	0.0527	0.248	-0.0480
instrument for trade	[0.0388]	[0.0311]	[0.0976]	[0.0473]	[0.154]	[0.124]
Constant	0.148	0.290	0.703	-0.120	-1.351*	-1.414
	[0.290]	[0.225]	[0.686]	[0.320]	[0.789]	[1.296]
Election fixed effects	yes	no	no	no	no	no
State fixed effects	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes
Observations	1,277	245	329	490	490	213
R-squared	0.509	0.956	0.638	0.802	0.721	0.457

Note: The dependent variable is the Republican vote share. We distinguish between four types of elections: Presidential election (PE), Senate elections (SE), House elections (HE), where we distinguish between vote percentage (HE-perc.) and percentage of seats (HE-seats), and Gubernatorial elections (GE). The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 3: IV: Republican vote share and immigrant share

2SLS estimates, all elections 1994-2012

	(1)	(2)	(3)	(4)	(5)	(6)
Election Types	Pooled	PE	SE	HE	HE-seats	GE
Share of Immigrants	-0.0317	-1.262	1.092	-1.733**	-7.693**	2.242
	[0.660]	[1.064]	[1.171]	[0.813]	[3.283]	[2.227]
Voter income	0.0676	0.0936	-0.596	0.311	1.091	-0.195
	[0.262]	[0.250]	[0.571]	[0.246]	[1.081]	[1.113]
Share of HS graduates	0.572**	0.0498	0.836	0.771***	1.663	1.137
	[0.245]	[0.265]	[0.556]	[0.295]	[1.142]	[1.147]
Share of some college	0.561**	0.135	1.062**	0.610*	1.779*	1.048
	[0.281]	[0.207]	[0.532]	[0.315]	[0.927]	[1.327]
Share of college graduates	0.745**	0.277	0.711	0.882**	2.556**	1.026
	[0.298]	[0.281]	[0.629]	[0.350]	[1.137]	[1.294]
Share of more than college	0.788**	0.191	2.274***	0.651*	1.803	2.512*
	[0.317]	[0.262]	[0.828]	[0.364]	[1.316]	[1.292]
Share of African American	0.0183	0.296	0.0128	0.000428	-0.606	0.562
	[0.300]	[0.211]	[0.637]	[0.358]	[0.966]	[0.825]
Share of Hispanics	0.0366	-0.0729	0.0163	0.137	0.525	0.0780
	[0.0682]	[0.0905]	[0.146]	[0.133]	[0.542]	[0.555]
Share of urban population	0.0648	0.215***	-0.151	0.203**	0.196	0.0191
	[0.0554]	[0.0594]	[0.129]	[0.0791]	[0.263]	[0.137]
Share of unemployed	-0.523*	-0.0807	-0.938	-0.278	-1.059	-0.323
	[0.298]	[0.349]	[0.805]	[0.348]	[1.111]	[1.463]
Share of males	0.226	-0.0204	-1.108*	0.262	0.447	3.073***
	[0.272]	[0.344]	[0.641]	[0.263]	[0.759]	[1.014]
Share of married	-0.275*	-0.0938	0.0399	-0.425**	-0.509	-0.491
	[0.155]	[0.0899]	[0.378]	[0.185]	[0.466]	[0.350]
Bartik instrument	-0.0438	0.000762	-0.0273	-0.00846	-0.0382	-0.0467
for employment	[0.0563]	[0.0861]	[0.172]	[0.0674]	[0.243]	[0.260]
Autor-Dorn-Hanson	0.00221	0.0215	-0.0103	0.0775	0.388	-0.0740
instrument for trade	[0.0407]	[0.0405]	[0.0843]	[0.0545]	[0.204]	[0.115]
Constant	0.108	0.334	0.678	-0.105	-1.266	-1.851
	[0.268]	[0.246]	[0.554]	[0.305]	[0.915]	[1.180]
Election fixed effects	yes	no	no	no	no	no
State fixed effects	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes
Observations	1,277	245	329	490	490	213
R-squared	0.504	0.934	0.613	0.788	0.654	0.430
IV F-stat	12.59	2.450	18.84	11.91	11.91	12.19
Anderson-Rubin	0.964	0.092	0.377	0.259	0.314	0.424

Note: The dependent variable is the Republican vote share. We distinguish between four types of elections: Presidential election (PE), Senate elections (SE), House elections (HE)), where we distinguish between vote percentage (HE-perc.) and percentage of seats (HE-seats), and Gubernatorial elections (GE). The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 4: Republican vote share, citizen and non-citizen immigrants

OLS, House Elections, 1994-2012

VARIABLES	(1) All election types	(2) HE	(3) HE-seats	(4) HE - quad	(5) HE seats - quad
Share of non-citizen immigrants	-0.100	-0.483	-1.584	-1.815***	-5.252***
	[0.329]	[0.390]	[1.140]	[0.568]	[1.601]
Share of non-citizen immigrants squared				6.838***	18.83***
				[1.968]	[6.231]
Share of citizen immigrants in voting population	-0.740***	-0.975***	-2.652***	-1.119***	-3.049***
	[0.256]	[0.255]	[0.787]	[0.271]	[0.766]
Constant	0.206	-0.0480	-1.186	0.0219	-0.994
	[0.277]	[0.309]	[0.729]	[0.307]	[0.705]
Control variables	yes	yes	yes	yes	yes
Election fixed effects	yes	no	no	no	no
State fixed effects	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes
Observations	1,277	490	490	490	490
R-squared	0.508	0.804	0.723	0.808	0.728

Note: The dependent variable is the Republican vote share. We distinguish between four types of elections: Presidential election (PE), Senate elections (SE), House elections (HE), where we distinguish between vote percentage (HE-perc.) and percentage of seats (HE-seats), and Gubernatorial elections (GE). The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 5: 2SLS Estimates: Republican vote share in House Elections (HE) between 1994 and 2012

IV are based on inverse distance and border apprehensions

SECOND STAGE	(1) Rep Vote percent.	(2) Rep seats won perct.	(3) Rep Vote percent.	(4) Rep seats won perct.	(5) Rep Vote percent.	(6) Rep seats won perct.	(7) Rep Vote percent.	(8) Rep seats won perct.		(9) Rep Vote percent.	(10) Rep seats won perct.
Share of non-citizen immigrants	-0.598	-0.574			-0.902	-1.381	-3.120**	-8.664**		-4.350***	-12.04***
	(0.718)	(2.121)			(0.613)	(1.828)	(1.465)	(3.813)		(1.446)	(3.512)
Share of citizen immigrants			-1.900**	-4.427**	-1.361**	-3.603*				-1.733***	-4.752**
in voting population			(0.809)	(1.936)	(0.604)	(1.417)				(0.650)	(2.260)
Share of non-citizen immigrants							11.98**	38.42**		15.98***	49.39***
squared							(5.931)	(15.65)		(5.413)	(13.85)
Control variables	yes	yes	yes	yes	yes	yes	yes	yes		yes	yes
State fixed effects	yes	yes	yes	yes	yes	yes	yes	yes		yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes		yes	yes
Observations	490	490	490	490	490	490	490	490		490	490
R-squared	0.795	0.712	0.793	0.714	0.801	0.721	0.791	0.706		0.793	0.712
IV F-stat	35.47	35.47	11.58	11.58	8.592	8.592	11.08	11.08		6.467	6.467
Anderson Rubin Wald test	0.423	0.803	0.166	0.203	0.212	0.295	0.119	0.130		0.138	0.126

FIRST STAGE	non-citizen immigrant share	citizen immigrant share	non-citizen immigrant share	non-citizen immigrant share 2	non-citizen immigrant share square	non-citizen immigrant share 2	non-citizen immigrant share	citizen immigrant share	non-citizen immigrant share 2
Share of non-citizens instrumented	0.408***	0.447***	0.209*	-0.0192	0.214**	-0.0189	0.240**	-0.116	-0.0146
by border apprehension	[0.0642]	[0.0562]	[0.107]	[0.0152]	[0.103]	[0.0138]	[0.105]	[0.116]	[0.0141]
Share of citizen immigrants			0.813**	0.430***			0.0403	0.706***	-0.0129
instrumented by distance			[0.402]	[0.0935]			[0.198]	[0.200]	[0.0398]
Share of non-citizens instrumented					0.796**	0.428***	0.643	-0.252	0.409***
by border apprehension squared					[0.385]	[0.0881]	[0.398]	[0.540]	[0.0960]
Observations	490	490	490	490	490	490	490	490	490
R-squared	0.974	0.966	0.974	0.966	0.974	0.975	0.974	0.966	0.975

Note: The dependent variable in Column (1) and (3) is the Republican vote share, while in Column (2) and (4) the share of seats obtained by the Republican party. The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 6: The effect of initial share of Republican votes on the change in share of the different groups of immigrants

Dependent variable	(1) 2 year change in Immigrant share	(2) 2 year change in Non-citizen Immigrant share	(3) 2 year change in Citizen Immigrant share	(4) 4 year change in Immigrant share	(5) 4 year change in Non-citizen Immigrant share	(6) 4 year change in Citizen Immigrant share
Republican vote share (t-1)	0.0110	0.0112	0.0104	0.0126	0.0138	0.0109
	(0.00796)	(0.00734)	(0.0792)	(0.00918)	(0.00831)	(0.00871)
Constant	0.0202	0.0394	-0.0306	0.0424	0.0348	-0.0100
	(0.0586)	(0.0485)	(0.0507)	(0.0980)	(0.0736)	(0.0817)
Control Variables	yes	yes	yes	yes	yes	yes
Time fixed effects	yes	yes	yes	yes	yes	yes
Observations	441	441	441	392	392	392
R-squared	0.152	0.137	0.223	0.213	0.207	0.415

Note: The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectivel

Table 7: OLS estimates: Labour market and Welfare Channel specification, Republican vote share in House Elections (HE) 1994- 2012

Dependent variable	(1) Rep Vote percentage	(2) Rep Seats percentage	(3) Rep Vote percentage	(4) Rep Seats percentage	(5) Rep Vote percentage	(6) Rep Seats percentage	(7) Rep Vote percentage	(8) Rep Seats percentage	(9) Rep Vote percentage	(10) Rep Seats percentage
Share of non-citizen immigrants	-3.645	-11.01*	-8.290**	-26.57***	-3.695	-16.67*	-6.953	-25.12	-5.785	-23.48**
	(2.394)	(6.207)	(3.757)	(9.689)	(3.222)	(9.048)	(5.586)	(16.60)	(3.700)	(9.150)
Share of citizen immigrants	-1.096***	-2.919***	-1.067***	-2.820***	-1.096***	-2.887***	-1.112***	-2.986***	-1.097***	-2.921***
in voting population	(0.215)	(0.622)	(0.282)	(0.867)	(0.305)	(0.945)	(0.303)	(0.940)	(0.299)	(0.893)
Unskilled to skilled 1994 x share of	9.538**	38.26***	10.95*	42.99***	9.488	32.76*	9.501	38.10**	8.777	33.83**
non-citizens immigrants	(4.821)	(13.40)	(5.755)	(15.70)	(5.874)	(17.11)	(5.976)	(18.10)	(6.013)	(15.53)
Income 1994 x share of	0.740	1.842	1.000	2.712	0.730	0.695	0.796	2.081	0.266	-0.919
non-citizens immigrants	(0.637)	(1.684)	(0.800)	(2.038)	(0.865)	(2.788)	(0.796)	(2.248)	(0.922)	(2.232)
Language differences x share of			5.091**	17.05**						
non-citizens immigrants			(2.414)	(6.626)						
Religious differences x share of					0.151	16.85				
non-citizens immigrants					(4.666)	(17.99)				
Colonial past differences x share of							3.502	14.94		
non-citizens immigrants							(5.144)	(14.13)		
Average differences x share of									6.334	36.90**
non-citizens immigrants									(6.070)	(14.47)
Control variables	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	490	490	490	490	490	490	490	490	490	490
R-squared	0.802	0.729	0.807	0.736	0.802	0.730	0.803	0.731	0.804	0.736

Note: The control variables do not containt the education shares. The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 8: 2SLS estimates: Labour market and Welfare Channel specification, Republican vote share in House Elections (HE) 1994- 2012

IV are based on inverse distance and border apprehensions

VARIABLES	(1) Rep Vote percentage	(2) Rep Seats percentage	(3) Rep Vote percentage	(4) Rep Seats percentage	(5) Rep Vote percentage	(6) Rep Seats percentage	(7) Rep Vote percentage	(8) Rep Seats percentage	(9) Rep Vote percentage	(10) Rep Seats percentage
Share of non-citizen immigrants	-11.80*	-29.01	-24.97***	-55.44**	-17.13*	-42.17*	-45.64*	-84.18	-18.64**	-49.39***
	(6.726)	(19.29)	(9.369)	(24.03)	(8.989)	(23.49)	(27.74)	(69.32)	(7.416)	(18.56)
Share of citizen immigrants	-1.755**	-6.636*	-1.233	-5.588	-1.508**	-6.027*	-1.770**	-6.660*	-1.203	-4.992
in voting population	(0.835)	(3.828)	(0.862)	(3.570)	(0.735)	(3.297)	(0.784)	(3.515)	(0.782)	(3.194)
Unskilled to skilled 1994 x share of	20.47*	55.27*	30.65**	75.70**	18.23*	49.73*	26.05*	64.37*	22.24**	60.53**
non-citizens immigrants	(11.74)	(32.46)	(13.81)	(34.09)	(9.505)	(27.57)	(13.63)	(36.63)	(10.35)	(26.20)
Income 1994 x share of	0.295*	0.730	0.370*	0.880*	0.216	0.535	0.382**	0.871*	0.122	0.213
non-citizens immigrants	(0.179)	(0.564)	(0.201)	(0.465)	(0.165)	(0.505)	(0.181)	(0.489)	(0.184)	(0.521)
Language differences x share of			11.79***	23.66						
non-citizens immigrants			(4.336)	(18.93)						
Religious differences x share of					13.24	32.69				
non-citizens immigrants					(8.134)	(28.31)				
Colonial past differences x share of							33.03	53.85		
non-citizens immigrants							(27.85)	(70.91)		
Average differences x share of									19.73**	58.75**
non-citizens immigrants									(7.995)	(23.41)
Control variables	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	490	490	490	490	490	490	490	490	490	490
R-squared	0.784	0.696	0.772	0.709	0.772	0.694	0.741	0.685	0.774	0.704
IV F-stat	1.226	1.226	0.580	0.580	1.207	1.207	0.191	0.191	0.936	0.936
Anderson Rubin Wald test	0.115	0.0517	0.0209	0.00105	0.108	0.0328	0.0706	0.0149	0.0169	0.000478

Note: The control variables do not containt the education shares. The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 9: Instrumental Variables of Voter Participation: Voter Turnout in House Elections (HE) between 1994 and 2012.

Dependent variable	(1) Voter Turnout percentage	(2) Voter Turnout percentage
Share of non-citizen immigrants	0.897***	2.893***
	(0.339)	(0.816)
Share of non-citizen immigrants squared		-9.231***
		-3.358
Share of citizen immigrants in voting population	-0,00527	0.199
	(0.410)	(0.433)
Constant	-0.245	-0.197
	-1.108	-1.090
Control variables	yes	yes
State fixed effects	yes	yes
Year fixed effects	yes	yes
Observations	490	490
R-squared	0.921	0.914
IV F-stat	11.59	7.09
Anderson Rubin Wald test	0.263	0.227

Note: The dependent variable is the share of actual voters among the voting populalion (voter turnout). The sample period is 1994 to 2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 10: OLS estimates of Google search results between 2004 and 2013.

Dependent variable	Share of Google Trend Score		
	(1)	(2)	(3)
Share of Immigrants	0.968*		
	[0.548]		
Share of non-citizen immigrants		1.488**	-4.095**
		[0.656]	[1.787]
Share of non-citizen immigrants squared			28.48**
			[11.10]
Share of citizen immigrants in voting population		-0.121	-0.623
		[0.864]	[0.777]
Constant	3.203	3.489	3.495
	[4.685]	[4.789]	[4.603]
Year Fixed Effects	yes	yes	yes
State Fixed Effects	yes	yes	yes
Control variables	yes	yes	yes
Observations	396	396	396
R-squared	0.450	0.454	0.488

Note: The dependent variable is the share of Google Trends search results per U.S. state. The sample period is 2004 to 2013. For the following states there was not sufficient data
Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Robust standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

Table 11: Republican vote share, citizen and non-citizen immigrants

OLS, House Elections, 1994-2012

	(1)	(2)	(3)
Election Types	Pooled	HE	HE - seats
Dummy = 1 (if share of non-citizens immigrants > 0.13)	0,00893	0.0278**	0.0767**
	[0.00898]	[0.0108]	[0.0334]
Share of citizen immigrants in voting population	-0.753***	-1.021***	-2.765***
	[0.260]	[0.256]	[0.731]
Constant	0.262	0.148	-0.801
	[0.260]	[0.297]	[0.744]
Election fixed effects	yes	no	no
Control variables	yes	yes	yes
State fixed effects	yes	yes	yes
Year fixed effects	yes	yes	yes
Observations	1,277	490	490
R-squared	0.508	0.803	0.721

Note: The dependent variable is the Republican vote share. We distinguish between four types of elections: Presidential election (PE), Senate elections (SE), House elections (HE), where we distinguish between vote percentage (HE-perc.) and percentage of seats (HE-seats), and Gubernatorial elections (GE). Sample period is 1994-2012. Each regression is weighted by the population of the state. All regressions include state as well as year fixed effects. Standard errors in parentheses (clustered by state): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

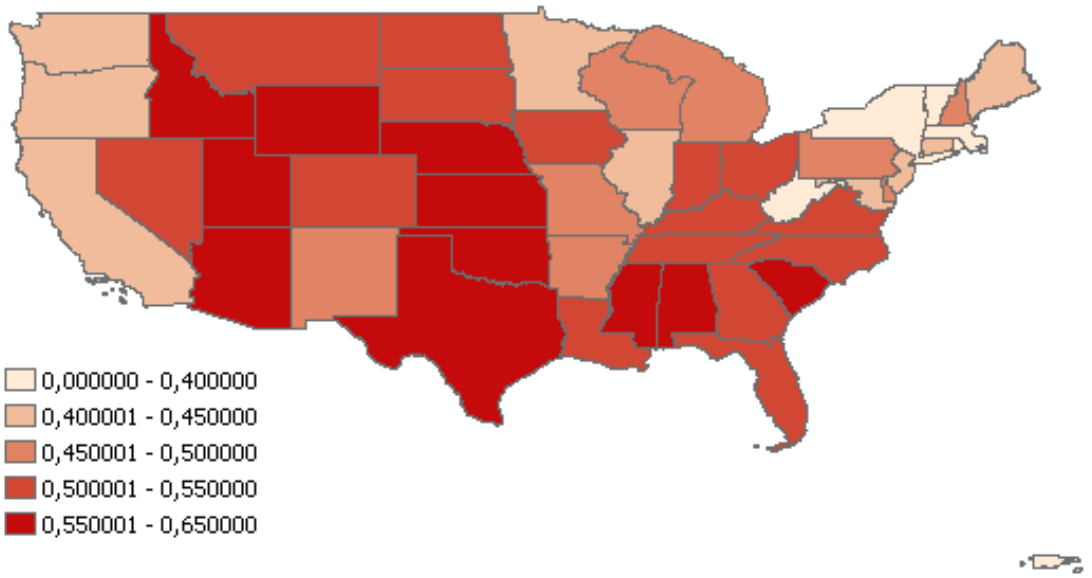
Table 12: Republican vote share, Citizen and non-citizen immigrants at the commuting zone level

OLS, House Elections, 2000, 2006, 2008, 2010

VARIABLES	(1) Pooled	(2) HE	(3) HE - quad
Share of non-citizen immigrants	0.127	0.241	-1.141*
	[0.124]	[0.206]	[0.633]
Share of non-citizen immigrants squared			6.225**
			[2.593]
Share of citizen immigrants in voting population	-0.304**	-0.350*	-0.568*
	[0.142]	[0.208]	[0.335]
Constant	0.417***	0.962***	1.100***
	[0.152]	[0.242]	[0.310]
Control variables	yes	yes	yes
Election fixed effects	yes	no	no
Commuting zone fixed effects	yes	yes	yes
Year fixed effects	yes	yes	yes
Observations	9,095	2,852	2,852
R-squared	0.684	0.849	0.850

Note: The dependent variable is the Republican vote share. We distinguish between four types of elections: Presidential election (PE), Senate elections (SE), House elections (HE), where we distinguish between vote percentage (HE-perc.) and percentage of seats (HE-seats), and Gubernatorial elections (GE). The sample period are the year: 2000, 2006, 2008, 2010. Each regression is weighted by the population of the commuting zone. All regressions include commuting zone as well as year fixed effects. Standard errors in parentheses (clustered by commuting zone): ***, **, * indicate the statistically significant difference from zero at the 1, 5 and 10 levels respectively.

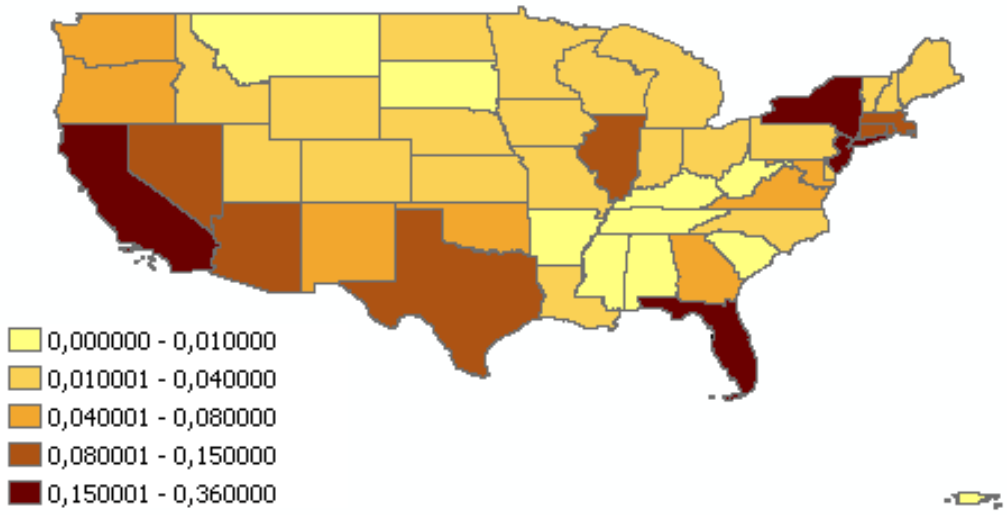
Figure 1: Average Republican vote share, pooling all elections Years 1994-2012.



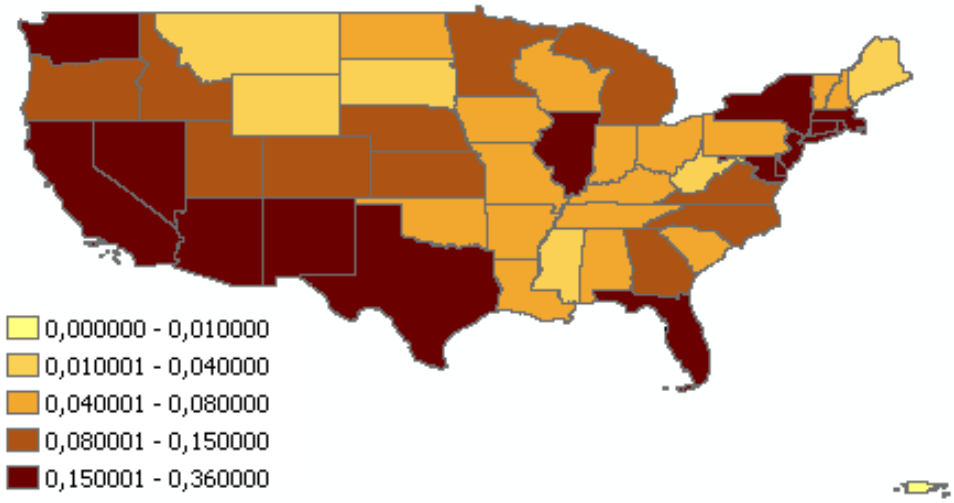
Note: The Map represents the average share of Republican vote pooling all elections from 1994 to 2012, using a darker color for larger shares.

Figure 2: The share of immigrants per U.S. state in the year 1994 and 2012.

Panel a: Year 1994

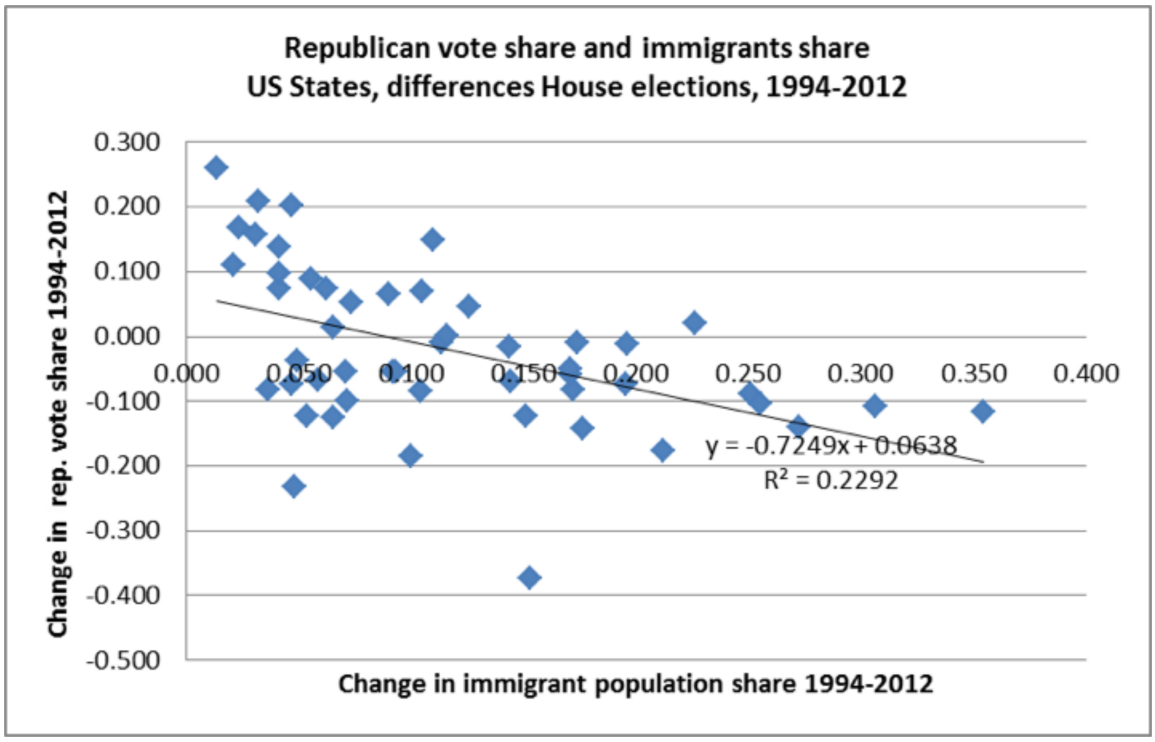


Panel b: Year 2012



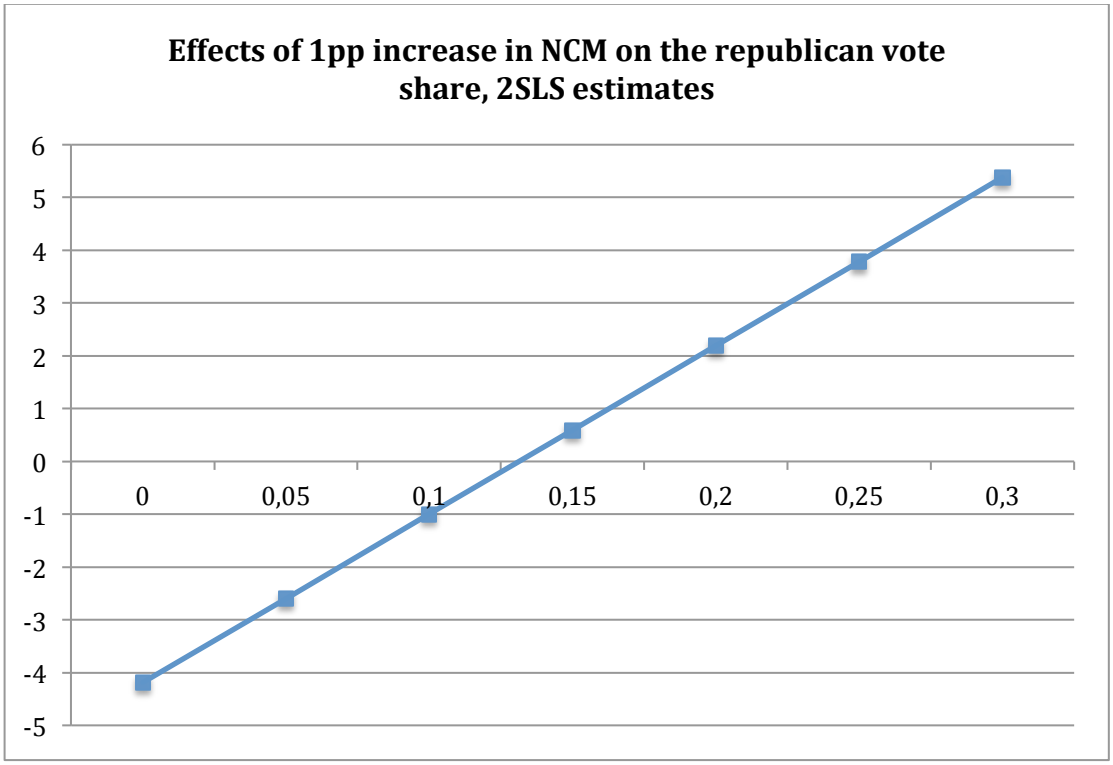
Note: The maps represent the share of foreign born in the state as of 1994 (panel A) and in 2012 (panel B). We use a darker color for larger shares of immigrants, dividing their values in bins capturing five quintiles of the distribution

Figure 3: Correlation between the change in the Republican vote share and the change in the immigrant population share



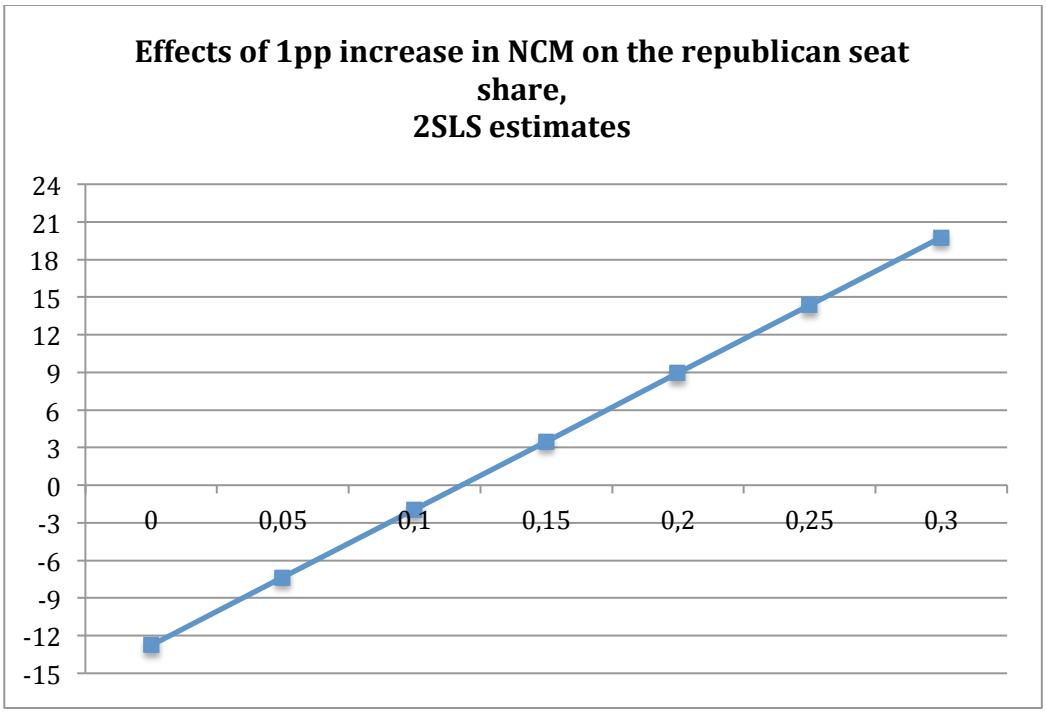
Note: Each point represents a US state. The vertical axis shows the change in the share of Republican vote in the house elections, and the horizontal axis shows the change in immigrants share in the adult population.

Figure 4: Marginal effect of non-citizen immigrants on the Republican vote share



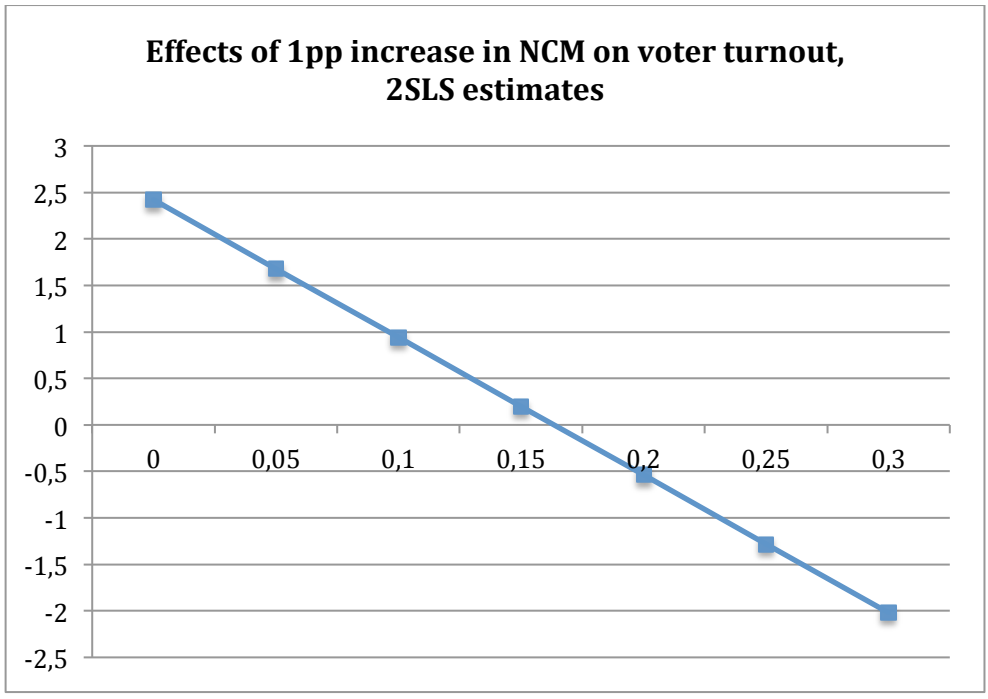
Note: The graph shows the schedule of the marginal effect due to an increase of non-citizen immigrants on the Republican vote share at different values of the non-citizen immigrant share. The graph is obtained using the estimated coefficients of Table 5.

Figure 5: Marginal effect of non-citizen immigrants on the Republican share of seats



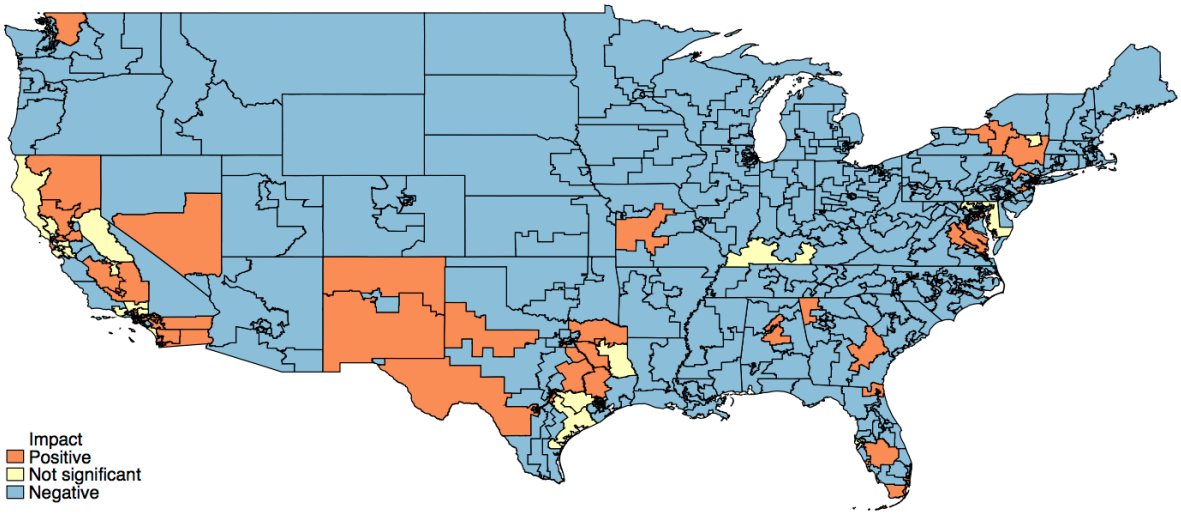
Note: The graph shows the schedule of the marginal effect due to an increase of non-citizen immigrants on the Republican vote share at different values of the non-citizen immigrant share. The graph is obtained using the estimated coefficients of Table 5.

Figure 6: Marginal effect of non-citizen immigrants on voter turnout.

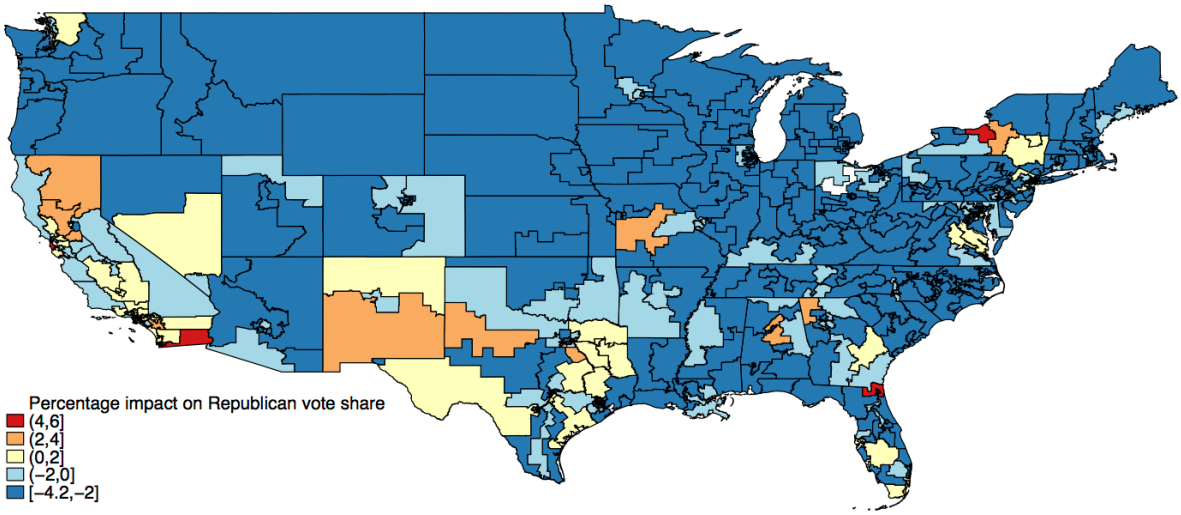


Note: The graph shows the schedule of the marginal effect due to an increase of non-citizen immigrants on the voter turnout at different values of the non-citizen immigrant share. The graph is obtained using the estimated coefficients of column 3 in Table 7.

Figure 7: Marginal effect of an increase in non-citizen immigrants on the Republican vote share across congressional districts, 2012



(a): Significant impact of non-citizen immigrants on the Republican vote share with 95 confidence



(b): Continuous impact of non-citizen immigrants on the Republican vote share at point estimate