

Factors associated with attitudes toward U.S. immigration, 2004–2016

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Abstract

This study investigates demographic, socioeconomic, political, and contextual factors associated with attitudes toward U.S. immigration. We analyze cross-sectional data from the 2004–2016 General Social Survey and American Community Survey five-year estimates. Results from generalized ordered logit models suggest that support to immigration has been increasing over time. There is no difference by sex on attitudes toward immigration. Non-whites, those between 18 and 24 years of age, people with higher educational attainment, and non-Protestants are more likely to be pro-immigration. People working on sales, office, natural resources, construction, maintenance, production, transportation, material moving, and military occupations are less likely to support immigration. People living in the South Atlantic region are the least likely to support an increase in immigration. People who lived in areas at the age of 16 that tend to have higher proportions of foreign-born individuals are more likely to support immigration. People who self-classify as strong Democrats, Independents near Democrats, and in other parties are more likely to be in favor of an increase on the number of immigrants. People with more liberal political views are more likely to be in favor of immigration. People with lower levels of racial resentment have higher chances to be in favor of an increase in immigration. Opinion about immigration has stronger associations with racial resentment than with opinion about U.S. economic achievement. People who live in counties with higher proportions of college graduates and higher proportions of immigrants are more likely to be pro-immigration.

Keywords

Immigration attitude. Demographic factors. Socioeconomic factors. Political factors. Contextual factors.

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1. Introduction

This paper aims to investigate current individual and contextual characteristics related to attitudes toward immigration in the United States. This research topic has become even more highlighted in the public sphere due to the 2016 U.S. presidential election. One of the main platforms used by the current president in his campaign, as well as throughout his presidency, is the implementation of a new immigration system. The main propositions include policies to increase security at the Southern border, restrain family reunification (process by which permanent residents sponsor family members for immigration), eliminate the Diversity Immigrant Visa Program (also known as green card lottery), establish criteria to provide immigrant visas based on skills and educational attainment (referred as merit-based entry system), and increase the deportation of undocumented immigrants (through actions of the U.S. Immigration and Customs Enforcement – ICE). All these proposed or ongoing policies are intrinsically related to opinions about the number of immigrants in the country.

Several studies have been already developed on attitudes toward immigration in the country, which suggest a series of theories to explain opinions about immigration using quantitative and qualitative approaches. Our analysis contributes to this literature by estimating multivariate models that include individual-level and contextual-level factors associated with attitude toward immigration. This study incorporates several variables to test different theoretical frameworks that were previously pointed as possible explanations for opinion about immigration. Our models deal with several years of data going up to 2016, which captures the social context of the presidential election. We enhance previous estimations by exploring disaggregated information on race/ethnicity, age group, education degree, religion, occupation, region of interview, area of

residence at age 16, political party affiliation, political views, racial resentment, and opinion about U.S. economic achievement. Furthermore, we include county-level variables that control for demographic, socioeconomic, and health characteristics of American locations. We analyze cross-sectional cumulative data from the 2004–2016 General Social Survey (GSS) to generate individual-level and county-level variables, as well as a series of American Community Surveys (ACS) five-year estimates to generate county-level variables. Furthermore, the estimated generalized ordered logit models are more informative and better capture associations between the ordinal variable about immigration attitude with several independent variables, compared to logistic regressions, ordinal regressions, or multinomial logistic regressions.

The following section provides an overview of previous studies that dealt with individual and contextual factors associated with attitudes toward immigration. In the subsequent section, we present details about employed methods, investigated databases, and selected variables. Then we provide results from bivariate analyzes and multivariate regression models. We end this paper with final considerations that summarize our results and provide insights for future studies.

2. Background

Immigration policy is a highly contested matter of public opinion. The proposal to build a wall along the US-Mexico border is currently driving the immigration public debate. However, a wide array of federal, state, and local policies centered on immigration have kept the matter salient since the 1990s (Chandler and Tsai 2001). What shapes individuals' views on immigration? What social characteristics are ascribed to those who are anti or pro-immigrant? In this section, we summarize individual factors (personal and social identity, self and group interest, cultural

values and beliefs, social interactions, stereotypes, political ideology, age, sex, race, education, income, and occupation) and contextual factors (economic development, education background, immigration/diversity climate, religion, and health background) that were highlighted by previous studies as associated with attitudes toward immigration.

2.1. Individual factors

Personal and social identity. Some scholars argue that at the individual level, certain personality types are more prone to develop negative attitudes towards certain groups. Authoritarian individuals are inclined to discipline and distrust other individuals (Allport 1954). Distrust turns into negative attitudes toward specific social groups, such as immigrants. Similarly, individuals who are highly observant of laws also tend to oppose immigration (Lee, Ottati, and Hussain 2001). Scholars have also indicated positive associations of anti-immigrant sentiments in Europe with authoritarian inclinations and support of right-wing ideologies (Cohrs and Stelzl 2010, Semyonov, Raijman, and Gorodzeisky 2006).

According to social identity theory, the formation of social identities is strongly related to attitudes toward immigrants and immigration policy (Fussell 2014, Stets and Burke 2000). Individuals mentally categorize themselves and others into “in-groups” and “out-groups,” which has important implications in the development of immigration-related attitudes (Fussell 2014). For instance, in California, in-group preference and prejudice toward the out-group significantly predicted attitudes toward Proposition 187, which aimed to curtail social services to unauthorized immigrants (Lee and Ottati 2002). Anti-immigrant attitudes are not always the result of out-group prejudice, but more often derives from in-group preference, according to

group consciousness theory (Brewer 1979). According to this theory, individuals might strongly identify with a group, become aware of the positionality of their group in society, and engage in action to improve their group situation (Sanchez 2008). Both the non-Hispanic White majority and minority groups could engage in group consciousness often resulting in divergent attitudes toward immigrants. For instance, Latinos, both foreign and native born, tend to be pro-immigrant and are more prone to engage in political activism with increasing levels of group consciousness (Sanchez 2006, 2008). At the opposite end of the spectrum, group consciousness among non-minorities might result in negative attitudes toward other groups, who might be perceived as challenging or jeopardizing non-minority standing in society, regardless of the authenticity of these claims (Berg 2015). The notion of in- and out-groups is not used solely in the context of race and ethnicity, but it has also been analyzed from the perspective of political party affiliation, age, gender, occupation, religion, and region of residence (Barreto et al. 2009, Berg 2010, Espenshade and Hempstead 1996, Fennelly and Federico 2008, Ha 2010, Hawley 2011, Knoll 2009, Rocha et al. 2011, Sanchez 2006, Wilson 1996).

Self and group interest. An individual's belief that immigrants affect their job status and/or standard of living is defined as the labor market competition hypothesis (Espenshade 1995). This negative view is especially expressed by people of lower socioeconomic status (Burns and Gimpel 2000, Espenshade 1995, Espenshade and Hempstead 1996). When the majority race believes that minorities are purposely taking advantage of society resources, anti-minority attitudes increase (Blalock 1970). For example, unauthorized Mexican immigrants are worrisome for Mexican Americans, because of the stereotype that they may create (Fussell 2014). On the other hand, Mexican Americans will put their worries aside when thinking of the way that

Mexican immigrants (authorized or unauthorized) are increasing the Mexican American population in the United States.

Cultural values and beliefs. Values and beliefs are developed at a young age through the influence of the community, family, and culture (Espenshade and Calhoun 1993, Sears 1997, Sears et al. 1997). Anti-immigration attitudes are developed in areas with strong conservative politicians (Semyonov, Rajjman, and Gorodzeisky 2006). Religion seems to play a role in defining a person's attitudes toward immigration (Knoll 2009). Positive attitudes are developed by religious groups that welcome minorities or support specific minority groups.

Social interactions. People tend to dismiss negative thoughts about minority groups through interaction (Hood III and Morris 1997, McLaren 2003). A majority group member who lives in an area with many immigrants typically holds a positive attitude toward immigration (Dixon 2006). People with positive attitudes toward immigration are typically wealthier and have more experiences with minority groups (Haubert, Fussell 2006). Interactions are more successful when people have similar class ranking, local agencies stimulate contact, people have similar goals for the community, and both groups want to experience one another (Pettigrew 1998). Individuals who see newcomers as a threat to American culture, especially in relation to language, are more likely to favor a decrease in the number of immigrants (Chandler and Tsai 2001). More specifically, if Whites and Hispanics are interacting in a specific context, Whites only feel threatened if Hispanics are illegal (Stein, Post, and Rinden 2000). Therefore, areas with more illegal immigrants tend to have higher chances of voting to halt immigration, while areas with more legal immigrants tend to have the opposite pattern (Hood and Morris 1998). Furthermore,

those who reject ethnocentrism or have experience living abroad have significantly more positive attitudes toward immigrants than those with ethnocentric views or without abroad experience (Haubert and Fussell 2006).

Stereotypes. Individual's political and stereotypical beliefs play an important role in the development of immigration attitudes (Berg 2015). Subtle prejudice can be the main factor in developing stereotypes against minority groups, which shapes attitudes toward immigrants (Pettigrew and Meertens 1995). Specifically, Latinos seem to have a negative stereotype against themselves, stating that members of this group lack intelligence and work ethic (Lu and Nicholson-Crotty 2010). Attitudes toward a specific group of immigrants can also shape the overall views on the issue, according to the 2000 GSS (Shin, Leal, and Ellison 2015). This analysis included three measures of bias against Latinos: (1) derogation measured by negative stereotypes about Latinos; (2) disrespect or unfavorable views of Latino culture and its contributions to American society; and (3) discomfort, a preference to maintain social distance from Latinos. Prejudice against Latinos significantly shapes respondents' views on: (1) the number of immigrants who should be allowed to come to the U.S.; and (2) the consequences of immigration in relation to (a) higher crime rates, (b) job losses for the native-born population, and (c) opening up to new ideas and cultures.

Political ideology. Conservatives tend to hold more negative views toward immigration than liberals (Chandler and Tsai 2001, Haubert and Fussell 2006). The relationship between political partisanship and attitudes toward immigrants is not always straightforward (Neiman, Johnson, and Bowler 2006). In California, Republicans are more likely to think that immigration has

deleterious effects on social and policy outcomes, but Democrats shared the same concerns. Natives living in an area that has a large inflow of immigrants are more likely to agree with Republican policies that aim to decrease immigration (Hawley 2011).

Age and sex. Based on the 1994 GSS, analyses about attitudes toward immigration suggest that age is positively related to anti-legal immigration attitudes (Chandler and Tsai 2001). Older respondents are more likely to want to decrease the number of legal immigrants. The relationship between age and anti-illegal immigration attitudes was not statistically significant (Chandler and Tsai 2001). In terms of gender, females are more anti-legal immigration than males, but this relationship is not statistically significant for anti-illegal immigration. Overall, age and sex have not been found to be consistent nor significant predictors of attitudes toward immigrants (Chandler and Tsai 2001, Espenshade and Hempstead 1996, Fetzer 2000). Although age does not predict attitudes toward immigrants, birth cohort does. The millennial generation, those born from the early 1980s to the 2000s, have more positive views toward immigration than non-millennials, based on the 2008 American National Election Study (Ross and Rouse 2015).

Education. Level of education is one of the most important and consistent predictors of immigrant attitudes. Individuals with higher levels of education tend to be more pro-immigrant than individuals with lower educational status (Berg 2010, Berg 2015, Burns and Gimpel 2000, Chandler and Tsai 2001, Espenshade 1995, Haubert and Fussell 2006, Hood III and Morris 1997). Since most studies of the effect of educational level on immigration attitudes are cross-sectional, there is a scholarly debate on whether education actually makes individuals pro-immigrant or only teaches them to support a pro-immigrant ideology (Jackman and Muha 1984,

Janus 2010). Nevertheless, the support for a positive relationship between level of education and pro-immigrant sentiment is overwhelming and has also been found in other contexts such as Europe (Ceobanu and Escandell 2010, Hainmueller and Hiscox 2010).

Race. Race did not have a statistically significant relationship with anti-legal or illegal immigration (Chandler and Tsai 2001). However, 67 percent of Whites did favor a decrease in immigration, compared to 65 percent among Blacks and 60 percent among non-Whites in 1994. However, other studies suggest that nativity and immigrant background do play a role in immigration attitudes. White immigrants and non-White immigrants are more likely to have favorable perceptions of immigrants, compared to White natives, based on 1996 GSS (Haubert and Fussell 2006).

Income and occupation. Income did not have a statistically significant relationship with anti-legal or illegal immigration (Chandler and Tsai 2001). Occupation significantly predicted negative perceptions of immigrants (Haubert and Fussell 2006). Blue-collar and service workers are more likely to hold negative perceptions, because immigrants are perceived as competitors in the labor market for low-skilled jobs. However, few of the 40 percent of immigrants who come to the U.S. without completed high school education will ever catch with the average earnings of natives, while U.S. born children will reach those earnings' level (Card 2005).

Racial resentment and economic anxiety. The term racial resentment was originally defined as white people's negative attitudes toward black people who were standing up for racial equality during the civil rights era (Kinder and Sanders 1996). More specifically, racial resentment is

related to whites viewing blacks as violating core morals and values for challenging racial status quo during the civil rights period. This concept applies to whites who use the language of American individualism to express their prejudice. Some authors indicate that racial resentment primarily reflects racial policy attitudes, not racial prejudice or racial stereotypes (Carmines, Sniderman, and Easter 2011). In any case, a recent study found that attitudes toward immigration have stronger correlations with racial resentment than economic anxiety (Miller 2018). More specifically, using items about racial resentment from the American National Election Studies (ANES), estimates indicate that those with negative opinions toward black people tend to have anti-immigration attitudes. Likert items capture opinions of respondents (strongly agree, agree, neither agree nor disagree, somewhat disagree, strongly disagree) about a series of statements: (1) Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should to the same without any special favors. (2) It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites. (3) Over the past few years blacks have gotten less than they deserve. (4) Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. Racial resentment of white people toward black people is not necessarily related to an anti-immigration opinion, since only around 9 percent of African Americans are immigrants. Thus opinion about black people is related to a broader perspective of white people toward various minorities (Miller 2018). Our intention in the present paper is to verify if measures of racial resentment and economic anxiety are associated with attitudes toward immigration, based on GSS data. Moreover, as pointed by the ANES data analysis, we will explore whether opinion about immigration has stronger correlations with racial resentment or economic anxiety.

2.2. Contextual factors

Economic development. In the United States, economic development is continuously affecting residents' attitudes toward immigrants. When immigrants have improvements in labor market outcomes, non-immigrants tend to increase negative opinions toward immigrant tolerance (Esses and Dovidio 2011). For example, lower-income natives may perceive that immigrants are moving up economically due to an unfair advantage. Immigrants benefit from social networks provided to them by previous immigrants, in order to seek jobs and places to live (Fischel 2001, Hopkins 2010). The labor market might change due to a large inflow of immigrants looking for jobs. In this case, low-income natives may be pushed out of their jobs due to these waves of immigrants. The housing market might also change in areas that have a large immigrant population, because they commonly rent places to live, instead of buying, when they arrive in the country (Gould 2000, Hopkins 2010, Kruse 2005). An increase of racial diversity in low-income housing areas commonly result in hostility toward immigrants (Fischel 2001, Hopkins 2010). This hostility roots from the economic competition between race/ethnicity groups, looking for the same kind of jobs in the area. Commonly, Whites with high socioeconomic status oppose the inflow of non-White immigrants into their communities, although these wealthy groups do not reside in areas with high proportion of immigrants (Oliver and Mendelberg 2000). In order for economic development to succeed in the long-term, the society has to embrace tolerance, talent, and technology (Moore and Ovadia 2006). Tolerance of non-traditional individuals (considering aspects related to race, sex, and morals) is the most relevant among these three aspects and is necessary for the United States to continue growing in the future (Moore and Ovadia 2006).

Education background. Education provides an opportunity for children to learn, understand, and accept their peer's values and ideas (Bobo and Licari 1989, Moore and Ovadia 2006). A classroom is essentially a conglomeration of several opinions and beliefs that are typically different than the ones that someone learned at home. Due to the amount of beliefs, values, and ideas that students are exposed at school, they are continually expanding their knowledge of other races, which makes them more likely to keep an open mind to new information. As students grow older and have more schooling, they tend to be more accepting of the commonly avoided racial groups. Therefore, individual positive attitudes toward immigration generally rise when people live in areas that are predominantly occupied by college graduates. Typically, areas commonly seen as scholarly cities (e.g., in Eastern and Northeastern states) are more suitable to be tolerable and accepting of racial groups residing in the community. Citizens are more tolerable toward other groups in scholarly cities due to the amount of people who are college graduates and pursuing more education after their bachelor's degree. They typically understand the positive effects that immigrants can have on our nation and economy. Furthering education plays a large role in people's long-term attitudes toward immigration because of the rigorous courses, development of critical thinking, skills, and informed understanding of political issues involving tolerance (Cote and Erickson 2009). Educated individuals are more aware of background problems in society and want to learn more about racial segregation, compared to people with lower levels of educational attainment.

Religion. Prominent religious figures and leaders are constantly affecting the beliefs of followers in the congregation (Moore and Ovadia 2006). This process happens in indirect and direct manners due to the actions and words of these leaders. Followers are not only affected by the

religious beliefs of their leaders, but also by their beliefs on events taking place in the media and everyday life. As the tone of the United States shifts progressively toward more liberal generations, each generation is creating a more positive attitude toward immigrants. Resultantly, there are less people with strong religious affiliations. For example, Evangelical Protestants are commonly anti-immigration and have negative attitudes toward immigrants due to religious beliefs. This anti-immigrant trend is spread throughout areas with a large number of Evangelical Protestants, which are largely seen in the South due to conservative teachings and tendencies (Ellison and Musick 1993, Moore and Ovadia 2006). Religious groups like Jews or Mormons are viewed as being minorities in the religious world, because of the shrinking number of followers, as more liberal generations are on the rise (Knoll 2009, McDaniel, Nooruddin, and Shortle 2011). Minorities usually help other minority groups in need, such as immigrants, which is an example of the minority marginalization hypothesis (Knoll 2009). As liberal generations continue to grow, people tend not to be raised with an affiliated religion (Green and Guth 1993, Knoll 2009). People tend to choose their religious affiliation based on the beliefs that they have already set for themselves and follow the beliefs of leaders in the congregation (Green and Guth 1993, Knoll 2009). This can cause larger divides between positive and negative attitudes toward immigration, because of large growths of certain political beliefs in different religious organizations.

Immigration/diversity climate. When people move from areas that have negative attitudes toward immigration to areas with positive attitudes, they are more likely to develop a more positive attitude (Moore and Ovadia 2006). The development of positive or negative attitudes toward immigration are typically swayed by the dominant opinion in the city of residence.

However, people who move from an area with a positive attitude toward immigration to a negative one might attempt to spread their knowledge about immigration, in order to try to make their new area of residence more tolerable toward immigrants. Many immigrants reside in urban areas because these locations are more likely to have a positive outlook on immigrants and make them feel included (Cote and Erickson 2009). Urban areas are commonly dominated by Democratic viewpoints, which help provide a way for all ethnic groups to interact with minimal discrimination. Residents of these cities interact through work and their everyday life activities.

3. Methods

3.1. Data and dependent variable

We analyzed cross-sectional cumulative data from the 2004–2016 GSS. This survey has data representative to the adult population in the United States and allows us to investigate attitudes toward immigration. We also utilize data from the GSS Sensitive Data Files, which include information on state, county, and census tract of residence for each individual. These sensitive variables allow us to generate county-level variables with GSS. We are also able to merge individual-level GSS data into county-level variables generated with the 2006–2010, 2008–2012, 2010–2014, and 2012–2014 ACS five-year estimates, as explained in following sub-sections.

We considered the GSS complex sample design for all estimates reported in this study. The National Frame Areas (NFAS) were taken as the stratum. Segments (block, group of blocks, or census tract) were taken as the primary sampling unit. For strata with one sampling unit, as the scaling factor, we used the option to average the variances from the strata with multiple sampling units for each stratum with one sampling unit. We also informed the weight in GSS that

considers: sub-sampling of non-respondents; the number of adults in the household; and applies an adult weight to years before 2004, which allows us to investigate data before and after that year.

For this paper, we concentrated the analysis on a dependent variable that indicates the opinion of respondents about how should the number of immigrants to American be nowadays, which is available for 1996, 2004, 2008, 2010, 2012, 2014, and 2016. We organized this variable in a manner that higher values indicate a more positive view toward immigration, so we refer to this variable as a pro-immigration scale. This variable gives the following alternatives: (1) reduced a lot; (2) reduced a little; (3) remain the same as it is; (4) increased a little; and (5) increased a lot. We investigate only data starting in 2004, because information on Hispanic origin is available since 2000, which is used to compose one of our independent variables. We keep only observations with valid information (non-missing cases) for all GSS variables utilized in this study, which resulted in an overall sample size of 9,265 respondents. The sample size by year and opinion about how should the number of immigrants to America be nowadays is reported on Table 1. These numbers are smaller for models that include independent variables related to political views, racial resentment, and opinion about U.S. economic achievement, because these questions were implemented to fewer respondents.

>>> Table 1 <<<

Our models are controlled for a series of individual-level and county-level independent variables. As the dependent variable, the individual-level variables come from the 2004–2016 GSS. The county-level independent variables are generated from GSS and from a series of ACS five-year estimates. We explain each set of independent variables in the following sub-sections.

3.2. Individual-level independent variables

Following strategies of previous studies, we controlled the models for a series of independent variables at the individual level from GSS: year (2004, 2008, 2010, 2012, 2014, 2016); sex (female, male); race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, other); age group (18–24, 25–44, 45–64, 65–89); education degree; religion; occupation; region of interview; area of residence at age 16; political party affiliation; political views; racial resentment; and economic anxiety.

Information on education degree has the following categories: (1) less than high school; (2) junior college; (3) bachelor; and (4) graduate. The intention was to control the models for this disaggregated variable to better understand variations in attitudes toward immigration by level of education, going beyond binary information on whether the respondent completed college.

Religion of respondent was analyzed using the following categories: (1) Protestant; (2) Catholic; (3) Christian; (4) Jewish; (5) other religions; and (6) none. We intended to capture differentials in attitudes toward immigration between Protestants and Catholics. As a result, we did not group Christians with any of these two religions, because we do not have information on their specific religion based on GSS data.

Occupations were aggregated according to the 2010 Census Occupation Codes:¹ (1) management, business, science, and arts occupations; (2) service occupations; (3) sales and

¹ https://www.census.gov/people/io/files/2010_OccCodeswithCrosswalkfrom2002-2011nov04.xls

office occupations; (4) natural resources, construction, and maintenance occupations; (5) production, transportation, and material moving occupations; (6) military specific occupations; (7) unspecified occupations; and (8) unemployed. An issue with this independent variable is that it aggregates people with diverse occupations in the same categories. However, the original disaggregated variable would produce coefficients even less informative, because the 2010 Census occupation classification list has 539 codes.

Our models also control for possible unobserved regional factors associated with attitudes toward immigration, which are not available in the GSS database. More specifically, we add information on region of interview, which gives information on residence of individual: (1) New England (Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island); (2) Middle Atlantic (New York, New Jersey, Pennsylvania); (3) East North Central (Wisconsin, Illinois, Indiana, Michigan, Ohio); (4) West North Central (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas); (5) South Atlantic (Delaware, Maryland, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, District of Columbia); (6) East South Central (Kentucky, Tennessee, Alabama, Mississippi); (7) West South Central (Arkansas, Oklahoma, Louisiana, Texas); (8) Mountain (Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico); and (9) Pacific (Washington, Oregon, California, Alaska, Hawaii).

We also controlled our models by area of residence at age 16, based on information about region of residence at age 16 and type of place lived at age 16. Our intention is to test whether respondents who lived in areas in which they had higher chances to interact with foreign-born

individuals (in foreign countries and American big cities) have more positive attitudes toward immigration than respondents who were less exposed to foreign-born individuals (in smaller American cities). People who lived in a foreign country at age 16 and who are currently residing in the United States could be foreign-born individuals, who tend to be more pro-immigration. However, we do not have information on place of birth in the GSS data. Region of residence at age 16 gives information on place each individual lived: (0) Foreign country; (1) New England; (2) Middle Atlantic; (3) East North Central; (4) West North Central; (5) South Atlantic; (6) East South Central; (7) West South Central; (8) Mountain; and (9) Pacific. Type of place lived at age 16 informs whether individual resided in: (1) country/non-farm; (2) farm; (3) town with less than 50,000 inhabitants; (4) city between 50,000 and 250,000 inhabitants; (5) big-city suburb; and (6) city with more than 250,000 inhabitants. The final variable has the following categories: (0) Foreign country; (1) country/non-farm; (2) farm; (3) town with less than 50,000 inhabitants; (4) city between 50,000 and 250,000 inhabitants; (5) big-city suburb; and (6) city with more than 250,000 inhabitants.

We take advantage of the detailed information about political party affiliation, available in GSS: (1) strong Democrat; (2) Democrat; (3) Independent near Democrats; (4) Independent; (5) Independent near Republicans; (6) Republican; (7) strong Republican; and (8) other party. Previous studies usually aggregate party identification into Democrats, Independents, and Republicans. Our intention was to take advantage of all the full scale of party affiliation, instead of aggregating categories, in order to verify different associations with attitudes toward immigration.

Another variable related to ideological background asks respondents where they place themselves on a seven-point scale related to political views. We also estimated models that controlled for this variable, which has the following categories: (1) extremely liberal; (2) liberal; (3) slightly liberal; (4) moderate; (5) slightly conservative; (6) conservative; and (7) extremely conservative.

We include variables to control for racial resentment with the hypothesis that it would be an accurate measure of understanding anti-immigrant attitudes in the United States. However, GSS does not have questions that measure racial resentment similar to those ones available in ANES. As a strategy to control our models for racial resentment, we used the following two proxies from GSS: (1) Are we spending too much, too little, or about the right amount on improving the conditions of Blacks; (2) Are we spending too much, too little, or about the right amount on assistance to Blacks. These two variables were asked to different subgroups of the GSS sample. As a result, we combined these two questions in one variable that measures racial resentment on a Likert scale: (1) low; (2) medium; and (3) high.

Finally, we aimed to control our models for a measure of economic anxiety, but GSS does not have similar variables as the ones collected by ANES. In our models, we included a variable that informs how proud are respondents of U.S. economic achievements: (1) very proud; (2) somewhat proud; (3) not very proud; and (4) not proud at all. Among the years analyzed in this paper, this variable is available only for 2004 and 2014.

3.3. County-level independent variables

Our models are estimated by controlling for a series of contextual independent variables, following findings from previous studies that these characteristics are associated with attitudes toward immigration. We first use the GSS Sensitive Data Files to add variables about state and county of residence for each individual in each year. Then, we estimate a series of county-level variables based on GSS, which allow us to control our models by county-level characteristics in each year that are relevant to our study: (1) proportion of unemployment; (2) proportion of college graduates; and (3) proportion of Protestants and Catholics (combined).

We also select variables at the county level from the 2006–2010, 2008–2012, 2010–2014, 2012–2016 ACS five-year estimates, available in the National Historical Geographic Information System (NHGIS) database (Manson et al. 2018). More specifically, we calculate the proportion of immigrants, based on estimates about the number of natives and foreign-born population in each county and time period. Since one-year estimates are not available and we are interested in a historical time series, we merge each of these ACS five-year estimates from NHGIS to our GSS data, considering their middle year: 2008, 2010, 2012, and 2014, respectively.

We highlight that these ACS five-year estimates are not the result for any single year and they are not exactly an average of one-year estimates (Beaghen and Weidman 2008). However, these five-year estimates are close to the average of the one-year estimates within each period. If for a specific variable the pattern of change across the five years is roughly linear, the multiyear estimate would be close to the estimate of the middle year of the period. If this pattern is not linear, it would not be a good estimate of the middle year. However, NHGIS does not provide

information for ACS one-year estimates at the county level. ACS one-year estimates from the Integrated Public Use Microdata Series (IPUMS) do not have information for all counties of residence in a specific year. For instance, our 2008 GSS sample has a total of 1,275 individuals. If we use information from the 2008 ACS one-year estimates from IPUMS, only 700 cases are matched by county. If we use the 2006–2010 ACS five-year estimates from NHGIS, all 1,275 cases are matched by county in 2008.

Thus, we are aware that multiyear data is not an estimate of any specific year. We use these five-year databases from NHGIS as estimates of middle years, because we are interested in a historical time series. Furthermore, the proportion of immigrants has not varied greatly over the analyzed period. Based on this data and only on observations with valid values for all our variables of interest, proportion of immigrants varied from 11.96 percent in 2008, to 11.76 percent in 2010, to 11.78 percent in 2012, and to 11.97 percent in 2014.

3.4. Models

After completing the procedures to generate our variables, we estimated a null hierarchical model to evaluate the amount of variability between counties. More specifically, we estimated a multilevel mixed-effects linear regression in Stata with the “mixed” command. We indicated the individual-level dependent variable (opinion about immigration) and the county as the second level of aggregation. The intra-class correlation coefficient was estimated as 0.058. Thus, we estimate that county random effects compose approximately 5.8 percent of the total residual variance. This percentage indicates a low variability between counties, so there is no need to

estimate a hierarchical model to introduce county-level variables in our regression models.

Equations 1 and 2 illustrate how we estimated the null hierarchical model:

$$\text{Individual-level model: } Y = \beta_0 + \varepsilon, \quad (1)$$

$$\text{County-level model: } \beta_0 = \gamma_{00} + u_0. \quad (2)$$

Following this initial analysis, we estimated a series of generalized ordered logit models, which are appropriate for dependent variables at the ordinal level of measurement. Our models test the association of several independent variables with the opinion about the number of immigrants in the country (dependent variable). The predicted probabilities for the first outcome (“increased a lot”) are estimated as illustrated by Equation (3), for “increased a little,” “remain the same as it is,” and “reduced a little” are estimated by Equation (4), and for the last outcome (“reduced a lot”) by Equation (5) (Long and Freese 2014):

$$Pr(y = 1|x) = \frac{\exp(\tau_1 - x\beta_1)}{1 + \exp(\tau_1 - x\beta_1)}, \quad (3)$$

$$Pr(y = j|x) = \frac{\exp(\tau_j - x\beta_j)}{1 + \exp(\tau_j - x\beta_j)} - \frac{\exp(\tau_{j-1} - x\beta_{j-1})}{1 + \exp(\tau_{j-1} - x\beta_{j-1})} \text{ for } j=2 \text{ to } J-1, \quad (4)$$

$$Pr(y = J|x) = 1 - \frac{\exp(\tau_{J-1} - x\beta_{J-1})}{1 + \exp(\tau_{J-1} - x\beta_{J-1})}. \quad (5)$$

The generalized ordered logit model is not an ordinal regression model because, like the multinomial logit model, it does not necessarily make predictions that maintain the ordinality of the outcome (Long and Freese 2014). The ordered logit model is sometimes called the proportional-odds model, because, if the assumptions are not violated, the odds ratios will stay the same regardless of which of the collapsed logistic regressions is estimated (Williams 2016). The key difference between the generalized and the ordered logit models is that in the ordered

logit model, the odds ratios are always constrained to be equal across the scale of the dependent variable. In the generalized ordered logit model, the odds can be constrained to be equal, as in ordered logit models, or they are allowed to vary (Williams 2016).

The generalized ordered logit model can be fit in Stata with the “gologit2” command (Long and Freese 2014, Williams 2016). This command can fit special cases of the generalized ordered logit model. Within “gologit2,” the “pl” option constrains all independent variables to meet the proportional odds/parallel lines assumption, which estimates results similar to ordered logit models (proportional-odds models). The “npl” option relaxes the proportional odds/parallel lines assumption for all independent variables, which estimates an unconstrained model that gives results similar to estimating a series of binary logistic regressions/cumulative logit models. For this paper, we use the “autofit” option, which estimates models that fall in between the previous cases. This strategy identifies models with some coefficients for each category of the independent variables that are the same for all categories of the dependent variable, while others can differ across these categories (partial proportional-odds models). Thus, the “autofit” option estimates generalized models that are less parsimonious than ordinal logit models (estimated with “ologit” in Stata) and more parsimonious than multinomial logit models (estimated with “mlogit” in Stata).

Since our outcome has five possible values, the generalized ordered logit model has four sets of coefficients. We estimate the parameters of the model by specifying the “or” option to obtain odds ratios. In the generalized ordered logit models, the odds ratios indicate the factor change in odds of observing a value above the listed category versus observing values at or below the listed

category. More specifically, we label these odds ratios as: (1) “above reduced a lot,” which relates to odds ratios of individuals being above “reduced a lot” versus being at “reduced a lot;” (2) “above reduced a little,” which refers to odds ratios of individuals being above “reduced a little” versus being at “reduced a little” or below; (3) “above remain the same,” which refers to odds ratios of individuals being above “remain the same” versus being at “remain the same” or below; and (4) “above increased a little,” which refers to odds ratios of individuals being above “increased a little” versus being at “increased a little” or below.

Our descriptive and regression analyzes considered the GSS complex survey design (“svyset” command in Stata) by informing the weight variable (wtssall) with “pweight” option, variance stratum variable (vstrat) with “strata” option, variance primary sampling unit variable (vpsu) with “psu” option, scaling factor as the average of variances from the strata with multiple sampling units for each stratum with one sampling unit with “singleunit(scaled)” option. For regression estimates with county-level variables, we specified standard errors that allow for intragroup correlation within counties (fipscenty variable) with “vce(cluster fipscenty)” option. The cluster option specifies that observations are independent across counties, but not necessarily within counties. We also informed the weight variable (wtssall) with “pweight” option for these models with county-level variables. The “vce” option does not allow the indication of the complex survey design in the same estimation. As a robustness check, we also estimated these models with county-level variables without the “vce” option and with the complex survey design. Results were similar between these estimation procedures. We now provide results related to bivariate associations of a series of variables with opinion about immigration.

4. Bivariate results

In relation to the opinion of the adult population in the United States about the number of immigrants in the country, those who want to reduce immigration declined between 2004 and 2016. However, those who want to reduce immigration remain a higher percentage of the population, 42.31 percent in 2016 (reduce a lot and reduce a little), compared to those who want to increase immigration, 17.73 percent in 2016 (increase a lot and increase a little). The percentage of anti-immigration respondents is also higher than those who want the number of immigrants to remain the same, 39.96 percent in 2016.

Going into more details in the scale about opinion on number of immigrants, those who think immigration should be reduced a lot changed from 26.42 percent in 2004 to 19.26 percent in 2016 (Figure 1). The share of those who think immigration should be reduced a little dropped from 28.21 percent to 23.05 percent in the same period. The percent of those who think immigration should remain the same increased from 35.28 to 39.96 percent between 2004 and 2016. Finally, those who are in favor of increasing immigration a little rose from 6.56 to 11.79 percent, and those in favor of increasing immigration a lot rose from 3.52 to 5.94 percent in the period.

>>> **Figure 1** <<<

Table 2 provides information on bivariate associations between opinion about immigration and several independent variables. Information is presented only for 2016 as a way to summarize these associations. Women and men do not seem to differ on their opinion about immigration. These distributions do indicate that men tend to have higher percentages on the extremes of the pro-immigration scale, while women have higher percentages in the remain the same category.

Non-Hispanic whites have higher percentages in the reduced a lot category than other race/ethnicity groups. Hispanics and people of other races/ethnicities tend to be more pro-immigration than other groups.

>>> **Table 2** <<<

In terms of age, younger people seem to be more pro-immigration (Table 2). More educated people tend to be more in favor of increases in the number of immigrants than less educated people. One exception is noted when more than 10 percent of people with less than high school reported being in favor of increasing a lot the number of immigrants, which is the highest percentage across all educational groups. In terms of religion, Protestants tend to have the highest percentages in favor of reducing immigration, compared to other religions.

The occupation variable indicates that people in management, business, science, and arts tend to have smaller percentages in the reduced a lot category than other occupations (Table 2). People in sales, office, natural resources, construction, and maintenance occupations have the smallest percentages in the combined pro-immigration categories (increased a little and increased a lot). We do not include unspecified occupations in this group, because they have a small sample size. People in military occupations have the highest percentages in the increased a little category and increased a lot category, but there are only ten respondents in these occupations.

Concerning region of interview, people in East North Central, West North Central, South Atlantic, East South Central, and West South Central tend to be more in favor of a decrease in immigration (Table 2). In these regions, at least 45 percent of respondents are in the combined group of reduced a lot and reduced a little. People in New England, East South Central,

Mountain, and Pacific regions tend to be more pro-immigration than people in other regions. At least 21 percent of residents in these regions are in the combined group of increased a little and increased a lot. Notice that East South Central was referred in both anti-immigration and pro-immigration groups, as a result of their low percentage in the remain the same category.

In relation to area of residence at age 16, those who resided in a foreign country are more likely to be pro-immigration than residents in other areas (Table 2). This group might have foreign-born individuals who were residing in the United States at the time of the interview, who tend to be more pro-immigration. However, we do not have information on place of birth in the GSS database. People living in areas with less inhabitants (country, non-farm; farm; and town with less than 50,000 people) are more likely to want to decrease immigration a lot than people living in other areas. In cities with more than 250,000 inhabitants, pro-immigration categories (increased a little and increased a lot) have almost the same levels as people who lived in foreign countries. This could be related to big cities having more immigrants, which might influence positive perceptions toward an increase in immigration.

One of the main independent variables we include in our models is political party affiliation. Figure 2 provides some insights about associations between attitudes toward immigration and political party affiliation through time. Overall, strong Democrats and Democrats have been more in favor of immigration remaining at the same level, increasing a little, or increasing a lot in recent years, compared to 2004. The highest percentage point increases were observed among those who think immigration should remain the same between 2004 and 2016: 12.8 percentage point increase among strong Democrats and 12.3 among Democrats. Among these Democratic

groups, those who think immigration should be reduced a little or reduced a lot dropped over time. More specifically, there was 14.3 percentage point decrease in the reduced a lot category for both strong Democrats and Democrats in the period. The same patterns are observed among Independents. However, this group had smaller decreases in the categories related to reduce immigration, as well as smaller increases in the categories of immigration remain the same and increased a little than the two Democratic groups.

>>> Figure 2 <<<

Both Republicans and strong Republicans have low levels of being in favor of an increase in immigration (Figure 2). Moreover, opinion about number of immigrants oscillated through time among Republicans, but percentages did not change significantly between 2004 and 2016. The sharpest change was a drop of 1.6 percentage points in the reduced a lot category. Among strong Republicans, those who think that immigration should be reduced a lot rose 4.6 percentage points: from 30.10 to 34.66 percent between 2004 and 2016. Those in favor of immigration increasing a little had a percentage point increase of 5.0 among strong Republicans, but the overall levels were small: 2.52 percent in 2004 and 7.54 percent in 2016. Strong Republicans in favor of immigration numbers remaining the same reduced from 30.96 percent in 2004 to 25.75 percent in 2016.

Table 3 illustrates associations of immigration opinion with political views, racial resentment, and opinion about U.S. economic achievement. Each of these independent variables have a smaller sample size than the previous independent variables. Our intention now is to estimate models that explore the association of political ideology with our dependent variable, going beyond the political party classification. Moreover, we aim to understand correlations of the

dependent variable with racial resentment and opinion about economic achievement, which is a topic highlighted by recent studies (Miller 2018). In terms of political views, respondents who self-classify as extremely liberals or liberals tend to be more pro-immigration (increased a little and increased a lot), compared to other groups. For instance, 43.01 percent of extremely liberals and 32.77 percent of liberals are either in favor of immigration increasing a little or increasing a lot. On the other hand, less than 14 percent of respondents within each of the moderate and conservative categories are pro-immigration. Those with high racial resentment tend to be more anti-immigration than those in the low and medium categories. Finally, individuals who are not very proud or not proud at all of the U.S. economic achievement tend to be more anti-immigration than those in other categories.

>>> **Table 3** <<<

Table 4 provides overall percentages of county-level variables (proportion of unemployment, college graduates, Protestants/Catholics, and immigrants) by immigration opinion. Due to data availability, these estimates were performed only for 2008, 2010, 2012, and 2014. As explained above, the first three variables were estimated based on GSS. Proportion of immigrants was based on data from ACS five-year estimates. These proportions were estimated after we merged them to our individual-level data and include only observations with valid values for our variables of interest (year, sex, race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, and political party affiliation). Overall, these proportions of each county-level variable do not have significant fluctuations between 2008 and 2014. We observe a counterintuitive trend of individuals with pro-immigration opinion (increased a lot category) living in counties with higher unemployment rates, looking at each year separately. Individuals with pro-immigration opinion seem to be living in counties with

higher proportions of college graduates, as expected (Cote and Erickson 2009, Bobo and Licari 1989, Moore and Ovadia 2006). Those with less pro-immigration opinion (reduced a lot category) seem to be living in areas with higher concentrations of Protestants and Catholics, which is consistent with previous findings (Ellison and Musick 1993, Moore and Ovadia 2006). However, proportion of unemployment, college graduates, and Protestants/Catholics at the county level do not seem to be strongly correlated with individual opinion about immigration. Finally, immigration opinion seems to have a stronger correlation with the proportion of immigrants at the county level. Individuals tend to be more pro-immigration in areas with higher levels of immigrants, and vice-versa (Cote and Erickson 2009). In the next section, we estimate multivariate regression models to verify whether the bivariate associations observed above are statistically significant after controlling for variations of all independent variables.

>>> **Table 4** <<<

5. Multivariate results

The following stage in our analysis is to understand how a series of independent variables are associated with opinion about how should the number of immigrants to America be nowadays (dependent variable), controlling for all variables at the same time. We estimated several models which are available in Appendix A. On sub-sections 5.1 (main generalized ordered logit model), 5.3 (racial resentment), 5.4 (economic achievement and robustness check), 5.5 (county-level estimates), we concentrate the analysis on models that included only political party affiliation (instead of political views), because we have a bigger sample size throughout the different models. We do also interpret associations of political views with immigration opinion on section 5.2.

5.1. Main generalized ordered logit model

Table 5 illustrates odds ratios estimated with a generalized ordered logit model predicting the dependent variable. This model includes a series of independent variables: year, sex, race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, and political party affiliation. When the proportional odds/parallel lines assumption is not violated, the odds ratios of going up in the pro-immigration scale (dependent variable) are constant across the several categories of this variable. Thus, empty cells in Table 5 denote that estimated coefficients for each set of independent variables are similar across categories of the dependent variable (do not violate parallel lines assumption).

>>> Table 5 <<<

Results indicate that respondents are more likely to be pro-immigration in recent years, compared to 2004, controlling for the other independent variables (Table 5). For instance, people in 2012 were 1.21 times more likely to be in upper levels of the dependent variable versus being at the current level or below, compared to people in 2004. This odds ratio increased to 1.24 in 2014 and 1.53 in 2016. Opinion about immigration was not statistically different in 2008 and 2010 compared to 2004. Difference between women and men was not statistically significant in relation to their opinions toward immigration.

Regarding race/ethnicity, Blacks, Hispanics, and people of other races/ethnicities are more likely to be pro-immigration than Whites, controlling for the other covariates (Table 5). All estimates are statistically significant. Coefficients for race/ethnicity indicate that this variable violated the proportional odds/parallel lines assumption, so the model estimated specific odds ratios for each

category of the dependent variable. Blacks are 1.50 times more likely to be above the reduced a lot category versus being at this category, compared to Whites. The odds ratios for Blacks increase across the pro-immigration scale. They are 2.40 times more likely to be above the increased a little category versus being at this category or below, compared to Whites. Hispanics have even higher chances of being pro-immigration, compared to Whites. More specifically, Hispanics are 2.13 times more likely to be above the reduced a lot category versus being at this category, compared to Whites. The odds ratio decreases to 1.74 for Hispanics being above remain the same category versus being at this category or below, compared to Whites. Finally, Hispanics are 3.11 times more likely to be above the increased a little category versus being at this category or below, compared to Whites.

In relation to age, younger people tend to be more pro-immigration than older people (Table 5). For instance, people between 18 and 24 year of age are 1.63 times more likely to be above the reduced a lot category versus being at this category, compared to people between 25 and 44 years of age. The estimated odds ratios for the 18–24 age group decrease throughout the pro-immigration scale. For people in the 45–64 age group, they are 22 percent $[(0.78-1)*100]$ less likely to increase in the pro-immigration scale, compared to the reference category. Those in the 65–89 age group are 12 percent less likely to increase in the pro-immigration scale, compared to the 25–44 age group. The likelihood in these two oldest age groups are the same across all levels of the dependent variable.

Table 5 also indicates that support for an increase on immigration rises among better educated people. For most categories of education (except junior college), the proportion odds/parallel

lines assumption was violated. As a result, the model estimated specific odds ratios for each category of the dependent variable. People with less than a high school degree are 27 percent less likely to be above the reduced a lot category versus being at this category, compared to people with a high school diploma. However, this comparison inverts and the least educated group shows higher chances of being above the last categories of the dependent variable, compared to the reference category. For instance, people with less than a high school education are 1.73 times more likely to be above the increased a little category versus being at this category or below, compared to those with high school. People with bachelor's or graduate degree are even more likely to be pro-immigration, compared to the reference category. Both these highest educational categories are around twice as likely to be above the reduced a lot category than being at this category, compared to those with high school. These odds decrease in magnitude throughout the pro-immigration scale. In the category of above increased a little, coefficient for those with a bachelor's is not statistically significant.

Estimates regarding religion indicate that respondents in the Catholic, Jewish, other religion, and none categories tend to be more pro-immigration than Protestants (Table 5). For instance, Catholics are 1.15 times more likely to increase in the pro-immigration scale than the reference category. Christians are not statistically different than Protestants. For most categories of this variable, the proportion odds/parallel lines assumption was not violated (except for category of no religion).

In terms of occupation, results indicate that usually people in blue-collar occupations are less likely to be in upper levels of the pro-immigration scale versus being at the current level or

below, compared to people in management, business, science, and arts (Table 5). The occupation variable did not violate the proportional odds/parallel lines assumption, so the model estimated one set of odds ratios that applies to all categories of the dependent variable. For instance, looking at the statistically significant coefficients, these estimates are 21 percent less likely in sales, office, 29 percent less likely in natural resources, construction, maintenance, 14 percent less likely in production, transportation, material moving, and 35 percent less likely in military occupations.

Estimates for region of interview suggest that residents in all regions are more likely to be pro-immigration than those living in South Atlantic (Table 5). Statistically significant results for being in upper levels of the pro-immigration scale versus being at the current level or below are found for residents in New England (1.36 more likely), East North Central (1.23 more likely), West North Central (1.26 more likely), Mountain (1.45 more likely), and Pacific (1.44 more likely). In the Pacific region, odds ratios loose magnitude throughout the pro-immigration scale and are not statistically significant for above remain the same and above increased a little.

In relation to area of residence at age 16, results indicate that people who lived in foreign countries, big-city suburbs, or cities with more than 250,000 inhabitants are more likely to be pro-immigration than people who lived in small towns (Table 5). These estimates suggest that people who are exposed to areas with higher concentration of foreign-born individuals (foreign countries and American big cities) are usually more likely to be pro-immigration than people who lived in areas with higher percentages of native-born individuals (country/non-farms, farms, small towns, and mid-sized cities). For instance, people who lived in foreign countries are 3.39

times more likely to be above the reduced a lot category versus being at this category, compared to people who lived in towns with less than 50,000 inhabitants. The odds ratios decrease in magnitude for this foreign-country category throughout the pro-immigration scale. In any case, people who lived in foreign countries still show high chances to be above the increased a little category (1.71 times more likely) versus being at this category or below, compared to the reference category. People who lived in big-city suburbs are 1.15 times more likely to be in upper categories of the pro-immigration scale versus being at the current level or below, compared to people who lived in towns. For people who lived in cities with more than 250,000 inhabitants the chances of being above certain categories of the pro-immigration scale starts as not statistically significant and increases throughout this scale. For instance, people in these big cities are 1.39 times more likely to be above the increased a little category versus being at this category or below, compared to the reference group. People who lived in the country/non-farm or in cities between 50,000 and 250,000 inhabitants are not statistically different than people who lived in towns. People who lived in farms are 16 percent less likely to be in upper levels of the pro-immigration scale than being at the current level or below, compared to the reference category.

According to Table 5, those who are self-described as strong Democrats and Independents near Democrats are more pro-immigration than Democrats. On the other hand, Independents near Republicans, Republicans, and strong Republicans are less pro-immigration than the reference category. More specifically, strong Democrats are 1.21 times more likely to be above the reduced a lot category versus being at this category, compared to Democrats. These odds equal 1.23 among Independents near Democrats. These odds ratios are the same throughout the pro-

immigration scale for Independents near Democrats, but they increase among Strong Democrats. For instance, strong Democrats are 1.59 times more likely to be above the increased a little category versus being at this category or below, compared to the reference group. Independent near Republicans and Republicans are around 30 percent less likely to be in upper levels of the pro-immigration scale versus being at the current level or below, compared to Democrats. These estimates are even stronger in magnitude among strong Republicans, reaching 40 percent less likely, compared to the reference category. Finally, people in other parties are statistically different than Democrats in the remain the same category (2.10 times more likely). These strong differentials on attitudes toward immigration by political party affiliation are not so dubious as previous studies suggested (Neiman, Johnson, and Bowler 2006).

5.2. Political views

In Table A1 of Appendix A, we illustrate the same model described above as model 1. Furthermore, model 2 includes information on political views, instead of political party affiliation. Model 3 adds both political party and political views in addition to all other independent variables. Sample size decreased from model 1 to models 2 and 3, because fewer respondents answered the question about political views. We maintained the full sample in model 1, as a way to do not discard a significant number of respondents from our analysis. Results did not change significantly among these three models (besides political party and political views themselves). Most categories of independent variables that do not violate the proportional odds/parallel lines assumption remained the same in the three models. Exceptions were observed for race/ethnicity, age group, and religion.

Model 2 in Table A1 includes information about political views, instead of political party affiliation. Results indicate that respondents who self-classify as extremely liberals, liberals, or slightly liberals are more pro-immigration, compared to moderates. Odds ratios for extremely liberals increase throughout the pro-immigration scale, reaching 4.30 times higher chances of being above the increased a little category than at this category or below, in relation to moderates. Those who self-classify as slightly conservatives, conservatives, and extremely conservatives tend to be less pro-immigration than moderates (odds ratios below one unit and significant). Slightly conservatives present statistically significant odds ratios only in the category of above increased a little (37 percent less likely). Extremely conservatives are 50 percent less likely to be above reduced a lot versus being at this category, compared to moderates.

In order to measure which ideological variable has stronger associations with opinion about immigration, model 3 in Table A1 includes both political party affiliation and political views. Overall, results suggest that political parties better capture anti-immigration opinions among right-wing groups (Independents near Republicans, Republicans, and strong Republicans), while political views better capture pro-immigration opinions among left-wing groups (extremely liberals, liberals, and slightly liberals). However, these estimates give confusing results because political party affiliation and political views tend to measure the same political ideological dimension.

5.3. Racial resentment

As a way to verify whether racial resentment has significant correlations with opinion about immigration (Miller 2018), we estimated a series of models, which are available in Table A2 of Appendix A. In Table 6, we illustrate only coefficients related to racial resentment from one of these models. Sample sizes are smaller in Table 6, compared to Table 5, because fewer respondents answered questions related to racial resentment. Overall, results suggest that people with high levels of racial resentment tend to be less pro-immigration than people with medium levels of racial resentment (odds ratios below one unit). For instance, people with high levels of racial resentment are 56 percent less likely to be above the reduced a lot category versus being at this category, compared to the reference category. These odds are less negative as we move up in the pro-immigration scale, but results remain statistically significant. On the other hand, people with low levels of racial resentment are more likely to be pro-immigration than the reference category (odds ratios above one unit). These differentials increase in magnitude throughout the pro-immigration scale and are significant in the upper three categories. For instance, those in the low level of racial resentment are 1.71 times more likely to be above the increased a little category versus being at this category or below, compared to the reference category.

>>> **Table 6** <<<

5.4. Economic achievement and robustness check

In another set of estimates, we aimed to verify whether opinion about U.S. economic achievement was correlated with opinion about immigration. This question was asked to a smaller sample of respondents in GSS, covering only the years of 2004 and 2014. In 2004, people who answered the question related to opinion about U.S. economic achievement did not

provide information about political views and vice-versa. Thus, models that include both opinions about economic achievement and political views relate only to 2014. Generalized ordered logit models did not converge when we included opinion about economic achievement, probably due to the reduced sample size.

As a strategy to capture associations between opinions about U.S. economic achievement and immigration, we estimated ordinary least squares (OLS) models. Since our dependent variable is measured at the ordinal-level of measurement, OLS models are not appropriate in statistical terms. As a way to verify whether these linear models would capture similar associations between the categories of our independent variables and the dependent variable, we estimated models similar to those in Tables A1 and A2 (without opinion about U.S. economic achievement), which are detailed in Table A3 of Appendix A. Model 1 (with political party), model 2 (with political views), and model 3 (with political party and political views) in Table A3 have the same independent variables as models in Table A1. Models 4, 5, and 6 (with the inclusion of racial resentment) in Table A3 have the same independent variables as models in Table A2. Thus, these models serve as robustness checks for the previous estimates provided by generalized ordered logit models. Overall, results in models 1, 2, and 3 in Table A3 follow the same directions as those presented in Table A1. The same is observed between models 4, 5, and 6 in Table A3 and those illustrated in Table A2. These estimates are an indication that OLS models might not be appropriate to deal with an ordinal-level dependent variable, but they do capture similar trends and associations of all independent variables with opinion about immigration.

We now concentrate the analysis on coefficients related to racial resentment and opinion about U.S. economic achievement, summarized in Table 7. Model 4 indicates that those with low levels of racial resentment are more pro-immigration (positive coefficients) and those with high levels of racial resentment are less pro-immigration (negative coefficients), compared to the reference category. These results are statistically significant. Model 7 includes opinion about U.S. economic achievement, instead of racial resentment. Results suggest that people who are not very proud of U.S. economic achievement are less pro-immigration (negative coefficients) than those who are somewhat proud with the economy. Moreover, those who are very proud of U.S. economic achievement are more pro-immigration (positive coefficients), compared to the reference category. These results are not statistically significant.

>>> Table 7 <<<

Finally, model 10 in Table 7 includes both racial resentment and opinion about U.S. economic achievement. Results indicate that associations between opinion toward immigration are stronger with racial resentment than with opinion about economic achievement. For instance, coefficient related to high level of racial resentment is negative and significant, meaning that these people tend to be less pro-immigration than the reference category. People with low level of racial resentment have a positive and significant coefficient, which means that these respondents tend to be more pro-immigration than those with medium levels of racial resentment. Regarding opinion about U.S. economic achievement, directions of coefficients are similar to model 7, but they are still not statistically significant. Stronger associations of racial resentment with attitudes toward immigration, compared to associations between opinions about U.S. economic achievement and immigration, is in line with previous studies that estimated models using ANES data (Miller 2018).

5.5. County-level estimates

We include county-level variables that might influence individual opinions about immigration. These variables measure proportion of unemployment, college graduates, Protestants/Catholics, and immigrants in each county and year. Complete generalized ordered logit models using contextual variables are available in Table A4 of Appendix A. We summarize results about county-level variables in Table 8. County-level variables did not violate the proportional odds/parallel lines assumption, so the model estimated one set of odds ratios that applies to all categories of the dependent variable. People who live in counties with higher proportions of college graduates and higher proportions of immigrants are more likely to be in upper levels of the pro-immigration scale versus being at the current level or below (odds ratios above one unit). These results are statistically significant. For instance, controlling for all other independent variables, if a county experiences an increase of one percent on college graduates, individuals will be 1.4 times more likely to move to upper levels of the pro-immigration scale. This result is even stronger when there is an increase of one percent on immigrants in the county, increasing by 2.2 times the chances of someone moving to upper levels of the pro-immigration scale. On the other hand, people living in counties with higher proportions of unemployment and higher proportions of Protestants/Catholics are less likely to be in upper levels of the pro-immigration scale, versus being at the current level or below (odds ratios below one unit), but these results are not statistically significant.

>>> **Table 8** <<<

6. Final considerations

We estimated associations of attitudes toward immigration with several demographic, socioeconomic, political, and contextual factors. The main specificities of this study that contribute to the literature about attitudes toward immigration are: (1) analysis of several years of GSS from 2004 to 2016; (2) inclusion of disaggregated information on race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, political party affiliation, political view, racial resentment, and U.S. economic achievement; and (3) inclusion of county-level variables, related to proportion of unemployment, college graduates, Protestants/Catholics, and immigrants.

Our overall results suggest that support to immigration has been increasing over time. There is no difference by sex on attitudes toward immigration. Non-Whites (Blacks, Hispanics, and others) are more likely to be in favor of an increase on the number of immigrants than Whites. The youngest age group (18–24) has the highest likelihood to want an increase on immigration. The disaggregated age group variable provided a deeper understanding on attitudes toward immigrants than a binary variable related to the millennial generation, as suggested by previous studies (Ross and Rouse 2015). People without a high school degree, with a bachelor's degree, or with a graduate degree are more likely to support immigration, compared to those with a high school degree. Protestants are less likely to support immigration, in relation to all other religion groups. More specifically, people who reported being Catholic, Jewish, having other religion, or no religion present higher chances of wanting to increase the number of immigrants, compared to Protestants. People who self-identify as Christians do not have different opinions regarding immigration, in relation to Protestants. These results are in line with findings from previous

studies (Moore and Ovadia 2006). People working on sales, office, natural resources, construction, maintenance, production, transportation, material moving, and military occupations are less likely to support immigration, in comparison to people in management, business, science, and arts occupations.

In order to control for unobserved variations at the regional level, we controlled our models for region of interview and area of residence at age 16. People living in the South Atlantic region (Delaware, Maryland, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, District of Columbia) are the least likely to support an increase in immigration. People who lived in areas at the age of 16 that tend to have higher proportions of foreign-born individuals (foreign countries and U.S. big cities) are more likely to support immigration.

People self-identified as strong Democrats, Independents near Democrats, and those in other parties are more likely to be in favor of an increase on the number of immigrants, compared to Democrats. Independents near Republicans, Republicans, and strong Republicans have the lowest chances to support immigration. We also verified that strong Democrats and Democrats are increasingly pro-immigration over time. Republicans and strong Republicans are stable anti-immigration over time. These strong differentials on attitudes toward immigration by political party affiliation are not so dubious as previous studies suggested (Neiman, Johnson, and Bowler 2006). Furthermore, people with political views that are extremely liberal, liberal, and slightly liberal are more likely to be in favor of immigration, compared to moderates. People who self-identify as slightly conservative, conservative, and extremely conservative have the lowest chances of being pro-immigration. These results are aligned with previous studies, which

suggested that political views present the typical pro-immigration opinions among left-wing individuals and anti-immigration among right-wing individuals (Chandler and Tsai 2001, Haubert and Fussell 2006).

People with low levels of racial resentment have higher chances to be in favor of an increase in immigration, compared to those with medium levels of racial resentment. On the other hand, those with high levels of racial resentment are less pro-immigration than the reference category. Finally, opinion about immigration has stronger associations with racial resentment than with opinion about U.S. economic achievement, which is in line with recent studies using ANES data (Miller 2018).

Models with contextual variables indicate that people who live in counties with higher proportions of college graduates are more likely to be pro-immigration, which is in line with previous studies (Cote and Erickson 2009, Bobo and Licari 1989, Moore and Ovadia 2006). Furthermore, individuals living in counties with higher proportions of immigrants tend to be more pro-immigration, following previous analyzes (Cote and Erickson 2009).

We emphasize that all these results are associations of several independent variables with opinion about immigration. We are not performing a causal analysis, since there are issues of reverse causality in our estimations. For example, we are not evaluating: (1) whether a county with higher percentages of college graduates and immigrants tend to shape opinion about immigration; or (2) whether foreign-born individuals, people with college degree, and those with more positive views toward immigration are moving to areas with already higher percentages of

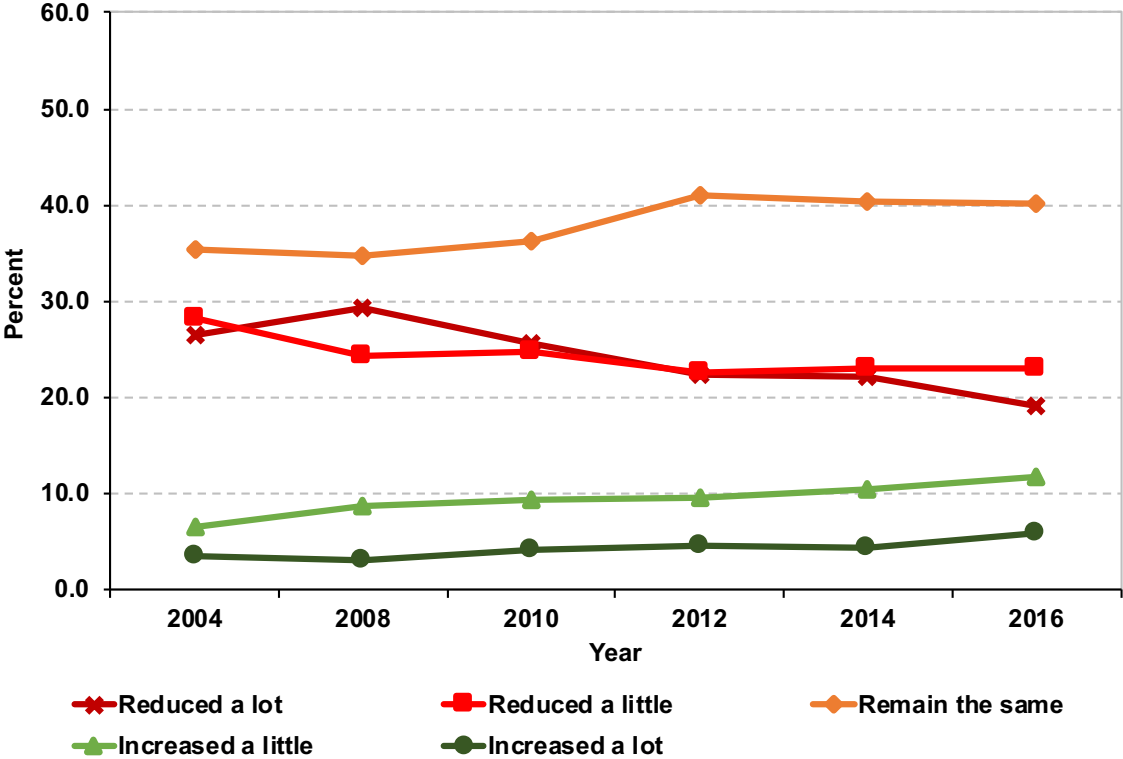
college graduates, higher percentages of immigrants, and more positive views towards immigrants. In any case, the positive outcome of this analysis is the estimation of multivariate models that consider a series of factors correlated to immigration opinion, using individual-level and contextual-level data representative to the U.S. adult population for several years. Furthermore, we implement this analysis taking advantage of a regression model that captures different levels of associations of our independent variables with the dependent variable, as we move up throughout the categories of the pro-immigration scale.

Table 1. Sample size of adult population by year and opinion about how should the number of immigrants to America be nowadays, United States, 2004–2016

Year	Reduced a lot	Reduced a little	Remain the same	Increased a little	Increased a lot	Total
2004	527	552	678	129	75	1,961
2008	381	305	440	104	45	1,275
2010	350	342	483	135	60	1,370
2012	290	284	502	114	57	1,247
2014	347	371	643	166	75	1,602
2016	351	410	727	216	106	1,810
Total	2,246	2,264	3,473	864	418	9,265

Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys (GSS).

Figure 1. Distribution of adult population by opinion about how should the number of immigrants to America be nowadays, United States, 2004–2016



Note: The percentages provided in this figure considered the complex survey design of the General Social Survey.
 Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

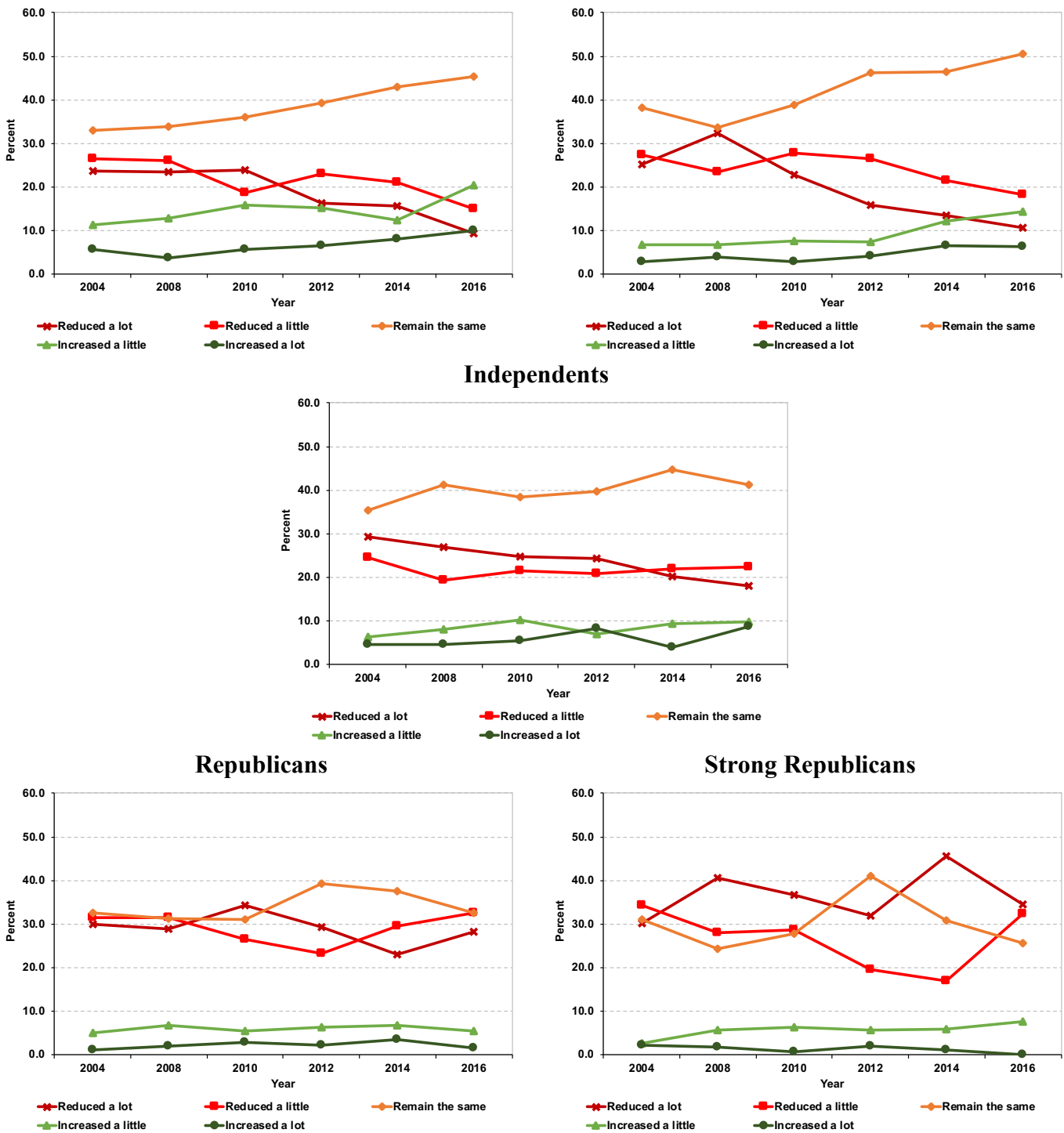
Table 2. Distribution of adult population by several independent variables and opinion about how should the number of immigrants to America be nowadays, United States, 2016

Independent variables	Reduced a lot	Reduced a little	Remain the same	Increased a little	Increased a lot	Sample size
Sex						
Female	19.02	22.15	40.87	12.28	5.69	1,009
Male	19.47	23.82	39.19	11.37	6.15	801
Race/ethnicity						
Non-Hispanic white	22.66	26.59	36.07	11.36	3.32	1,215
Non-Hispanic black	15.72	16.68	45.84	12.24	9.52	286
Hispanic	10.00	16.23	48.41	12.12	13.24	227
Other	9.99	13.55	51.14	15.37	9.94	82
Age group						
18–24	12.30	20.10	45.94	15.20	6.46	161
25–44	16.25	19.20	44.89	11.82	7.85	612
45–64	22.73	27.31	36.12	10.20	3.64	638
65–89	22.60	23.98	34.45	12.58	6.40	399
Education degree						
Less than high school	22.53	20.30	37.00	9.68	10.49	214
High school	22.80	23.58	39.53	9.85	4.24	923
Junior college	17.90	25.29	38.25	12.93	5.63	146
Bachelor	11.56	25.58	40.71	16.16	5.98	336
Graduate	12.49	17.08	45.64	15.27	9.51	191
Religion						
Protestant	22.17	28.10	34.97	9.40	5.37	884
Catholic	18.02	21.95	41.30	13.03	5.70	409
Christian	15.07	19.96	47.75	6.46	10.77	22
Jewish	11.92	9.42	38.71	31.21	8.75	31
Other	9.85	9.66	58.92	7.98	13.58	71
None	16.83	17.01	45.84	14.74	5.58	393
Occupation						
Manag., busin., science, arts	16.00	22.07	41.79	14.15	5.99	635
Service	18.88	24.91	38.48	10.32	7.41	356
Sales, office	19.13	25.75	40.64	10.17	4.31	369
Natural res., constr., maint.	29.93	24.05	31.11	10.73	4.18	155
Prod., transp., mat. moving	21.98	17.03	44.28	11.14	5.56	215
Military	31.01	13.95	17.06	17.06	20.92	10
Unspecified	0.00	36.32	47.26	16.42	0.00	9
Unemployed	19.09	23.51	37.04	10.05	10.32	61
Region of interview						
New England	19.78	14.76	43.79	18.72	2.95	108
Middle Atlantic	17.11	23.39	40.10	13.14	6.26	192
East North Central	20.97	27.29	35.31	12.25	4.19	316
West North Central	18.24	26.43	39.67	9.30	6.36	127
South Atlantic	22.63	22.88	39.69	9.41	5.39	343
East South Central	20.57	25.53	31.77	13.27	8.87	129
West South Central	22.47	25.29	39.75	4.33	8.17	191
Mountain	18.30	15.21	45.39	14.29	6.81	153
Pacific	11.92	21.57	45.33	15.17	6.02	251
Area of residence at age 16						
Foreign	4.38	10.65	56.34	17.29	11.34	153
Country, non-farm	23.77	24.01	39.05	7.08	6.10	167
Farm	28.80	30.77	24.99	10.31	5.14	144
Town: < 50,000	21.45	25.83	39.64	9.88	3.20	570
City: 50,000 to 250,000	14.89	25.48	42.21	11.06	6.35	286
Big-city suburb	18.68	23.15	38.46	16.67	3.04	241
City: > 250,000	21.70	16.97	37.40	12.45	11.48	249
Total	19.26	23.05	39.96	11.79	5.94	1,810

Note: The percentages provided in this table considered the complex survey design of the General Social Survey. The percentages in each row for each year add up to 100 percent. Instead of repeating this information throughout the table, we present the sample size of each category for all independent variables in each year.

Source: 2016 General Social Survey.

Figure 2. Distribution of adult population by opinion about how should the number of immigrants to America be nowadays by political party affiliation, United States, 2004–2016



Note: The percentages provided in this figure considered the complex survey design of the General Social Survey.
 Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table 3. Distribution of adult population by political views, racial resentment, and economic achievement and opinion about how should the number of immigrants to America be nowadays, United States, 2014 and 2016

Independent variables	Reduced a lot	Reduced a little	Remain the same	Increased a little	Increased a lot	Sample size
Political views (2016)						
Extremely liberal	16.49	0.58	39.92	26.57	16.44	87
Liberal	10.57	8.92	47.74	23.27	9.50	217
Slightly liberal	9.29	19.14	45.26	17.77	8.55	196
Moderate	20.87	25.51	40.10	8.41	5.12	658
Slightly conservative	14.38	31.75	43.56	7.01	3.30	251
Conservative	30.28	32.21	27.02	7.01	3.41	270
Extremely conservative	36.95	17.72	33.06	8.70	3.57	71
Total	19.15	23.18	39.87	11.79	6.01	1,750
Racial resentment (2016)						
Low	13.11	18.43	42.59	17.31	8.56	756
Medium	18.13	28.20	40.76	8.67	4.24	647
High	45.38	20.01	23.05	6.33	5.23	230
Total	19.64	22.59	39.13	12.29	6.35	1,633
U.S. economic achievement (2014)						
Very proud	19.55	17.53	45.90	13.13	3.90	191
Somewhat proud	18.50	24.32	43.21	10.57	3.38	359
Not very proud	24.19	26.55	36.77	9.46	3.03	147
Not proud at all	31.44	24.82	36.12	4.36	3.27	42
Total	20.66	23.09	42.18	10.64	3.43	739

Note: The percentages provided in this table considered the complex survey design of the General Social Survey. The percentages in each row for each year add up to 100 percent. Instead of repeating this information throughout the table, we present the sample size of each category for all independent variables in each year.

Source: 2014 and 2016 General Social Surveys.

Table 4. Proportion of county-level variables by year and opinion about how should the number of immigrants to America be nowadays, United States, 2008–2014

Independent variables	Reduced a lot	Reduced a little	Remain the same	Increased a little	Increased a lot	Total
Proportion of unemployment						
2008	0.0829	0.0791	0.0843	0.1019	0.1145	0.0852
2010	0.1110	0.1401	0.1474	0.1440	0.1447	0.1357
2012	0.1134	0.1159	0.1052	0.0962	0.1174	0.1093
2014	0.0917	0.0932	0.0997	0.1189	0.1223	0.0995
Proportion of college graduates						
2008	0.2332	0.2675	0.2946	0.3199	0.3148	0.2726
2010	0.2416	0.2834	0.3110	0.3545	0.2838	0.2895
2012	0.2260	0.2780	0.3021	0.3258	0.2589	0.2791
2014	0.2672	0.2744	0.3039	0.3557	0.2793	0.2933
Proportion of Protestants/Catholics						
2008	0.7781	0.7550	0.7373	0.6996	0.7413	0.7508
2010	0.7381	0.7209	0.6895	0.6976	0.7075	0.7114
2012	0.7123	0.6910	0.6865	0.6244	0.7119	0.6890
2014	0.7267	0.6899	0.6729	0.6376	0.6805	0.6852
Proportion of immigrants						
2008	0.0916	0.1218	0.1320	0.1476	0.1561	0.1196
2010	0.0946	0.1081	0.1265	0.1493	0.1627	0.1176
2012	0.0968	0.1163	0.1250	0.1240	0.1558	0.1178
2014	0.1030	0.1028	0.1283	0.1446	0.1522	0.1197

Note: The percentages provided in this table considered the survey design of the American Community Survey.

Source: 2008, 2010, 2012, and 2014 General Social Surveys and American Community Surveys five-year estimates.

Table 5. Odds ratios from a generalized ordered logit model predicting opinion about how should the number of immigrants to America be nowadays, United States, 2004–2016 (model 1 in Table A1)

Independent variables	Above reduced a lot		Above reduced a little		Above remain the same		Above increased a little	
	Odds ratio	Exponential of std. error	Odds ratio	Exponential of std. error	Odds ratio	Exponential of std. error	Odds ratio	Exponential of std. error
Year								
2004	ref.							
2008	0.942	(0.0775)						
2010	1.074	(0.0919)						
2012	1.206**	(0.106)						
2014	1.244***	(0.102)						
2016	1.526***	(0.117)						
Sex								
Female	ref.							
Male	1.047	(0.0488)						
Race/ethnicity								
White	ref.		ref.		ref.		ref.	
Black	1.497***	(0.146)	1.455***	(0.119)	1.534***	(0.179)	2.395***	(0.451)
Hispanic	2.126***	(0.294)	2.169***	(0.214)	1.739***	(0.208)	3.113***	(0.584)
Other	1.904***	(0.372)	1.990***	(0.316)	1.339*	(0.228)	2.566***	(0.579)
Age group								
18-24	1.628***	(0.186)	1.216**	(0.117)	1.347***	(0.142)	0.965	(0.187)
25-44	ref.		ref.		ref.		ref.	
45-64	0.780***	(0.0442)						
65-89	0.875*	(0.0614)						
Education degree								
Less than high school	0.731***	(0.0608)	0.854**	(0.0678)	1.434***	(0.162)	1.732***	(0.286)
High school	ref.		ref.		ref.		ref.	
Junior college	1.074	(0.0918)						
Bachelor	2.103***	(0.194)	1.648***	(0.124)	1.582***	(0.153)	1.062	(0.177)
Graduate	2.335***	(0.307)	2.128***	(0.209)	2.266***	(0.279)	1.392*	(0.271)
Religion								
Protestant	ref.		ref.		ref.		ref.	
Catholic	1.149**	(0.0689)						
Christian	1.155	(0.129)						
Jewish	2.003***	(0.404)						
Other	1.622***	(0.221)						
None	1.144*	(0.0900)	1.324***	(0.0940)	1.284***	(0.122)	0.995	(0.166)
Occupation								
Manag., busin., science, arts	ref.							
Service	0.881	(0.0683)						
Sales, office	0.789***	(0.0511)						
Natural res., constr., maint.	0.707***	(0.0686)						
Prod., transp., mat. moving	0.857*	(0.0728)						
Military	0.651*	(0.147)						
Unspecified	0.979	(0.269)						
Unemployed	0.895	(0.120)						
Region of interview								
New England	1.359***	(0.156)						
Middle Atlantic	1.141	(0.111)						
East North Central	1.225***	(0.0902)						
West North Central	1.264**	(0.126)						
South Atlantic	ref.		ref.		ref.		ref.	
East South Central	1.121	(0.133)						
West South Central	1.126	(0.105)						
Mountain	1.452***	(0.145)						
Pacific	1.440***	(0.166)	1.176*	(0.112)	1.043	(0.118)	0.874	(0.161)
Area of residence at age 16								
Foreign	3.391***	(0.575)	2.680***	(0.301)	1.988***	(0.251)	1.706***	(0.314)
Country, non-farm	0.891	(0.0705)						
Farm	0.837*	(0.0784)						
Town: < 50,000	ref.		ref.		ref.		ref.	
City: 50,000 to 250,000	1.126	(0.0810)						
Big-city suburb	1.147*	(0.0842)						
City: > 250,000	0.879	(0.0826)	1.006	(0.0821)	1.212*	(0.133)	1.392*	(0.249)
Political party affiliation								
Strong democrat	1.205*	(0.121)	1.259***	(0.106)	1.730***	(0.179)	1.587***	(0.214)
Democrat	ref.		ref.		ref.		ref.	
Ind., near Dem.	1.228***	(0.0948)						
Independent	0.978	(0.0708)						
Ind., near Rep.	0.705***	(0.0651)						
Republican	0.704***	(0.0552)						
Strong Republican	0.598***	(0.0540)						
Other party	0.916	(0.178)	1.147	(0.203)	2.097***	(0.529)	1.735	(0.602)
Constant	1.980***	(0.220)	0.605***	(0.0680)	0.0672***	(0.00857)	0.0175***	(0.00291)
Observations	9,265		9,265		9,265		9,265	

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table 6. Summary of odds ratios from a generalized ordered logit model predicting opinion about how should the number of immigrants to America be nowadays, including racial resentment, United States, 2004–2016 (model 1 in Table A2)

Independent variable	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Racial resentment				
Low	1.102 (0.0917)	1.212*** (0.0846)	1.760*** (0.155)	1.710*** (0.227)
Medium	ref.	ref.	ref.	ref.
High	0.444*** (0.0389)	0.598*** (0.0487)	0.674*** (0.0931)	0.677* (0.148)
Observations	8,189	8,189	8,189	8,189

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). This model is controlled for year, sex, race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, and political party affiliation. *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table 7. Summary of estimates from ordinary least squares models predicting opinion about how should the number of immigrants to America be nowadays, including racial resentment and economic achievement, United States, 2004–2016 (models 4, 7, and 10 in Table A3)

Independent variables	Model 4 (2004–2016)	Model 7 (2004, 2014)	Model 10 (2004, 2014)
Racial resentment			
Low	0.147*** (0.0328)		0.186** (0.0729)
Medium	ref.		ref.
High	-0.307*** (0.0383)		-0.222** (0.0882)
U.S. economic achievement			
Very proud		0.0845 (0.0619)	0.100 (0.0649)
Somewhat proud		ref.	ref.
Not very proud		-0.115 (0.0800)	-0.0772 (0.0878)
Not proud at all		-0.197 (0.153)	-0.0837 (0.168)
R-squared	0.163	0.143	0.152
Observations	8,189	1,801	1,618

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). These models are controlled for year, sex, race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, and political party affiliation. *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table 8. Summary of odds ratios from a generalized ordered logit model predicting opinion about how should the number of immigrants to America be nowadays, including county-level variables, United States, 2008–2014 (model 1 in Table A4)

Independent variables	Model 1 (political party affiliation)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Prop. of unemployment	0.790 (0.156)			
Prop. of college graduates	1.407* (0.270)			
Prop. of Protestants/Catholics	0.710 (0.175)			
Prop. of immigrants	2.187* (0.947)			
Observations	5,237	5,237	5,237	5,237

Note: Coefficients and standard errors were generated with weight variable from the General Social Survey. Standard errors allow for intragroup correlation (i.e., we specify that observations are independent across counties, but not necessarily within counties). Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). This model is controlled for year, sex, race/ethnicity, age group, education degree, religion, occupation, region of interview, area of residence at age 16, and political party affiliation. *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2008, 2010, 2012, and 2014 General Social Surveys and American Community Surveys five-year estimates.

Appendix A.

Table A1. Odds ratios from generalized ordered logit models predicting opinion about how should the number of immigrants to America be nowadays, United States, 2004–2016 (complete version of Table 5)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Year	ref.				ref.				ref.			
2004	ref.				ref.				ref.			
2008	0.942 (0.0775)				1.024 (0.100)				0.998 (0.0985)			
2010	1.074 (0.0919)				1.150 (0.114)				1.137 (0.114)			
2012	1.206** (0.106)				1.287** (0.130)				1.271** (0.131)			
2014	1.244*** (0.102)				1.318*** (0.129)				1.304*** (0.128)			
2016	1.526*** (0.117)				1.602*** (0.146)				1.596*** (0.148)			
Sex	ref.				ref.				ref.			
Female	ref.				ref.				ref.			
Male	1.047 (0.0488)				1.034 (0.0520)				1.054 (0.0537)			
Race/ethnicity	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
White	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Black	1.497*** (0.146)	1.455*** (0.119)	1.534*** (0.179)	2.395*** (0.451)	1.765*** (0.143)				1.527*** (0.126)			
Hispanic	2.126*** (0.294)	2.169*** (0.214)	1.739*** (0.208)	3.113*** (0.584)	2.430*** (0.361)	2.425*** (0.264)	1.595*** (0.205)	2.573*** (0.432)	2.300*** (0.344)	2.295*** (0.255)	1.507*** (0.197)	2.439*** (0.413)
Other	1.904*** (0.372)	1.990*** (0.316)	1.339* (0.228)	2.566*** (0.579)	2.246*** (0.475)	2.189*** (0.365)	1.393* (0.248)	2.481*** (0.569)	2.211*** (0.479)	2.166*** (0.370)	1.379* (0.246)	2.466*** (0.564)
Age group	ref.				ref.				ref.			
18-24	1.628*** (0.186)	1.216** (0.117)	1.347*** (0.142)	0.965 (0.187)	1.254** (0.116)				1.270** (0.118)			
25-44	ref.	ref.	ref.	ref.	ref.				ref.			
45-64	0.780*** (0.0442)				0.790*** (0.0491)				0.786*** (0.0489)			
65-89	0.875* (0.0614)				0.883 (0.0683)				0.863* (0.0662)			
Education degree	ref.				ref.				ref.			
Less than high school	0.731*** (0.0608)	0.854** (0.0678)	1.434*** (0.162)	1.732*** (0.286)	0.819** (0.0774)	0.857* (0.0748)	1.418*** (0.173)	1.865*** (0.332)	0.799** (0.0753)	0.839** (0.0723)	1.388*** (0.171)	1.825*** (0.328)
High school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Junior college	1.074 (0.0918)				1.046 (0.0965)				1.052 (0.0999)			
Bachelor	2.103*** (0.194)	1.648*** (0.124)	1.582*** (0.153)	1.062 (0.177)	1.931*** (0.190)	1.587*** (0.131)	1.488*** (0.161)	0.989 (0.181)	1.965*** (0.193)	1.612*** (0.134)	1.496*** (0.162)	0.986 (0.181)
Graduate	2.335*** (0.307)	2.128*** (0.209)	2.266*** (0.279)	1.392* (0.271)	2.126*** (0.296)	1.921*** (0.205)	2.040*** (0.270)	1.007 (0.207)	2.160*** (0.299)	1.940*** (0.207)	2.041*** (0.272)	1.002 (0.208)

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Religion												
Protestant	ref.	ref.	ref.	ref.	ref.				ref.			
Catholic	1.149** (0.0689)				1.192*** (0.0765)				1.177** (0.0750)			
Christian	1.155 (0.129)				1.228* (0.150)				1.219 (0.154)			
Jewish	2.003*** (0.404)				2.416*** (0.504)				2.300*** (0.467)			
Other	1.622*** (0.221)				1.502*** (0.221)				1.417** (0.210)			
None	1.144* (0.0900)	1.324*** (0.0940)	1.284*** (0.122)	0.995 (0.166)	1.303*** (0.0935)				1.234*** (0.0883)			
Occupation												
Management, business, science, arts	ref.				ref.				ref.			
Service	0.881 (0.0683)				0.868* (0.0707)				0.866* (0.0708)			
Sales, office	0.789*** (0.0511)				0.801*** (0.0570)				0.795*** (0.0569)			
Natural resources, construction, maintenance	0.707*** (0.0686)				0.693*** (0.0745)				0.686*** (0.0752)			
Production, transportation, material moving	0.857* (0.0728)				0.891 (0.0859)				0.881 (0.0846)			
Military	0.651* (0.147)				0.622** (0.148)				0.637* (0.151)			
Unspecified	0.979 (0.269)				0.941 (0.309)				0.919 (0.299)			
Unemployed	0.895 (0.120)				0.924 (0.124)				0.938 (0.127)			
Region of interview												
New England	1.359*** (0.156)				1.216 (0.148)				1.193 (0.145)			
Middle Atlantic	1.141 (0.111)				1.097 (0.111)				1.087 (0.111)			
East North Central	1.225*** (0.0902)				1.256*** (0.105)				1.244*** (0.104)			
West North Central	1.264** (0.126)				1.268** (0.144)				1.245* (0.142)			
South Atlantic	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
East South Central	1.121 (0.133)				1.073 (0.129)				1.088 (0.133)			
West South Central	1.126 (0.105)				1.168 (0.116)				1.168 (0.118)			
Mountain	1.452*** (0.145)				1.401*** (0.152)				1.414*** (0.157)			
Pacific	1.440*** (0.166)	1.176* (0.112)	1.043 (0.118)	0.874 (0.161)	1.487*** (0.174)	1.141 (0.115)	1.049 (0.129)	0.763 (0.148)	1.474*** (0.172)	1.126 (0.114)	1.039 (0.128)	0.759 (0.147)

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Area of residence at age 16												
Foreign	3.391*** (0.575)	2.680*** (0.301)	1.988*** (0.251)	1.706*** (0.314)	2.237*** (0.229)				2.219*** (0.228)			
Country, non-farm	0.891 (0.0705)				0.908 (0.0814)				0.923 (0.0838)			
Farm	0.837* (0.0784)				0.869 (0.0904)				0.889 (0.0929)			
Town: < 50,000	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
City: 50,000 to 250,000	1.126 (0.0810)				1.119 (0.0886)				1.136 (0.0905)			
Big-city suburb	1.147* (0.0842)				1.184** (0.0976)				1.205** (0.100)			
City: > 250,000	0.879 (0.0826)	1.006 (0.0821)	1.212* (0.133)	1.392* (0.249)	0.869 (0.0886)	0.991 (0.0851)	1.262** (0.147)	1.754*** (0.294)	0.869 (0.0887)	0.989 (0.0854)	1.256* (0.146)	1.748*** (0.294)
Political party affiliation												
Strong democrat	1.205* (0.121)	1.259*** (0.106)	1.730*** (0.179)	1.587*** (0.214)					1.184* (0.105)			
Democrat	ref.	ref.	ref.	ref.					ref.			
Ind., near Dem.	1.228*** (0.0948)								1.135 (0.0922)			
Independent	0.978 (0.0708)								1.005 (0.0783)			
Ind., near Rep.	0.705*** (0.0651)								0.699*** (0.0720)			
Republican	0.704*** (0.0552)								0.765*** (0.0716)			
Strong Republican	0.598*** (0.0540)								0.677*** (0.0754)			
Other party	0.916 (0.178)	1.147 (0.203)	2.097*** (0.529)	1.735 (0.602)					1.252 (0.254)			
Political views												
Extremely liberal					1.148 (0.203)	2.179*** (0.342)	3.065*** (0.449)	4.296*** (0.875)	1.052 (0.187)	1.986*** (0.306)	2.748*** (0.402)	3.850*** (0.795)
Liberal					1.928*** (0.173)				1.755*** (0.162)			
Slightly liberal					1.331*** (0.113)				1.256*** (0.108)			
Moderate					ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Slightly conservative					1.157 (0.117)	0.913 (0.0748)	0.928 (0.122)	0.632** (0.141)	1.271** (0.132)	1.005 (0.0862)	1.021 (0.139)	0.693 (0.155)
Conservative					0.789*** (0.0571)				0.931 (0.0764)			
Extremely conservative					0.492*** (0.0780)	0.726* (0.120)	1.149 (0.322)	0.951 (0.331)	0.564*** (0.0914)	0.834 (0.143)	1.302 (0.371)	1.069 (0.380)
Constant	1.980*** (0.220)	0.605*** (0.0680)	0.0672*** (0.00857)	0.0175*** (0.00291)	1.545*** (0.190)	0.489*** (0.0605)	0.0565*** (0.00757)	0.0137*** (0.00222)	1.703*** (0.223)	0.535*** (0.0705)	0.0614*** (0.00873)	0.0149*** (0.00260)
Observations	9,265	9,265	9,265	9,265	7,925	7,925	7,925	7,925	7,925	7,925	7,925	7,925

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$. Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table A2. Odds ratios from generalized ordered logit models predicting opinion about how should the number of immigrants to America be nowadays, including racial resentment variable, United States, 2004–2016 (complete version of Table 6)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Year												
2004	ref.				ref.				ref.			
2008	0.924 (0.0835)				0.980 (0.109)				0.962 (0.107)			
2010	1.121 (0.104)				1.177 (0.132)				1.161 (0.130)			
2012	1.191* (0.107)				1.253** (0.138)				1.229* (0.136)			
2014	1.240*** (0.102)				1.303** (0.134)				1.286** (0.133)			
2016	1.470*** (0.117)				1.521*** (0.152)				1.517*** (0.152)			
Sex												
Female	ref.				ref.				ref.			
Male	1.059 (0.0530)				1.058 (0.0589)				1.071 (0.0604)			
Race/ethnicity												
White	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Black	1.173 (0.120)	1.270*** (0.111)	1.387*** (0.168)	2.412*** (0.455)	1.383*** (0.154)	1.514*** (0.143)	1.565*** (0.206)	2.857*** (0.526)	1.250** (0.142)	1.377*** (0.133)	1.442*** (0.190)	2.648*** (0.488)
Hispanic	2.072*** (0.316)	2.191*** (0.240)	1.901*** (0.246)	3.879*** (0.730)	2.199*** (0.365)	2.312*** (0.284)	1.949*** (0.281)	4.008*** (0.806)	2.108*** (0.349)	2.219*** (0.275)	1.879*** (0.273)	3.888*** (0.785)
Other	1.980*** (0.436)	1.951*** (0.319)	1.348* (0.236)	2.291*** (0.554)	1.827*** (0.251)				1.798*** (0.247)			
Age group												
18-24	1.627*** (0.204)	1.206* (0.129)	1.245* (0.139)	0.902 (0.180)	1.229** (0.120)				1.242** (0.121)			
25-44	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
45-64	0.789*** (0.0493)				0.799*** (0.0538)				0.798*** (0.0540)			
65-89	0.823** (0.0725)	0.900 (0.0735)	1.130 (0.122)	0.950 (0.170)	0.824** (0.0788)	0.917 (0.0803)	1.170 (0.139)	1.044 (0.203)	0.814** (0.0776)	0.903 (0.0790)	1.151 (0.137)	1.026 (0.201)
Education degree												
Less than high school	0.742*** (0.0655)	0.849* (0.0719)	1.399*** (0.169)	1.888*** (0.326)	0.808** (0.0803)	0.873 (0.0814)	1.475*** (0.186)	2.226*** (0.403)	0.792** (0.0786)	0.856* (0.0793)	1.442*** (0.183)	2.179*** (0.399)
High school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Junior college	1.014 (0.0895)				1.010 (0.101)				1.010 (0.101)			
Bachelor	1.929*** (0.195)	1.621*** (0.131)	1.565*** (0.161)	1.160 (0.215)	1.583*** (0.125)				1.598*** (0.127)			
Graduate	2.003*** (0.186)				1.822*** (0.189)				1.841*** (0.191)			

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Religion												
Protestant	ref.	ref.	ref.	ref.	ref.				ref.			
Catholic	1.145** (0.0753)				1.182** (0.0829)				1.178** (0.0824)			
Christian	1.138 (0.133)				1.203 (0.156)				1.185 (0.156)			
Jewish	2.013*** (0.442)				2.380*** (0.546)				2.302*** (0.515)			
Other	1.634*** (0.241)				1.587*** (0.264)				1.522** (0.253)			
None	1.106 (0.0970)	1.333*** (0.103)	1.270** (0.131)	0.943 (0.169)	1.286*** (0.0998)				1.229*** (0.0946)			
Occupation												
Management, business, science, arts	ref.				ref.				ref.			
Service	0.856* (0.0700)				0.808** (0.0709)				0.808** (0.0715)			
Sales, office	0.764*** (0.0542)				0.757*** (0.0594)				0.756*** (0.0596)			
Natural resources, construction, maintenance	0.704*** (0.0720)				0.684*** (0.0777)				0.679*** (0.0784)			
Production, transportation, material moving	0.869 (0.0787)				0.892 (0.0928)				0.881 (0.0915)			
Military	0.625* (0.162)				0.604* (0.168)				0.610* (0.172)			
Unspecified	0.752 (0.248)				0.634 (0.256)				0.627 (0.257)			
Unemployed	0.801 (0.117)				0.846 (0.120)				0.856 (0.122)			
Region of interview												
New England	1.288** (0.164)				1.196 (0.156)				1.174 (0.154)			
Middle Atlantic	1.110 (0.114)				1.078 (0.116)				1.071 (0.116)			
East North Central	1.219*** (0.0919)				1.253*** (0.106)				1.244** (0.106)			
West North Central	1.298** (0.138)				1.298** (0.169)				1.281* (0.167)			
South Atlantic	ref.				ref.				ref.			
East South Central	1.132 (0.153)				1.064 (0.152)				1.072 (0.155)			
West South Central	1.162 (0.111)				1.215* (0.128)				1.215* (0.129)			
Mountain	1.388*** (0.147)				1.347** (0.155)				1.351** (0.159)			
Pacific	1.149 (0.103)				1.137 (0.106)				1.125 (0.105)			

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Area of residence at age 16												
Foreign	3.790*** (0.705)	2.938*** (0.367)	2.091*** (0.275)	1.603** (0.297)	3.533*** (0.705)	2.789*** (0.388)	1.863*** (0.280)	1.676** (0.362)	3.519*** (0.703)	2.777*** (0.384)	1.866*** (0.281)	1.678** (0.364)
Country, non-farm	0.928 (0.0808)				0.943 (0.0913)				0.955 (0.0936)			
Farm	0.882 (0.0838)				0.908 (0.0946)				0.924 (0.0968)			
Town: < 50,000	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
City: 50,000 to 250,000	1.140* (0.0882)				1.133 (0.0958)				1.146 (0.0968)			
Big-city suburb	1.164* (0.0921)				1.230** (0.110)				1.245** (0.112)			
City: > 250,000	1.019 (0.0863)				1.020 (0.0923)				1.019 (0.0922)			
Political party affiliation												
Strong democrat	1.307*** (0.109)								1.155 (0.105)			
Democrat	ref.	ref.	ref.	ref.					ref.			
Ind., near Dem.	1.271*** (0.107)								1.179* (0.104)			
Independent	1.030 (0.0827)								1.031 (0.0891)			
Ind., near Rep.	0.792** (0.0756)								0.793** (0.0855)			
Republican	0.770*** (0.0634)								0.816** (0.0805)			
Strong Republican	0.690*** (0.0675)								0.739** (0.0891)			
Other party	1.076 (0.232)	1.207 (0.235)	2.275*** (0.583)	1.860* (0.678)					1.313 (0.279)			
Political views												
Extremely liberal					1.001 (0.178)	1.908*** (0.317)	2.688*** (0.426)	3.584*** (0.774)	0.947 (0.170)	1.792*** (0.293)	2.480*** (0.394)	3.298*** (0.725)
Liberal					1.825*** (0.167)				1.707*** (0.161)			
Slightly liberal					1.259** (0.115)				1.205** (0.110)			
Moderate					ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Slightly conservative					1.163 (0.126)	0.911 (0.0826)	0.954 (0.133)	0.693 (0.161)	1.255** (0.140)	0.987 (0.0933)	1.032 (0.149)	0.750 (0.175)
Conservative					0.854** (0.0675)				0.977 (0.0857)			
Extremely conservative					0.567*** (0.0992)	0.784 (0.143)	1.171 (0.372)	1.420 (0.509)	0.629*** (0.113)	0.870 (0.165)	1.288 (0.415)	1.555 (0.562)
Racial resentment												
Low	1.102 (0.0917)	1.212*** (0.0846)	1.760*** (0.155)	1.710*** (0.227)	1.116 (0.103)	1.195** (0.0917)	1.637*** (0.156)	1.604*** (0.245)	1.083 (0.100)	1.160* (0.0895)	1.594*** (0.150)	1.564*** (0.239)
Medium	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
High	0.444*** (0.0389)	0.598*** (0.0487)	0.674*** (0.0931)	0.677* (0.148)	0.418*** (0.0403)	0.591*** (0.0533)	0.693** (0.0998)	0.759 (0.177)	0.427*** (0.0414)	0.604*** (0.0556)	0.709** (0.103)	0.775 (0.182)
Constant	2.276*** (0.295)	0.592*** (0.0754)	0.0589*** (0.00846)	0.0133*** (0.00266)	1.990*** (0.274)	0.519*** (0.0711)	0.0498*** (0.00780)	0.00880*** (0.00182)	2.106*** (0.312)	0.546*** (0.0809)	0.0519*** (0.00857)	0.00912*** (0.00196)
Observations	8,189	8,189	8,189	8,189	7,037	7,037	7,037	7,037	7,037	7,037	7,037	7,037

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). *** Significant at p<0.01, ** Significant at p<0.05, * Significant at p<0.1. Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table A3. Estimates from ordinary least squares models predicting opinion about how should the number of immigrants to America be nowadays, United States, 2004–2016 (complete version of Table 7)

Independent variables	Model 1 (pol. affil.) (robustness check for Table A1)	Model 2 (pol. views)	Model 3 (affil.,views)	Model 4 (pol. affil.) (robustness check for Table A2)	Model 5 (pol. views) (racial resentment)	Model 6 (affil. views)	Model 7 (pol. affil.) (2004, 2014) (U.S. economic achievement)	Model 8 (pol. views) (2014)	Model 9 (affil. views) (2014)	Model 10 (pol. affil.) (2004, 2014) (racial resentment, economic achievement)	Model 11 (pol. views) (2014)	Model 12 (affil. views) (2014)
Year												
2004	ref.	ref.	ref.	ref.	ref.	ref.	ref.			ref.		
2008	-0.0286 (0.0446)	0.0112 (0.0523)	0.000206 (0.0525)	-0.0378 (0.0475)	-0.00977 (0.0576)	-0.0173 (0.0575)						
2010	0.0454 (0.0467)	0.0780 (0.0535)	0.0713 (0.0538)	0.0674 (0.0488)	0.0886 (0.0583)	0.0812 (0.0582)						
2012	0.113** (0.0455)	0.150*** (0.0528)	0.142*** (0.0536)	0.108** (0.0457)	0.136** (0.0565)	0.124** (0.0565)						
2014	0.116*** (0.0443)	0.146*** (0.0521)	0.139*** (0.0523)	0.113*** (0.0435)	0.139*** (0.0538)	0.132** (0.0539)	0.180*** (0.0627)			0.153** (0.0624)		
2016	0.233*** (0.0428)	0.260*** (0.0502)	0.257*** (0.0505)	0.216*** (0.0436)	0.235*** (0.0536)	0.233*** (0.0536)						
Sex												
Female	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Male	0.0204 (0.0247)	0.0151 (0.0269)	0.0242 (0.0270)	0.0300 (0.0267)	0.0274 (0.0296)	0.0327 (0.0299)	0.0455 (0.0529)	0.0423 (0.0772)	0.0520 (0.0772)	0.0587 (0.0548)	0.0393 (0.0822)	0.0462 (0.0831)
Race/ethnicity												
White	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Black	0.239*** (0.0451)	0.322*** (0.0479)	0.240*** (0.0484)	0.150*** (0.0480)	0.225*** (0.0510)	0.172*** (0.0516)	0.218** (0.0851)	0.0727 (0.123)	0.0482 (0.118)	0.0640 (0.0931)	-0.0540 (0.119)	-0.0617 (0.115)
Hispanic	0.425*** (0.0480)	0.445*** (0.0511)	0.415*** (0.0522)	0.435*** (0.0521)	0.452*** (0.0560)	0.431*** (0.0564)	0.295** (0.114)	0.0905 (0.144)	0.0438 (0.138)	0.307** (0.123)	0.0862 (0.147)	0.0508 (0.142)
Other	0.295*** (0.0621)	0.341*** (0.0670)	0.331*** (0.0683)	0.276*** (0.0630)	0.304*** (0.0712)	0.294*** (0.0709)	0.210* (0.118)	0.163 (0.188)	0.176 (0.185)	0.205 (0.124)	0.188 (0.189)	0.206 (0.184)
Age group												
18–24	0.147*** (0.0436)	0.121** (0.0502)	0.125** (0.0495)	0.128*** (0.0464)	0.104** (0.0518)	0.108** (0.0513)	0.154 (0.0964)	0.107 (0.175)	0.0989 (0.172)	0.137 (0.102)	0.175 (0.177)	0.157 (0.176)
25–44	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
45–64	-0.138*** (0.0305)	-0.130*** (0.0332)	-0.133*** (0.0331)	-0.132*** (0.0329)	-0.121*** (0.0350)	-0.123*** (0.0350)	-0.138** (0.0638)	-0.121 (0.0983)	-0.115 (0.0962)	-0.137* (0.0717)	-0.0910 (0.104)	-0.0881 (0.101)
65–89	-0.0911** (0.0377)	-0.0814* (0.0415)	-0.0954** (0.0407)	-0.0750* (0.0405)	-0.0590 (0.0446)	-0.0681 (0.0441)	-0.118 (0.0929)	-0.161 (0.153)	-0.161 (0.148)	-0.160 (0.102)	-0.165 (0.166)	-0.161 (0.163)
Education degree												
Less than high school	-0.00652 (0.0402)	0.00829 (0.0436)	-0.00444 (0.0435)	-0.00617 (0.0427)	0.0200 (0.0458)	0.00864 (0.0458)	-0.0602 (0.0933)	-0.116 (0.140)	-0.101 (0.137)	-0.108 (0.101)	-0.245* (0.143)	-0.214 (0.144)
High school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Junior college	0.0250 (0.0445)	0.0172 (0.0484)	0.0183 (0.0490)	-0.0128 (0.0454)	-0.0113 (0.0505)	-0.0109 (0.0505)	-0.0320 (0.0759)	-0.0902 (0.116)	-0.0935 (0.120)	-0.0810 (0.0793)	-0.0932 (0.123)	-0.0882 (0.128)
Bachelor	0.278*** (0.0337)	0.247*** (0.0371)	0.251*** (0.0370)	0.260*** (0.0375)	0.234*** (0.0414)	0.237*** (0.0414)	0.250*** (0.0651)	0.141 (0.112)	0.133 (0.111)	0.246*** (0.0688)	0.158 (0.123)	0.154 (0.119)
Graduate	0.405*** (0.0467)	0.348*** (0.0499)	0.348*** (0.0494)	0.359*** (0.0489)	0.302*** (0.0542)	0.306*** (0.0537)	0.354*** (0.0964)	0.0918 (0.127)	0.0815 (0.130)	0.333*** (0.0943)	0.0949 (0.128)	0.0926 (0.132)

(continue)

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
	(pol. affil.) (robustness check for Table A1)	(pol. views)	(affil.,views)	(pol. affil.) (robustness check for Table A2)	(pol. views)	(affil. views)	(pol. affil.) (2004, 2014)	(pol. views) (2014)	(affil. views) (2014)	(pol. affil.) (2004, 2014)	(pol. views) (2014)	(affil. views) (2014)
	(racial resentment)						(U.S. economic achievement)			(racial resentment, economic achievement)		
Religion												
Protestant	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Catholic	0.0716** (0.0319)	0.0872** (0.0345)	0.0795** (0.0339)	0.0705** (0.0345)	0.0854** (0.0371)	0.0830** (0.0367)	0.00968 (0.0718)	0.0247 (0.110)	0.0150 (0.112)	-0.0234 (0.0754)	0.00756 (0.110)	0.00602 (0.113)
Christian	0.0617 (0.0618)	0.103 (0.0670)	0.0991 (0.0681)	0.0438 (0.0638)	0.0794 (0.0690)	0.0734 (0.0695)	0.00915 (0.161)	0.0276 (0.178)	0.0401 (0.183)	-0.0131 (0.154)	-0.0203 (0.178)	-0.0140 (0.186)
Jewish	0.370*** (0.112)	0.456*** (0.121)	0.418*** (0.118)	0.354*** (0.120)	0.435*** (0.129)	0.408*** (0.127)	0.0621 (0.236)	0.596*** (0.199)	0.565*** (0.204)	0.0907 (0.250)	0.756*** (0.202)	0.721*** (0.216)
Other	0.243*** (0.0702)	0.219*** (0.0774)	0.188** (0.0774)	0.245*** (0.0758)	0.250*** (0.0864)	0.226*** (0.0862)	0.301** (0.136)	-0.154 (0.190)	-0.159 (0.190)	0.188 (0.133)	-0.139 (0.193)	-0.141 (0.191)
None	0.104*** (0.0351)	0.124*** (0.0391)	0.0946** (0.0387)	0.0932** (0.0378)	0.113*** (0.0421)	0.0890** (0.0415)	-0.0673 (0.0735)	0.00535 (0.110)	0.00245 (0.109)	-0.101 (0.0804)	-0.0378 (0.113)	-0.0309 (0.112)
Occupation												
Management, business, science, arts	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Service	-0.0637 (0.0421)	-0.0703 (0.0449)	-0.0730 (0.0448)	-0.0773* (0.0439)	-0.108** (0.0477)	-0.108** (0.0480)	0.0541 (0.0966)	0.0247 (0.116)	0.0191 (0.115)	0.144 (0.0941)	0.0386 (0.126)	0.0391 (0.125)
Sales, office	-0.134*** (0.0347)	-0.127*** (0.0379)	-0.131*** (0.0379)	-0.145*** (0.0373)	-0.153*** (0.0413)	-0.153*** (0.0413)	-0.0364 (0.0751)	-0.0338 (0.115)	-0.0559 (0.123)	-0.0233 (0.0780)	-0.0482 (0.122)	-0.0609 (0.129)
Natural resources, construction, maintenance	-0.195*** (0.0522)	-0.213*** (0.0575)	-0.217*** (0.0581)	-0.194*** (0.0546)	-0.220*** (0.0598)	-0.222*** (0.0603)	-0.0117 (0.116)	-0.00251 (0.141)	0.00576 (0.136)	-0.0127 (0.122)	0.00303 (0.155)	0.0118 (0.148)
Production, transportation, material moving	-0.0774* (0.0461)	-0.0576 (0.0517)	-0.0637 (0.0509)	-0.0723 (0.0487)	-0.0600 (0.0549)	-0.0650 (0.0545)	-0.156* (0.0921)	-0.232 (0.154)	-0.246 (0.159)	-0.107 (0.102)	-0.125 (0.170)	-0.133 (0.178)
Military	-0.227* (0.117)	-0.240* (0.125)	-0.229* (0.122)	-0.227* (0.133)	-0.238* (0.142)	-0.234* (0.140)	-0.289* (0.173)	-0.347* (0.181)	-0.347* (0.181)	-0.315 (0.195)	-0.419** (0.179)	-0.418** (0.178)
Unspecified	-0.0478 (0.144)	-0.0687 (0.173)	-0.0874 (0.170)	-0.177 (0.167)	-0.247 (0.209)	-0.253 (0.211)	0.201 (0.275)	0.221 (0.613)	0.117 (0.576)	0.121 (0.277)	0.174 (0.592)	0.104 (0.560)
Unemployed	-0.0730 (0.0728)	-0.0450 (0.0756)	-0.0427 (0.0753)	-0.125 (0.0776)	-0.0867 (0.0789)	-0.0849 (0.0787)	0.0931 (0.175)	0.409 (0.268)	0.379 (0.262)	0.0664 (0.196)	0.421 (0.280)	0.406 (0.278)
Region of interview												
New England	0.170*** (0.0610)	0.113* (0.0662)	0.0993 (0.0656)	0.145** (0.0660)	0.108 (0.0682)	0.0972 (0.0681)	0.371** (0.164)	0.262* (0.151)	0.242* (0.136)	0.358** (0.179)	0.297** (0.123)	0.278** (0.122)
Middle Atlantic	0.0748 (0.0519)	0.0518 (0.0535)	0.0469 (0.0537)	0.0626 (0.0535)	0.0417 (0.0553)	0.0387 (0.0554)	0.190* (0.106)	0.243* (0.135)	0.227* (0.132)	0.161 (0.107)	0.246* (0.127)	0.235* (0.126)
East North Central	0.0898** (0.0404)	0.0995** (0.0456)	0.0913** (0.0454)	0.0938** (0.0402)	0.104** (0.0453)	0.0965** (0.0452)	0.117 (0.0878)	0.186 (0.136)	0.164 (0.134)	0.123 (0.0860)	0.199 (0.134)	0.180 (0.135)
West North Central	0.114** (0.0533)	0.124** (0.0609)	0.110* (0.0606)	0.135** (0.0555)	0.144** (0.0670)	0.133** (0.0664)	0.0623 (0.0868)	0.0287 (0.144)	0.0457 (0.148)	0.0304 (0.0785)	-0.0609 (0.124)	-0.0550 (0.121)
South Atlantic	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
East South Central	0.0629 (0.0668)	0.0534 (0.0725)	0.0560 (0.0729)	0.0782 (0.0730)	0.0575 (0.0818)	0.0600 (0.0823)	0.0810 (0.138)	0.0347 (0.149)	0.0178 (0.149)	0.125 (0.136)	0.123 (0.166)	0.0994 (0.166)
West South Central	0.0614 (0.0509)	0.0812 (0.0553)	0.0791 (0.0555)	0.0780 (0.0511)	0.0992* (0.0568)	0.0971* (0.0567)	-0.0453 (0.129)	-0.0222 (0.188)	-0.0281 (0.189)	-0.0183 (0.125)	-0.0315 (0.160)	-0.0435 (0.165)
Mountain	0.178*** (0.0543)	0.167*** (0.0597)	0.165*** (0.0596)	0.156*** (0.0559)	0.149** (0.0621)	0.146** (0.0622)	0.128 (0.109)	0.0983 (0.147)	0.0689 (0.144)	0.0381 (0.114)	0.0383 (0.154)	0.0195 (0.154)
Pacific	0.0899** (0.0450)	0.0785 (0.0480)	0.0726 (0.0474)	0.0747 (0.0471)	0.0663 (0.0505)	0.0613 (0.0500)	0.132 (0.107)	0.318** (0.132)	0.320** (0.131)	0.126 (0.117)	0.286* (0.147)	0.290* (0.148)

(continue)

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
	(pol. affil.) (robustness check for Table A1)	(pol. views)	(affil.,views)	(pol. affil.) (robustness check for Table A2)	(pol. views)	(affil. views)	(pol. affil.) (2004, 2014) (U.S. economic achievement)	(pol. views) (2014)	(affil. views) (2014)	(pol. affil.) (2004, 2014) (racial resentment, economic achievement)	(pol. views) (2014)	(affil. views) (2014)
Area of residence at age 16												
Foreign	0.449*** (0.0493)	0.422*** (0.0545)	0.416*** (0.0546)	0.495*** (0.0533)	0.463*** (0.0600)	0.461*** (0.0598)	0.473*** (0.122)	0.452*** (0.161)	0.434*** (0.150)	0.483*** (0.130)	0.408** (0.177)	0.402** (0.166)
Country, non-farm	-0.0621 (0.0423)	-0.0551 (0.0483)	-0.0457 (0.0485)	-0.0343 (0.0460)	-0.0301 (0.0520)	-0.0222 (0.0523)	-0.138 (0.0892)	0.0297 (0.157)	0.0440 (0.157)	-0.109 (0.0909)	0.0232 (0.169)	0.0432 (0.171)
Farm	-0.0960* (0.0507)	-0.0699 (0.0558)	-0.0581 (0.0556)	-0.0675 (0.0515)	-0.0455 (0.0569)	-0.0374 (0.0569)	-0.265** (0.109)	-0.114 (0.230)	-0.0747 (0.237)	-0.206* (0.118)	-0.140 (0.235)	-0.103 (0.239)
Town: < 50,000	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
City: 50,000 to 250,000	0.0590 (0.0395)	0.0554 (0.0427)	0.0636 (0.0426)	0.0660 (0.0420)	0.0638 (0.0459)	0.0699 (0.0455)	-0.0242 (0.0893)	0.0612 (0.149)	0.0795 (0.146)	-0.0262 (0.0956)	-0.0158 (0.156)	0.00980 (0.153)
Big-city suburb	0.0749* (0.0396)	0.0949** (0.0442)	0.104** (0.0441)	0.0793* (0.0429)	0.114** (0.0484)	0.120** (0.0482)	-0.107 (0.0808)	0.0402 (0.124)	0.0532 (0.120)	-0.118 (0.0842)	0.0144 (0.128)	0.0272 (0.123)
City: > 250,000	0.0226 (0.0440)	0.0225 (0.0465)	0.0210 (0.0462)	0.0218 (0.0458)	0.0192 (0.0490)	0.0180 (0.0487)	0.0113 (0.0889)	0.203 (0.126)	0.214 (0.133)	0.0478 (0.0915)	0.170 (0.118)	0.184 (0.125)
Political party affiliation												
Strong democrat	0.179*** (0.0435)		0.0991** (0.0492)	0.154*** (0.0452)		0.0870* (0.0503)	0.153* (0.0877)		-0.256 (0.160)	0.103 (0.0921)		-0.200 (0.154)
Democrat	ref.		ref.	ref.		ref.	ref.		ref.	ref.		ref.
Ind., near Dem.	0.118*** (0.0424)		0.0768* (0.0456)	0.136*** (0.0461)		0.0967** (0.0488)	0.178* (0.0912)		-0.228* (0.127)	0.194* (0.0987)		-0.145 (0.132)
Independent	-0.00528 (0.0397)		0.00162 (0.0439)	0.0180 (0.0431)		0.0136 (0.0465)	-0.0417 (0.0870)		-0.249** (0.118)	-0.0236 (0.0976)		-0.222 (0.137)
Ind., near Rep.	-0.181*** (0.0482)		-0.184*** (0.0540)	-0.130*** (0.0499)		-0.126** (0.0560)	-0.0308 (0.112)		-0.483*** (0.160)	-0.0328 (0.113)		-0.367** (0.159)
Republican	-0.179*** (0.0418)		-0.142*** (0.0505)	-0.135*** (0.0442)		-0.106** (0.0529)	-0.120 (0.0870)		-0.191 (0.143)	-0.0924 (0.0930)		-0.148 (0.169)
Strong Republican	-0.255*** (0.0460)		-0.205*** (0.0577)	-0.179*** (0.0494)		-0.148** (0.0606)	-0.234** (0.0932)		-0.320* (0.172)	-0.181* (0.100)		-0.245 (0.185)
Other party	0.182* (0.0991)		0.144 (0.104)	0.228** (0.107)		0.180 (0.112)	0.000708 (0.325)		-0.330 (0.441)	0.0948 (0.379)		-0.150 (0.491)
Political views												
Extremely liberal		0.472*** (0.0795)	0.413*** (0.0792)		0.405*** (0.0856)	0.362*** (0.0857)		0.668*** (0.199)	0.665*** (0.201)		0.720*** (0.194)	0.712*** (0.199)
Liberal		0.356*** (0.0480)	0.302*** (0.0503)		0.331*** (0.0496)	0.291*** (0.0518)		0.374*** (0.135)	0.388** (0.148)		0.396*** (0.141)	0.402** (0.154)
Slightly liberal		0.172*** (0.0447)	0.140*** (0.0449)		0.145*** (0.0476)	0.121** (0.0479)		0.110 (0.120)	0.0808 (0.125)		0.0746 (0.128)	0.0499 (0.132)
Moderate		ref.	ref.		ref.	ref.		ref.	ref.		ref.	ref.
Slightly conservative		1.45e-05 (0.0389)	0.0485 (0.0409)		0.00729 (0.0421)	0.0465 (0.0444)		-0.0669 (0.123)	-0.0218 (0.128)		-0.0350 (0.121)	0.000768 (0.125)
Conservative		-0.117*** (0.0381)	-0.0300 (0.0429)		-0.0754* (0.0411)	-0.00837 (0.0452)		-0.316** (0.128)	-0.270** (0.129)		-0.271* (0.139)	-0.235* (0.140)
Extremely conservative		-0.188** (0.0906)	-0.115 (0.0922)		-0.148 (0.0960)	-0.0964 (0.0980)		-0.534** (0.234)	-0.446* (0.242)		-0.631*** (0.213)	-0.561** (0.215)

(continue)

Independent variables	Model 1 (pol. affil.) (robustness check for Table A1)	Model 2 (pol. views)	Model 3 (affil.,views)	Model 4 (pol. affil.) (robustness check for Table A2) (racial resentment)	Model 5 (pol. views)	Model 6 (affil. views)	Model 7 (pol. affil.) (2004, 2014) (U.S. economic achievement)	Model 8 (pol. views) (2014)	Model 9 (affil. views) (2014)	Model 10 (pol. affil.) (2004, 2014) (racial resentment, economic achievement)	Model 11 (pol. views) (2014)	Model 12 (affil. views) (2014)
Racial resentment												
Low				0.147*** (0.0328)	0.136*** (0.0363)	0.120*** (0.0360)				0.186** (0.0729)	0.120 (0.0992)	0.119 (0.1000)
Medium				ref.	ref.	ref.				ref.	ref.	ref.
High				-0.307*** (0.0383)	-0.327*** (0.0423)	-0.314*** (0.0427)				-0.222** (0.0882)	-0.369** (0.152)	-0.339** (0.149)
U.S. economic achievement												
Very proud							0.0845 (0.0619)	0.124 (0.0912)	0.127 (0.0905)	0.100 (0.0649)	0.158* (0.0925)	0.155 (0.0932)
Somewhat proud							ref.	ref.	ref.	ref.	ref.	ref.
Not very proud							-0.115 (0.0800)	-0.198* (0.103)	-0.191* (0.103)	-0.0772 (0.0878)	-0.123 (0.111)	-0.117 (0.110)
Not proud at all							-0.197 (0.153)	-0.228 (0.179)	-0.211 (0.176)	-0.0837 (0.168)	-0.119 (0.198)	-0.114 (0.191)
Constant	2.130*** (0.0595)	2.011*** (0.0649)	2.064*** (0.0699)	2.128*** (0.0660)	2.049*** (0.0714)	2.077*** (0.0773)	2.161*** (0.137)	2.348*** (0.220)	2.585*** (0.249)	2.147*** (0.140)	2.366*** (0.233)	2.531*** (0.261)
R-squared	0.142	0.145	0.152	0.163	0.170	0.175	0.143	0.170	0.183	0.152	0.207	0.214
Observations	9,265	7,925	7,925	8,189	7,037	7,037	1,801	721	721	1,618	657	657

Note: Coefficients and standard errors were generated with the complex survey design of the General Social Survey. Standard errors are reported in parentheses. *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2004, 2008, 2010, 2012, 2014, and 2016 General Social Surveys.

Table A4. Odds ratios from generalized ordered logit models predicting opinion about how should the number of immigrants to America be nowadays, including county-level variables, United States, 2008–2014 (complete version of Table 8)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Year												
2008	ref.				ref.				ref.			
2010	1.133 (0.106)				1.099 (0.105)				1.116 (0.108)			
2012	1.271** (0.120)				1.236** (0.119)				1.254** (0.122)			
2014	1.278*** (0.105)				1.242** (0.106)				1.260*** (0.110)			
Sex												
Female	ref.				ref.				ref.			
Male	1.002 (0.0692)				1.001 (0.0734)				1.019 (0.0741)			
Race/ethnicity												
White	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Black	1.399** (0.196)	1.325** (0.146)	1.726*** (0.238)	2.647*** (0.542)	1.673*** (0.229)	1.525*** (0.161)	1.862*** (0.258)	2.720*** (0.612)	1.475*** (0.214)	1.358*** (0.150)	1.689*** (0.238)	2.479*** (0.553)
Hispanic	2.233*** (0.423)	2.317*** (0.348)	1.469** (0.259)	2.079*** (0.413)	2.194*** (0.428)	2.393*** (0.364)	1.552** (0.274)	2.101*** (0.449)	2.107*** (0.413)	2.303*** (0.352)	1.502** (0.267)	2.045*** (0.441)
Other	1.723*** (0.235)				1.849*** (0.255)				1.838*** (0.257)			
Age group												
18-24	1.227* (0.147)				1.143 (0.143)				1.157 (0.142)			
25-44	ref.				ref.				ref.			
45-64	0.669*** (0.0648)	0.831** (0.0755)	0.866 (0.106)	1.084 (0.202)	0.681*** (0.0690)	0.847* (0.0772)	0.863 (0.107)	1.070 (0.202)	0.680*** (0.0695)	0.847* (0.0784)	0.864 (0.108)	1.072 (0.203)
65-89	0.677*** (0.0775)	0.830* (0.0805)	0.984 (0.148)	0.725 (0.197)	0.678*** (0.0795)	0.862 (0.0850)	1.021 (0.160)	0.689 (0.200)	0.666*** (0.0783)	0.847* (0.0837)	1.003 (0.155)	0.676 (0.197)
Education degree												
Less than high school	0.849 (0.109)	0.878 (0.0960)	1.422** (0.227)	1.905*** (0.378)	0.866 (0.114)	0.864 (0.0979)	1.419** (0.239)	2.020*** (0.445)	0.856 (0.115)	0.855 (0.0979)	1.402** (0.238)	1.997*** (0.443)
High school	ref.				ref.				ref.			
Junior college	1.030 (0.128)				0.998 (0.123)				1.008 (0.126)			
Bachelor	1.826*** (0.225)	1.509*** (0.162)	1.290** (0.165)	0.816 (0.209)	1.725*** (0.217)	1.465*** (0.159)	1.239* (0.160)	0.795 (0.216)	1.734*** (0.217)	1.471*** (0.161)	1.240* (0.162)	0.793 (0.216)
Graduate	2.526*** (0.440)	2.001*** (0.275)	2.092*** (0.370)	0.839 (0.239)	2.309*** (0.403)	1.869*** (0.256)	1.895*** (0.340)	0.729 (0.207)	2.346*** (0.409)	1.892*** (0.261)	1.893*** (0.341)	0.725 (0.206)

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Religion												
Protestant	ref.	ref.	ref.	ref.	ref.				ref.			
Catholic	1.106 (0.0931)				1.106 (0.0954)				1.103 (0.0952)			
Christian	1.022 (0.130)				1.111 (0.142)				1.112 (0.148)			
Jewish	1.862** (0.512)				1.751** (0.476)				1.708* (0.471)			
Other	1.324 (0.260)				1.393 (0.281)				1.329 (0.268)			
None	1.287*** (0.114)				1.285*** (0.115)				1.234** (0.110)			
Occupation												
Management	ref.				ref.				ref.			
Service	0.858 (0.0912)				0.863 (0.0926)				0.861 (0.0927)			
Sales, office	0.738*** (0.0755)				0.747*** (0.0773)				0.744*** (0.0771)			
Construction	0.734** (0.110)				0.759* (0.115)				0.753* (0.114)			
Transportation	0.891 (0.104)				0.941 (0.115)				0.930 (0.113)			
Military	0.564** (0.127)				0.542** (0.131)				0.551** (0.133)			
Unspecified	1.062 (0.445)				1.155 (0.509)				1.124 (0.493)			
Unemployed	0.981 (0.143)				1.003 (0.152)				1.030 (0.158)			
Region of interview												
New England	1.177 (0.214)				1.114 (0.217)				1.074 (0.204)			
Middle Atlantic	1.135 (0.128)				1.121 (0.128)				1.114 (0.129)			
East North Central	1.320*** (0.122)				1.339*** (0.128)				1.332*** (0.127)			
West North Central	1.297 (0.206)				1.304* (0.197)				1.274 (0.197)			
South Atlantic	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
East South Central	1.064 (0.153)				1.077 (0.147)				1.076 (0.152)			
West South Central	1.191 (0.149)				1.193 (0.152)				1.192 (0.151)			
Mountain	1.203 (0.153)				1.418** (0.206)	1.177 (0.180)	1.137 (0.274)	0.622 (0.192)	1.417** (0.207)	1.177 (0.183)	1.134 (0.269)	0.616 (0.188)
Pacific	1.088 (0.135)				1.056 (0.132)				1.048 (0.133)			

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Area of residence at age 16												
Foreign	1.998*** (0.250)				1.884*** (0.241)				1.873*** (0.237)			
Country, non-farm	0.872 (0.0951)				0.821* (0.0918)				0.843 (0.0940)			
Farm	0.907 (0.111)				0.863 (0.109)				0.883 (0.112)			
Town: < 50,000	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
City: 50,000 to 250,000	1.139 (0.107)				1.070 (0.104)				1.093 (0.105)			
Big-city suburb	1.104 (0.112)				1.049 (0.108)				1.069 (0.113)			
City: > 250,000	0.938 (0.109)				0.905 (0.106)				0.907 (0.106)			
Political party affiliation												
Strong democrat	1.299** (0.143)								1.172 (0.130)			
Democrat	ref.	ref.	ref.	ref.					ref.			
Ind., near Dem.	1.576*** (0.209)	1.159 (0.128)	1.130 (0.154)	0.862 (0.197)					1.218** (0.117)			
Independent	0.992 (0.101)								1.013 (0.107)			
Ind., near Rep.	0.710*** (0.0871)								0.768** (0.0999)			
Republican	0.793** (0.0800)								0.849 (0.0926)			
Strong Republican	0.630*** (0.0807)								0.727** (0.104)			
Other party	1.177 (0.248)								1.114 (0.236)			
Political views												
Extremely liberal					1.237 (0.262)	1.707*** (0.317)	2.764*** (0.543)	4.568*** (1.088)	1.165 (0.244)	1.589** (0.286)	2.550*** (0.498)	4.223*** (1.006)
Liberal					1.866*** (0.187)				1.745*** (0.178)			
Slightly liberal					1.201 (0.155)	1.047 (0.111)	1.382** (0.218)	0.839 (0.228)	1.140 (0.146)	0.993 (0.105)	1.322* (0.210)	0.804 (0.219)
Moderate					ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Slightly conservative					1.232* (0.147)	0.922 (0.0991)	1.005 (0.167)	0.638 (0.195)	1.329** (0.162)	1.001 (0.112)	1.093 (0.190)	0.693 (0.215)
Conservative					0.783** (0.0762)				0.908 (0.100)			
Extremely conservative					0.530*** (0.103)	0.683** (0.127)	1.348 (0.411)	1.194 (0.480)	0.603** (0.121)	0.778 (0.153)	1.529 (0.478)	1.340 (0.548)

(continue)

Independent variables	Model 1 (political party affiliation)				Model 2 (political views)				Model 3 (political party affiliation & political views)			
	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little	Above reduced a lot	Above reduced a little	Above remain the same	Above increased a little
Prop. of unemployment	0.790 (0.156)				0.816 (0.155)				0.796 (0.151)			
Prop. of college graduates	1.407* (0.270)				1.368 (0.265)				1.416* (0.276)			
Prop. of Protestants/Catholics	0.710 (0.175)				0.712 (0.182)				0.720 (0.185)			
Prop. of immigrants	2.187* (0.947)				2.454** (1.112)				2.340* (1.050)			
Constant	2.349*** (0.656)	0.704 (0.194)	0.0807*** (0.0241)	0.0198*** (0.00642)	2.239*** (0.646)	0.674 (0.189)	0.0704*** (0.0215)	0.0181*** (0.00610)	2.253*** (0.664)	0.673 (0.192)	0.0697*** (0.0219)	0.0178*** (0.00619)
Observations	5,237	5,237	5,237	5,237	5,075	5,075	5,075	5,075	5,075	5,075	5,075	5,075

Note: Coefficients and standard errors were generated with weight variable from the General Social Survey. Standard errors allow for intragroup correlation (i.e., we specify that observations are independent across counties, but not necessarily within counties). Exponential of standard errors are reported in parentheses. Empty cells denote that estimated coefficients are similar across categories of dependent variable (i.e. categories of independent variables do not violate the proportional odds/parallel lines assumption). *** Significant at $p < 0.01$, ** Significant at $p < 0.05$, * Significant at $p < 0.1$.

Source: 2008, 2010, 2012, and 2014 General Social Surveys and American Community Surveys five-year estimates.

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