Electoral cycles, partisan effects and US naturalization policies

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Abstract
Using a panel of naturalizations in the United States from 1965 to 2012, we empirically analyze the impact of elections on naturalization policy. Our results indicate that naturalization policy is (partly) driven by national elections: there are more naturalizations in presidential election years and during the terms of Democratic incumbents. To disentangle the effect of government policies from changes in the demand for naturalizations, we examine how the acceptance rate of naturalization petitions is affected by elections. The analysis reveals that the acceptance rate is much higher under Democratic incumbents with the strongest increase during the years that are closer to the next presidential election. In contrast, (almost) no variation is found under a Republican incumbent. We then investigate the dynamics of an incumbent’s behavior over the course of his term in detail. Our findings indicate that the effects are more pronounced in politically contested states, in states with many migrants and for immigrants originating from Latin America.

Keywords Electoral cycles · Partisan politics · Naturalization policy · Immigration policy

JEL Classification H11 · D72 · F22

1 Introduction
On June 18, 1798, the US Congress, under the influence of the Federalist political party, passed the Naturalization Act, which lengthened the period of residence required before immigrants were eligible to become naturalized and obtain citizenship from five to 14 years.1 Both contemporary witnesses and present historians agree that the law was

1 Naturalization is the acquisition of host-country citizenship by legal immigrants, which confers upon them the right to vote and to hold elective office.
intended to reduce the number of eligible voters, mostly Irish and French immigrants, who supported Thomas Jefferson and the Democratic-Republicans, the Federalists’ major political rival at that time. Nevertheless, Jefferson won the upcoming election and during his term the Naturalization Act of 1798 was repealed by the Naturalization Law of 1802, which restored the 5-year waiting period for naturalization. Almost 200 years later, the Clinton Administration was accused of various immigration-policy manipulations prior to the 1996 presidential elections, all of which were aimed at streamlining the naturalization process so as to collect thousands of ‘newly created’ votes in key states (see, e.g., Coutin 2003). Those two events illustrate the interaction between elections and naturalization policies that is at the heart of this paper.

We analyze herein the impact of presidential elections and the incumbent president’s party on the level and pattern of naturalization across US states over the period from 1965 to 2012. Our results indicate that naturalization policy is (partly) driven by national elections: more naturalizations take place in presidential election years and during the terms of Democratic incumbents. The predetermined calendar of presidential elections allows us to identify how naturalization policies change over time in response to electoral incentives, but that level of analysis does not provide deep insights regarding the underlying mechanism. Therefore, we investigate the dynamics of an incumbent’s behavior over the course of his term in detail. We show that Democratic incumbents always favor high levels of naturalization, whereas under Republican incumbents the number of naturalizations rises only during election years. To disentangle the effect of government policies from changes in the demand for naturalization, we examine how the acceptance rate of naturalization petitions is affected by elections. The analysis reveals that the acceptance rate is much higher under Democratic incumbents, with the strongest increase during the years that are closer to the next presidential election. In contrast, (almost) no variation is found under Republican incumbents. Further results indicate that the effects are more pronounced in politically contested states and for immigrants originating from Latin America. In light of that evidence, we argue that the incumbent strategically uses naturalization policies to improve his (or his party’s) chances of reelection by speeding up the naturalization process in contested states prior to a presidential election, especially with respect to immigrant groups with clearly predictable voting patterns.

As in most developed countries, immigration policy is a highly contentious issue in the United States and the two major parties clearly differ in their attitudes towards migration levels, legalization and citizenship. At the same time, the country contains a politically significant and growing number of potential voters with immigrant backgrounds: on the one hand, legal immigrants who are entitled to citizenship, but have not made any efforts to obtain naturalization and, on the other, naturalized immigrants who exhibit low levels of political participation. Thus, naturalization policies are a salient factor in election

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2 The alliance between the Democratic-Republican Party and the Irish immigrants developed over time owing to a number of policy issues. For example, the Irish immigrants disapproved of Federalist openness to trade with England, which they regarded as their native country’s oppressor. For further details, see, e.g., Carter (1970) and Watkins (2004).

3 According to a Gallup survey, 20% of US registered voters say they will vote only for a candidate who shares their views on immigration, with another 60% responding that the immigration issue will be one of many important they take into account. See Jones (2015).

4 For detailed figures, see Gonzalez-Barrera et al. (2013) and Sect. 2.2.
politics—for several reasons. First, naturalization policies may be used by the incumbent party to shape the electorate in a way favorable to it, as suggested in the above-mentioned anecdotes. If ‘newly created’ voters have a clear tendency to support (oppose) the incumbent party, the government may pressure the federal administration to raise (lower) the number of naturalizations. Second, naturalization policies reveal an incumbent’s stance on immigration for existing voters. If supporters of the party in power prefer strict (lenient) immigration policies, the incumbent may try to reduce (increase) naturalizations above average levels. Such effects are likely to be more pronounced in election years when incumbents try to signal their policy stances with the intent of securing the continued allegiance of their core supporters. If politicians use naturalization to mobilize already naturalized voters (or their native-born relatives), they should target states with more (naturalized) immigrants. Both hypotheses are supported in our empirical analysis.

For our explanation to be valid, the electoral benefit to incumbents needs to be large enough to justify the adjustment of naturalization policies. On average the winning margin in national elections is much larger than the average number of immigrants naturalized per year. However, in some states the number of naturalized citizens is substantial (e.g., Florida, California, New York). As a consequence, electoral cases can be found for which naturalized citizens have been (numerically) decisive. One example is the 2000 US presidential election. In Florida, the decisive state, 68,854 immigrants were naturalized that same year, but the winning margin was only 537 votes. Moreover, naturalization confers the right to vote permanently and thus changes the composition of the electorate over time. Our estimation results suggest that for each year a Democratic incumbent is in power, the population share of naturalized immigrants increases by 0.005 percentage points, i.e., the cumulative effect over a 4-year term is 0.02 percentage points. While the size of that effect is rather small in our sample and varies from 1965 to 2012, it needs to be taken into account that the share of immigrants in the United States increased from 5.4% in 1960 to 13.7% in 2017. In total, naturalization is just one instrument among others (e.g., campaigning, redistricting) for influencing an electorate’s size and composition. Presumably, many of those instruments individually are not sufficiently powerful to make a difference, but the aggregate effect may be decisive.

In the case of the United States, naturalization policies shape the electorate by creating new voters who (for the period considered here) show a clear tendency to support the Democratic Party. The core voters for the Democratic Party tend to favor more legal immigration and the granting of full citizenship to immigrants. In that context, the Democrats would seem to profit from increases in the number of naturalizations. In accordance with the same reasoning, Mayda et al. (2016) show that an increase in the share of naturalized migrants in the voting population reduces votes for the Republican Party. Thus, Democratic incumbents should have an incentive to pursue more lenient naturalization policies, for example, by speeding-up the workflow of the relevant federal agency, the US Citizenship and Immigration Services (USCIS) (as was conjectured to occur in the Clinton case

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5 For an overview of naturalization policies, see Mariani (2013). A detailed account of Hispanic immigrants in the US context is provided by DeSipio (2013).

6 We very much thank one of our anonymous referees for stressing this point and for proposing back-of-the-envelope calculations.

7 See Migration Policy Institute on https://www.migrationpolicy.org/programs/datahub/charts/immigrant-population-over-time, accessed on April 10, 2019.

8 For detailed evidence, see Sect. 2.2.
prior to the 1996 presidential elections), especially in states that are likely to be important in the presidential election and for immigrant groups that are clearly pro-Democratic. For Republican incumbents the case is less clear-cut: traditionally, its supporters have been skeptical of migration-friendly policies and just a minority of naturalized immigrants vote Republican; only recently has the party begun to target the growing Hispanic population, which has become too important to ignore. Against that backdrop, we expect higher levels of naturalization under Democratic incumbents and a more clearly pronounced election-cycle under Republican incumbents.

Our results provide strong evidence of a relationship between presidential elections and naturalization policies. When investigating the numbers of naturalizations granted, we find clear evidence of a partisan effect (higher under Democratic incumbents) and an electoral cycle (higher in election years). Further investigation of the acceptance rate that is intended to control for demand-side factors, indicates that the electoral cycle is driven mainly by variations in the number of naturalization petitions filed, whereas the partisan effect remains significant in that analysis. Our exploration of the dynamics of an incumbent’s behavior over the course of his term confirms that Democratic incumbents always are associated with more naturalizations. In line with our prediction, we find less clear-cut results for Republican incumbents: we observe a more liberal naturalization policy only during election periods. That increase in naturalizations materializes at a lower average level than is the case for Democrat incumbents and seems to be demand-driven. When considering the acceptance rate, our finding of a partisan effect is confirmed, whereas—if anything—an electoral cycle is observed under Democratic incumbents, that is, the acceptance rate increases as the (presidential) election year approaches. Two other findings support our interpretation that the pattern of naturalization observed stems from the incumbent’s efforts to improve his (or his party’s) chances of reelection and not from a general increase in government efficiency prior to elections. First, we show that the dynamics over the course of the president’s term are driven by politically contested states which are valuable in terms of Electoral College votes. Second, we find that for Democratic incumbents the pattern observed is more pronounced for naturalized citizens originating from Latin American countries, who are more likely than, for example, immigrants from Asia to vote for the Democratic Party. For the naturalization of immigrants from Vietnam and Laos, who are known to be pro-Republican, even fewer naturalizations occur under Democratic incumbents.

The main idea of this paper is inspired by the political budget cycles literature following Nordhaus (1975), which argues that incumbent politicians have strong incentives to distort public policies in order to increase approval rates whenever elections are pending. Ample evidence has been found suggesting that electoral cycles occur in many, if not all, advanced democracies, but differ substantially across countries depending on country-specific fiscal transparency and its experience with democracy. Partisan drivers have been studied in the political business cycles literature since Hibbs (1977). Empirical evidence on partisan cycles is provided by Alesina et al. (1997). Analogously, we argue that the incumbent government influences federal agencies to speed up (slow down) the naturalization process over the election cycle. In our case, increases in the number of naturalizations add to the number of voters who tend to lean towards one specific party. We also take into

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9 See, e.g., Brender and Drazen (2005) and Alt and Lassen (2006).
10 Drazen and Eslava (2010) argue similarly in a game-theoretical framework that the incumbent adjusts the composition of government spending in election periods to gain the approval of swing voters.
account the relative importance of states to the Electoral College system as well as the expected voting behavior of naturalized citizens. The literature so far mainly has applied the median voter framework to explain immigration policies, under which current voters weigh the economic benefits of migrants against their own (future) political influence (e.g., Dolmas and Huffman 2004; Ortega 2005). The same framework is used by Mariani (2013) to explain the optimal timing of naturalizations. Bertocchi and Strozzi (2010) find evidence that countries with a jus soli regime (citizenship determined by place of birth) tend to implement more restrictive naturalization policies when facing increases in immigration—compared to countries with a jus sanguinis regime (citizenship determined by having one or both parents who are citizens of the state).

Our paper is structured as follows. Section 2 describes the institutional background. Section 3 presents our estimation approach, as well as the data used. Section 4 presents the results of the empirical analysis; Sect. 5 concludes.

2 Background and determinants of naturalization

2.1 Naturalization process

Naturalization confers upon citizens the right to vote and to hold elective office. In the United States, only very few exceptions exist wherein non-citizen residents are allowed to take part in local elections. As immigrants who become naturalized already have been permanent residents for a number of years, labor market considerations are less important, save for some government positions. A further advantage of citizenship is its permanent nature. It cannot be withdrawn for committing certain acts or crimes. Moreover, the number of immigrants who acquire naturalization strategically in order to avoid deportation is unlikely to be relevant in our case.

US citizenship regulations are based on federal law and entitle an immigrant who has been a permanent resident in the United States for at least 5 years to apply for citizenship. Applicants are required to pass a simple test of their English and civics knowledge, and the vast majority of applicants do. Moreover, they need to prove their good moral character, i.e., no (serious) criminal record. It takes roughly 5 to 8 months from the submission of a naturalization application until the final decision. The naturalization process is implemented by the US Citizenship and Immigration Service (USCIS), a federal agency under the jurisdiction of the Department of Homeland Security (DHS). The key functions of the USCIS are processing naturalization applications, overseeing the immigration of family members, granting work permits (temporarily or permanently with a green card), and processing asylum and refugee applications. Prior to March 1, 2003, the functions now performed by the USCIS were carried out by the former Immigration and Naturalization

11 Historically, enfranchising non-citizens was more widespread, as described by Rodríguez (2010).
12 Under Executive Order 11,935, only US citizens and nationals may compete for, and be appointed to, competitive service jobs. For a discussion, see, e.g., Mariani (2013).
13 Citizens convicted of felony crimes lose (at least temporarily) the right to vote (see NCLS at http://www.ncsl.org/research/elections-and-campaigns/felon-voting-rights.aspx, accessed 26 June 2019). The US Immigration and Nationality Act sets several grounds upon which a non-citizen may be deported back to the person’s country of origin, including drug offenses.
Service (INS), which was restructured in the course of the major reorganization of most federal services related to homeland security in the aftermath of September 11, 2001.

2.2 Immigration and naturalization in the political debate

The shift in the composition of the US population away from its former white majority to a larger proportion of nonwhite groups has put migration and naturalization policies at the forefront of political debate for several reasons. Legal migrants from Asia and Latin America currently are the fastest-growing ethnic groups in the United States. Foreign-born citizens represent a significant pool of potential voters, even though their political participation rates traditionally are lower, on average, than those of natives. Moreover, many legal permanent immigrants are not US citizens even though most of them meet the qualifications: a third of eligible immigrants from Mexico have not (yet) filed petitions for citizenship. Finally, the median age of immigrants is much less than that of natives. In 2012, 17.6 million Hispanics were under the age of 18 and will automatically become eligible to vote once they turn 18, as most of them are US-born. In total, Gonzalez-Barrera et al. (2013) estimate that the Hispanic electorate will double by 2030 if their participation and naturalization rates reach average levels.

For our period of analysis, ending before the polarizing 2016 election, both parties generally exhibited positive attitudes toward immigration. However, Republicans are perceived as campaigning for stricter rules that prioritize legal migration and discourage and stop illegal migration. An important point of divide relates to the conditions for obtaining citizenship, as exemplified by the debate on immigration reform under the Obama Administration. Republicanviews.org reports that:

| Despite believing that there is a possibility it will reward and encourage illegal behavior, 70% of Republicans actually believe that the country could benefit from having illegal immigrants join the workforce as legal workers. The difference is in whether or not they should be given an opportunity to become full citizens, with Democrats saying yes and Republicans saying no. |

The core electorate of the Republican Party consists of white non-Hispanic citizens, who traditionally are skeptical about migration. Hispanic and other groups with migrant backgrounds lean toward the Democratic Party. For those groups, immigration policies

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14 See, e.g., DeSipio (2013) and Gonzalez-Barrera et al. (2013) for a detailed analysis.

15 In 2016, the voter turnout rates for Hispanics and Asian Americans were 47.6% and 49.3% respectively, but 65.3% for White Americans. Source: Pew Research Center on https://www.pewresearch.org/fact-tank/2017/05/12/black-voter-turnout-fell-in-2016-even-as-a-record-number-of-americans-cast-ballots/, accessed 11 April 2019. Xu (2005) argues that registration requirements are an important factor in explaining the lower turnout rates among Asian American and Hispanic voters.

16 Our analysis focuses on naturalization, which is closely linked to other migration policy issues such as the regularization of legal and illegal immigration.

17 The 2016 elections were characterized by a fundamental divide between the two major parties on immigration issues. See, for example, http://www.bloomberg.com/politics/articles/2016-03-14/two-parties-two-radically-different-visions-on-immigration, accessed November 5, 2016.

18 See http://www.republicanviews.org/republican-views-on-immigration/ accessed 20 October 2016.

19 Currently, 86% of Republican and Republican-leaning registered voters are non-Hispanic whites, compared with 57% of all Democratic and Democratic-leaning registered voters. See http://www.people-press.org/2016/09/13/the-parties-on-the-eve-of-the-2016-election-two-coalitions-moving-further-apart/, accessed November 5, 2016.
clearly are a decisive issue, that is, such voters are particularly sensitive to candidates’ stances on immigration policies, and mostly regard those positions as fundamental. Thus, an incumbent can both signal his political stance on migration policies and influence the composition of the electorate by tightening or softening the naturalization process, in turn generating political incentives to manipulate immigration policies, usually more subtly than that demonstrated by the 1798 Naturalization Act.

2.3 Naturalization and the electoral cycle

In the following empirical analysis, we investigate two possible effects of politics on naturalization rates. First, we will identify a partisan effect if naturalization levels are consistently higher under a specific incumbent party. Second, we will identify an electoral cycle if naturalization levels (or rates) are higher in election years. In general, the number of immigrants who obtain citizenship depends on various factors, but we distinguish two main channels through which the electoral cycle can affect naturalization. The first one is the “demand” for naturalization, that is, the decision by lawfully eligible immigrants to apply for citizenship. The second one is the “supply” of naturalization, that is, the actions of the federal agency or the incumbent party to raise or lower the number of naturalizations in a given period.

The demand-side effect depends on the size of the eligible immigrant population and also strongly on their intentions, that is, whether they decide to file a naturalization petition. As electoral campaigns or media reports may motivate eligible immigrants to apply for citizenship ahead of elections, an approaching election is likely to increase the demand for naturalizations (and thus, at least normally, the number of naturalizations granted). Therefore, we disentangle the demand-side effects from the government’s current actions by controlling for the stock of immigrants eligible for naturalization and the number of applications for citizenship, as outlined in the next section in more detail. However, the size of the demand effect is likely to be small because the entire naturalization process takes several months and needs to be completed before the voting registration deadline for an upcoming election.

On the supply side, the federal government can influence naturalization policies to create new voters, or to signal to existing voters its stance on migration. That can be done in several ways. First, it can adjust the regulatory requirements for immigration and naturalization. Only minor changes to US naturalization law were introduced in the period considered in our analysis, but immigration requirements were adjusted frequently and substantially. Any changes in immigration laws affect the size and composition of potential citizens a few years into the future. For example, amnesties for unauthorized immigrant workers, such as promulgated in the Immigration Reform and Control Act of 1986 expanded the pool of immigrants with permanent residency permits substantially.

Second, the government actively can promote citizenship among eligible immigrants through publicity campaigns. For example, the Obama Administration launched a comprehensive campaign targeting major media markets in 10 major states, allowed naturalization

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20 See, e.g., The Economist (March 14, 2015).
21 The PEW Research Center lists 11 major changes between 1965 and 2012. See pewresearch.org at http://www.pewresearch.org/fact-tank/2015/09/30/how-u-s-immigration-laws-and-rules-have-changed-through-history/, accessed September 29, 2016.
fees to be paid by credit card, and introduced a partial fee waiver program on the eve of the 2016 elections in order to remove barriers to applying for full citizenship by permanent residents. As part of the White House’s “Stand Stronger” initiative, 70 outreach events were planned in the first week of the campaign, as well as 200 naturalization ceremonies over the same period that would induct 36,000 new citizens. Republican policymakers have criticized those measures, expressing concern that they allow (mainly) new Democratic voters to register.

Third, an incumbent president may be inclined to influence the USCIS’s (previously the INS’s) workflow in order to improve his own and/or his party’s chances of reelection. The USCIS has a certain amount of discretion in regard to the speed (or lack thereof) of the decision process, the level of information dissemination about the naturalization process, and where, that is, which states and immigrant groups, to focus its efforts. Frequent complaints about serious backlogs and related policy interventions by the government support the view that the USCIS (previously the INS) has exhibited considerable variation in the speed of processing applications. That channel of potential influence is substantiated by a number of well-documented cases when the federal government was criticized for having pressured the USCIS (formerly the INS). Most prominently, the Clinton Administration was accused of having put pressure on INS offices to expedite their work and rapidly to clear the backlog of applications pending review following the “Citizenship USA” (CUSA) initiative from August 1995 through September 1996 (see Coutin 2003). In particular, the vice president’s office is thought to have been engaged in various types of manipulation prior to the 1996 presidential elections, all of which were aimed at streamlining the naturalization process so as to assemble thousands of new voters in key states. For example, new leaders (known as “reinventors”) were appointed to many INS offices, replacing people who were not as efficient as the Clinton Administration required. Finally, the INS also seems to have been pressured to lower its standards. In particular, it allowed for laxer screening of fingerprints, which are necessary to check the criminal record of applicants.

In the case of CUSA, it is reported that special attention was given to California, Florida, Illinois, New York, New Jersey and Texas, which hold a combined total of 181 electoral votes. Whereas changes in federal naturalization and immigration laws by definition affect all states in the same way, both media campaigns and the workflows of federal agencies can be targeted more narrowly. Our prior is that the incumbent party can exploit its discretionary power by focusing on states that are more valuable in terms of Electoral

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22 A nationwide survey of Hispanic immigrants by the Pew Hispanic Center in 2012 found that 18% of those who had not yet naturalized identified administrative barriers as a reason for not doing so, such as the financial cost of naturalization. See: http://www.pewhispanic.org/2013/02/04/the-path-not-taken/, accessed September 29, 2016. The current naturalization fee for a US citizenship application is $640. See USCIS: https://www.uscis.gov/n-400, accessed April 11, 2019.

23 See Memorandum “Policies to Promote and Increase Access to US Citizenship” at https://www.dhs.gov/sites/default/files/publications/14_1120_memo_naturalization.pdf, accessed February 20, 2017.

24 See Politico.com at http://www.politico.com/story/2015/09/obama-citizenship-immigrants-naturalization-democrats-213810#ixzz3oS6y4e6N, accessed on October 13, 2015.

25 See Fox News on http://www.foxnews.com/politics/2014/12/20/new-citizens-push, accessed on April 29, 2015.

26 For example, the Migration Policy Institute (2005) describes the persistent backlog in naturalization processing. We also find evidence of a congestion effect in our empirical analysis (see Sect. 4).

27 According to the Los Angeles Times (February 10, 1998), processing errors were found in 90.8% of the cases handled during the CUSA initiative, resulting in 75,000 applicants with arrest records becoming new US citizens, in addition to 166,000 whose fingerprints were unclassifiable or not even submitted.
College votes. That power should be reflected in larger numbers of naturalizations in states that are contested and also have many electoral votes.

Partisan politics also affect individuals’ decisions to naturalize in indirect ways. For example, Democratic incumbents may implement policies targeted towards immigrants that allow those immigrants to affect the naturalization process itself, e.g., by providing access to educational opportunities. In general, we think of naturalization policies in our study in a broader sense that encompasses such indirect ways of influencing the naturalization rate. A more detailed analysis that generates further insights into the mechanism underlying our findings is hindered by the unavailability of the relevant data for the period of our analysis.28

3 Estimation approach and data

3.1 Specification

To discover whether an electoral cycle and/or a partisan effect exist in the evolution of naturalization rates across US states, we start with a basic regression analysis of the following form:

\[
Y_{s,t} = \alpha_0 + \alpha_1 Y_{s,t-1} + \beta_1 \text{Presidential\_election\_year}_t \\
+ \beta_2 \text{Presidential\_incumbent\_party}_t \\
+ \gamma \text{Second\_term}_t + \Gamma X_{s,t} + \theta_s + \epsilon_{s,t}
\]  

(1)

where \text{Presidential\_election\_year}_t represents an indicator variable that equals 1 in every presidential election year and \text{Presidential\_incumbent\_party}_t an indicator variable that equals 1 if the incumbent president belongs to the Democratic Party. The indicator \text{Second\_term}_t takes the value 1 when the president is in his second term.

The dependent variable, \(Y_{s,t}\), stands for the main outcome of interest in state \(s\) and year \(t\). First, we investigate the existence of an electoral cycle and a partisan effect in the (log) number of naturalizations.29 To avoid the potentially disproportionate influence of state-year observations with very small numbers of naturalizations, we restrict our attention to those data points with more than 50 naturalizations (affecting 39 out of 2304 observations). Following the literature on electoral cycles, we specify Eq. (1) as a dynamic panel to capture the persistent nature of policy choices.

Independent variable \(X_{s,t}\) groups a set of state-year characteristics that are likely to influence the number of naturalizations, including, for instance, average income, population size, urbanization rate and average education. Furthermore, the stock of migrants in a state, in particular the total number of immigrants who lawfully can apply for US citizenship, may be relevant as it determines the potential for naturalization. Therefore, we approximate the number of such “eligible” immigrants, \(E_{s,t}\), by calculating the stock of immigrants who received a permanent residence permit in state \(s\) between years \(t-15\) and \(t-5\) minus the

28 In one specification, we added the mean income of Hispanics, which is available until 1947 from the US Census, as a control variable. Doing so did not change our results qualitatively (results not shown).

29 The alternative specification \(\log(\text{naturalizations}_t/\text{population}_t)\) yields very similar results.
The number of naturalized immigrants between years \( t - 10 \) and \( t \). In some specifications (not shown), we also enter a linear time trend to account for the possibility that our results are driven by a general rise in naturalizations. We account for unobserved heterogeneity using state fixed effects, \( \theta_s \), capturing all time-invariant state characteristics. Finally, \( e_{s,t} \) represents an error term with standard errors clustered by state.

To decompose the driving forces behind the foregoing aggregate effect, we enter a set of dummies

\[
(\text{Rep}_\text{second}_t, \ldots, \text{Rep}_\text{fourth}_t, \text{Dem}_\text{first}_t, \ldots, \text{Dem}_\text{fourth}_t)
\]

that allows us to analyze the dynamics of presidential incumbents’ behavior over the course of their terms. The variable \( \text{Rep}_\text{second}_t \), for example, is a dummy variable that equals 1 if the incumbent president is from the Republican Party and is in the second year of his term. The specification of the reference period being the first year in office of a Republican incumbent.

As noted earlier, the observed patterns of naturalization may be influenced by both the demand and the supply sides of the “market” for immigration. To isolate the supply-side effect, that is, legal changes by the federal government and changes in the behavior of the USCIS, we investigate the effect of the electoral cycle on the proportion of naturalization petitions that are successful by state and year (the acceptance rate). In comparison to our first specification, there is less concern that demand-side effects, for example, an increase in the number of applications owing to the electoral campaign, translate directly into changes in the dependent variable. One challenge to that analysis is that data on the number of petitions filed are available only at the aggregate (federal) level. To approximate the number of petitions filed in each state in a given year, we distribute the aggregate number of petitions filed in a given year across states according to the relative sizes of their eligible immigrant populations. That is, if \( E_t \) is the aggregate number of eligible immigrants, \( E_{s,t} \) the number of eligible immigrants in state \( s \) and \( PF_t \) the number of petitions filed in year \( t \), we approximate the number of petitions filed in state \( s \) and year \( t \), \( PF_{s,t} \), by:

\[
PF_{s,t} := \frac{E_{s,t}}{E_t} PF_t
\]

Then, in Eq. (1), \( Y_{s,t} \) is defined as the ratio of the number of naturalizations to the number of petitions filed \( PF_{s,t} \) in state \( s \) and year \( t \). In that specification, instead of the stock of eligible migrants, we control for the aggregate number of petitions filed as well as for the estimated number of petitions filed at the state-year level.

### 3.2 Estimation procedure

We first report the results of the pooled OLS estimator. The fixed effects estimator (FE) improves on it by controlling for unobserved state-specific effects. However, the presence of serial correlation in the residuals and the reduction in the estimated coefficient on the
lagged dependent variable, $Y_{s,t-1}$, indicate that the FE may suffer from a bias (see Nickell 1981; Kiviet 1995). To account for that issue we report estimates based on the system GMM estimator developed for dynamic panel data by Blundell and Bond (1998) as a robustness test. In that framework, we define the following variables as endogenous: $Y_{s,t}$, $Y_{s,t-1}$ and the number of eligible migrants in state $s$ at time $t$. When estimating the effect of the electoral cycle on the proportion of naturalization petitions that are successful, we consider the number of petitions filed at the state level as endogenous. The lagged values of those variables are used as instruments to create moment conditions. For example, for the main dependent variable $Y_{s,t}$, the Blundell and Bond (1998) estimator combines the moment conditions for the “differenced model”:

$$E((e_{s,t} - e_{s,t-1}) Y_{s,t-1}) = 0$$

with those for the “level model”:

$$E((\theta_{s} + e_{s}) (Y_{s,t-1} - Y_{s,t-1-1})) = 0$$

As the serial correlation test suggests an AR(1) (or sometimes AR(2)) model for the errors, we use the lags up to $t-2$ (or sometimes $t-3$). We report results based on a collapsed set of instruments as proposed by Roodman (2009) and limit the number of lags further to reduce the number of instruments close to $\sqrt{\text{nobs}}$. We also tried different lag specifications as instruments which yielded very similar results. In all GMM specifications we assume that the election indicator is strictly exogenous.

### 3.3 Data

To analyze how the number of naturalizations granted by the USCIS differs across time and states, we use data for the 48 contiguous US states from 1965 to 2012. Over the course of US history, the parties’ stance on immigration issues have undergone a number of substantial changes. In particular, the parties changed their positions on racial issues, with the Democratic Party becoming most popular among black voters in the US South in the early 1960s. Carmines and Stimson (1989) argue that the 1964 presidential elections marked the most important recent issue-based realignment of parties and voters. Moreover, in 1965, the landmark Immigration and Nationality Act, which replaced the system of country-based quotas with one that favored family reunification and skilled immigrants, was enacted. The law had the result of changing the dominant immigration pattern from one wherein most immigrants were people born in Europe to one in which most are from Asia and Latin America. Therefore, we restrict attention to the post-1964 period in our analysis and use the data from 1950 on to approximate the stock of immigrants eligible for citizenship, as described in Sect. 3.1.

Data on naturalization and permanent residency are available from the *Statistical Yearbook of the Immigration and Naturalization Service* issued by the US Department of

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33 We also tried the first-difference estimator based on Arellano and Bond (1991). However, that estimator suffered from the weak instrument problem.

34 Our results are robust to specifications that define the number of eligible migrants and the number of petitions filed at the state level as exogenous.

35 The partisan realignment among blacks already started during the New Deal under Franklin D. Roosevelt (see Petrocik 1987).

36 The results do not change qualitatively when using the entire sample.
Homeland Security. The naturalization figures refer to the US government’s fiscal year starting October 1. As the voter registration period for presidential elections also ends around that date (1 month before the election takes place), the data are suitable for capturing an electoral cycle. The data include only those persons who were lawful permanent residents (“green card” holders), 18 years old or over, filed an N-400 Application for naturalization and subsequently were granted US citizenship. Table 1 reveals that, on average, around 7500 immigrants obtain citizenship per state and year. There is considerable variation across states, with large numbers of naturalizations in states with large immigrant populations, such as California, Florida and New York. The data on permanent residencies stem from the same source.

The data on election dates and outcomes were gathered from the Federal Election Commission and Beyle et al. (2002). Based on those data, we constructed indicators for presidential elections as well as for the party of the incumbent president. Table 1 shows that slightly more Republican presidents occupied the White House during the time period considered. Finally, we use data on population, educational attainment (percentage of total population 25 years and over with a high school diploma or a higher degree), and the stock of migrants from the US Bureau of the Census (Statistical Abstracts). Data on per capita income (measured in 2000 dollars) were collected from the US Bureau of Economic Analysis.

4 Results

In the first set of regressions, we look for the existence of an electoral cycle and a partisan effect in the number of naturalizations by state and year based on our basic Eq. (1). For each of the outcomes, Table 2 reports the estimation results using a pooled OLS (Column (1)), a fixed effects specification (Column (2)) and a GMM estimation (Column (3)). We find clear evidence of an electoral cycle in the number of naturalizations across all specifications, which amounts to an increase of roughly 5% in presidential election years. At the same time, our findings indicate that the identity of the party in power is relevant: the number of naturalizations is around 3% to 6% higher under Democratic governments. Additionally, we find that the number of naturalizations declines in a president’s first term in office. As expected, in areas with larger eligible migrant pools, the number of naturalizations also is higher. Furthermore, a strong and highly significant relationship is found between population size and naturalizations. Similarly, our estimates suggest that more immigrants obtain citizenship in states with faster income growth. In contrast, differences in educational attainment do not seem to matter in our context.

As discussed in Sect. 2.3, the results can be interpreted in two ways to interpret, depending on whether one focuses on the demand side or the supply side. A “demand-side” driven interpretation explains the observed electoral cycle by the higher petition rate during election years: electoral campaigns may induce more eligible migrants to naturalize in election years. Along the same lines, the partisan effect could be explained by a stronger propensity for eligible migrants to obtain US citizenship under Democrat presidents. A “supply-side”

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37 The number of permanent residences by state of intended residence was not available for 1980, 1981, or 1987, but was interpolated after ensuring that no major changes occurred at the aggregated national level.

38 By law, only permanent US residents who are age 18 or more can apply for citizenship. However, a resident under the age of 18 can obtain “derivative citizenship” when his/her parent naturalizes.
driven interpretation emphasizes the role of the incumbent president (or his party). The finding of an electoral cycle suggests that the incumbent president makes use of his power to influence the naturalization process so as to improve his chances of reelection. The evidence of partisan effects also is in line with the pronounced difference between the underlying incentives of the two major parties to grant citizenship: a Democratic incumbent both gains new (on average) favorable voters without threatening support from his core voters; a Republican incumbent, however, faces a tradeoff: his core voters are skeptical towards immigration, but at the same time the growing number of foreign born voters makes it more and more costly to ignore them.

Both interpretations may be valid concomitantly. To isolate the supply-side effect, we investigate the existence of an electoral cycle and a partisan effect on the proportion of naturalization petitions that are successful by state and year (acceptance rate), as explained in Sect. 3.1. In contrast to the number of applications, which may drive the consequent number of naturalizations mechanically, the acceptance rate is based on (implicit or explicit) decisions by a government agency (USCIS). Columns (4) to (6) of Table 2 report the results. The presidential election year effect remains statistically significant only in the GMM specification. In contrast, partisan effects seem to be very relevant for the acceptance rate (around 10% and statistically significant across all specifications). Interestingly, the acceptance rate declines with the number of petitions filed, indicating that the USCIS’s capacity is constrained, as suggested by policy reports and anecdotal evidence (see Sect. 2.3).

To analyze our findings in more detail, we investigate the dynamics of an incumbent’s behavior over the course of his term. To that end, we introduce a set of dummy variables, as specified in Eq. (1), that allow capturing the behavior of an incumbent of party $p \in \{\text{Democrat}, \text{Republican}\}$.
D, R in a specific year of the president’s term $y \in 1, 2, 3, 4$ relative to the behavior of a Republican incumbent in his first term. With that notation, presidential elections occur during year 4, and midterm elections during year 2. We start with investigating the dynamics of an incumbent’s behavior with respect to the number of naturalizations by state and year. Table 3 displays the results using a pooled OLS (Column (1)), fixed effects estimation (Column (2)) and GMM estimation (Column (3)). The main coefficients of interest, those pertaining to the set of dummies identifying the incumbent party and the corresponding year of the presidential term, are illustrated in Fig. 1a.  

Table 2 Basic results

| Dependent variable | (1) (2) (3) (4) (5) (6) |
|-------------------|-------------------------|
|                   | Naturalizations (log)   | Acceptance rate |
| Presidential election year | 0.0530*** 0.0450** 0.0498** 0.0362 0.0331 0.0354* |
|                   | (3.14) (2.28) (2.36) (1.57) (1.46) (1.72) |
| Presidential incumbent party | 0.0371*** 0.0625*** 0.0318** 0.105*** 0.100*** 0.100*** |
|                   | (2.44) (4.68) (2.13) (4.80) (3.65) (3.23) |
| First term | −0.0353** −0.0581*** −0.0325*** −0.158*** −0.146*** −0.148*** |
|                   | (−2.26) (−4.68) (−3.00) (−7.23) (−6.16) (−4.28) |
| Population (log) | 0.173*** 0.690*** 0.321*** 0.197*** 0.669*** 0.181* |
|                   | (10.35) (8.97) (3.68) (8.97) (5.97) (1.78) |
| Income (log) | 0.720*** 0.831*** 0.920*** 0.666** 0.631** 0.672 |
|                   | (10.25) (7.18) (4.28) (7.01) (2.57) (1.55) |
| Education (log) | −0.130* 0.0520 −0.171 0.175 0.114 0.148 |
|                   | (−1.77) (0.48) (−0.98) (1.58) (1.01) (0.75) |
| Eligible immigrants (log) | 0.228*** 0.153*** 0.0793 |
|                   | (15.26) (5.52) (1.49) |
| Petitions filed total (log) | −0.164*** 0.0302 −0.180** |
|                   | (−6.75) (0.24) (−1.97) |
| Petitions filed per state (log) | −0.155*** −0.424*** −0.138* |
|                   | (−9.59) (−6.81) (−1.88) |

Method | OLS | FE | GMM | OLS | FE | GMM
|-------|-----|----|-----|-----|----|-----|
| AB test, 1st | – | – | 0.000 | – | – | 0.058 |
| AB test, 2nd | – | – | 0.050 | – | – | 0.425 |
| AB test, 3rd | – | – | 0.347 | – | – | 0.207 |
| Hansen test | – | – | 0.257 | – | – | 0.169 |
| No. of instruments | – | – | 47 | – | – | 48 |
| Observations | 2179 | 2179 | 2179 | 2179 | 2179 | 2179 |

FE Fixed effects model including a constant term and a set of state-year characteristics. GMM GMM model (one-step systems GMM model based on Blundell and Bond 1998). Robust standard errors clustered by state. t-statistics reported in parentheses and $p$ values for the AB and Hansen test. Significance levels: ***1%; **5%; *10%.

The GMM results are robust to the specification of the endogenous variables, instruments and moment conditions. Moreover, we entered a linear time trend, a dummy for the restructuring of US immigration administration after September 11, as well as the stock of immigrants per states and year. All of those variants have no qualitative and very little quantitative impact on our results.
As evident from Fig. 1a, the behavior of Democratic incumbents is rather stable throughout the presidential term. That impression is confirmed by parameter tests revealing that the coefficients for Democratic incumbents are not statistically different from one another. According to the FE model, the absolute number of naturalizations under a Democratic incumbent is about 8% to 10% higher than the first year of a Republican incumbent. Similarly, the GMM specification indicate that naturalization policies are stable under

| Table 3 | Dynamics during term |
|--------|----------------------|
| Dependent variable | (1) | (2) | (3) | (4) | (5) | (6) |
| Naturalizations (log) | Acceptance rate | |
| Democrat in 1st year | 0.0748** | 0.0983*** | 0.0535* | 0.0354 | 0.0602** | 0.00543 |
| | (2.28) | (4.06) | (1.69) | (0.76) | (2.26) | (0.13) |
| Democrat in 2nd year | 0.0569** | 0.0822*** | 0.0423 | 0.133*** | 0.128*** | 0.106** |
| | (1.97) | (3.83) | (1.61) | (3.25) | (3.12) | (2.41) |
| Democrat in 3rd year | 0.0803*** | 0.103*** | 0.0706*** | 0.148*** | 0.142*** | 0.125*** |
| | (2.78) | (4.66) | (3.15) | (3.61) | (3.38) | (3.19) |
| Democrat in 4th year | 0.0579* | 0.0853** | 0.0453 | 0.155*** | 0.147*** | 0.139*** |
| | (1.94) | (2.27) | (1.05) | (3.73) | (3.85) | (3.38) |
| Republican in 2nd year | 0.0768*** | 0.0771*** | 0.0772*** | 0.0220 | 0.0306 | 0.0127 |
| | (2.91) | (3.34) | (2.91) | (0.60) | (1.15) | (0.40) |
| Republican in 3rd year | −0.0557** | −0.0458** | −0.0611*** | 0.00993 | 0.0115 | 0.00279 |
| | (−2.11) | (−2.59) | (−3.31) | (0.27) | (0.49) | (0.12) |
| Republican in 4th year | 0.103*** | 0.0908*** | 0.0998*** | 0.0431 | 0.0480* | 0.0354 |
| | (3.89) | (3.84) | (3.53) | (1.18) | (1.75) | (1.16) |
| First term | −0.0393** | −0.0618*** | −0.0343*** | −0.152*** | −0.143*** | − |
| | (−2.50) | (−4.99) | (−3.26) | (−6.86) | (−6.30) | (−4.17) |
| Population (log) | 0.170*** | 0.685** | 0.251** | 0.196** | 0.666** | 0.0992 |
| | (10.24) | (8.97) | (2.71) | (8.94) | (5.95) | (0.67) |
| Income (log) | 0.704*** | 0.808** | 0.747** | 0.662** | 0.631** | 0.477 |
| | (10.08) | (7.07) | (3.44) | (6.96) | (2.53) | (0.86) |
| Education (log) | −0.126* | 0.0602 | −0.129 | 0.186* | 0.130 | 0.165 |
| | (−1.72) | (0.57) | (−0.89) | (1.68) | (1.13) | (0.83) |
| Eligible immigrants (log) | 0.225*** | 0.151** | 0.0882 | 0.225*** | 0.151** | 0.0882 |
| | (15.15) | (5.53) | (1.59) | (15.15) | (5.53) | (1.59) |
| Petitions filed total (log) | −0.163 | 0.0244 | −0.181** | −0.163 | 0.0244 | −0.181** |
| | (−6.71) | (0.20) | (−2.02) | (−6.71) | (0.20) | (−2.02) |
| Petitions filed per state (log) | −0.154*** | −0.42*** | −0.0675 | −0.154*** | −0.42*** | −0.0675 |
| | (−9.52) | (−6.78) | (−0.62) | (−9.52) | (−6.78) | (−0.62) |

Specification analogous to Table 2
Fig. 1 Dynamics during term. FE estimates as outlined in Table 3. Dependent variable: a Naturalizations (log); b Acceptance rate
Democratic incumbents; however, the difference to the reference case is a bit smaller, with only two coefficients being significant. Under a Republican president, the variations are larger: the number of naturalizations is highest (7% to 10% higher) in the second and fourth years of the term, which correspond to the midterm and presidential elections, and zero otherwise. In total, our results suggest that Democratic incumbents are associated with large levels of naturalizations throughout the term (constituting the partisan effect). Under Republican incumbents, however, the number of naturalizations increases only during election years (constituting the electoral cycle). Overall, Republican incumbents seem to vary their behavior over the course of their terms, adjusting naturalization policies in response to the conflicting incentives they face.

While the findings are consistent with strategic use of naturalization policies by the incumbent government, the potential contamination by demand-side effects needs to be examined further. Thus, we investigate the dynamics of an incumbent’s behavior over the course of the term with respect to the acceptance rate. Columns (4) to (6) of Table 3 report the results. The estimates of our main coefficients of interest are illustrated graphically in Fig. 1b. Our estimates indicate that the acceptance rate is higher under Democratic incumbents. Compared to the first year of a Republican incumbent, the acceptance rate is between 6% and 15% higher under a Democrat incumbent, which hints at a strong partisan effect stemming from the supply side. Moreover, the increase is strongest during years that are closer to the next presidential election. In contrast, (almost) no variation is found under a Republican incumbent. Thus, the electoral cycle observed for Republican incumbents regarding the number of naturalizations seems to be driven by demand-side effects. For example, if the next president is likely to be Republican, immigrants who meet the requirements for obtaining citizenship may opt for naturalization in order to safeguard themselves from a future, less accommodating government that strictly enforces deportations of illegal immigrants.

If the incumbent president (or party) is able to influence naturalization procedures, it is likely that—given the Electoral College—such efforts are focused on politically salient states. To test whether that mechanism partly explains the pattern of naturalization across states (and presidential election years), we split the states in presidential election years into a contested group and a safe group. We rank the states according to their political salience in each presidential election measured by the number of electoral votes at stake in a state divided by the corresponding (absolute) winning margin and carry the corresponding value forward for the entire term. The contested (safe) group consists of states in the upper (lower) half of the corresponding distribution. Then, we repeat the estimation procedure for each group.

Table 4 reports the estimation results, which are illustrated in Fig. 2a, b. Strong evidence is found that the partisan effect and the electoral cycle effect in naturalizations are driven mainly by the contested states (Columns (1) and (2)). Compared to the first year of a Republican incumbent, the number of naturalizations is between 10% and 17% larger as well as statistically significant under a Democrat incumbent in the contested group. In the safe states, the effect is much less pronounced in the first and second year of office and

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40 Strömberg (2008) shows that the number presidential campaign visits can be explained by the states’ number of electoral votes and the election outcome forecasts.

41 We obtain very similar results when using the value calculated for the next presidential election to define whether a state is contested or safe.
non-existent in the third and fourth year. For the Republican incumbents, the differences across the two groups of states are smaller and the electoral effects are not driven as much by contested states. Looking at the acceptance rate, the picture is very similar for the Democratic incumbents, with acceptance rates between 8% and 20% higher in contested states and significant effects in the safe states only in 2 out of 4 years. Again, for Republican incumbents, no difference is evident between safe and contested states. While the partisan effect is quite obvious, the potential electoral cycle effect consists only in the tendency of a higher acceptance rate under Democratic incumbents as the election year approaches, in particular, when comparing the estimated coefficients across the contested and safe states.

Ample evidence exists that the voting behavior of naturalized immigrants differs depending on their countries of origin. Voters originating from Latin America (apart from the Cuban immigrants) favor the Democrats strongly. The electoral advantage of the Democratic candidate among voters of Latin American origin in presidential elections between 1980 and 2013 ranges from 18% to 51%. The Republican Party historically has been favored only by those who fled communism during the Cold War, for example, former immigrants from Vietnam and Laos (and Cuba). The Republican Party’s vocal anti-communism has been especially attractive to older and first-generation Vietnamese Americans: 51% of voters with Vietnamese origins voted for the Republican candidate in the 2008 election. Unfortunately, no similar systematic evidence exists over time and the data on naturalizations by origin country are very limited. We obtained the number of naturalizations for the main source countries only from 1982 onward; no information on the number of applications filed per origin country is available. Consequently, we focus in what follows on two regions of origin (Latin America and Asia) as well as a number of selected countries.

The results for the three regions of origin are presented in Table 5, Columns (1) and (2) and illustrated graphically in Fig. 3a. As expected, we find a particularly strong partisan effect for voters of Latin American origin (up to 38% more naturalizations under Democratic incumbents), which is much less pronounced or clear-cut for Asian origin voters. At the same time, evidence of a substantial presidential election effect under Republican incumbents is found in all three groups. Columns (3) to (6) of Table 5 and Fig. 4a, b show the results for a selected number of origin countries. The results for naturalized immigrants originating from Columbia represent the model case of our analysis with a very strong partisan effect that is present throughout the entire presidential term and an equally strong electoral cycle under Republican incumbents. The outcome is similar for Mexico, representing the most important origin country for the period considered here. Interestingly, we observe a very different pattern for countries such as Vietnam and Laos where we do not find any evidence of a partisan effect. If anything, fewer naturalizations are granted under Democratic incumbents. That result is consistent with the voting behavior of Vietnamese and Laotian immigrants, who sympathized with the Republican Party for its strictly anti-communist stance.

Immigration policies are expected to play a more important role, and thus also to be affected more by electoral incentives, in high-immigration states such as California,

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42 See Lopez and Taylor (2012).
43 Laos was also affected by the Vietnam War and was under a communist government in the years thereafter.
44 C.f. Junn et al. (2008). For a detailed discussion, see Kuo et al. (2017).
Florida and New York. Thus, we rank states along the yearly distribution of the stock of
immigrants and repeat the estimation once for states in the upper tercile and once for those
in the lower tercile of that distribution.45

Table 6 reports the results separately for high and low immigration states. The
results indicate that the partisan effect and the electoral cycle in the number of natural-
izations are by and large observed in states with high levels of immigration (Columns
(1) and (2)). In such states, naturalizations are from 8% to 21% above those of other

45 When splitting the sample as before, the results are less pronounced.
Fig. 2 Contested versus safe states. FE estimates as outlined in Table 4. Dependent variable: a Naturalizations (log); b Acceptance rate.
states with less immigration. The partisan cycle observed for Republican incumbents also seems to be a bit more pronounced in the high immigration states which is consistent with our hypothesis that Republican incumbents need to react if the number of foreign-born voters becomes large.\textsuperscript{46} However, when focusing on the acceptance rate (Columns (3) and (4)), the evidence is less clear-cut, especially when the sample is split into two (not shown).

\textsuperscript{46} When splitting our sample into a before- and after-1989 period, it becomes evident that our results are driven mainly by the earlier period. This finding might indicate that the attachment of immigrants to certain parties was stronger during the Cold War period.

### Table 5 Region and country of origin

| Dependent variable | (1) | (2) | (3) | (4) | (5) | (6) |
|-------------------|-----|-----|-----|-----|-----|-----|
| Naturalizations (log) |     |     |     |     |     |     |
| Lat. Am. | Asia | Colombia | Mexico | Vietnam | Laos |
| Democrat in 1st year | 0.0987* | 0.0526 | 0.0870 | 0.186** | −0.314** | −0.0160 |
| (2.00) | (1.34) | (1.65) | (4.16) | (−2.63) | (−0.29) |
| Democrat in 2nd year | 0.121*** | 0.0645 | 0.121** | 0.136** | −0.156* | −0.0906** |
| (2.74) | (1.62) | (2.18) | (2.06) | (−1.69) | (−2.03) |
| Democrat in 3rd year | 0.285*** | 0.0610 | 0.264*** | 0.384** | −0.220 | −0.0672 |
| (5.09) | (1.55) | (5.13) | (7.36) | (−1.48) | (−1.18) |
| Democrat in 4th year | 0.137* | 0.0514 | 0.215*** | 0.227** | −0.0205 | −0.00680 |
| (1.83) | (0.73) | (3.34) | (3.12) | (−0.16) | (−0.08) |
| Republican in 2nd year | 0.000725 | 0.0803* | 0.142** | 0.0594 | −0.112 | 0.0486 |
| (0.01) | (1.82) | (2.28) | (1.15) | (−1.17) | (1.03) |
| Republican in 3rd year | −0.114*** | −0.0236 | 0.00766 | −0.101** | −0.0995 | −0.0882* |
| (−2.72) | (−0.65) | (0.16) | (−2.23) | (−1.24) | (−1.96) |
| Republican in 4th year | 0.144*** | 0.167** | 0.233*** | 0.169** | 0.214** | 0.0499 |
| (4.09) | (4.48) | (4.04) | (4.60) | (2.76) | (1.15) |
| First term | −0.154*** | −0.092*** | −0.0361 | −0.27*** | −0.13*** | −0.18*** |
| (−4.86) | (−3.86) | (−1.38) | (−6.56) | (−2.88) | (−5.76) |
| Eligible immigrants (log) | 0.240*** | −0.0442 | 0.0222 | 0.271** | 0.125 | 0.259*** |
| (3.45) | (−0.59) | (0.27) | (3.11) | (1.56) | (2.94) |
| Method | FE | FE | FE | FE | FE | FE |
| Observations | 1229 | 1229 | 1139 | 1205 | 550 | 1162 |

\textit{FE} Fixed effects model including a constant term. Further time-varying control variables included as in Table 2. Robust standard errors clustered by state. t-statistics reported in parentheses. Significance levels: ***1%; **5%; *10%
5 Conclusion

Naturalization is an important element of US immigration policy, and an issue over which the two major parties clearly disagree. Using a panel of naturalizations in US states from 1965 to 2012, we analyze empirically the impact of presidential elections on the number of migrants acquiring US citizenship. We find a strong presidential election year effect as well as substantial partisan effects. The number of naturalizations is considerably larger in presidential election years and under Democratic presidents. Moreover, the evidence indicates that the partisan effect is explained mainly by politically salient contested states as measured by Electoral College votes.

We interpret our results as the outcome of the incumbent government’s efforts to improve its chances of reelection by increasing the number of (likely) supporters. While further research is needed to identify the underlying mechanism more precisely, our results suggest that the incumbent president makes use of his power to influence the working of federal (immigration) agencies to improve his chances of reelection. While ample evidence of electoral cycle and partisan effects in federal spending and law enforcement has been reported previously, ours is one of the few papers to document that governments intervene directly in the implementation of immigration policies for their own purposes. Our findings thus suggest that focusing on de jure institutional provisions, such as existing laws, is not sufficient when analyzing changes in government activities such as immigration policies.

Fig. 3 Region of origin from 1982 to 2012. FE estimates as outlined in Table 5. Dependent variable: Naturalizations (log)
Fig. 4 Country of origin from 1982 to 2012. FE estimates as outlined in Table 5
Table 6  High versus low immigration states

| Dependent variable               | (1)                      | (2)                      | (3)                      | (4)                      |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                  | Naturalizations (log)    | Acceptance rate          |                          |                          |
| High immigration states          | Low immigration states   |                          |                          |                          |
| Democrat in 1st year             | 0.0984*                  | 0.142***                 | 0.176***                 | 0.0614                   |
|                                  | (1.73)                   | (2.83)                   | (2.96)                   | (0.93)                   |
| Democrat in 2nd year             | 0.0984**                 | 0.0157                   | 0.120***                 | 0.000812                 |
|                                  | (2.45)                   | (0.40)                   | (3.18)                   | (0.03)                   |
| Democrat in 3rd year             | 0.201****                | 0.0112                   | 0.190***                 | −0.00946                 |
|                                  | (5.60)                   | (0.29)                   | (4.47)                   | (−0.40)                  |
| Democrat in 4th year             | 0.119                    | 0.0439                   | 0.236***                 | 0.0365                   |
|                                  | (1.62)                   | (0.98)                   | (3.71)                   | (0.99)                   |
| Republican in 2nd year           | 0.0998**                 | 0.0503*                  | 0.0782*                  | 0.0141                   |
|                                  | (2.23)                   | (1.95)                   | (1.84)                   | (0.57)                   |
| Republican in 3rd year           | −0.0361                  | −0.0602                  | 0.0144                   | 0.0158                   |
|                                  | (−1.17)                  | (−1.48)                  | (0.45)                   | (0.26)                   |
| Republican in 4th year           | 0.142***                 | 0.0198                   | 0.187***                 | −0.0832***               |
|                                  | (3.44)                   | (0.64)                   | (4.35)                   | (−3.17)                  |
| First term                       | −0.0502*                 | −0.0851***               | −0.148***                | −0.0414**                |
|                                  | (−1.84)                  | (−4.68)                  | (−4.81)                  | (−2.23)                  |
| Eligible immigrants (log)        | 0.126**                  | 0.219***                 |                          |                          |
|                                  | (2.08)                   | (2.92)                   |                          |                          |
| Petitions filed total (log)      |                          |                          | −0.0911                  | −0.0422                  |
|                                  |                          |                          | (−1.26)                  | (−0.60)                  |
| Petitions filed per state (log)  |                          |                          | −0.552***                | −0.374***                |
|                                  |                          |                          | (−7.36)                  | (−3.66)                  |
| Observations                     | 762                      | 758                      | 762                      | 758                      |

FE Fixed effects model including a constant term. Further time-varying control variables included as in Table 2. Robust standard errors clustered by state. t-statistics reported in parentheses. Significance levels: ***1%; **5%; *10%
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