Journal of Public Economics 218 (2023) 104803

Contents lists available at ScienceDirect

Journal of Public Economics

journal homepage: www.elsevier.com/locate/jpube

Do elections affect immigration? Evidence from French municipalities ☆

Benoît Schmutz [a], Gregory Verdugo [b,c]

[a] École Polytechnique and CREST, Bâtiment ENSAE, Palaiseau 91228 Cedex, France
[b] Université Paris-Saclay, Univ Evry, EPEE, 91025 Evry-Courcouronnes, France
[c] Sciences Po, OFCE, 10 Pl. de Catalogne, 75014 Paris, France

ARTICLE INFO

Article history:
Received 23 November 2021
Revised 27 October 2022
Accepted 20 December 2022

JEL Classification:
D72
H4
H7
R38

Keywords:
Immigration
Public housing
Local elections

ABSTRACT

Using thirty years of municipal elections in France, we show that election results affect the share of immigrants across municipalities. In municipalities where a left- instead of right-wing mayor has been elected, the share of immigrants in the population grows faster by 1.5 p.p. within six years after the elections, and by 3 p.p. within twelve years. To a large extent, these effects are driven by partisan differences in public housing constructions and changes in the composition of the population within existing public housing units. They also are associated with greater incumbency advantage, in line with a model of strategic partisan behavior.

1. Introduction

While many developed countries are currently facing an increase in both ethnic (Bickford and Massey, 1991; Cutler et al., 2008) and partisan segregation (Bishop, 2009; Brown and Enos, 2021; Brown et al., 2022), these two dynamics are thought to stem from distinct mechanisms. Ethnic segregation is often explained by social interaction models (Schelling, 2006; Card et al., 2008), and partisan segregation, by Tiebout sorting where people 'vote with their feet' into jurisdictions offering their preferred bundle of public goods (Banzhaf and Walsh, 2008). However, if local policies impact the attractiveness of local jurisdictions in a way that varies along both ethnic and partisan lines, both dimensions of segregation may feed off of one another.

In this paper, using data from French municipalities over three decades (1982–2014), we provide evidence that elections influence the share of immigrants in the population and that the main channel through which these changes operate is local public housing policies. The existence of a large public housing sector, with substantial turnover, and where municipalities can influence construction and admission policies is a major difference between the US and many European or Asian countries. By design, public housing can be targeted to specific constituents and is inherently linked with a residence. Using detailed information on beneficiaries, we show that election results influence the construction of new units and the share of immigrants within both newly constructed and preexisting public housing units. To a large extent, these partisan differences appear specific to municipalities that already had a high share of immigrants in 1982, and, as such, received the bulk of immigrant inflows during the following decades.

To motivate the analysis, we discuss the various mechanisms that might explain why mayors would implement partisan policies that attract or repel immigrants. We highlight that if voters are partisan, mayors might target immigrants if doing so reshapes

☆ The authors accessed the Census and local tax data via the *Centre d'accès sécurisé distant* (CASD), dedicated to the use of authorized researchers, following the approval of the Comité français du secret statistique. Comments by the editor, four anonymous referees, Léa Bou Sleiman, Pierre Boyer, Germain Gauthier, Thomas Piketty, Alessandro Riboni, Vincent Rollet, Pauline Rossi, Émilie Sartre, James Snyder, Clémence Tricaud, Ekaterina Zhuravskaya, and many conference and seminar participants have substantially improved the paper. We thank Guillaume Chapelle, Laurent Gobillon and Bertrand Vignolles for sharing their data on the SRU law with us. We thank Morgane Laouénan, Ariell Reshef and the Maison des Sciences Économiques for their hospitality. This research was supported by grants from the Agence Nationale de la Recherche (ANR-10-EQPX-17, Centre d'accès sécurisé aux données, CASD, ANR-11-IDEX-0003- 02/Labex ECODEC No. ANR-11-LABEX-0047), the "Flash Asile" program (ANR-16-FASI-0001) and Université Paris-Saclay (ANR-11-IDEX-0003-02).

E-mail addresses: benoit.schmutz@polytechnique.edu (B. Schmutz), gregory.verdugo@univ-evry.fr (G. Verdugo)

https://doi.org/10.1016/j.jpubeco.2022.104803
0047-2727/

the electorate directly or indirectly in a favorable direction. Relative to natives, immigrants are overwhelmingly in favor of left-wing parties (Martiniello, 2006; Simmons et al., 2018; Brouard and Tiberj, 2011) and more than half of immigrants are allowed to vote as they have acquired French citizenship or originate from the European Union.[1] In addition, implementing specific immigration policies might mobilize native supporters or affect their share in the population. If those effects are large, targeting immigrants will help mayors get reelected and even build political strongholds in the long run.

To identify the effects of elections on local policies and the composition of the population, we follow Ferreira and Gyourko (2009) and use a regression discontinuity analysis (RDD) that exploits quasi-random variations in the political affiliation of the mayor as a consequence of close elections. Our empirical investigation draws from a sample of 829 municipalities with more than 9,000 inhabitants in urban areas with more than 30000 inhabitants. We observe these municipalities over six local elections that occurred approximately every six years from 1983 to 2014. Thus, our data allow us to investigate the effects of elections on the composition of the population in the year of the next election, after 6 years, and also in the longer run, from 12 up to 18 years after the initial election, which corresponds to the time at the second and third election after the initial election, respectively.

We find that, after six years (by the time of the next election), the share of immigrants in the population has grown 1.5 p.p. faster in municipalities where a left- relative to a right-wing mayor has won. This effect is large, as it corresponds to two-thirds of the average change in the share of immigrants between two elections in our sample of municipalities. We can rule out that this increase reflects general socioeconomic changes in the population, as the share of immigrants increases across all occupation groups. New residents with immigrant origins have socioeconomic characteristics similar to those of the natives they replace, even if immigrants are less likely to be in high-income occupations. We also find that these differences in the share of immigrants in the municipality increase over time, at least over two election cycles, albeit the estimates are more imprecise in the long run.

We then investigate how this large demographic effect might translate into the political leaning of the electorate. The direct short-run effect on the electorate is initially attenuated by the fact that the increase in immigration is only driven by non-European immigrants, half of whom cannot vote as they are not citizens. However, the share of immigrants who can vote increases over time, and most of the long-run effects are driven by immigrants with voting rights. This result is suggestive of a direct impact of local elections on partisan segregation through immigration.

We then explore which systematic policy differences might explain the effects of elections on the share of immigrants across municipalities. Consistent with Ferreira and Gyourko (2009), we find small and imprecise effects of elections on the two sources of municipal funding: the housing tax and the property tax. This rules out the hypothesis that differences in immigrant inflows might be driven by a differential increase in spending or taxes after the elections. In contrast, differences in public housing construction and inflows of immigrants into existing and newly constructed municipal public housing explain much of the increase in the share of immigrants.

In practice, the election of a left-wing mayor is associated with a 2.0 p.p. larger increase in the share of households living in public housing in the short run, 6 years after the elections, and effects after 12 years are, once again, twice as large. Overall, units constructed after the elections account for a third of the increase in the share of immigrants in public housing in the municipality in the short run. On top of this extensive margin, the election of a left-wing mayor is also associated with larger inflows of immigrants into existing public housing. Even if public housing only accounts, on average, for 25% of total housing in our sample, the increase in the share of immigrants who live in public housing accounts for half of the total effect of elections on the share of immigrants in the population.

To understand the mechanism underlying our results, we investigate whether the effects of elections vary with municipalities' initial attractiveness to immigrants. Indeed, opening more public housing to immigrants would be useless in towns where few immigrants are likely to move. Using the fact that immigrants tend to locate in places where the share of immigrants is already high (see, e.g., Bartel, 1989; Jaeger et al., 2018), we proxy for a municipality's attractiveness to immigrants using its share of immigrants in the population in 1982 (12%), which is strongly correlated with future immigrant inflows. Separate estimates for municipalities above and below this median show that our results are driven by municipalities that were already attractive to immigrants.

Finally, using the fact that the results are driven by municipalities that were more likely to attract immigrants, we assess whether these demographic changes are related to the incumbency advantage, defined here as the future electoral margin of the left following the close election of a left-wing mayor. We find substantial differences in incumbency advantage depending on the initial share of immigrants. When the initial share of immigrants is high, the incumbency advantage is equal to 10 p.p. at the next election and 13 p.p. at the next-but-one election. In contrast, in municipalities with a low initial share of immigrants and for which we find little evidence of partisanship of local policies, the incumbency advantage is smaller and not statistically significant after one election. While these results are imprecise and should be interpreted with caution, they are compatible with a model in which mayors facing immigrant inflows are more likely to secure future electoral wins through partisan immigration policies.

Related literature — Our work first contributes to a large literature on the determinants of local policies. Building on Tiebout's (1956) seminal work, many theoretical analyses have emphasized that residential mobility and competition across local jurisdictions should prevent partisan behavior at the local level (Epple and Zelenitz, 1981; Calabrese et al., 2011). In contrast, recent empirical studies find substantial evidence of partisanship of local policies (Pettersson-Lidbom, 2008; Gerber and Hopkins, 2011; Meyersson, 2014; Dippel, 2019). In particular, our evidence of partisan differences in local housing policy is closely related to Solé-Ollé and Viladecans-Marsal (2013), who find that left-wing parties in Spanish municipalities convert less land from rural to urban uses. Our findings suggest that, in France, left-wing municipalities tend to increase housing supply through public housing while we find no effect on private housing.[2]

The second strand of the literature to which this paper relates is the effects of public housing on immigrants' location choice (see, among others, Verdugo, 2016). In many European and Asian countries, the public housing sector remains a key component of the housing market (Scanlon et al., 2014; Battiston et al., 2014; Chen et al., 2013; Chiu, 2013; Xu and Zhou, 2019) and recent European studies have shown that the concentration of immigrants in public housing has influenced their spatial segregation (Quillian and Lagrange, 2016; Verdugo and Toma, 2018; Musterd and Deurloo, 1997). Our results are consistent with many qualitative studies

[1] Immigrants are defined by following the official international definition, whereby an immigrant is a foreign-born person who was not a French citizen at birth.

[2] Spain has very little public housing compared to France (2.5% against 20%), which explains why Solé-Ollé and Viladecans-Marsal (2013) do not explore this policy.

that have described the discrimination of ethnic minorities by public housing programs across Europe.[3]

Finally, this paper is also related to the growing literature exploring the relationship between immigration and elections. While a large body of work has shown that a local increase in the share of immigrants increases support for anti-immigration parties,[4] we focus on the reverse mechanism, whereby local election results affect immigration inflows. Our results are consistent with Bracco et al. (2018), who show that the election of a *Lega Nord* mayor in Italy discourages immigrants from moving into the municipality, and Slotwinski and Stutzer (2019), who highlight how local results of an anti-minaret referendum affected the location choice of foreigners in Switzerland. We complement those two papers by providing evidence that, in a context where public housing allows mayors to target immigrants, local partisan policies explain part of the effects of elections on the location choice immigrants.

The rest of the paper is organized as follows. To guide the empirical analysis, Section 1 discusses the theoretical conditions under which local elections may affect immigration. In Section 2, we describe the context of the study and the data. In Section 3, we detail our empirical strategy. Section 4 presents the results and Section 5 concludes.

2. Conceptual framework

Several mechanisms could explain why local elections influence the share of immigrants in a local jurisdiction. Firstly, election results might impact immigration because, independently of the policies implemented, they reveal the population's attitudes and indicate a more or less welcoming environment for immigrants (Bracco et al., 2018; Slotwinski and Stutzer, 2019). Such differences in attitudes might discourage immigrants from settling in municipalities where the population is hostile. However, if elections merely play a signaling role, we should not observe a strong discontinuity following a close election associated with the victory of a given party.

If a discontinuity is observed as in our case, the changes in population are likely driven by systematic partisan differences in local policies. Admittedly, these policies need not be targeted toward immigrants to have a larger effect on their location choice. Borjas (1999) argues that in contrast to natives, immigrants might be more responsive to local policy differences as they have already paid the fixed cost of migration into the host country and might not have strong local ties. This hypothesis implies, for example, that a policy change preferred by low-income residents from all origins might induce more substantial inflows of low-income immigrants relative to natives. However, if some low-income natives are mobile, we should observe at least some of them respond to the policy, which is not the case in our data.

In contrast to most local policies, a large literature discussed below suggests that the municipal provision of public housing units, for which we report strong evidence of partisanship, is targetable to specific subgroups in the population. In addition, immigrants (and, more specifically, non-European immigrants) are particularly attracted to public housing, to a large extent in response to discrimination in private housing (Acolin et al., 2016; Verdugo, 2016; Combes et al., 2018). As we document below, over the period, the share of non-European immigrant households among public housing inhabitants increased dramatically, reflecting both an increase in their share in the population and an increase in their participation in public housing. Therefore, mayors may try to influence the location of immigrants through partisan public housing policies.

Why would mayors want to attract or repel immigrants? If we abstract from ideological motives, a plausible explanation might involve electoral incentives. First, immigrants, and Non-European immigrants in particular, are overwhelmingly supportive of left-wing parties: recent survey data from Brouard and Tiberj (2011) reproduced in Figure S1 in the Supplementary Appendix show that they are three times more likely than natives to prefer the left. Unlike natives, their political preferences do not vary much with their occupation. Second, natives' attitudes toward immigrants are strongly partisan. Figure S2 in the Supplementary Appendix, reproduced from Piketty (2020), indicates that voters who believe that there are too many immigrants in France are 30 p.p. more likely to vote for the right. In contrast, voters favorable to immigration lean toward the left (see, also, Gethin et al., 2021). As a result, targeting immigrants might be used to indirectly affect votes from non-immigrant voters.

The first possible mechanism for these indirect effects on non-immigrant voters would be ideological signaling from the mayor to her supporters. As explained by Glaeser et al. (2005), targeting immigrants may be used to send messages to native supporters and increase their electoral mobilization. For example, if a mayor knows that her supporters are hostile to immigrants, she may opt for an immigrant-hostile policy in order to increase their electoral mobilization and improve her reelection chances. A second related mechanism would be that local partisan policies change the composition of the local population. In a seminal paper, Glaeser and Shleifer (2005) describe several instances where mayors of prominent US cities purposefully favored the group of voters from whom they enjoyed innate appeal (in their case, along ethnic lines) in order to push other groups to leave the city and secure a loyal electorate as a result.

In the Supplementary Appendix Section S1, we provide an extension of Glaeser and Shleifer's (2005) model adapted to the French situation where the targeted group, immigrants, will never account for the majority of the electorate. In such a case, targeting immigrants may still prove electorally rewarding if partisanship within the native population is unobservable to the mayor, but correlated with the propensity to tolerate immigrant neighbors. For example, suppose the supporters of the mayor are immigrant-friendly. The mayor may then opt for an immigrant-friendly policy that increases not only the share of immigrants but also the share of partisan natives in the population. Indeed, a large literature has shown that some groups of natives may be quite sensitive to changes in the share of immigrants in their neighborhood (Saiz and Wachter, 2011). Concerns for such compositional amenities appear even more important toward immigrants from poorer countries, who are more likely to live in public housing (Card et al., 2012).

Close elections, which we use to identify a causal effect, may be particularly relevant to study mayors' incentives to adopt partisan policies. Indeed, a close election signals lower reelection prospects, which should encourage mayors to announce a policy that will help them secure reelection. However, it may still be the case that the effect of a local policy change is small compared to other determinants of immigrants' location choices. In particular, immigrants may be quite unlikely to come and settle in municipalities that stand outside their traditional choice set. If mayors are aware of this impediment, they may not implement partisan immigration

[3] For France, see, among others, Bourgeois (2018, 2013),Bonnal et al. (2012), Sala Pala (2007),Masclet (2005), and Tissot (2005). Early evidence of discrimination against minorities in access to public housing in the UK dates back to the 1980s (Karn and Henderson, 1987; Jacobs, 1985; Henderson and Karn, 1984; Bowes et al., 1990), and Battiston et al. (2014) argue such discrimination has declined in recent years. In the Netherlands, where public housing is prevalent, Bolt and Van Kempen (2002) emphasize that local housing associations have long reserved the best-quality units for Dutch natives.

[4] See, e.g., Halla et al. (2017) for Austria, Dustmann et al. (2018) for Denmark, Otto and Steinhardt (2014) for Germany, Mendez and Cutillas (2014) for Spain, Barone et al. (2016) for Italy, and Edo et al. (2019) for France.

policies in municipalities that immigrants deem unattractive in the first place.

Overall, even though we will not be able to quantify the respective role played by each of the channels listed above, we can still test the following four predictions from models in which immigrants are strategically targeted: (i) election results will impact the magnitude of immigrant inflows into (and/or outflows from) the municipality; (ii) election results will trigger a shift toward local policies that can be targeted toward immigrants; however, (iii) the effect of elections may be restricted to municipalities that are attractive enough to immigrants; and (iv) in the municipalities where the effects of elections are observed, mayors will enjoy a greater incumbency advantage.

3. Context and data

We combine several French data sources to investigate whether municipal elections affect the composition of the population and which systematic differences in municipal policies can explain these effects. We describe here the electoral setting and the data that we use.

3.1. Municipal elections

Municipal elections in France are held every 6 years to elect the municipal council that will elect the mayor.[5] The elections are based on lists, and voters can pick at most one list. If no list achieves an absolute majority in the first round, a second round is organized. Only lists obtaining more than 10% of the vote in the first round can compete in this second round.

After the elections, the seats in the municipal council are allocated using a majority premium that gives a large absolute majority to the list that obtained the most votes in the final round. The electoral system stipulates that half of the seats are attributed to the list that obtained the most votes. The other half is distributed according to their vote share across all competing lists, including the list that obtained the most votes. Such an electoral system generates a large discontinuity between vote shares and the share of seats in the municipal council. For example, a list just above 50% of votes will get 75% of the seats. As a result, the list that obtained the most votes is guaranteed to govern the municipality, as no post-electoral coalitions among other lists could reach a majority and overturn the results. We exploit this feature in our RDD framework.

We use electoral data collected by the Center of Socio-Political Data of Sciences Po from electoral authorities. We exploit five elections that occurred in 1983, 1995, 2001, and 2008 in municipalities with more than 9000 inhabitants in the election year.[6] Even if their administrative organization is different, the 20 districts ('arrondissements') of Paris and the eight and seven electoral sectors of Marseilles and Lyon are also included in the sample and considered as separate municipalities. Nevertheless, while districts control the allocation of public housing, we cannot examine the effects of elections on local taxes as districts are not fiscally independent from each other, and we do not have specific information on their budget. In the robustness section, we show that our main results are virtually identical when these three municipalities are excluded from the sample.

We exclude from the sample rural municipalities and municipalities in small urban areas with less than 30000 inhabitants, because the population changes that we are interested in are more likely to occur within a local labor market.[7] Using Census data, Table S1 in the Supplementary Appendix shows that this sample of municipalities includes more than 40% of the French population in the recent decades, but more than 60% of immigrants and public housing units. As a result, in 2014, the share of immigrants in the population of municipalities of our sample was 14.3% against only 5.2% in other municipalities. Similarly, 22.2% of inhabitants lived in public housing in these municipalities against only 8.6% in other municipalities.

We categorize the lists in the final election round as either left- or right-wing using the classifications of French electoral authorities. Most of the time, this assignment is straightforward, as there were no national or local bipartisan coalitions over the period.[8]

Table 1 summarizes the characteristics of municipal elections in our sample. While the sample is unbalanced as the electoral data was only collected for municipalities with a population above 9000 inhabitants, the number of municipalities is quite similar across the elections, ranging from 608 to 805. Column 2 reveals that a second round occurs in 40 to 60% of elections, except in 1983 when electoral competition mainly involved two competing coalitions (Dupoirier et al., 1985). Column 3 shows that more than two lists compete in the final round in more than 50% of elections. Column 4 shows that the share of left-wing victories is below 50% in most elections, except in 2008.

To assess how the proportion of close elections that we use to identify a causal effect varies over time, Columns 5 to 7 of Table 1 report the share of elections with margins of victory inferior to 10, 5, and 2.5 p.p. Close elections are frequent: the margin of victory is lower than 2.5 p.p. between 5% to 8% of elections. The share of close elections is quite similar across electoral years, albeit slightly higher in 1995.

3.2. Immigration

We assess the effects of elections on the population with the 1975, 1982, 1990, 1999, 2008, and 2014 French censuses. While the ideal situation would be to observe the municipalities just before each election, in practice, the census years fall very close to the election years. At most, there is a one-year gap between the 1989 election and the 1990 census, and a two-year gap between the 2001 election and the 1999 census. For the 2008 and 2014 elections, we use the 2008 and 2014 redesigned censuses, which capture 5-year averages around the census year.

We have access to individual-level data with a sampling rate of 25%, which allows us to precisely measure population changes, even in small municipalities. Municipalities are identified using a statistical identifier that is constant over time, and changes in municipal boundaries are extremely rare.[9] As is the case for most local authorities, mayors cannot use gerrymandering to change the border of municipalities.

To mitigate the possibility that differences in household size might influence our measures, we use the head-of-household as

[5] An exception is the 2007 municipal elections, postponed to 2008 because of the 2007 presidential elections.

[6] See Appendix A for details on the data. The results for previous elections were not systematically collected. Results for smaller municipalities were not collected before 2008. We do not include the 1989 elections in the sample because the closest subsequent census, which we use to assess changes in the composition of the population, took place in 1990, which is too early, and 1999, which is too late, as the 1995 elections occurred between the two. Table 12 shows that including the 1989 elections matched with the 1999 outcomes does not qualitatively change the results.

[7] These municipalities represent only 20% of our electoral sample. We show in Table 12 that the results are broadly similar, but more imprecise when these municipalities are included.

[8] Our sample only includes 52 elections (1.8% of our sample) in which an independent or regionalist list is competing in the final round. We classify these lists as right-wing, but, as shown in Table 12, our results are unchanged if we exclude these elections.

[9] Only three small municipalities of our sample merge with another municipality over the period and they are excluded from the sample after their merge.

Table 1
Municipal elections.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Election	Number of municipalities	Share second round	Share number lists in final round > 2	Share Left Victories	Share Margin Victory < 10	Share Margin Victory < 5	Share Margin Victory < 2.5
1983	608	17.9	43.9	48.3	24.8	12.3	5.6
1995	741	61.2	71.8	47.9	27.5	15.2	8.4
2001	760	49.6	52.5	45.1	25.1	13.8	5.5
2008	805	43.5	60.7	54.3	22.9	13.0	6.5

Source: CDSP election data. Note: The table reports descriptive statistics of municipal elections from our estimation sample. The sample is restricted to municipalities with more than 9,000 inhabitants in urban areas with more than 30000 inhabitants. We include elections with at least two lists in competition, and with a list from the Left and the Right ranked first and second. Column 2 shows the share of elections in which a second round occurred. Column 3 shows the share of elections with strictly more than two lists in competition. Column 4 shows the share of elections followed by a victory of the Left. Columns 5 to 7 document the share of elections with a margin of victory inferior to 10, 5, and 2.5 p.p. respectively. The margin of victory is defined as the difference between the share of the vote between the lists ranked first and second.

the unit of analysis. We estimate all characteristics of municipalities, such as the share of immigrants or public housing inhabitants, using the head-of-household level.[10]

Information on the country of birth and citizenship, distinguishing between native and naturalized citizens, is reported in the Census. However, there is no information on the ethnicity of descendants of immigrants. The Census data allow us to identify immigrants who can vote in local elections. This group includes immigrants with French citizenship and, since 1992, all immigrants from the European Union. We categorize a household as an immigrant if the head of household is a foreign-born person who was not a French citizen at birth.

In Table 2, we describe the evolution of immigration in the municipalities that form our sample over the 1982–2014 period. As shown in Panel A, between 1982 and 2014, the share of immigrants in the sample increased by 3.6 p.p. from 10.7% to 14.3%. However, while some municipalities received large inflows, immigrants never make up the majority of households.[11] An important characteristic of immigration over that period is that most of the increase in immigration was driven by non-European immigrants, whose share in the population more than doubled, from 5% to 12% at the end of the period.

Given that the census does not report any measure of income, we use occupations to capture changes in the socioeconomic composition of the municipality after the elections. We divide the population into three broad groups depending on the occupation of the head of household using the one-digit level of the French occupational classification: high-income occupations, which include highly-qualified workers such as managers and professionals, low-income occupations, and retirees. Panel B in Table 2 reports the evolution of the composition of the population across these three occupation groups interacted with immigration status. Over the period, the share of both high-income occupations and retirees increased dramatically. At the same time, while the proportion of immigrants increased across all occupation groups, their share increased more rapidly among the low-income group.

3.3. Municipal policies

We focus on two main measures of municipal policies that can be observed in available data sets.

Taxes — We use data from the *Recensement des éléments d'imposition*, an administrative database collected by the French Ministry of Finance that contains the total amount collected and the tax base for each municipality and tax from 1982 to 2014. A limitation of this dataset is that it does not contain any information on how the budget is spent. We assess whether elections affect the rate of the two main municipal taxes levied on households: the housing tax and the property tax, both based on net rental value. Consistent with Charlot et al. (2008), Panel C in Table 2 shows that these two tax rates increased regularly over the period.

Public housing — The second crucial local policy that we examine concerns municipal public housing. The census reports whether a dwelling belongs to the public or the private housing sector, which allows us to investigate if elections influence the supply of public housing or the composition of the population in public relative to private housing. The census also reports information on each housing unit's construction year, allowing us to isolate public housing units constructed after the elections. Unfortunately, the 1975 census does not contain information on public housing, which limits the scope of some of the placebo tests designed to assess the plausibility of our identification strategy.

When a municipality builds new public housing units, construction works do not directly affect the municipal budget, as they are financed through state subsidies and long-term low-interest loans (Driant, 2011). Public housing is easily accessible to a large share of the population, as more than 55% of households are eligible, including documented immigrants.[12] After the construction, rent proceeds are used to reimburse the loan and manage the properties. Default risk is negligible: should a tenant become insolvent, rents would be directly paid for to local public housing authorities by social security in the form of housing benefits.

While eligibility rules are defined at the national level, public housing units are constructed, managed, and allocated by municipalities through local housing authorities – see Appendix B for details. Reflecting this discretionary power, the press frequently reports local examples of nepotism and corruption.[13]

The 2000 SRU law — The contested law on "*solidarité et renouvellement urbain*" (SRU) illustrates the possible conflict between municipalities and higher levels of government over public housing. The law was implemented under socialist Prime Minister Lionel Jospin (1997–2002) in December 2001. The law aims at inducing municipalities with more than 3500 inhabitants to construct public housing, in order to reach a share of 20% of public

[10] Using the head-of-household is a standard practice to take into account the fact that immigrants might have native-born children, which would lower their share of the population (Bajari and Kahn, 2005; Cutler et al., 2008). Results using instead all the adult population are reported in Table 12 and are virtually identical.

[11] Only six municipalities have a share of immigrants higher than 50% in our sample, in either 2001 or 2008. Immigrants with voting rights are always below 40% of the population.

[12] This refers to standard public housing, which includes approximately 86% of units. The eligibility thresholds are similar across France, albeit higher in the Paris region, and they depend on household composition and income. The share of eligible households increases up to 75% when 'high-income' public housing, which accounts for 9% of the stock, is taken into account.

[13] Among recent examples in the press, a mayor was condemned for allocating a public housing unit to her daughter even though she was not eligible (Parisien, 2015); a municipality was revealed to have half of its municipal council members living in public housing in spite of their high incomes (Serafini, 2011); municipal employees were discovered to collect bribes in exchange for public housing unit allocations (Parisien, 2018; Parisien, 2019).

Table 2
Characteristics of municipalities, 1982–2014.

	(1)	(2)	(3)	(4)	(5)
	1982	1999	2014	Average change between elections	Standard deviation
			A. Share immigrants in the population		
Immigrants	10.7	11.2	14.3	2.3	3.0
Non-European Immigrants	5.3	7.7	12.0	2.3	2.7
Immigrants with voting rights	3.6	4.8	7.2	1.3	1.7
			B. Socioeconomic Status		
Low-income occupation	59.5	51.6	48.3	1.3	5.7
Natives & *Low-income*	51.4	43.7	38.5	0.2	5.0
Immigrants & *Low-income*	8.1	7.9	9.8	1.1	2.1
High-income occupation	10.3	11.9	14.5	2.1	2.9
Natives & *High-income*	9.7	10.9	12.9	1.7	2.7
Immigrants & *High-income*	0.6	0.9	1.6	0.4	0.4
Retirees	30.2	36.5	37.2	4.4	4.1
Natives & *Retirees*	26.7	32.3	31.8	3.6	4.0
Immigrants & Retirees	3.5	4.3	5.4	0.8	1.1
			C. Municipal Taxes		
Property tax rate	16.7	19.7	23.3	1.7	2.8
Housing tax rate	13.4	15.6	19.2	1.4	2.8
			D. Share of the group living in public housing		
Population	20.7	24.1	22.3	2.1	3.8
Natives	20.1	22.7	19.9	1.0	3.9
Immigrants	28.2	35.9	36.4	9.7	10.3
Non-European Immigrants	36.0	44.1	43.3	17.8	18.4
			E. Turnover rate between municipal elections		
Private housing	48.0	39.1	46.8	3.5	13.1
Public housing	56.3	41.0	43.9	4.5	35.1

Sources: 1982, 1990, 1999, 2008 and 2014 census. Notes: Municipalities with more than 9,000 inhabitants in urban areas with more than 30000 inhabitants. Panel A shows the share of immigrants and non-European immigrants in the population. Panel B shows the share of each occupation group in the population, interacted with national origin. Panel C shows the average rates of the property and housing tax rates. Panel D shows the probability of living in public housing for each group. Panel E reports differences in turnover rates with respect to housing occupancy status. Turnover rates are defined as the share of current occupants arrived in their dwelling less than six years before. See Appendix A for details on their computation. Column 4 shows the average change of the group relative to the initial population of the municipality. Column 5 shows the associated standard deviation. All variables are measured at the household level.

housing among all housing units (this share was raised to 25% in 2013 under socialist president François Hollande).[14] Municipalities below the 20% threshold that do not construct enough social housing have to pay fines proportional to their gap in percentages (Chapelle et al., 2022).

Such a law might have changed the behavior of municipalities as the incentives to construct public housing are no longer purely political but also financial. If anything, we thus expect to see less partisanship in public housing construction after its implementation. As it was voted in 2000 and implemented in 2001, only the two last elections in our sample, 2001 and 2008, are affected by this law. Table S2 in the Supplementary Appendix shows that about a third of the municipalities in our sample are below the 20% threshold of the SRU law. The table also documents that these municipalities host much fewer immigrants, in particular non-European immigrants. In contrast, the share of high-income occupation workers is 50% higher. Strikingly, 80% of these municipalities elected a right-wing mayor in 2001 or 2008, in contrast to only 21% of the municipalities above the SRU threshold.

Characteristics of Public housing — Like many European and Asian countries, a large share of the population lives in public housing in France. Panel D of Table 2 shows that more than 21% of households live in public housing in our sample over the period. The table also shows that Non-European immigrants are twice as likely as natives to live in public housing as more than 43% of them live in public housing. Large concentrations of immigrants in public housing are also observed in other Western-European countries (Musterd and Deurloo, 1997; Verdugo and Toma, 2018).

An important question is whether tenant mobility in public housing is sufficient to influence the composition of the population between elections. Panel E of Table 2 reports adjusted residential turnover rates in public housing based on the share of households who arrived in their housing unit between two municipal elections (6 years). Consistent with Pan Ké Shon (2010), who also finds high levels of mobility in deprived public housing estates, turnover rates in public housing units are large, ranging between 41% and 57% between elections.

3.4. Public housing, immigration and politics

Public housing, immigration, and the interplay between the two have long been divisive topics in French public debate.[15] As shown in panel A of Fig. 1, the election of a left-wing mayor is followed by substantially higher growth rates of the immigrant population. This difference increases over time, consistent with evidence that immigrants tend to locate in places where the share of immigrants is already high.

Regarding public housing, Foucault and Nadeau (2018) recently showed that the share of inhabitants in public housing is a strong predictor of the electoral trajectories of French municipalities, with a higher share of public housing being favorable to the left. In accordance, Panel B in Fig. 1 shows that the construction of public housing, as measured by the increase in the share of households living in public housing, is higher after the election of a left-wing mayor. The difference is larger after earlier elections, but it remains statistically significant until 2008, after the passing of the SRU law.

[14] As discussed by Tricaud (2021), the 2010 reform of the *communauté de communes* that made inter-municipal cooperation mandatory did not directly influence public housing policies, consistent with the fact that the SRU law was not reformed and remained at the municipal level.

[15] Right-wing presidents such as Jacques Chirac (in 1991) or Nicolas Sarkozy (in 2005) were famous for their anti-immigrant discourse while visiting public housing. In contrast, newly-elected socialist president François Mitterrand voted a law in October 1981 granting immigrants the possibility to be represented in local public housing agencies.

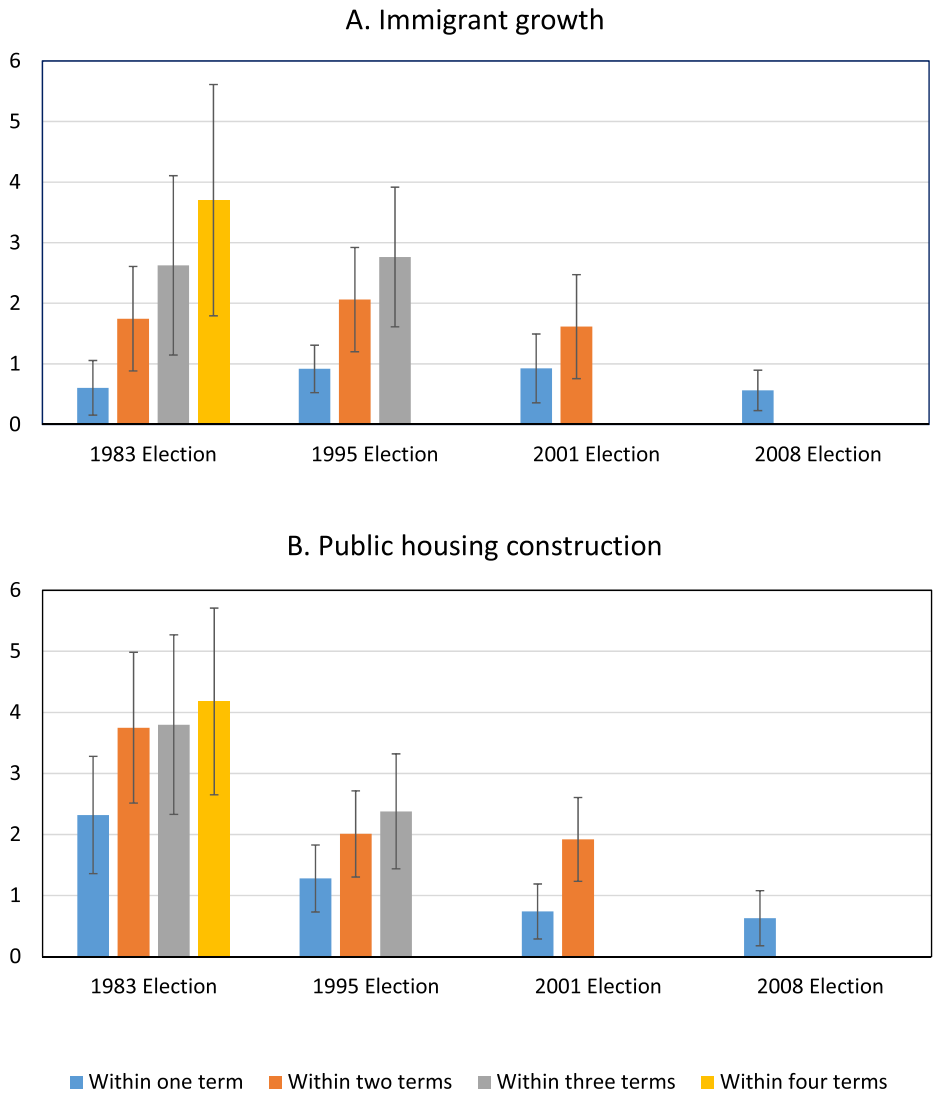

Fig. 1. Left/right differences in immigrant growth and public housing construction after municipal elections: 1983–2014.
Note: Panel A: Differences in the growth rate (in %) of immigrant households between municipalities where the left has won more votes relative to municipalities where the right has won more votes. Panel B: Difference in the growth rate (in %) of households living in public housing between municipalities where the left has won more votes relative to municipalities where the right has won more votes. 95% confidence intervals are depicted by the black segments. Sample of municipalities described in Section 2. The match between election and census data is described in Appendix A. Sources: 1983, 1995, 2001, and 2008 elections and 1982, 1990, 1999, 2008, and 2014 census.

The rest of the paper investigates whether part of the relationships depicted in Fig. 1 are causal.

4. Empirical model

To assess the causal effect of municipal elections, an ideal experiment would be to randomly assign a left- or a right-wing mayor to a sample of municipalities. We approximate such an experiment with a regression discontinuity design that compares municipalities in which a left-wing mayor was closely elected with municipalities that closely elected a right-wing mayor. Differences between the two identify the local treatment effect of electing a left- instead of a right-wing mayor after a close election.

4.1. The RDD design

Following Lee (2008), our running variable X_{it} is the vote margin of the left. It is defined as the difference in the share of votes between the better-ranked left-wing list and the better-ranked right-wing list in municipality i in election year t in the final round. It is thus positive when the left has won and negative otherwise.[16] With treatment defined as a left victory, the assignment variable D_{it} is a dummy equal to one when the election was won by the left, and thus $X_{it} > 0$, and zero otherwise. Our empirical model is given by:

$$g_{i\tau,t} = \beta_0 + \beta_1 D_{it} + \beta_2 X_{it} + \beta_3 X_{it} D_{it} + \beta_4 X_{it}^2 + \beta_5 X_{it}^2 D_{it} + u_{it} \quad (1)$$

where $g_{i\tau,t} = (G_{i\tau} - G_{it})/L_{it}$ measures the growth in households from group G in municipality i between election year $\tau > t$ and year t relative to the initial population of the municipality L_{it}. As the changes in $g_{i\tau,t}$ are relative to the initial population L_{it}, our dependent variable is not affected by potentially endogenous changes in the total population.

Our parameter of interest is β_1 which captures the local average treatment effect (LATE) at the threshold $X = 0$ of electing a left- instead of a right-wing mayor after a close election. As discussed

[16] For municipalities with no left–right competition, we assign a zero share of votes to the missing party. In this case, the margin is thus equal to the share of votes of the list ranked first, with a positive sign for a left-wing list and a negative sign for a right-wing list.

in Section 1, these local treatment effects are of particular interest: a close election might send a signal to mayors that the reelection ahead will be difficult.

One limitation of $g_{i\tau,t}$ is that if the population of the group grows at the same rate as the population of the municipality, the share of the group in the municipality will remain unchanged. To take this issue into account, we also present results using changes in shares defined as $s_{i\tau,t} = G_{i\tau}/L_{i\tau} - G_{it}/L_{it}$ that adjust the size of group G to the contemporaneous level of the population between elections.

Following Cattaneo et al. (2020), we non-parametrically estimate the model using a local linear function with a triangular kernel, and inference is based on their robust-bias correction method. To allow for comparability across outcomes, we use in our main specification a bandwidth of 15% and a polynomial of order 2. Such bandwidth is close to the optimal bandwidths proposed by Calonico et al. (2014) and estimated for the change in the share of immigrants or inhabitants in public housing. To assess the robustness of the results to the bandwidth choice, we also report results using smaller or larger bandwidth, in addition to results obtained with the optimal bandwidth. We also report results using alternative polynomial orders and global polynomials as robustness checks.

4.2. Validity checks

Whether our RDD estimates capture a causal effect depends on whether municipalities close to each side of the threshold are comparable and had similar characteristics before the elections.[17] To assess this hypothesis, Table 3 follows Fack and Grenet (2015) by reporting several "placebo" RDD estimates that test whether the outcome of close elections is associated with past levels or changes in the characteristics of the municipality as measured *before* the elections of interest.

In Panel A, we consider differences in the origins of the population using the share of European and non-European immigrants, the share of workers in low-income occupations interacted with national origins, the share of immigrants with voting rights, and the share of immigrants living in public housing.[18] For most outcomes, we find little correlation between these variables' past share or growth and the results of future close elections. Two exceptions are the past share of European immigrants and immigrants in low-income occupations that appear to correlate with a future victory of the left. Reassuringly, the corresponding estimates using the past growth of these variables instead are statistically insignificant.

In Panel B, we consider the past population size and growth and alternative measures of the housing status of inhabitants through the share of homeowners and households in public housing, differences in the rates of property and housing taxes, and the share of workers in the manufacturing sector. Overall, we find little correlation between the outcome of close elections and these variables' predetermined levels or changes except for the growth of homeowners and property tax rates, which are significant at the 10% level.

In Panel C, we test whether the outcomes of the close elections are correlated with the characteristics of the same municipal elections, as measured by the share of registered voters, the abstention rate, and the number of lists in competition. We find no evidence that these characteristics are associated with the outcome of close elections. In addition, Column 4 shows little association between the outcome of close elections and the margin of the left in the previous municipal election.

If our identification hypothesis is valid, the outcome of close elections should also not be correlated with local political attitudes. To proxy these attitudes, we use the share of votes in the first round of past presidential elections for the far-right and left-wing candidates in columns 5 and 6, respectively.[19] Once again, we find no statistically significant correlation.

Following McCrary (2008) and Cattaneo et al. (2018), we investigate whether the forcing variable is continuous near the threshold, which is a test for the manipulation of the forcing variable. To check the smoothness of the density of the vote share near the threshold visually, Figure S3 in the Supplementary Appendix reports the histogram of the forcing variable. In addition, Figure S4 reports the outcomes of a local linear regression, estimated separately on each side of the cutoff, to test the null hypothesis that the discontinuity at the cutoff is zero. While the share of close victories for the left appears slightly larger, the difference is not statistically significant and we cannot reject the null of no density jump around the threshold (p-value = 0.18). These results are consistent with earlier evidence from Eggers et al. (2015) and Lippmann (2018) for France and other countries.

Finally, as the causal effects are identified from close elections, an important question to interpret the results is whether close elections occur in municipalities that are systematically different from others. To investigate this issue, Table 4 compares the average and standard deviation of various observable predetermined characteristics in municipalities that experienced different margins of victory. Remarkably, close elections occur in municipalities with average characteristics similar to the whole sample, even when considering increasingly close elections.

5. Results

We first present results on how elections influence the composition of the population in terms of national origins and socioeconomic status. Then, to understand the mechanisms underlying the observed changes, we turn to the effects of elections on municipal policies, focusing on local taxes and the construction and allocation of public housing. Finally, we estimate whether the effects of elections depend on the initial share of immigrants and study the impact of elections on future electoral outcomes.

5.1. Effects on the population

Origins and socioeconomic status — In Table 5, we consider 'short-run' changes in the population, observed around the next election year, six years after the election of interest. We begin in Column 1 in Panel A by assessing whether elections influence the growth of the population in the municipality and decompose this growth in panel B and C into the contribution of immigrants and natives, respectively. While the estimated effects for natives are small and very imprecise, we find a large and statistically significant effect of elections on the growth of immigrant households, in line with the first prediction laid out in Section 1. Our estimates indicate that six years after the elections, the number of immigrant households grows by 1.5 p.p. more rapidly in municipalities that closely elected a left-wing mayor than municipalities that closely elected a right-wing mayor. Quantitatively, this effect corresponds to more than 10% of the share of immigrants in our sample.

[17] Formally, the LATE at $X = 0$ is identified under the hypothesis of continuity at the cutoff of the conditional expectation of the outcome (Hahn et al., 2001).

[18] Since we do not observe public housing in the 1975 census, we cannot relate 1982–1975 changes with the 1983 election for public housing outcomes.

[19] Appendix A describes the matching of presidential candidates to these two categories. The sample size is smaller for estimates using the share of votes for far-right candidates in 1981, as no far-right candidate competed in that year. In addition, no results were collected for the districts of Paris, Lyon, and Marseilles.

Table 3
RDD Estimates on predetermined municipality characteristics.

	(1)	(2)	(3)	(4)	(5)	(6)
A. Characteristics of the municipality in terms of origins and housing status						
Dependent variable	European immigrants	Non-European immigrants	Low-income occupations & Immigrants	Low-income occupations & Natives	Immigrants with voting rights	Immigrants in public housing
1. Past change						
Left victory	0.247	0.631	0.427	1.232	0.494	-0.080
	(0.203)	(0.468)	(0.397)	(1.224)	(0.329)	(0.255)
N Total	2914	2914	2914	2914	2914	2297
2. Past level						
Left victory	1.148*	1.546	2.199*	-1.310	0.648	0.155
	(0.539)	(1.107)	(1.014)	(1.508)	(0.582)	(0.706)
N Total	2914	2914	2914	2914	2914	2914
B. Characteristics of the municipality in terms of socio-economic status						
Dependent variable	Population	Homeowners	Public housing inhabitants	Property tax rate	Housing tax rate	Employees in Manufacturing
1. Past change						
Left Victory	2.389	1.587	-1.441	-1.416	-0.918	0.319
	(1.769)	(0.891)	(1.051)	(0.841)	(0.579)	(0.643)
N Total	2914	2914	2297	2188	2188	2914
2. Past level						
Left Victory	1848.5	2.565	-4.033	-0.075	-0.932	2.072
	(3915.6)	(2.555)	(2.622)	(1.697)	(0.848)	(1.173)
N Total	2914	2914	2914	2914	2914	2914
C. Characteristics of Elections						
Dependent variable	Share registered voters in municipal elections	Abstention rate in municipal elections	Number of lists in final round in municipal elections	Margin of the left in past municipal election	Share far-Right in past presidential elections	Share left-wing in past presidential election
Left Victory	-2.997	0.912	-0.135	-0.061	-0.902	1.358
	(3.961)	(1.348)	(0.112)	(0.035)	(1.203)	(1.385)
N Total	2914	2914	2914	2200	2010	2589

Sources: 1983, 1995, 2001 and 2008 municipal elections, 1981, 1988, 2002 and 2007 presidential elections, 1975, 1982, 1990, 1999 and 2008 census and 1982, 1988, 1994, 2000 and 2007 Recensement des Eléments d'imposition. Notes: The table shows placebo RDD estimates on the indicated predetermined outcomes. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth and a quadratic polynomial. The predetermined outcomes are defined using the change of the population from the group between elections divided by the initial population of the municipality in panels A1 and B1 or using the predetermined share of the group in the municipality population in panels A2 and B2. Outcomes are measured at the household level. Panel A and B show results for predetermined characteristics of the population using predetermined changes in panel 1 and levels in panel 2. Panel C uses as a dependent variable the characteristics of the municipal elections in the first three columns, the previous margin of the left in the fourth column, and the past results in the municipality for the most recent presidential election. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth and a quadratic polynomial. We use changes between 1975 and 1982 for the 1983 elections, 1982 and 1990 for the 1995 elections, 1990 and 1999 for the 2001 elections and 1999 and 2008 for the 2008 elections. The sample size is lower in the last three columns as data on public housing is missing from the 1975 census and we do not have data on the results of the 1977 elections. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% level.

Table 4
Mean predetermined characteristics of municipalities in increasingly close elections.

	(1)	(2)	(3)	(4)	(5)	(6)
	Population	Share immigrants	Share low-income occupations	Share high-income occupations	Share public housing	N Total
All cities	15,522	13.5	45.5	12.2	22.7	2914
	(20,028)	(8.7)	(8.0)	(7.8)	(12.9)	
Margin < 15 p.p.	17,419	13.6	46.3	11.7	23.6	992
	(21,994)	(8.2)	(8.1)	(6.9)	(11.7)	
Margin < 5 p.p.	17,234	13.8	46.1	12.0	23.5	392
	(21,951)	(8.4)	(8.5)	(7.4)	(12.6)	
Margin < 2.5 p.p.	16,771	14.3	46.9	11.9	24.6	186
	(23,263)	(8.8)	(8.9)	(7.2)	(13.0)	

Sources: 1982, 1990, 1999, 2008 and 2014 censuses. Notes: The table reports of averages of the share of immigrants, public housing inhabitants, blue-collar workers and managers within municipalities in our sample. The first line reports these averages for the whole sample. Other lines use averages from elections with margin victories inferior in absolute value to 10%, 5% and 2.5%. The margin of victory is the difference between the share of votes between the lists ranked first and second in the final round. Sources: 1983, 1995, 2001 and 2008 elections and 1982, 1990, 1999 and 2008 census. Notes: The table reports the average values of the share of immigrants, public housing inhabitants, low-income and high-income occupations in the population of municipalities in our sample. The first line reports these averages for the entire sample. Other lines report averages from elections with margins of victory lower than 10%, 5% and 2.5%. The margin of victory is the difference between the share of votes between the list ranked first and the list ranked second in the final round. Column 1 reports the total population but the share of each group in other columns is measured at the household level.

An important question is whether these effects are specific to immigrants or reflect more general changes in the composition of the population along socioeconomic lines. As immigrants are more likely to work in low-income occupations, as suggested earlier in Table 2, these results might reflect that left-wing municipalities attract more low-income households from all origins, not specifically immigrants. To distinguish the effects on economic status from the effects of origin, other columns in Table 5 decompose the growth of the population into three broad occupation groups: high- and low-income occupations and retirees. We interact these groups with immigration status in panels B and C to assess the specific role of origins.

When we do not consider the national origin, as in Panel A, the coefficients are very imprecise, and there is no evidence that elections affect any occupation group except for the high-income group, which increases in response to the election of a left-wing

Table 5
RDD estimates – Growth in immigrant and occupation groups in the population.

Change relative to initial population between two elections (6 years)	(1)	(2)	(3)	(4)
		A. All population		
Dependent variable	All population	High-income	Low-income	Retirees
Left victory	1.796	0.951*	0.927	-0.081
	(1.592)	(0.477)	(1.061)	(0.716)
		B. Immigrant households		
	Immigrants (all occupations)	Immigrants & high-income	Immigrants & low-income	Immigrant & retirees
Left victory	1.515**	0.239**	0.873*	0.402*
	(0.568)	(0.076)	(0.432)	(0.185)
		C. Native households		
	Natives (all occupations)	Natives & high-income	Natives & low-income	Native & retirees
Left victory	0.282	0.712	0.054	-0.484
	(1.553)	(0.437)	(0.962)	(0.711)
N effective	1016	1016	1016	1016
N Total	2914	2914	2914	2914

Sources: 1983, 1995, 2001, and 2008 elections and 1982, 1990, 1999, 2008, and 2014 census. The sample includes municipalities with more than 9,000 inhabitants in urban areas with more than 30000 inhabitants. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth and a quadratic polynomial. Panel A: in column 1, the dependent variable is the change in log total population. In columns 2 to 4, the dependent variable is the change in the indicated occupation group relative to the initial population (columns 2 to 4) – Panel B: in column 1, the dependent variable is the change in immigrants relative to the initial population. In columns 2 to 4, the dependent variable is the change in households that are in the occupation group and are also immigrants – Panel C: in column 1, the dependent variable is the change in natives relative to the initial population. In columns 2 to 4, the dependent variable is the change in households that are in the occupation group and are also natives. Changes are measured over a six-year period using the closest census to the municipal elections. Outcomes are measured at the household level. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

mayor. In contrast, in Panel B where immigrant status and occupations are interacted, we find a higher growth of immigrants from each occupation group. This growth can be observed not only in the low- but also in the high-income occupation group, albeit to a lower extent. For natives, Panel C suggests the effects of a left-wing mayor on low-income natives is close to zero while there is some evidence of a decrease in the number of retirees and an increase in native workers in high-income occupations. However, the estimated coefficients for any subgroup of natives are not statistically significant. Overall, an essential lesson from Table 2 is that the effects of elections on the population appear specific to immigrants and not associated with more general changes along socio-economic lines. In particular, we find no evidence that they are related to an increase in the share of low-income households in left-wing municipalities.

The role of inflows and outflows — For any group G, the growth $g_{i\tau,t}$ between elections τ and t is given by the difference between the inflow rate of new inhabitants from the group, denoted $I_{\tau,t}/L_t$, and the outflow rate of former inhabitants, $O_{\tau,t}/L_t$, such that $g_{i\tau,t} = I_{\tau,t}/L_t - O_{\tau,t}/L_t$. This simple decomposition implies that the larger growth of immigrants into left-wing municipalities can result from two mechanisms: first, larger inflows of immigrants into left-wing municipalities, reflecting that left-wing municipalities are more attractive to immigrants; second, larger outflows from right-wing municipalities, reflecting that more immigrants are leaving right-wing municipalities.

To assess their contribution, Panel A in Table 6 reports estimates of the effects of elections on inflows and outflows of immigrants from the municipality. The results suggest that most of the larger growth of immigrants in left-wing municipalities is explained by their larger inflows into these municipalities relative to right-wing municipalities. In contrast, there is little evidence of larger outflows of immigrants from right-wing municipalities. On the contrary, the estimated coefficient for outflows is positive, albeit not statistically significant, which indicates that immigrant outflows from left-wing municipalities also tend to be larger. In sum, our results are not explained by more immigrants leaving right-wing municipalities but instead by left-wing municipalities attracting larger inflows of immigrants.

Panel B reports the corresponding decomposition for natives. Overall, there is no strong evidence that elections lead to large native outflows from left-wing municipalities. If anything, electing a left-wing mayor is associated with a small positive effect on natives' inflow and a small negative effect on natives' outflow. However, both coefficients are close to zero, and the estimates are very imprecise. As previously, most of the population responses are specific to immigrants.

Changes in population share — So far, we have defined our dependent variable using changes in the population from each group divided by the initial total population to circumvent the possible impact of overall population growth. However, the change in the relative *share* of a group in the population is also an important outcome. This change captures the overall changes in composition associated with the election. To investigate this issue, column 4 in Table 6 reports results using changes in the share of the group $\Delta s_{y,i\tau} = G_{i\tau}/L_{i\tau} - G_{it}/L_{it}$ instead of using the growth relative to the initial population. The estimated effects are also statistically significant but lower by a third relative to column 1. These results suggest that larger overall population growth in left-wing municipalities attenuates the impact of immigrant inflows on their share in the population.

Long-run effects — Are the effects of elections on immigrants persistent over time? In practice, because of ethnic networks, immigrants locate where the share of immigrants is already high. If the initial effects of elections are large enough, they may further increase municipalities' relative attractiveness to immigrants in the long run.

To investigate this issue, we report in panel A of Table 7 estimates on the relative growth of immigrants in the municipality after two and three terms, which correspond to 12 and 18 years after the initial election. We find that the effects of the initial elections appear not only to persist after two elections but also to increase over time. After 12 years, the close election of a left-wing mayor is associated with a 3 p.p. larger increase in the share of immigrants relative to a right-wing municipality. Overall, the coefficient is twice as large after 12 relative to 6 years. After 18 years, the coefficient remains as large as after 12 years but it is imprecise and not statistically significant.

Table 6
RDD estimates — The role of inflows and outflows in population changes.

	(1)	(2)	(3)	(4)
	A. Immigrant households			
Dependent variable:	Change in immigrants over initial population	Immigrant inflow rate	Immigrant outflow rate	Change in share of immigrants in current population
Left victory	1.515**	2.446**	0.931	0.926*
	(0.568)	(0.860)	(0.540)	(0.443)
	B. Native households			
Dependent variable:	Change in natives over initial population	Native inflow rate	Native outflow rate	Change in share of natives in current population
Left victory	0.282	0.083	-0.198	-0.926*
	(1.553)	(2.006)	(1.500)	(0.443)
N effective	1016	1016	1016	1016
N Total	2914	2914	2914	2914

Sources: 1983, 1995, 2001, and 2008 elections and 1982, 1990, 1999, 2008, and 2014 census. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Column 1 uses as a dependent variable the growth of immigrants and natives relative to the initial population. This growth is decomposed by the inflow and outflow rates in columns 2 and 3. Column 4 uses as a dependent variable the changes in the share of immigrants (panel A) and natives (panel B) in the population. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% level.

Table 7
RDD estimates – Growth in immigrants, short- and long-run effects.

	(1) At next election (6 years)	(2) At next-but-one election (12 years)	(3) At next-but-two election (18 years)
	A. Dependent variable: Change in immigrant households relative to initial population		
Left victory	1.515**	2.886*	2.619
	(0.568)	(1.128)	(2.082)
	B. Dependent variable: Growth in non-European immigrant households relative to initial population		
Left victory	1.327*	2.828**	2.781
	(0.522)	(1.083)	(1.961)
	C. Dependent variable: Growth in immigrant households with voting right relative to initial population		
Left victory	0.741*	1.785*	2.327
	(0.299)	(0.651)	(1.246)
N effective	1016	774	496
N Total	2914	2104	1342

Sources: 1983, 1995, 2001, and 2008 elections and 1982, 1990, 1999, 2008, and 2014 census. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election on the changes in the number of immigrant households relative to the initial municipality population. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Estimates are reported using changes over 1, 2, and 3 elections in columns 1, 2, and 3, respectively. In Panel A, the dependent variable is the changes in the number of immigrant households relative to the initial population. In Panel B, the dependent variable is the changes in the number of non-European immigrants relative to the initial population. In Panel C, the dependent variable is the changes in the number of immigrant households with voting rights relative to the initial population. Changes are measured over 6 years after the elections in column 1, 12 years in column 2, and 18 years in column 3. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

Separate estimates by election — To assess whether the effects of elections vary over time, we report in Table S3 in the Supplementary Appendix separate election-by-election estimates for all possible time horizons permitted by the data. Overall, except for the 1995 election, the estimated coefficients all point toward an increase in the number of immigrants after the close election of a left-wing mayor. Over longer horizons, the effects also appear stronger and more persistent for the 1983 election, but the coefficients are also positive and large for the 2001 election after two terms.

Effects by origins and voting rights — As immigrants might not be not allowed to vote, an important question is how much the previous changes affect the composition of the electorate in the short and longer run. To investigate this issue, we report in Panel B of Table 7 separate estimates for immigrants from non-European origins who need to become citizens to vote in local elections, in contrast with most immigrants from European origins. The estimates clearly indicate that our results are driven by immigrants from non-European origins as there are few differences between the estimates on overall immigrants relative to non-European immigrants.

Yet, as most immigrants in France acquire citizenship over time (Fougère and Safi, 2009), the longer-run effect of these inflows on the electorate might still not be negligible. We assess this hypothesis in Panel C by showing estimates using the growth in the share of immigrants with voting rights as a dependent variable. The results suggest that, over the period, about half of the growth in the share of immigrants is driven by immigrants with voting rights. As discussed earlier, these changes are directly politically favorable to elected mayors given that immigrants are much more likely to have a strong preference for the left.

Graphical evidence — We graphically illustrate our main results in Fig. 2.[20] Consistent with the aforementioned evidence on the relationship between political orientation, origin and attitudes toward immigration, Graph A shows that the evolution of the share of immigrants is positively correlated with the relative margin of the left. However, after the election, a discontinuity at the threshold is

[20] To reflect the support of the running variable, the graphs report quantile-spaced bins that capture averages from the same number of observations for each treatment group (Calonico et al., 2015). For visual clarity, we restrict the sample to margins of victory lower than 50% (95% of our sample) and use a first-order polynomial.

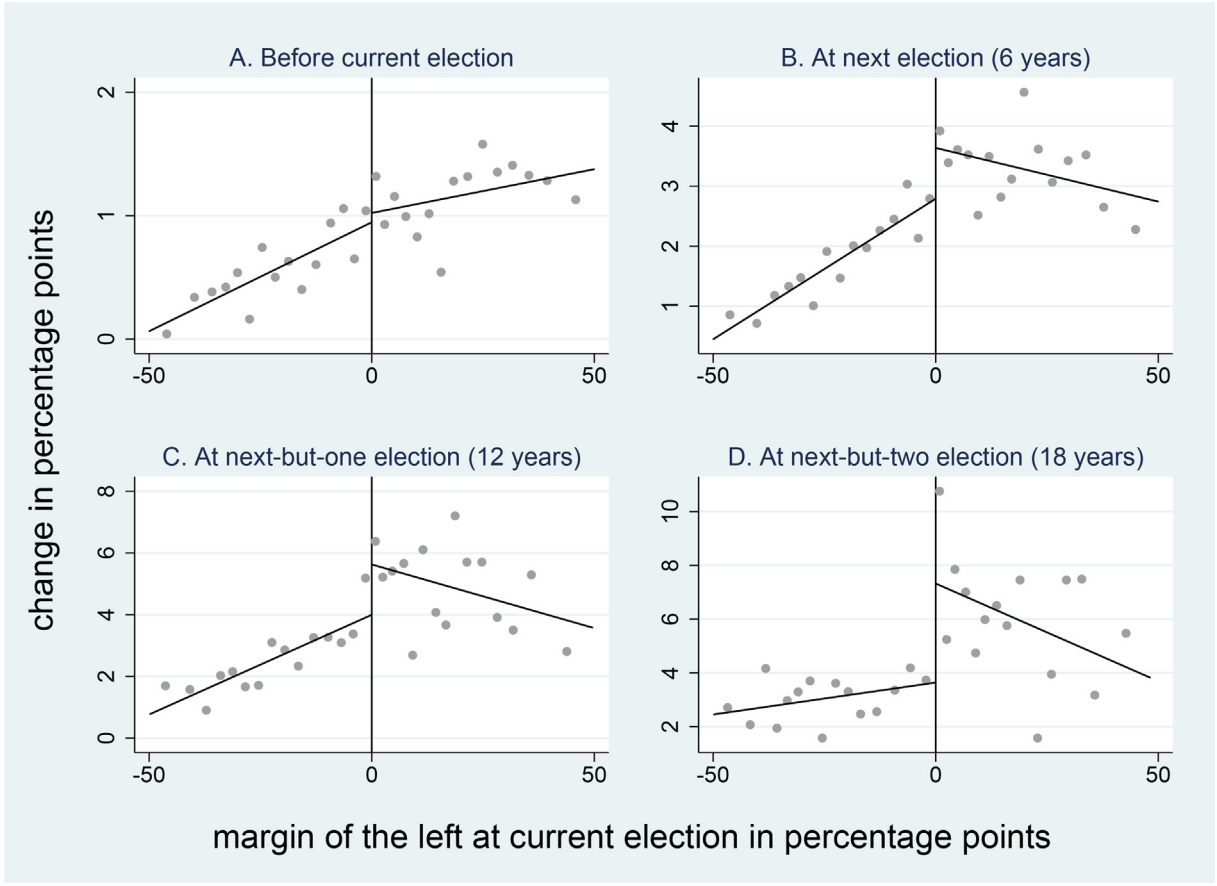

Fig. 2. RDD plots – Effects on the share of immigrants in the population.
Sources: 1983, 1989, 1995, 2001 and 2008 elections and 1975, 1982, 1990, 1999, 2008 and 2014 census. Note: the graphs report quantile-spaced bins that capture averages from the same number of observations for each treatment group (Calonico et al., 2015). The solid lines represent a first-order polynomial. The vertical lines capture the discontinuity point at zero. Panel A represents changes in the share of immigrants in the population using changes observed before the election over 6 years and Panels B to D represent changes in the share of immigrants 6, 12 and 18 years after the election. Outcomes are measured at the household level.

visually clear (Graph B). Graphs depicting the evolution over more than one election show the same pattern, albeit with higher variability (Graphs C and D). In contrast, there is no visible discontinuity in 'placebo estimates' of the effect of elections on the evolution of the share of immigrants before the election (Graph A).

5.2. Municipal policies

Next, we turn to the effects of elections on municipal policies to understand which systematic differences in policies may explain the larger immigrant inflows in left- relative to right-wing municipalities.

Taxes — A first possibility is that these population changes result from differences in local taxes and spending between left- and right-wing municipalities. If immigrants prefer higher levels of public spending, which might be more likely in left-wing municipalities, systematic differences in local fiscal policies might have attracted them into left-wing municipalities. To test this hypothesis, we report in Table 8 estimates of the effects of elections on the two main municipal taxes: the housing tax in Panel A, which affects all residents, including renters, and the property tax in Panel B, which only affects home-owners, who tend to be more affluent.[21]

[21] Housing and property taxes account for about 80% (35% and 45%, respectively) of the total amount of taxes collected from households. We cannot include the districts of Paris, Lyon, and Marseilles in this sample as they are not fiscally independent from each other and we do not have data on them.

We find no significant effect of elections on local tax rates: all estimates are small (below 1 p.p.) and statistically insignificant. In the long run, point estimates even turn negative for the housing

Table 8
RDD estimates — Effect of elections on municipal taxes.

	(1) At next election (6 years)	(2) At next-but-one election (12 years)	(3) At next-but-two election (18 years)
A. Dependent variable: Change in housing tax rate			
Left victory	0.390	-0.323	-0.615
	(0.560)	(0.852)	(1.261)
B. Dependent variable: Change in property tax rate			
Left victory	0.300	-0.033	0.427
	(0.660)	(0.978)	(1.439)
N effective	961	729	469
N Total	2769	1997	1274
Elections in the sample	1983, 1995, 2001, 2008	1983, 1995,2001	1983, 1995

Sources: 1983, 1995, 2001, 2008, and 2014 elections and 1982, 1988, 1994, 2000, 2007, and 2013 *Recensement des Eléments d'Imposition*. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Panel A uses as a dependent variable the changes in the housing tax rate. Panel B uses as a dependent variable the changes in the property tax rate. Changes are measured over six years after the elections in column 1, 12 years in column 2, and 18 years in column 3. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

Table 9
RDD estimates — Effects of elections on public housing.

	(1)	(2)	(3)
	At next election (6 years)	At next-but-one election (12 years)	At next-but-two election (18 years)
A. Dependent variable: Change in households in public housing relative to initial population			
Left victory	2.051**	4.126**	4.252
	(0.796)	(1.554)	(2.409)
B. Dependent variable: Changes in households in private housing relative to initial population			
Left victory	-0.255	-2.804	-1.645
	(1.383)	(2.522)	(4.814)
C. Dependent variable: Change in immigrant households in public housing relative to initial population			
Left victory	0.691*	1.437**	0.843
	(0.275)	(0.624)	(1.022)
D. Dependent variable: Change in immigrant households in public housing constructed after the elections relative to initial population			
Left victory	0.234**	0.613**	0.666
	(0.070)	(0.233)	(0.718)
E. Dependent variable: Change in Non-European immigrant households in public housing relative to initial population			
Left victory	0.545*	1.284*	0.799
	(0.252)	(0.616)	(1.033)
N effective	1016	774	496
N Total	2914	2104	1342
Elections in sample	1983, 1995, 2001, 2008	1983, 1995, 2001	1983, 1995

Sources: 1983, 1995, 2001, and 2008 elections and 1982, 1990, 1999, 2008, and 2014 census. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Panel A: the dependent variable is the change in the number of households in public housing relative to the initial municipality population. Panel B: the dependent variable is the change in the number of households in private housing relative to the initial municipality population. Panel C: the dependent variable is the change in the number of immigrants in public housing relative to the initial population. Panel D: the dependent variable is the share of immigrants in recent public housing, constructed after the indicated election relative to the initial municipality population. Panel E: the dependent variable is the change in the number of non-European immigrant households in public housing relative to the initial municipality population. Changes are measured over 6 years after the elections in column 1, 12 years in column 2, and 18 years in column 3. Outcomes are measured at the household level. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

tax rate. Overall, these results are inconsistent with the hypothesis that left-wing municipalities might increase taxes. An important limitation of these results is that we do not have detailed data on how the municipal budget is spent. As a result, while it is clear that taxes and spending did not increase systematically in left- relative to right-wing municipalities after a close election, we cannot rule out a reallocation of the budget toward policies preferred by immigrants.

Public housing — As discussed in Section 1, by design, public housing can be used to *directly* target future voters, and public housing disproportionately attracted non-European immigrants over the period. We investigate in Table 9 whether elections influence the construction of public housing and the composition of the population in public housing units.

We first examine the effects of elections on the supply of public housing as measured by the growth in the number of households in public housing relative to the initial population. The results in Panel A reveal important partisan differences as, after 6 years, the election of a left-wing mayor is associated with a 2 p.p. higher growth in the number of households living in public housing. Consistent with the fact that construction of public housing units might take time and cannot easily be adjusted downward (Glaeser and Gyourko, 2005), long-run effects 12 years after the initial election are twice as large and also statistically significant. In contrast, Panel B shows that elections do not affect private housing constructions.[22] This finding implies that the increase in public housing supply is not a byproduct of an increase in building permits, contrary to existing evidence on Spanish municipalities (Solé-Ollé and Viladecans-Marsal, 2013).

[22] Over 12 and 18 years after the initial elections, the coefficients, albeit statistically insignificant, become negative, consistent with a possible crowding-out effect (Chapelle, 2018).

Separate estimates by elections are reported in Panel B of Table S3 in the Supplementary Appendix. The effects of elections on public housing are broadly consistent across elections, albeit dramatically larger for the 1983 election relative to other elections, in particular the 1995 election.

In panel C, we assess how changes in the population in public housing contributed to the relative increase in the share of immigrants in left-wing municipalities. If differences in inflows of immigrants into public housing are a key driver of our results, they should account for a substantial share of the overall growth identified earlier. Consistent with this hypothesis, we find that, even though public housing only accounts for 25% of total housing units on average, about half of the overall increase in the share of immigrants reflects an increase in the share of immigrants living in public housing.

Panel D isolates the contribution of inflows into recently constructed public housing in the overall growth in immigrants living in public housing. Even if most of the growth of immigrants in public housing is driven by an increase in existing units, the contribution of inflows into units constructed following the elections is not negligible. Overall, immigrants living in public housing units constructed after the elections account for about one-third of the total increase in the short run and close to half after twelve years. Finally, Panel E confirms that most of the effect of elections is concentrated on non-European immigrants, who are much more likely to live in public housing.

Fig. 3 represents graphically the impact of elections on the share of households living in public housing. There is a clear discontinuity associated with the victory of a left-wing mayor, both in the short and long run. As shown in Figure S5 in the Supplementary Appendix, a large fraction of this discontinuity reflects the effects of close elections on the share of immigrants living in public housing. Overall, the effects of elections on public housing are consistent with the second prediction laid out in Section 1.

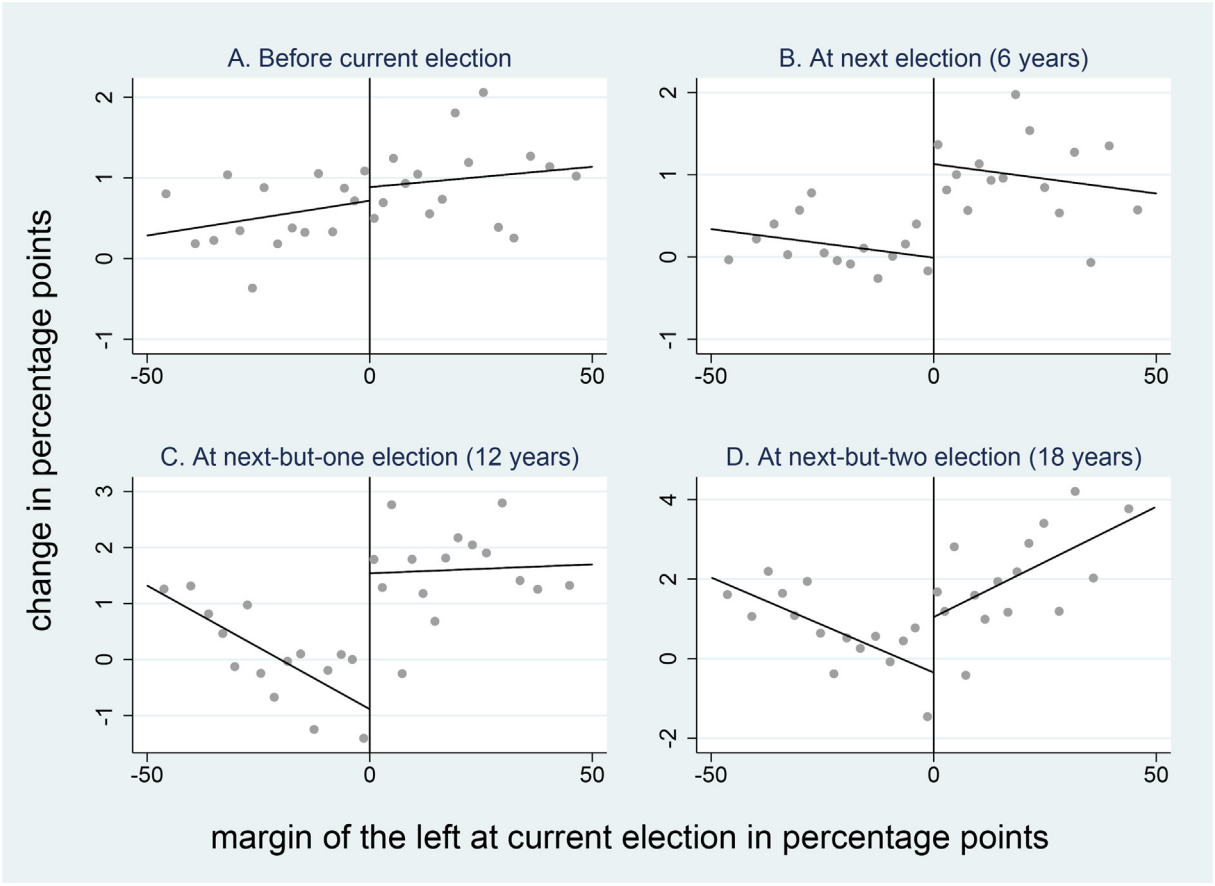

Fig. 3. RDD plots – Effects on the share of households living in public housing in the population.
Sources: 1983, 1989, 1995, 2001 and 2008 elections and 1982, 1990, 1999, 2008 and 2014 census. Note: the graphs report quantile-spaced bins that capture averages from the same number of observations for each treatment group (Calonico et al., 2015). The solid lines represent a first-order polynomial. The vertical lines capture the discontinuity point at zero. Panel A represents changes in the share of households living in public housing in the population using changes observed before the election over 6 years and Panels B to D represent changes in the share of households living in public housing 6, 12 and 18 years after the election.

Effects of the SRU Law — In Table S5 in the Supplementary Appendix, we investigate whether the SRU law implemented after 2001 influenced the effects of elections on public housing constructions. We estimate the model separately for municipalities facing financial penalties if they do not construct more public housing and other municipalities. Consistent with the hypothesis that the SRU law made construction decisions less political, point estimates of the effects of elections on public housing are twice as low in municipalities affected by the SRU law. However, these results must be interpreted with caution as our estimates are not significantly different from zero, nor from each other.

5.3. Heterogeneity by initial immigration share

An important question is whether the effects of elections vary with the initial attractiveness of the municipality to immigrants. Indeed, in line with the extensive literature on the determinants of immigrants' location choice showing that immigrants tend to locate where many immigrants are already living, local immigrant growth is strongly autocorrelated at the municipal level.[23] As a result, in France, as in other countries, immigrants concentrated in a subset of municipalities that received disproportionately larger immigrant inflows in recent decades (Ortega and Verdugo, 2021).

Given that immigrants are much more likely to live in public housing, mayors of municipalities with already many immigrants might anticipate that new public housing construction will dramatically increase immigrant inflows. This effect might exacerbate partisan behavior, as it should incentivize right-wing mayors to avoid constructing public housing and, conversely, left-wing mayors to launch new construction programs.

To investigate this issue, we approximate municipalities' initial attractiveness to immigrants with their median share of immigrants in 1982 (12%). Over the 1982–2014 period, the initial share of immigrants is a strong predictor of future immigrant inflows: the share of immigrants increases on average by 5 p.p. in municipalities above the median, but only by 3 p.p. in the other municipalities. In our empirical analysis, we make use of this feature to explore the potentially heterogeneous effects of elections on immigration.

Table 10 reports separate estimates between these municipalities. The results suggest that elections affect mostly the share of immigrants in municipalities with already many immigrants. Panel A shows that the election of a left-wing mayor increases the share of immigrants with respect to the initial population by 2.3 p.p. in high-immigration municipalities. In contrast, the corresponding estimate is only 0.2 p.p. in low-immigration municipalities and is statistically insignificant. Overall, this result suggests that differences in the party of the elected mayor do not affect immigrant inflows if few immigrants want to settle in the municipality.

[23] Over the period, the autocorrelation between censuses is equal to 0.53, spanning between 0.43 in 1975–1982/1982–1990 and 0.68 in 1990–1999/1999–2008.

Table 10
RDD estimates — Effect of elections on immigration and public housing depending on the median share of immigrants in 1982.

	(1)	(2)	(3)	(4)	(5)	(6)
	At next election (6 years)		At next election (6 years)		At next-but-one election (12 years)	
A. Dependent variable: Change in immigrant households relative to initial population						
Left victory	2.309*	0.226	3.820	0.769	1.410	0.151
	(0.979)	(0.457)	(2.049)	(0.997)	(3.871)	(1.689)
N effective	486	530	373	401	243	253
N Total	1458	1456	1062	1042	679	663
B. Dependent variable: Change in households in public housing relative to initial population						
Left victory	2.570*	1.457	5.727*	2.419	6.394	2.615
	(1.148)	(1.021)	(2.639)	(1.466)	(3.761)	(1.987)
N effective	486	530	373	401	243	253
N Total	1458	1456	1062	1042	679	663
Share immigrants in 1982	Above median	Below median	Above median	Below median	Above median	Below median
Elections in the sample	1983, 1995, 2001, 2008		1983, 1995, 2001		1983, 1995	

Sources: 1983, 1995, 2001, 2008, and 2014 elections and 1982, 1990, 1999, 2008, and 2014 census. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Panel A: the dependent variable is the change in the number of immigrants relative to the initial municipality population. Panel B: the dependent variable is the change in the number of households in public housing relative to the initial municipality population. Columns 1, 3, and 5 report estimates of the model on municipalities with an above-median share of immigrants in the population in 1982 (12%). Columns 2, 4, and 6 report estimates of the model using municipalities below the median. Changes are measured over 6 years after the elections in column 1, 12 years in column 2, and 18 years in column 3. Outcomes are measured at the household level. Robust-bias corrected standard errors are reported in parenthesis. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

Table 11
RDD estimates — Effect of elections on the subsequent margin of the left – Average effect and heterogeneity depending on the median share of immigrants in 1982.

	(1)	(2)	(3)	(4)	(5)	(6)
	At next election (6 years)		At next-but-one election (12 years)		At next-but-two election (18 years)	
A. Full Sample						
Left victory	7.709*		6.790		5.325	
	(3.540)		(4.441)		(6.550)	
N effective	1016		770		496	
N Total	2906		2100		1336	
B. Heterogeneity by initial share of immigrants in 1982						
Left victory	10.317*	5.774	13.409*	0.622	7.443	2.943
	(4.752)	(5.261)	(6.510)	(6.065)	(9.516)	(8.332)
N effective	486	530	370	400	243	253
N Total	1453	1452	1057	1043	674	662
Share immigrants in 1982	Above median	Below median	Above median	Below median	Above median	Below median
Elections in the sample	1983, 1995, 2001, 2008		1983, 1995, 2001		1983, 1995	

Sources: 1983, 1989, 1995, 2001, 2008, and 2014 elections and 1982, 1990, 1999, and 2008 census. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor in the municipal election. The dependent variable is the difference in percentage points between the total number of votes won by the left and the total number of votes won by the right. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth, and a quadratic polynomial. Panel A reports estimates of the model in the full sample. Panel B reports estimates of the model on municipalities with an above or below-median share of immigrants in the population in 1982 (12%). Robust-bias corrected standard errors are reported in parenthesis. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% levels.

Panel B shows that the effect of elections on public housing construction also tends to be larger in high-immigration municipalities. However, the differences are much less dramatic than for immigrants. Our estimates suggest that elections increase by 2.6 p.p. the share of households in public housing in high-immigration municipalities, against 1.5 p.p. in low-immigration municipalities. Interestingly, the estimates are also more precise for high-immigration municipalities as the coefficient is not statistically significant for low-immigration municipalities.

Overall, differences in immigrant inflows associated with the party elected appear specific to municipalities that were already attractive to immigrants at the beginning of the period, in line with the third prediction laid out in Section 1. This finding suggests that our results reflect partisan differences between mayors who were facing larger potential immigrant inflows in their municipalities.[24]

[24] The two groups of municipalities also vary along other dimensions. Indeed, municipalities above the median tend to be larger, have fewer workers in high-income occupations, a higher unemployment rate, and a higher share of households in public housing. In Table S4 of the Supplementary Appendix, we report estimates where we include the predetermined values of all these characteristics as control variables. These estimates are very similar to our baseline results.

5.4. Population changes and incumbency advantage

Do larger immigrant inflows and public housing construction affect future electoral outcomes? On the one hand, to the extent that they are associated with partisan behavior, larger population changes after the elections might lead non-partisan voters to punish the incumbent mayor in the next election (Ferejohn, 1986; Ashworth, 2012). On the other hand, such a policy might yield electoral gains if it reflects strategic partisan behavior from the mayor. As discussed earlier, the policy differences could mobilize voters to support the incumbent mayor in addition to producing electorally favorable population changes.

To investigate which effect dominates, we report in Table 11 the effects of the close election of a left-wing mayor on the vote margin of the left in future municipal elections. In Panel B, we allow the effects to vary with the share of immigrants in 1982, which is strongly associated with partisan behavior, as argued in the previous section.

We find important differences in incumbency advantage between these two groups of municipalities. In municipalities with an above-median immigrant share in 1982, the estimated incum-

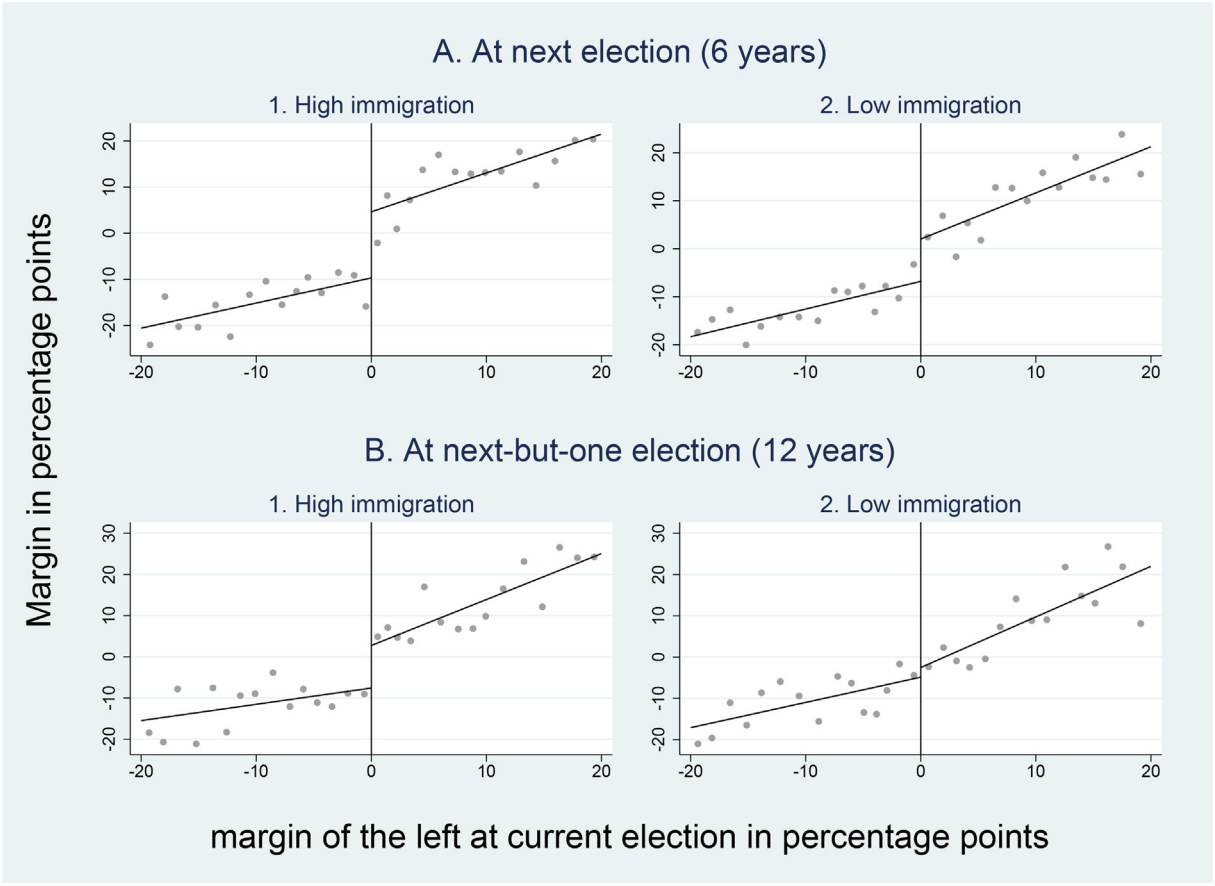

Fig. 4. RDD plots – Effects on future vote margin of the left: heterogeneity.
Sources: 1983, 1989, 1995, 2001, 2008 and 2014 elections and 1982 census. Note: the graphs report quantile-spaced bins that capture averages from the same number of observations for each treatment group (Calonico et al., 2015). The solid lines represent a first-order polynomial. The vertical lines capture the discontinuity point at zero. Panel A represents the vote margin of the left during the next election after 6 years. Panel B represents the vote margin of the left during the next-but-one election after 12 years. In Graphs A1 and B1, the sample is restricted to municipalities with an above-median share of immigrants in 1982. In Graphs A2 and B2, the sample is restricted to municipalities with a below-median share of immigrants in 1982. For visual clarity, we restrict the range of the forcing variable between −20 and 20 percentage points.

bency advantage for the next election is 10 p.p. In contrast, the incumbency advantage in other municipalities is twice as low and not statistically significant. The difference is even larger after two elections: in municipalities with an above-median immigrant share, we obtain an even higher incumbency advantage of 13 p.p. At the same time, the point estimate drops to 0.6 and is very imprecise for municipalities with few immigrants. This discrepancy suggests that the close election of a left-wing mayor in a municipality with a large initial immigrant population might trigger the creation of a political stronghold, consistent with the last prediction laid out in Section 1. However, as suggested by Columns 5 and 6, differences between the two groups of municipalities dampen after two electoral cycles, even if the point estimate appears higher in high-immigration municipalities.

Fig. 4 represents graphically these results. In municipalities with an above-median share of immigrants, there is a clear discontinuity in the future vote margin of the left associated with the previous close victory of a left-wing mayor, both at the next and the next-but-one elections. In contrast, in the other municipalities, the incumbency advantage appears smaller and more imprecise at the next election. The estimate is virtually zero at the next-but-one election.

5.5. Robustness

Other samples and specifications — We document in Table 12 the robustness of our main results using alternatively as a dependent variable the growth of immigrant-headed households in Panels A1 and B1 and of households in public housing in Panels A2 and B2.

First, we assess in Panel A the sensitivity of our estimates to alternative samples. In Column 2, we include in our sample the 1989 election, which was not included previously as the Census data do not allow us to observe the outcomes 6 years after this election, unlike other elections. In Column 3, we include municipalities in smaller urban areas with less than 30 000 inhabitants where few immigrants live and which contain little public housing. In Column 4, we exclude the districts of Paris, Lyon, and Marseilles, which are not fiscally independent from the central municipality. In Column 5, we exclude elections in which a regionalist or independent list, which we somewhat arbitrarily classified as right-wing, competed in the final round. In Column 6, we exclude the 5% smallest and 5% largest municipalities. In Column 7, we exclude municipalities that are not observed at each election in our baseline sample. Overall, the results are in line with previous estimates, albeit more imprecise with the 1989 election and quantitatively lower when smaller urban areas are included in the sample.

Panel B of Table 12 investigates the robustness of our results to alternative construction of the data or specifications of the statistical model. In column 1, instead of constructing our dependent variables at the household level, the number of immigrants and inhabitants in public housing is measured using the population of all adults of more than 18 years of age. In practice, the estimates are unaffected.

Table 12
Robustness of the RDD estimates.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	A. Alternative composition of the sample						
	Baseline result	Include 1989 election	Include smaller urban areas	Exclude Paris, Lyon & Marseille	Exclude regional lists	Exclude top 5%, bottom 5% population	Balanced
	1. Dependent variable: Change in immigrant households relative to initial population						
Left victory	1.514**	1.176*	1.035*	1.548**	1.571**	1.568**	1.986**
	(0.567)	(0.539)	(0.450)	(0.575)	(0.574)	(0.589)	(0.629)
	2. Dependent variable: Change in households in public housing relative to initial population						
Left victory	2.051**	1.254	1.549*	1.981*	2.060**	1.870*	2.508**
	(0.796)	(0.736)	(0.653)	(0.814)	(0.653)	(0.847)	(0.885)
N Effective	1016	1233	1330	980	1011	913	807
N Total	2914	3620	3680	2810	2862	2622	2336
	B. Alternative specification of the model & heterogeneity						
	Outcomes calculated with all adults	Results in levels	Control for predetermined covariates	Elections with 2 lists in final round	Elections with > 2 lists in final round	Elections with a single round	Elections with two rounds
	1. Dependent variable: Change in immigrant households relative to initial population						
Left victory	1.575**	3.619*	1.391**	1.413*	1.688*	1.964	1.587*
	(0.540)	(1.602)	(0.509)	(0.742)	(0.834)	(1.290)	(0.630)
	2. Dependent variable: Change in households in public housing relative to initial population						
Left victory	2.386**	0.767*	1.669*	2.307*	1.801	1.582	2.243**
	(0.826)	(0.394)	(0.778)	(1.059)	(1.171)	(1.936)	(2.572)
N Effective	1016	1016	1016	566	450	276	740
N Total	2914	2914	2914	1195	1719	1624	1290

Sources: 1983, 1989, 1995, 2001, 2008 and 2014 elections and 1982, 1990, 1999, 2008 and 2014 census. Unless otherwise specified, the sample includes municipalities with more than 9,000 inhabitants in urban areas with more than 30000 inhabitants. Notes: The table shows RDD estimates of the effect of the victory of a left- relative to a right-wing mayor. Estimates are obtained using local linear regressions with a triangular kernel, a 15% bandwidth and a quadratic polynomial. In Panels A1 and A2, the dependent variable is the changes in the number of immigrants relative to the initial population. In Panels B1 and B2, the dependent variable is the change in the number of households in public housing relative to the initial population. Panel A: Column 1 reproduces our baseline estimates. Column 2 shows estimates on a sample including the 1989 elections. Column 3 shows estimates on a sample including municipalities located in small urban areas. Column 4 shows estimates on a sample excluding the municipalities (but not the urban areas) of Paris, Lyon and Marseilles. Column 5 excludes elections where regionalist lists were competing. Column 6 excludes municipalities among the 5% smallest or largest in terms of population. Column 7 excludes municipalities that are not observed for every election in our baseline sample. Panel B: Column 1 redefines the outcome variables using all adult individuals in the population instead of using the head-of-household. Column 2 presents the results of a specification where the dependent variables are defined in levels, using the share of immigrants and of households in public housing after the elections as a dependent variable. Column 3 includes additional control variables: the log of the initial population, the share of high-income occupations, the share of unemployed workers and the share of households in public housing in 1982, the number of lists in competition, the registration rate and the participation rate. Columns 4 and 5 estimate separate models for elections with 2 and 3 lists or more in competition. Columns 6 and 7 estimate separate models for elections with a single round and two rounds. Robust-bias corrected standard errors are reported in parenthesis. (*) and (**) denote statistical significance at 5% and 1% level.

In column 2, instead of using our dependent variables in changes, we use the levels of these variables as observed 6 years after the election. Column 3 reports estimates including predetermined characteristics of the population of the municipalities and of the election as control variables. We include the log of the population before the election, the share of high-income occupations, the share of unemployed workers, and the share of households in public housing in 1982. For elections, we include the number of lists in competition, the registration rate, and the participation rate. If the outcomes of close elections are random, the results should not be affected by controlling for these variables or estimating the model in levels. Reassuringly, the results are very close to the ones without control variables or with variables expressed in changes albeit the estimates in levels are larger for immigration and smaller for public housing.

In other columns, we allow the estimates to vary with the characteristics of the election. Columns 4 and 5 test whether the results differ between elections with only 2 lists in the final round and elections with at least 3 lists in competition. Alternatively, columns 6 and 7 test whether the results depend on whether a second round had to be organized. Across these estimates, the results are very similar to our baseline results even if estimates are more precise when a second round is organized.

Alternative bandwidth choice and polynomial order — In Table S6 in the Supplementary Appendix, we document how our results depend on the choice of bandwidth. While we used a fixed 15 p.p. bandwidth in the paper, we provide results using the data-driven procedure of Calonico et al. (2014), which automatically selects the bandwidth using a mean square error optimal bandwidth choice. We also report results for bandwidths of 5 p.p., 10 p.p., and 20 p.p. Overall, our estimates are not very sensitive to the choice of a specific bandwidth. If anything, point estimates obtained using the largest 20 p.p. bandwidth are lower than our baseline estimates. However, the results remain broadly similar and statistically significant in all three specifications.

We also report in Table S6 estimates using alternative polynomial orders. Instead of order 2 as in the rest of the paper, we experiment with polynomials of order 0, 1, and 3, as robustness checks. The estimates obtained using higher-order polynomials tend to be larger but are qualitatively similar.

Global polynomial estimates — In Table S7 in the Supplementary Appendix, we report estimates obtained using global instead of local polynomials as in the rest of the paper. While local estimators and low-order polynomials might be preferable (Gelman and Imbens, 2019), our results are not very sensitive to using this method with different polynomial orders. If anything, the point estimates tend to be smaller with that method. The reported Akaike information criterion indicates that zero is the preferred polynomial order when the dependent variable is public housing and two for immigration. However, the results are statistically insignificant in the quadratic specification for the changes in the number of immigrants.

5.6. Discussion

An important question is the external validity of our results outside the context of close elections. For left-wing municipalities, Fig. 2 shows that the partisan differences in immigration growth

appear to be fairly local and specific to close elections. Far from the threshold, immigrant growth appears lower not only in municipalities that received higher right-wing votes but also in those receiving the largest left-wing votes. The fact that close elections might trigger partisan behavior is consistent with a mechanism involving electoral incentives, because closely-elected mayors may be more concerned by their future prospects, and more likely to engage in strategic behavior to maximize their reelection chances.

In addition, elections further away from the cutoff may also lead to different policies because they involve different campaigning strategies. Bernhardt et al. (2020) have recently shown that candidates having a large popularity advantage may not adopt extreme positions favored by their core supporters, but, instead, target their opponents' moderate supporters. This pattern is consistent with a form of 'policy reversal', whereby better-elected mayors become more moderate (Cukierman and Tommasi, 1998; Moen and Riis, 2010).

Differences in local context might also explain why the effect of close elections appears local. In practice, municipalities in which the left or the right have a sizable electoral advantage are quite specific. The largest margins of the left correlate with a high share of low-income households and unemployed inhabitants, which could diminish the attractiveness of the municipality to immigrants. In contrast, and as illustrated earlier in Table 4, municipalities in which close elections occur are similar to the average municipality in our sample. This similarity suggests that our results may be deemed relevant for the entire population of municipalities.

6. Conclusion

This paper shows that the results of French municipal elections have influenced the share of immigrants across municipalities in the short and long run. We highlight that the main municipal policy associated with these changes is public housing, and we uncover systematic partisan differences in how mayors used public housing. Relative to a right-wing mayor, the close election of a left-wing mayor resulted in more construction of public housing and more public housing tenants of immigrant origin. Even though we cannot formally establish the reason for these partisan differences, we find suggestive evidence that electoral incentives may have played a role and that, as a result, immigration contributed to building local political strongholds. Our findings open a fruitful avenue for future research by shedding light on a possible feedback loop between ethnic and partisan segregation.

An important limitation of this study is that we cannot observe all dimensions of local policies. As a result, we cannot rule out that other unobserved systematic policy differences between left- and right-wing mayors also increased demand from immigrants to live in public housing in left-wing municipalities and discouraged immigrants from locating in right-wing municipalities. In particular, given that we lack information on applications to public housing, we cannot disentangle the effects of elections on the local demand for public housing from their identified effects on supply.

Outside the French context, our results are relevant for designing housing programs that aim to improve the housing conditions of the poorest part of the population. While out of favor in North America, public housing remains popular in Europe (Scanlon et al., 2014), Asia (Chen et al., 2013; Chiu, 2013; Xu and Zhou, 2019) and, increasingly, South America (Krause et al., 2013). Public housing may be an efficient policy tool against high levels of market-driven residential segregation, be it income-based or origin-based (Quillian and Lagrange, 2016; Verdugo and Toma, 2018). However, the influence of local authorities suggests that local political considerations may hinder their effectiveness.

In light of our results, one might want to advocate a stricter separation between local authorities and public housing agencies. One way to achieve such a separation is to delegate control over larger jurisdictions, such as inter-municipal cooperation units, and push for a higher level of concentration in the public housing sector. However, larger public housing agencies may also be more disconnected from the specificity of local housing supply and demand. In France, recent legislation seems to indicate that the government is trying to meet this double challenge.[25]

Data availability

The authors accessed the Census and local tax data via the CASD, dedicated to the use of authorized researchers, following the approval of the French Statistical Confidentiality Committee.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Data

Municipal election data — The data come from the Center of Socio-Political Data (*Centre de Données Socio-Politiques*), which is a research center from Sciences-Po.[26] The data include elections results in 1983, 1989, and 1995 for municipalities with more than 9,000 inhabitants and results from the 2001 and 2008 elections for municipalities with more than 3,500 inhabitants. We drop Corsica, French Guyana, and Overseas territories from the sample because these regions host many candidates who are affiliated with a regionalist and independentist party that cannot easily be categorized as right-wing or left-wing. We classify as left-wing lists the lists affiliated with the Socialist Party, Communist Party, Ecologist party, Green Party, Union of the Left, or Far-Left lists. All other lists, including lists without affiliations or regionalist lists that received less than 5% of votes over the period, are classified as right-wing lists. We do not include the sectors of Marseilles in the 1983 elections, as their boundaries have changed in 1987. The municipalities of Octeville, Lomme, and St-Pol-Sur-Mer, which merged with other municipalities over the period are excluded from the sample.

Census data — We use restricted access data obtained from the *Centre d'Accès Sécurisé Distant* (CASD) which is a secure access data center. We have access to confidential individual files for a very large sample extract (25%). For all years, we use the supplement files (*exploitation complémentaire*), which contain detailed variables on occupations and education.

Before the 2000s, the French census was based on a complete enumeration. Since 2002, the annual census releases have been based on a rolling sample in which municipalities with more than 10,000 inhabitants are divided into five rotation groups surveyed every five years. As a result, the new census reflects 5-year averages around the census year (Durr, 2005; Desplanques and Rogers, 2008). For municipalities with populations between 9 000

[25] The ALUR law, voted in 2015, gave inter-municipal cooperation units authority over local housing policy. In addition, it created the National Agency for Public Housing Control (ANCOLS), which implements random audits of public housing agencies to ensure that the most deserving applicants are served first, regardless of their other characteristics. As stipulated by the ELAN Law, voted in 2018, small public housing agencies (managing less than 12,000 dwellings) have been compelled to join a consortium since January 2021.

[26] It can be accessed by researchers through the French data archive (*Réseau Quetelet*) by applying to https://quetelet.casd.eu/en/utilisateur/connexion.

and 10 000, the data are only collected once every five years. These municipalities account for less than 5% of our sample.

We use the occupational classification at the one-digit level and the labor force status from the census to decompose the share of natives and immigrants in the population into three groups: (1) high-income occupations, which correspond to managers and professionals; (2) low-income occupations, which include blue-collar and service sector employees; (3) retirees.

Match between election results and outcomes in census data— *For predetermined effects*, we match the 1983 elections with the 1982 census, the 1995 elections with the 1990 census, the 2001 elections with the 1999 census, and the 2008 elections with the 2008 census. This is denoted 'before current election' in the tables and figures. *For the short-run effects 'at next election'*, we match the 1983 elections with the 1990 census, the 1995 elections with the 1999 census, the 2001 elections with the 2008 census, and the 2008 elections with the 2014 census. *For the medium-run effects 'at next-but-one election'*, we match the 1983 elections with the 1999 census, the 1995 elections with the 2008 census, and the 2001 elections with the 2014 census. *For the long-run effects 'at next-but-two election'*, we match the 1983 elections with the 2008 census and the 1995 elections with the 2014 census. We lose approximately two observations per year in longer-run effects relative to short-run effects because of municipal mergers.

Presidential election data — We use the following classifications to estimate the total vote of the left and far-right in each presidential election. 1981 election: *Left*: Mitterrand, Marchais, Laguiller, Crépeau, Bouchardeau. No Far Right. 1988 election: *Left*: Laguiller, Lajoinie, Mitterrand, Juquin, *Far right*: Le Pen. 2002 election: *Left*: Gluckstein, Taubira, Mamère, Jospin, Hue, Chevenement, Laguiller. *Far right*: Le Pen, Mégret. 2007 election: Besancenot, Buffet, Schivardi, Bove, Royal, Laguiller. *Far right*: Le Pen, de Villiers.

Software — All RDD estimates and graphs have been obtained using the Rdrobust package on Stata (Calonico et al., 2017).

Appendix B. Mayors and public housing in France

From the beginning of public housing programs in the late XIXth Century to the late 1970s, the housing market in France was managed in a very centralized manner. Local authorities had limited oversight and their power was restricted to situations of emergency, for instance when dilapidated buildings posed an immediate threat to security. However, the situation changed radically during the following three decades, which make up the period under study in this paper. Between the decentralization law of 1982 and the law on inter-municipal cooperation of 2010, mayors played an essential role in local real estate policies, ranging from long-term urban planning to daily decisions on the delivery of building permits.[27]

In particular, mayors had the power to initiate new public housing programs (and, in some particular situations, to engage the privatization of some public housing units). They were also co-responsible for the management of the local public housing stock, alongside local public housing agencies (the "*organismes HLM*"). Local elected officials were *de jure* board members of these agencies.

The distribution of public housing was decided by a committee in charge of allocating vacant dwellings (the "*commission d'attribution*"). This committee was composed of representatives from the agency, the municipal council, and the ministry of housing and was supposed to discuss the merits of the different applicants and propose a ranking. In practice, the list of applicants was not public and the committee was not required to justify its decisions. In addition, the committee was often chaired by the mayor or one of her delegates in small municipalities. Finally, as is still the case today, a fraction (up to 20%) of the stock of public housing was considered "reserved" for the municipality, and exempt from the scrutiny of the committee.

[27] This situation has changed again with the rise of inter-municipal cooperation units (EPCI), which are meant to address the challenges raised by the very large number of municipalities in France (Tricaud, 2021). As of today, EPCIs are in charge of private and public housing policies, both in terms of the development of future programs and the management of existing ones. Mayors elect a president of the EPCI, who is often, in practice, the mayor of the largest municipality.

Appendix C. Supplementary material

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.jpubeco.2022.104803.

References

Acolin, A., Bostic, R., Painter, G., 2016. A field study of rental market discrimination across origins in France. J. Urban Econ. 95, 49–63.

Ashworth, S., 2012. Electoral accountability: recent theoretical and empirical work. Annu. Rev. Polit. Sci. 15, 183–201.

Bajari, P., Kahn, M.E., 2005. Estimating housing demand with an application to explaining racial segregation in cities. J. Business Econ. Stat. 23 (1), 20–33.

Banzhaf, H.S., Walsh, R.P., 2008. Do people vote with their feet? an empirical test of tiebout. Am. Econ. Rev. 98 (3), 843–863.

Barone, G., D'Ignazio, A., de Blasio, G., Naticchioni, P., 2016. Mr. rossi, mr. hu and politics. the role of immigration in shaping natives' voting behavior. J. Public Econ. 136, 1–13.

Bartel, A.P., 1989. Where do the new us immigrants live? J. Labor Econ. 7 (4), 371–391.

Battiston, D., Dickens, R., Manning, A., Wadsworth, J., 2014. Immigration and the Access to Social Housing in the UK. CEP Discussion Papers dp1264, Centre for Economic Performance, LSE.

Bernhardt, D., Buisseret, P., Hidir, S., 2020. The race to the base. Am. Econ. Rev. 110 (3), 922–942.

Bickford, A., Massey, D.S., 1991. Segregation in the second ghetto: Racial and ethnic segregation in american public housing, 1977. Soc. Forces 69 (4), 1011–1036.

Bishop, B., 2009. The Big Sort: Why the Clustering of Like-Minded America is Tearing Us Apart. Mariner Books.

Bolt, G., Van Kempen, R., 2002. Moving up or moving down? Housing careers of Turks and Moroccans in Utrecht, the Netherlands. Housing Stud. 17 (3), 401–422.

Bonnal, L., Boumahdi, R., Favard, P., 2012. Nonexpected discrimination: the case of social housing in France. Appl. Econ. Lett. 19 (18), 1909–1916.

Borjas, G.J., 1999. Immigration and welfare magnets. J. Labor Econ. 17 (4), 607–637.

Bourgeois, M., 2013. Choisir les locataires du parc social? Une approche ethnographique de la gestion des HLM. Sociologie du travail 55 (1), 56–75.

Bourgeois, M., 2018. Logement social: des bons et des mauvais candidats? Revue Projet 364 (3), 48–54.

Bowes, A., McCluskey, J., Sim, D., 1990. Ethnic minorities and council housing in Glasgow. J. Ethnic Migr. Stud. 16 (4), 523–532.

Bracco, E., De Paola, M., Green, C.P., Scoppa, V., 2018. The effect of far right parties on the location choice of immigrants: Evidence from lega nord mayors. J. Public Econ. 166, 12–26.

Brouard, S., Tiberj, V., 2011. As French as Everyone Else? Temple University Press.

Brown, J.R., Cantoni, E., Enos, R.D., Pons, V., Sartre, E., 2022. The Increase in Partisan Segregation in the U.S. and its causes. Mimeo. Technical report.

Brown, J.R., Enos, R.D., 2021. The measurement of partisan sorting for 180 million voters. Nat. Human Behav. 5 (8), 998–1008.

Calabrese, S.M., Epple, D.N., Romano, R.E., 2011. Inefficiencies from metropolitan political and fiscal decentralization: Failures of Tiebout competition. Rev. Econ. Stud. 79 (3), 1081–1111.

Calonico, S., Cattaneo, M.D., Farrell, M.H., Titiunik, R., 2017. rdrobust: Software for regression-discontinuity designs. The Stata J. 17 (2), 372–404.

Calonico, S., Cattaneo, M.D., Titiunik, R., 2014. Robust nonparametric confidence intervals for regression-discontinuity designs. Econometrica 82 (6), 2295–2326.

Calonico, S., Cattaneo, M.D., Titiunik, R., 2015. Optimal data-driven regression discontinuity plots. J. Am. Stat. Assoc. 110 (512), 1753–1769.

Card, D., Dustmann, C., Preston, I., 2012. Immigration, wages, and compositional amenities. J. Eur. Econ. Assoc. 10 (1), 78–119.

Card, D., Mas, A., Rothstein, J., 2008. Tipping and the dynamics of segregation. Q. J. Econ. 123 (1), 177–218.

Cattaneo, M.D., Idrobo, N., Titiunik, R., 2020. A Practical Introduction to Regression Discontinuity Designs. In: Elements in Quantitative and Computational Methods for the Social Sciences. Cambridge University Press.

Cattaneo, M.D., Jansson, M., Ma, X., 2018. Manipulation testing based on density discontinuity. Stata J. 18 (1), 234–261.

Chapelle, G., 2018. Does social housing crowd out private construction? Sciences Po Mimeo.
Chapelle, G., Gobillon, L., Vignolle, B., 2022. Public housing development and segregation: Sru law in france. Technical report, CEPR.
Charlot, S., Paty, S., Piguet, V., 2008. Intercommunalité et fiscalité directe locale. Economie et Statistique/Economics and Statistics 415–416, 121–140.
Chen, J., Jing, J., Man, Y., Yang, Z., 2013. Public Housing in Mainland China: History, ongoing trends, and future perspectives. In: The Future of Public Housing. Springer, pp. 13–35.
Chiu, R.L., 2013. The transferability of public housing policy within Asia: Reflections from the Hong Kong-mainland China case study. In: The future of public housing. Springer, pp. 3–12.
Combes, P.-P., Decreuse, B., Schmutz, B., Trannoy, A., 2018. Neighbor discrimination theory and evidence from the French rental market. J. Urban Econ. 104(C):104–123.
Cukierman, A., Tommasi, M., 1998. When does it take a nixon to go to china? Am. Econ. Rev. 88 (1), 180–197.
Cutler, D.M., Glaeser, E.L., Vigdor, J.L., 2008. Is the melting pot still hot? explaining the resurgence of immigrant segregation. Rev. Econ. Stat. 90 (3), 478–497.
Desplanques, G., Rogers, G., 2008. Strengths and uncertainties of the French annual census surveys. Population 63 (3), 415–439.
Dippel, C., 2019. Political Parties Do Matter in U.S. Cities... For Their Unfunded Pensions. NBER Working Papers 25601, National Bureau of Economic Research Inc.
Driant, J.-C., 2011. Les mutations en sourdine du financement du logement social. Regards croisés sur l'économie 1, 187–197.
Dupoirier, E., Grunberg, G., Roy, B., 1985. L'évolution electorale de la France urbaine (1971–1983). Revue française de science politique 35 (1), 46–71.
Durr, J.-M., 2005. The French new rolling census. Stat. J. United Nations Economic Commission for Europe 22 (1), 3–12.
Dustmann, C., Vasiljeva, K., Piil Damm, A., 2018. Refugee migration and electoral outcomes. Rev. Econ. Stud. 86 (5), 2035–2091.
Edo, A., Giesing, Y., Oztunc, J., Poutvaara, P., 2019. Immigration and electoral support for the far-left and the far-right. Eur. Econ. Rev. 115, 99–143.
Eggers, A.C., Fowler, A., Hainmueller, J., Hall, A.B., Snyder Jr, J.M., 2015. On the validity of the regression discontinuity design for estimating electoral effects: New evidence from over 40,000 close races. Am. J. Polit. Sci. 59 (1), 259–274.
Epple, D., Zelenitz, A., 1981. The implications of competition among jurisdictions: does Tiebout need politics? J. Polit. Econ. 89 (6), 1197–1217.
Fack, G., Grenet, J., 2015. Improving college access and success for low-income students: Evidence from a large need-based grant program. Am. Econ. J.: Appl. Econ. 7 (2), 1–34.
Ferejohn, J., 1986. Incumbent performance and electoral control. Public choice 50 (1), 5–25.
Ferreira, F., Gyourko, J., 2009. Do political parties matter? Evidence from US cities. Quart. J. Econ. 124 (1), 399–422.
Foucault, M., Nadeau, R., 2018. Villes de gauche, villes de droite: trajectoires politiques des municipalités françaises de 1983 à 2014. Presses de Sciences Po, Fait Politique.
Fougère, D., Safi, M., 2009. Naturalization and employment of immigrants in France (1968–1999). Int. J. Manpower 30 (1–2), 83–96.
Gelman, A., Imbens, G., 2019. Why high-order polynomials should not be used in regression discontinuity designs. J. Bus. Econ. Stat. 37 (3), 447–456.
Gerber, E.R., Hopkins, D.J., 2011. When mayors matter: estimating the impact of mayoral partisanship on city policy. Am. J. Polit. Sci. 55 (2), 326–339.
Gethin, A., Martínez-Toledano, C., Piketty, T., 2021. Brahmin Left Versus Merchant Right: Changing Political Cleavages in 21 Western Democracies, 1948–2020*. Q. J. Econ. 137 (1), 1–48.
Glaeser, E.L., Gyourko, J., 2005. Urban decline and durable housing. J. Polit. Econ. 113 (2), 345–375.
Glaeser, E.L., Ponzetto, G.A., Shapiro, J.M., 2005. Strategic extremism: Why republicans and democrats divide on religious values. The Quarterly journal of economics 120 (4), 1283–1330.
Glaeser, E.L., Shleifer, A., 2005. The curley effect: The economics of shaping the electorate. Journal of Law, Economics, and Organization 21 (1), 1–19.
Hahn, J., Todd, P., Van der Klaauw, W., 2001. Identification and estimation of treatment effects with a regression-discontinuity design. Econometrica 69 (1), 201–209.
Halla, M., Wagner, A.F., Zweimüller, J., 2017. Immigration and voting for the far right. Journal of the European Economic Association 15 (6), 1341–1385.
Henderson, J., Karn, V., 1984. Race, class and the allocation of public housing in britain. Urban Studies 21 (2), 115–128.
Jacobs, S., 1985. Race, empire and the welfare state: council housing and racism. Critical Social Policy 5 (13), 6–28.
Jaeger, D.A., Ruist, J., and Stuhler, J. (2018). Shift-share instruments and the impact of immigration. Technical report, National Bureau of Economic Research.
Karn, V., Henderson, J., 1987. Race, class and state housing: inequality and allocation of public housing in Britain. Gower, Aldershot.
Krause, C., Balbim, R., and Neto, V.C.L. (2013). Minha Casa Minha Vida, Nosso Crescimento: Onde fica a Política Habitacional? Discussion Papers 1853, Instituto de Pesquisa Econômica Aplicada - IPEA.
Parisien, Le, 2015. Hauts-de-Seine: le maire UMP du Plessis condamné pour une HLM attribuée à sa fille. Le Parisien.
Parisien, Le, 2018. Argent contre promesse de HLM: un ex-élu de Boulogne condamné à un an de prison avec sursis. Le Parisien.
Parisien, Le, 2019. Aulnay: soupçons de corruption dans l'attribution des HLM. Le Parisien.
Lee, D.S., 2008. Randomized experiments from non-random selection in US House elections. Journal of Econometrics 142 (2), 675–697.
Lippmann, Q. (2018). Persistence of incumbents and female access to political positions. Available at SSRN 3103204.
Martiniello, M., 2006. Political participation, mobilisation and representation of immigrants and their offspring in Europe. Amsterdam University Press, pp. 83–105.
Masclet, O., 2005. Du 'bastion' au 'ghetto'. Actes de la recherche en sciences sociales 4, 10–25.
McCrary, J., 2008. Manipulation of the running variable in the regression discontinuity design: A density test. Journal of Econometrics 142(2):698–714. The regression discontinuity design: Theory and applications.
Mendez, I., Cutillas, I.M., 2014. Has immigration affected spanish presidential elections results? Journal of Population Economics 27 (1), 135–171.
Meyersson, E., 2014. Islamic rule and the empowerment of the poor and pious. Econometrica 82 (1), 229–269.
Moen, E.R., Riis, C., 2010. Policy reversal. American Economic Review 100 (3), 1261–1268.
Musterd, S., Deurloo, R., 1997. Ethnic segregation and the role of public housing in Amsterdam. Tijdschrift voor economische en sociale geografie 88 (2), 158–168.
Ortega, J., Verdugo, G., 2021. Who stays and who leaves? Immigration and the selection of natives across locations. Journal of Economic Geography 22 (2), 221–260.
Otto, A.H., Steinhardt, M.F., 2014. Immigration and election outcomes — evidence from city districts in hamburg. Regional Science and Urban Economics 45, 67–79.
Pan Ké Shon, J.-L., 2010. The ambivalent nature of ethnic segregation in France's disadvantaged neighbourhoods. Urban Studies 47 (8), 1603–1623.
Pettersson-Lidbom, P., 2008. Do parties matter for economic outcomes? a regression-discontinuity approach. J. Eur. Econ. Assoc. 6 (5), 1037–1056.
Piketty, T., 2020. Capital and Ideology. Harvard University Press Cambridge.
Quillian, L., Lagrange, H., 2016. Socioeconomic segregation in large cities in France and the United States. Demography 53 (4), 1051–1084.
Saiz, A., Wachter, S., 2011. Immigration and the neighborhood. Am. Econ. J.: Econ. Policy 3 (2), 169–188.
Sala Pala, V., 2007. La politique du logement social est-elle raciste? Le cas marseillais. Faire-Savoirs: Sciences de l'Homme et de la Société en Provence-Alpes-Côte d'Azur, 6:25–36.
Scanlon, K., Whitehead, C., Arrigoitia, M.F., 2014. Social housing in Europe. John Wiley & Sons.
Schelling, T.C., 2006. Micromotives and macrobehavior. WW Norton & Company.
Serafini, T., 2011. Crise du logement à Puteaux: la moitié des élus UMP réfugiés en HLM. Libération.
Simmons, K., Silver, L., Johnson, C., Taylor, K., Wike, R., 2018. In western europe, populist parties tap anti-establishment frustration but have little appeal across ideological divide. Pew Research Center 12.
Slotwinski, M., Stutzer, A., 2019. The deterrent effect of an anti-minaret vote on foreigners' location choices. J. Population Econ. 32 (3), 1043–1095.
Solé-Ollé, A., Viladecans-Marsal, E., 2013. Do political parties matter for local land use policies? J. Urban Econ. 78, 42–56.
Tiebout, C.M., 1956. A pure theory of local expenditures. J. Polit. Econ. 64 (5), 416–424.
Tissot, S., 2005. Une <<discrimination informelle>>? Actes de la recherche en sciences sociales 4, 54–69.
Tricaud, C., 2021. Better Alone? Evidence on the Costs of Intermunicipal Cooperation. LIEPP Working Paper 125.
Verdugo, G., 2016. Public housing magnets: public housing supply and immigrants' location choices. J. Econ. Geogr. 16 (1), 237–265.
Verdugo, G., Toma, S., 2018. Can Public Housing Decrease Segregation? Lessons and Challenges From Non-European Immigration in France. Demography 55 (5), 1803–1828.
Xu, H., Zhou, Y., 2019. Public housing provision and housing vacancies in Japan. J. Japan. Int. Econ. 53, 101038.