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Immigration and Electoral Support for the Far-Left and the Far-Right[☆]

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Abstract

Immigration is one of the most divisive political issues in the United States, the United Kingdom, France and several other Western countries. We estimate the impact of immigration on voting for far-left and far-right candidates in France, using panel data on presidential elections from 1988 to 2017. To derive causal estimates, we instrument more recent immigration flows by settlement patterns in 1968. We find that immigration increases support for far-right candidates. This is driven by low-educated immigrants from non-Western countries. We also find that immigration has a weak negative effect on support for far-left candidates, which could be explained by a reduced support for redistribution. We corroborate our analysis with a multinomial choice analysis using survey data.

Keywords: Voting, Immigration, Political economy

JEL Classification: D72, F22, J15, P16

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1. Introduction

In recent decades, immigration has become one of the most divisive issues in many Western countries. Opposing immigration has been a central pillar of the platforms of extremist parties in many Western countries, in the Leave campaign against British membership in the European Union, and in Donald Trump’s election as U.S. president. The anti-immigration and anti-globalization onslaught continued but ultimately failed in the French 2017 presidential election. Nevertheless, Front National’s Marine Le Pen made it to the second round and won 34% of the votes. This was almost twice the 18% vote share that her father Jean-Marie Le Pen won in 2002, the only previous presidential election in which Front National made it to the second round.

In this paper, we estimate the impact of immigration on voting for far-left and far-right candidates in French presidential elections from 1988 until 2017. We derive six testable hypotheses from previous literature. First, we conjecture that an increase in low-skilled immigration increases support for far-right candidates among low-skilled voters due to labor market concerns. Second, we expect an increase in low-skilled immigration to increase support for far-right candidates due to public finance concerns. The effect of immigration on support for far-left candidates through preferred redistribution could go either way. Support for far-left candidates could decrease if natives reduce their support for redistribution in response to higher immigration; or increase if natives demand higher insurance due to increased labor market competition associated with a larger immigrant share. Similarly, non-economic mechanisms could affect support for far-right candidates in either way. A compositional amenities argument would predict higher support for far-right candidates following an increase in immigration especially from non-Western countries; whereas an argument based on the contact hypothesis would predict a lower support for the far-right with increasing immigration. To the best of our knowledge, ours is the first paper to estimate the causal effects of immigration on support for far-left and far-right candidates.

Given France’s central role in the European Union, understanding French politics is important in its own right. Furthermore, French politics is an ideal setting in which to test the role of immigration and economic concerns in the rise of far-left and far-right voting more generally. Front National has run, and won more than 10% of votes, in all French presidential elections since 1988. Far-left candidates have won more than 10% of votes in all presidential elections since 1988, apart from 2007. This allows panel data analysis of the role that immigration plays in explaining changes in far-left and far-right candidates’ electoral success.

A major challenge in estimating the effect of immigration on voting is that immigrants are not randomly allocated across electoral districts. Indeed, one can expect that immigrants tend to choose more welcoming regions, which could also be regions where the population is less likely to vote for far-right candidates. This would generate a spurious negative correlation between immigration and far-right candidates' vote shares, even if immigration was an important reason for voters to support far-right candidates.¹ To address this concern, we instrument more recent immigration flows by past settlement patterns. More precisely, we divide immigrants into different groups, the biggest groups being those coming from other Latin countries (Italy, Portugal, and Spain) and those coming from the Maghreb (Algeria, Morocco, and Tunisia), and use historical settlement patterns in the 1968 census to instrument how subsequent immigrants from these countries are distributed across different regions.

We use our instrumented immigrant inflows, together with a rich set of controls that capture economic and demographic trends, like changes in educational composition and unemployment, to explain changes in voting for far-left and far-right candidates in a panel regression analysis. We analyze support for far-left and far-right candidates separately. Furthermore, we present an analysis for Front National alone, given its prominence and exceptionally good comparability over time. Jean-Marie Le Pen ran in presidential elections in 1988, 1995, 2002 and 2007 and Marine Le Pen in 2012 and 2017, with consistently anti-immigration and anti-integration platforms. Having just two candidates over three decades minimizes potential challenges of unobserved candidate-specific factors. Furthermore, analyzing presidential elections as opposed to parliamentary or municipal elections has the advantage that the same candidate is running in the whole country. Also, we test to what extent changes in unemployment, education, demographics, and trade patterns explain voting for far-left and far-right candidates.

Immigration affects the economic welfare of natives through labor markets and public finances. Given skill complementarities and substitutability in the labor market (Borjas, 2003; Ottaviano and Peri, 2012; Battisti et al., 2018), we expect that electoral support for far-right candidates would react more strongly to the inflow of low-educated immigrants. However, Edo and Toubal (2017) and Mitaritonna et al. (2017) find that recent immigrants to France are more educated than the

¹It is not obvious in which way immigrants' endogenous location choices distort the estimated effects on far-left voting, but using instrumented immigration helps to address this concern.

60 native population. Our dataset enables us to decompose both immigrants and natives by their level of educational attainment. From a public finance perspective, immigrants benefit natives if they are net contributors to the welfare state, but impose a financial burden if they are net beneficiaries.

Testing how far-left and far-right candidates' vote share responds to the inflow of European versus non-European and low- versus high-educated immigrants sheds light on the role of cultural
65 or racial preferences. Several studies investigate the role of cultural, ethnic and religious differences that are associated with an immigrant's nationality (e.g. [Adida et al., 2010](#); [Hainmueller and Hangartner, 2013](#); [Edo et al., 2017](#); [Rydgren, 2008](#)). Our dataset enables us to distinguish between the effect of non-European (Algerian, Moroccan, and Tunisian) and European (Italian, Portuguese, and Spanish) immigrants. Moreover, we can study the role of cultural preferences, relative to labor
70 market competition.

Our main findings are as follows. Immigration increases support for far-right candidates and tends to slightly reduce support for far-left candidates, whether using OLS regressions or relying on IV estimates. Without exception, the effects on far-right support are stronger using an IV approach. This can be explained by immigrants' endogenous migration decisions, which were our
75 main motivation to introduce IV estimates. If immigrants are less likely to migrate to regions in which support for far-right candidates is stronger, then OLS estimates would underestimate the effect of immigration on electoral support for far-right candidates. Our conjecture is that especially the low-educated voters are worried about labor market competition. These low-educated voters could then be more likely to vote for far-right candidates as a result of higher immigration. This
80 conjecture receives additional support when we separately analyze the effects of immigration based on immigrants' skill composition and ethnicity. Increased support for far-right candidates is mostly driven by low-educated immigrants. In terms of ethnicity, the positive effect on far-right support is driven by non-European immigrants, suggesting the importance of compositional amenities. The link between far-right support and immigration is also confirmed when looking at instrumented
85 immigration. Instrumented immigration from Maghreb increases far-right support in the whole country, as well as in southern France and northern France when studied separately. Instrumented immigration from Spain, Italy, and Portugal increases far-right support in southern France, but not in northern France.

We complement our analysis of regional voting by individual-level analysis using post-electoral
90 survey data for all presidential elections from 1988 to 2012. Instead of analyzing just far-left

and far-right vote shares, we present a multinomial logit model in which voters choose between candidates representing far-left parties, left and green parties, center and right parties, and far-right parties. This analysis allows studying voting responses to immigration at the individual level, including interactions with the respondent’s own level of education and the share of low-educated
95 immigrants. The analysis shows that an increase in the actual or predicted share of immigrants increases support for far-right candidates at the expense of center and right candidates, but has no effect on the relative popularity of candidates representing center and right, left and green, or far-left parties.

This paper contributes to the literature that analyzes the effects of the presence of immigrants
100 on voting outcomes. The political science literature addressed this question first and generally concluded that regions with larger shares of immigrants recorded more far-right voting (see, e.g., [Coffé et al., 2007](#); [Golder, 2003](#)). However, these early studies were mostly descriptive and could not provide a causal interpretation of their estimates.

[Otto and Steinhardt \(2014\)](#) were among the first in the economics literature to analyze immigrant
105 shares as a determinant for voting at the local level.² Using data on city districts in one German city and fixed-effects estimations, they find that larger immigrant shares increase support for far-right parties. Several other papers followed and confirmed the increased vote share for far-right parties in response to immigration. [Barone et al. \(2016\)](#) use Italian municipality-level data and an IV strategy to causally estimate the effect of a larger immigrant share on center-right votes. They find positive
110 and significant results that are motivated by competition in the labor market and for public services. [Harmon \(2018\)](#) studies the impact of immigration on voting behavior in Danish municipalities and uses a novel IV strategy based on historic housing stock data. He reports an increase of between 1.2 and 2.3 percentage points in vote shares for anti-immigrant nationalist parties when there is a 1 percentage point increase in the share of non-Western immigrants. [Dustmann et al. \(forthcoming\)](#)
115 also look at Denmark and study the political consequences of quasi-random assignment of refugees to municipalities. They find that, outside the largest cities, increased numbers of refugees increase support for anti-immigration and center-right parties, whereas in the largest municipalities, an increase in the number of refugees is associated with a decrease in support for anti-immigration

²[Gerdes and Wadensjö \(2010\)](#) for Denmark and [Mendez and Cutillas \(2014\)](#) for Spain are also part of this early literature.

parties. [Mayda et al. \(2016\)](#) find that U.S. natives are more likely to vote for Republicans in
120 areas with very high shares of non-naturalized immigrants. [Becker and Fetzer \(2016\)](#) show that
increasing immigration from Eastern Europe increased the vote shares for the UK Independence
Party (UKIP) in elections to the European Parliament. [Halla et al. \(2017\)](#) study the case of Austria
and its far-right party. Using historic settlement patterns as exogenous variation, they conclude
that a 1 percentage point increase in the immigrant share of a community leads to a 0.16 percentage
125 point higher vote share for the far-right party. They find stronger effects for low-skilled immigrants,
for immigrants from Turkey and ex-Yugoslavia and in areas with many high-skilled natives. They
explain this with a perceived negative effect of immigration on public services such as childcare.
[Brunner and Kuhn \(2018\)](#) find that it is especially culturally different immigrants who increase
support for anti-immigration parties in Switzerland. [Dinas et al. \(2017\)](#) use the natural experiment
130 setting of Greek islands that are close to Turkey and find that natives in islands that experienced
an inflow of refugees increased voting for the far-right by 2 percentage points.

Table [A.1](#) in the Appendix provides a literature overview of 13 papers that estimate the effect of
immigration on voting, including details on heterogeneity analyses and effect sizes. It should also be
noted that many of the previous studies on immigration and far-right voting have analyzed countries
135 with low unemployment, like Austria and Denmark, or countries in which large-scale immigration is
a relatively recent phenomenon, like Italy. We analyze the link between immigration and extreme
voting in a country with relatively high unemployment and a long history of immigration. The
effect size in the other studies ranges between 0 and 3 percentage point increases in far-right voting
as a result of a 1 percentage point increase in the immigrant share. Although these studies use
140 slightly different methodologies, definition of immigration, time spans, and definition of far-right
voting than do we, our estimates, which are between 0.4 using OLS and 2.4 using IV, lie well in
this range.

[Poutvaara and Steinhardt \(2018\)](#) suggest that bitterness in life could be a common factor be-
hind worries about immigration and voting for the far-right. They use data from the German
145 Socioeconomic Panel (SOEP) to show that bitter people who feel they have not received what they
deserve in life worry more about immigration, and also that more bitter people are more likely to
support the far-right. This link holds when separately studying different skill categories, men and
women, those living in former West and former East Germany, and young and old. Furthermore,
the link cannot be explained by labor market competition alone as it holds when looking at civil

150 servants with permanent contracts and thus safe from labor market competition, pensioners, and all respondents who are not working and are not pensioners.

It is essential to keep the specific context (e.g., country, type of immigrants, time span) in mind when reading the literature. In the case of France, there is to date no study on how the population share of immigrants affects voting. There are, however, several studies that focus on determinants of Front National votes. 155 [Auberger and Dubois \(2005\)](#) build a model to explain legislative votes by economic and political factors, such as the growth rate of GDP and the number of job seekers. They do not include immigration in their model. A more recent study by [Malgouyres \(2017\)](#) investigates the effects of trade shocks on votes for Front National. He uses exogenous variation in trade exposure and finds that voting for far-right candidates increases in affected French communities.

160 Our contribution to the literature is fourfold. First, and in contrast to the previous literature, we can study the effects of immigration on far-right voting by differentiating between high- and low-educated immigrants and by their nationality. Second, we extend the analysis to far-left voting, however the results are weaker and less robust. Third, to the best of our knowledge, this is the only study for France that uses detailed long-term panel data with a large number of controls and 165 exogenous settlement patterns of immigrants that allow for a causal interpretation of the results that explain the Front National vote share. Fourth, we present a multinomial choice analysis at the individual level on how actual and predicted immigration affects voter choice between far-left, left and green, center and right, and far-right candidates.

The paper is structured as follows. Section 2 presents testable hypotheses concerning the relationship between immigration and voting for the far-left and far-right. Section 3 describes the data 170 and provides descriptive statistics. Section 4 outlines the empirical model and the identification strategy. Section 5 provides the results from the OLS and the IV estimates and 6 analyzes different heterogeneous effects. Section 7 discusses challenges to the estimation procedure and provides details on robustness tests. Section 8 complements the analysis with a multinomial logit model using 175 individual-level data. Section 9 concludes.

2. Conceptual Framework

In this section, we summarize various mechanisms through which immigration can affect natives' voting and elaborate on six testable hypotheses that these channels suggest. Immigration can affect natives through three major channels: labor market concerns, concerns about public finances and

180 welfare policies, and non-economic aspects such as compositional amenities and psychological effects. Some of these hypotheses encompass all skill-levels of immigrants and do not distinguish between nationalities whereas for others the skill-level and origin becomes important.

2.1. Labor market concerns

A large literature has established that immigrants affect the labor market outcomes of natives. 185 Economic theory suggests that natives with the same skills as immigrants lose whereas natives with different skill-levels benefit due to skill complementarities; see Borjas (2003) for evidence for the United States. However, more recent literature suggests that high-skilled immigration can increase the productivity and wages of all workers through its contribution to human capital formation and innovation in receiving economies (Peri, 2016). Therefore, even though low-skilled natives 190 would be concerned about negative labor market effects of low-skilled immigrants, high-skilled natives might not be similarly concerned about high-skilled immigration. Far-right parties have in common that they oppose immigration and their programs include stricter immigration laws and anti-foreign provisions (Georgiadou et al., 2018). We therefore expect that electoral support for far-right candidates among low-skilled natives would increase more strongly to the inflow of 195 low-educated immigrants. To summarize, this mechanism suggests:

Hypothesis 1 (Labor market competition and far-right voting): An increase in low-skilled immigration increases support for far-right candidates among low-skilled voters.

The labor market effect of immigration on electoral support for the far-left is more complicated. 200 Far-left candidates are often positive toward refugees, but tend to be more negative toward labor migration. Jean-Luc Mélenchon, the candidate of the main far-left party in 2017, for instance, questioned France’s EU membership, which had allowed a great deal of low-skilled migration from Eastern Europe. At the same time, he supported family reunifications, 10-year residence permits for refugees, and amnesty programs for illegal immigrants. Therefore, it is not possible to label 205 far-left parties as being consistently for or against immigration. As a result, we refrain from listing any testable hypothesis for support for far-left candidates related to labor market effects.

2.2. Concerns about public finances and welfare policies

Besides labor market effects, immigration also has an impact on public finances and policies. [Facchini and Mayda \(2009\)](#) have shown that natives are worried about the public finance burden of migration. How immigrants affect the welfare state strongly depends on whether immigrants are net recipients or net contributors. While low-educated immigrants are more likely to be net recipients, high-educated immigrants are more likely to be net contributors. We conjecture that natives who are worried about the potential financial burden associated with low-skilled immigrants would therefore like to restrict their inflow and increase electoral support for the far-right.

Hypothesis 2 (Public finances and far-right voting): An increase in low-skilled immigration increases support for far-right candidates.

Redistribution is a key element of modern welfare states. However, its prevalence and support is very different across countries. Research has shown that ethnic diversity is an important predictor. In the context of the United States, [Luttmer \(2001\)](#) finds that individuals have more support for welfare spending if the share of local recipients from their own racial group is higher. [Fong and Luttmer \(2009\)](#) corroborate these findings with experimental evidence showing that individuals who report feeling close to their racial or ethnic group give substantially more for charity when victims are of the same race. [Stichnoth and der Straeten \(2013\)](#) provide a literature overview about the effects of ethnic diversity on individual attitudes and public spending. Bringing these individual results to the aggregate level, [Alesina and Glaeser \(2004\)](#) show that countries with more ethnic diversity have less redistribution as a share of GDP.

A growing literature has applied these results to immigration and confirmed that increased immigration has negative effects on natives' attitudes toward redistribution. There are several papers (e.g., [Alesina et al., 2019](#), [Alesina et al., 2018](#), [Dahlberg et al., 2012](#), [Razin et al., 2002](#)) showing that increasing immigration and the resulting ethnic heterogeneity reduce support for redistribution. In particular, [Alesina et al. \(2019\)](#) study 140 regions in Western European countries and find that natives in regions with a higher share of immigrants exhibit lower support for redistribution. Their explanation is that natives expect there to be more immigrants at the country level and thus more potential welfare recipients if there are more immigrants in their region. Interestingly, they find stronger effects for low-skilled immigrants. They conclude that the reduced support for redistribution is driven by voters supporting the center and the right, while voters supporting the left are not

affected. [Senik et al. \(2009\)](#) find that the reduced support for the welfare state due to immigration is triggered by natives who dislike immigrants and are worried about negative labor market effects. A central and unifying feature of far-left parties is their strong stance toward increasing redistribution. If immigration leads to less support for redistribution, then we would expect an increased immigrant population share to result in a reduction in far-left voting.

Based on these results, we expect:

Hypothesis 3 (Support for redistribution and far-left voting): An increase in immigration reduces support for far-left candidates.

An alternative mechanism due to which immigration could increase support for (far-)left parties is the increased exposure to risk, resulting from labor market competition. Several papers have shown that increased risk stemming from globalization drives voters to prefer pro-redistribution positions (e.g., [Balcells, 2006](#), [Rehm, 2009](#), [Walter, 2010](#)). [Autor et al. \(2017\)](#) find that rising import competition has contributed to polarization of U.S. politics. Stronger import competition has increased the likelihood of moderate representatives being replaced by either conservative Republicans or liberal Democrats. If we believe that migration similarly increases the exposure to risk, and therefore natives' demand for insurance against the potential negative labor market effects of globalization, we would expect increased immigrant population shares to benefit far-left politicians:

Hypothesis 4 (Increased demand for insurance and far-left voting): An increase in immigration increases support for far-left candidates.

2.3. Non-economic mechanisms

[Card et al. \(2012\)](#) identified compositional amenities as an important reason for negative attitudes toward immigration. This comprises the cultural compositions of natives' neighborhood, including schools and workplaces. [Card et al. \(2012\)](#) find that worries about compositional amenities are 2-5 times more important in determining attitudes against immigration than concerns about wages or taxes. [Becker and Fetzer \(2016\)](#), [Brunner and Kuhn \(2018\)](#), [Halla et al. \(2017\)](#) and [Mendez and Cutillas \(2014\)](#) have all confirmed that the effects of immigration on voting depend on the origin of immigrants. We summarize the prediction arising from this strand of literature as follows:

265 **Hypothesis 5 (Compositional amenities and far-right voting):** Immigration especially from non-Western countries increases support for far-right candidates.

However, the presence of foreigners could also reduce far-right voting due to increased contact. This is in line with the contact hypothesis developed by Allport (1954), which claims that contact with foreigners reduces prejudices and can thus limit the scope of far-right voting. Dustmann et al. (forthcoming) find evidence for the contact hypothesis for the largest cities in Denmark, Steinmayr (2016) for Austria, Schindler and Westcott (2017) for the United Kingdom, and Vertier and Viskanic (2018) for France.³ Carlsson et al. (2018) use close elections in Sweden to show that election of far-left or far-right politicians generates a backlash against their extreme political positions. To conclude, the contact hypothesis would suggest:

275 **Hypothesis 6 (Contact hypothesis and far-right voting):** Immigration especially from non-Western countries reduces support for far-right candidates.

We refrain from listing a testable hypothesis related to non-economic mechanisms and far-left voting, given that far-left candidates do not have a clear position in favor or against immigration.

To sum up, apart from the contact hypothesis, all other mechanisms predict that immigration, especially immigration of low-skilled immigrants from non-Western countries, increases support for far-right candidates. The effect on support for far-left candidates can go either way. The negative link between ethnic diversity and support for redistribution suggests that immigration would reduce support for far-left candidates. The hypothesis related to increased demand for insurance against income risks, instead, suggests that immigration could increase support for far-left candidates.

285 3. Data and Descriptive Statistics

3.1. Data

We use two sets of data. Data on votes are collected from the Ministry of Interior and the Center for Socio-Political data of *Sciences Po* and made available as a database by the French gov-

³Vertier and Viskanic (2018) use the relocation of illegal immigrants from camps in Calais to temporary migration centers in around 200 municipalities in France from 2015 to 2016. They find that temporarily hosting less than 40 immigrants per 1,000 inhabitants reduces the vote share for the Front National by 2 percentage points in the 2017 presidential election compared with the election of 2012. Their different findings can be explained by their selected sample of migrants, the temporary nature of the relocation which does not induce concerns related to the labor market, redistribution or compositional amenities, and the fact that the central government was paying for the accommodation and catering costs, which could stimulate the local economy.

ernment.⁴ The data on the French population are from the French National Institute for Statistics
290 and Economic Studies (INSEE).⁵

3.1.1. Data on Votes

We investigate the determinants of voting outcomes for the first-round of the presidential elections that took place in 1988, 1995, 2002, 2007, 2012, and 2017. We also carry out an analysis for the second round of the presidential elections in 2002 and 2017 to investigate in more detail the
295 role of Front National. We collect data on voting outcomes for the first-round of the presidential elections in 1988, 1995, 2002, 2007, 2012, and 2017 at the departmental and municipality levels (there are 96 departments and around 36,000 municipalities in France). Each dataset records the number of registered voters, abstentions, cast votes, valid and invalid votes, and the votes for each presidential candidate in each municipality. Registered voters include all people who are eligible
300 to cast a vote at the ballot box. Registered voters can abstain or cast votes. Cast votes are split into invalid votes (*blank and erroneous votes on the ballot paper*) and valid votes (*votes that can be ascribed to a presidential candidate*). If votes for all different presidential candidates are aggregated, they yield the number of valid votes.

Since we are interested in the determinants of votes for far-left and far-right candidates, we
305 identify presidential candidates who were classified by the media as either far-left or far-right in recent presidential elections. Jean Marie Le Pen, Marine Le Pen, Nicolas Dupont-Aignan, Philippe de Villiers, and Bruno Mégret are included in the set of far-right presidential candidates. The set of far-left candidates consists of Jean-Luc Mélenchon, Nathalie Arthaud, Olivier Besancenot, Philippe Poutou, Marie-George Buffet, Robert Georges August Hue, Pierre Juquin, André François Lajoinie,
310 Pierre Boussel, George Marchais, and Arlette Laguiller. Table A.2 in the Appendix provides an overview of our classification of all candidates and parties. Finally, we aggregate the number of votes for all far-right (far-left) presidential candidates to obtain an aggregated number of votes for far-right (far-left) candidates in a presidential election. We calculate vote shares by dividing the number of aggregated votes by the number of valid votes.

⁴The 1995-2017 electoral data can be downloaded from the following website <https://www.data.gouv.fr/fr/>. More specifically, electoral data from 2002-2017 are directly accessible from <https://www.data.gouv.fr/fr/posts/les-donnees-des-elections/>. Data for 1995 are available at <https://www.data.gouv.fr/fr/datasets/election-presidentielle-1995-resultats-572083/>. The electoral data for 1988 are prepared by the “Centre de données socio-politiques” and were provided to us through the Réseau Quetelet.

⁵Institut National de la Statistique et des Etudes Economiques.

Our smallest unit of analysis is cantons,⁶ but we also aggregate the data on votes to higher regional units in order to show that our results are not sensitive to the geographical unit of analysis. First, we start with the departmental level as our baseline geographical unit of analysis. Since we have additional data for the first-round of the presidential election in 1988 recorded at the departmental level, we examine the determinants of voting outcomes for presidential candidates from 1988 until 2012 at the departmental level. The analysis at the cantonal level as a more granular geographical unit becomes more difficult since municipalities have split and merged over time especially within departments.⁷ We have created a dataset to tackle this issue. The dataset enables us to match municipalities over time so that we can analyze the determinants of voting outcomes at the canton and employment-zone level as well (there are around 300 employment-zones in France). We also include an analysis at the regional level, the largest geographical unit of analysis. This analysis allows us to include the 2017 election, for which some relevant data are not yet available at a lower level of aggregation.

3.1.2. Data on the French Population

We use the French censuses from 1990, 2007, and 2012 to infer the number of immigrants for the presidential elections of 1988, 2007, and 2012. The 1990 census covers a random sample of 25% of the French population, while the 2007 and 2012 censuses cover a random sample of 14% of the French population. This high sampling rate allows us to infer with precision the number of narrow subpopulations of immigrants across areas. No census was taken in 1995 or 2002; thus we use the pooled 1994-1995 labor force survey (LFS) and the pooled 2001-2002 LFS to ensure a high level of precision in estimating our variables for these two election years. From the censuses and LFS, we have a rich set of information on various individual characteristics, such as nationality, education, age, region of residence, employment status, and occupation. Adding demographic controls is important as these can be both drivers of voting and related to immigration. For example, [Nikolka and Poutvaara \(2016\)](#) show that the share of electorate with some tertiary education can alone

⁶A canton is a territorial subdivision of a department. Cantons serve as constituencies for departmental elections. To be very specific, we use pseudo-cantons instead of cantons. Unlike a canton, a pseudo-canton is a grouping of one or more entire municipalities. Cantons do not always respect communal boundaries: the most populated municipalities, like Paris, can be divided into several cantons. A pseudo-canton is therefore a geographical unit that is smaller than a department but generally larger than a municipality. There are 1,989 pseudo-cantons in our sample. A pseudo-canton has an average population size of approximately 34,000 inhabitants. In this paper, we use the terms canton and pseudo-canton interchangeably.

⁷Since 1988, the municipality code has changed for 2,600 municipalities.

340 explain 80% of variation in the Leave vote share across 326 local authority districts in England in the Brexit referendum.

To investigate the impact of immigration on political outcomes, we define an immigrant as a person born abroad without the French citizenship. This definition allows us to exclude the migrants with the French nationality who can vote, thus avoiding any composition effect due to
345 their inclusion in the sample. We focus our attention on the working-age population (aged 18 to 64 years) because most migrants belong to this age group and labor market concerns are most relevant for working-age immigrants. According to the French censuses from 1990, 1999, and 2012, around 75% of the migrants were 18 to 64 years old for each of these years. In terms of inflows, 90% of the migrants who arrived in France between 1998 and 2013 were 18 to 64 years old (d’Albis and
350 Boubtane, 2015). Moreover, our estimations and conclusions are robust to including immigrants above 64 years and also to including immigrants below the age of 18 (see Table 14).

Our dataset has information about individuals’ level of education. We can thus decompose individuals across education groups. We use three education groups:

- A low-education group composed of people who do not have a French diploma giving access
355 to high school (*i.e.*, “BEPC”).
- A medium-education group composed of people who have a high school degree (such as “CAP” or “BEP”) or a French diploma giving access to high school (*i.e.*, “BEPC”).
- A high-education group composed of people who have a college degree, some college, or a French diploma giving access to the university (*i.e.*, “Baccalauréat”).

360 From our data, we can also decompose the immigrant population across five nationality groups: Latin nationalities (Italian, Portuguese, and Spanish), other European nationalities (such as German, Polish, Romanian, and Finnish), Maghreb nationalities (Algerian, Moroccan and Tunisian), other African nationalities and the rest of the world.

We also use the 1968 census extract (which covers 25% of the French population) to compute
365 the past spatial distribution of immigrants. This information is used to build our instrument for current immigration across areas. The very large 1968 census extract allows us to infer with precision different subgroups of migrants.

To make our sample representative of the French population, we systematically use an individual

weight (computed by the INSEE). This weight indicates the number of individuals each observation
370 represents in the total population.

3.2. Descriptive Statistics

In the following, we present descriptive statistics to give an overview of our variables.

3.2.1. Vote Shares for Far-Left and Far-Right Candidates

Figure 1a displays the time variation in the vote share for far-left and far-right candidates over
375 the latest six presidential elections in France. Vote shares for both far-left and far-right candidates
particularly increased in the last two presidential elections, after the 2008 economic crisis and the
start of the refugee crisis. Figure 1b focuses on Front National vote shares, also presenting second-
round vote shares. In 2002, Front National's second-round vote share was almost unchanged from
its first-round vote share; however, Marine Le Pen won considerably more votes in the second-round
380 than in the first-round in 2017, which evidences a considerable increase in Front National's electoral
potential.

Figures 2a and 2b show how unemployment and the population share of immigrants have
changed between 1988 and 2012 (2017 data are not yet available). Both unemployment and the
population share of immigrants have increased steadily since 2002. Interestingly, increases in un-
385 employment and in the population share of immigrants between 1988 and 1995, 2002 and 2007, and
2007 and 2012 coincided with an increase in electoral support for far-left and far-right candidates,
whereas the electoral support for far-left and far-right candidates remained essentially flat between
1995 and 2002, a period during which unemployment declined. Remarkably, the vote share of far-
left and far-right candidates declined between 2002 and 2007 while unemployment soared and the
390 population share of immigrants increased. However, it should be noted that the center-right can-
didate, Nicolas Sarkozy, promised to restrict immigration and favored tough policies, especially in
regard to illegal immigrants. Therefore, the dip in far-right support in 2007 may reflect some voters
switching to support Sarkozy in that election. Taken together, the national trends are suggestive
of a link between immigration and far-right support, but correlation is not a proof of causality.

395 To understand the cross-sectional variation in vote shares for far-left and far-right candidates,
we build heat maps of French departments (Figures 5-8)⁸. Figures 3a and 4a display the initial vote

⁸The heatmaps are available at:

share for far-right and far-left candidates in 1988. Far-right candidates were initially very strong in the southeast of France, while far-left candidates were popular in the north, center, and south of France.

Figure 3b illustrates the change in vote share for far-right candidates across departments from 1988 until 2012. In contrast to the initial vote share, the increase in vote share for far-right candidates was concentrated in northeastern departments, departments in the center, and, to some extent, in the southwest of France as well as in Corsica. In these departments, the vote share for far-right candidates increased between 7 and 16 percentage points. Most departments in the southeast of France as well as the Paris region have witnessed a decrease in the far-right vote share from 1988 until 2012. Figure 4b presents the change in vote share from 1988 until 2012 for far-left candidates. The increase in vote share for these candidates was particularly concentrated in the northwestern and eastern French regions (between about 3 and 5 percentage points). There is a negative correlation between the initial vote shares and the change in the vote shares for both far-left (correlation -0.8) and far-right (correlation -0.4). However, this should not be a problem as we instrument subsequent changes in immigration by 1968 census data.

3.2.2. Education and Nationality of Immigrants

Figure 5a reports the educational structure of immigrants (without the French citizenship, aged 18-64 years) for 1968 and the election years 1988, 1995, 2002, 2007, and 2012. The figure shows that the share of high-educated immigrants increased from 16.7% in 1988 to 40.6% in 2012. This rise is stronger than for French citizens, for whom the share of high-educated went from 27.3% in 1988 to 51.1% in 2012 (Figure 5b). However, the share of those with low education is still considerably higher among immigrants, being 16.5% among French citizens and 43.9% among immigrants.

Because the impact of immigrants on votes for far-left and far-right candidates may be masking important country-of-origin distinctions, Figure 5c reports the distribution of immigrants across five nationality groups. Although the shares of Latin and Maghreb immigrants declined between 1988 and 2012, these two groups are still the largest among immigrants without French citizenship. In 2012, almost 50% of the migrants belonged to one of these groups. The shares of immigrants

<https://www.data.gouv.fr/fr/datasets/contours-des-departements-francais-issus-d-openstreetmap/#> and come from contributors to OpenStreetMap. These data are available under the Open Database License, and the cartography is licensed as CC BY-SA. The maps' copyright is held by OpenStreetMap (<http://www.openstreetmap.org/copyright/en>).

with other European nationalities and from the rest of the world increased over time.

4. Empirical Strategy

4.1. The Empirical Model

To investigate the impact of immigration on extreme voting, we estimate the following equation:

$$\Delta Votes_{it} = \gamma_1 \cdot \Delta m_{it} + \gamma_2 \cdot \Delta Unemp_{it} + \gamma_3 \cdot \Delta Demog_{it} + \delta_t + \Delta \epsilon_{it} \quad (1)$$

The dependent variable is the difference in the vote share for far-left and far-right candidates between two presidential elections at the departmental level, *i.e.* $\Delta Votes_{it} = (votes/valid\ votes)_{it} - (votes/valid\ votes)_{it-1}$. We measure the change in immigrant share at the local level by $\Delta m_{it} = m_{it} - m_{it-1}$, where $m_{it} = imm_{it}/Population_{it}$. Δm_{it} is therefore the change in the population share of immigrants (without the French citizenship) living in the locality i . We compute immigrant shares among individuals aged 18-64 years because most migrants belong to this age group and labor market concerns are most relevant for this group. Our empirical results are robust to including immigrants above the age of 64 and below the age of 18.

Our model includes a large set of employment and demographic variables computed among French citizens to control for factors that may simultaneously affect immigration and votes for far-left and far-right candidates. We first include the change in the number of unemployed people relative to the working-age population in each area between t and $t - 1$. We also add a vector of demographic and employment controls that contains:

- The change in the number of inactive individuals relative to the working-age population (aged 18-64 years).
- The change in the number of young individuals (aged 18-30 years) relative to the whole population aged 18 or more.
- The change in the number of high-educated individuals relative to the working-age population not enrolled in school.
- The change in the number of manual workers (skilled or unskilled workers) relative to employment.

- The change in the number of entrepreneurs and self-employed relative to employment.
- 450 • The change in the number of workers in the industrial sector relative to employment.
- The change in the number of workers in the construction sector relative to employment.
- The change in the number of workers in the agricultural sector relative to employment.

In our baseline specification, we include a vector of time fixed effects δ_t to control for common factors specific to each year (such as business cycle). Our empirical strategy therefore accounts
 455 for a number of important unobserved differences across areas, such as economic and demographic trends. $\Delta\epsilon_{it}$ is the error term.

We weight observations in regressions by $(n_{it}n_{it-1}) / (n_{it} + n_{it-1})$, where n_{it} and n_{it-1} are the number of French citizens in each department at time t and $t - 1$.⁹ The standard errors from the estimated parameters of Equation (1) need to be adjusted for clustering at the departmental level
 460 to adjust for possible serial correlation.

The parameter γ_1 identifies the effect of the change in the share of immigrants across departments on the change in votes for far-left and far-right candidates. Thus, it gives the percentage point change in the vote share for a given department in response to 1 percentage point increase in the share of immigrants.

465 4.2. Identification Issues

Estimating Equation (1) using OLS might not provide the “true” impact of immigration on votes due to the endogenous distribution of immigrants across areas. Immigrants can choose their region of residence based on unobserved local characteristics that are correlated with votes for far-left and far-right candidates. They may also be attracted to places where the share of votes for
 470 far-right candidates is low. The endogeneity of immigrants’ location choice could create a spurious negative relationship between immigration and votes for far-right candidates. To address this issue, we follow the existing literature in using an instrumental variable approach. We use an instrument based on past immigration patterns. This approach was pioneered by [Altonji and Card \(1991\)](#) and then used in several other studies, including [Card \(2001\)](#); [Peri \(2012\)](#); [Borjas \(2014\)](#); [Clemens and](#)

⁹Weighting the regressions allows (i) achieving more precise estimates by correcting for heteroskedasticity and (ii) providing an average voting effect that accounts for local population sizes ([Solon et al., 2015](#)).

475 Hunt (2017); Edo and Rapoport (2017). Indeed, new immigrants' settlement decisions are partly determined by the presence of earlier immigrants, mainly through network externalities (Gross and Schmitt, 2003). Earlier immigrants who may, for example, provide new immigrants with information on labor and housing markets. The network effect should be particularly strong among immigrants with the same cultural, linguistic, and educational background (Dustmann et al., 2005).

480 To build our instrument, we thus use the 1968 spatial distribution of immigrants from a given nationality for a given education group to instrument the allocation of new waves of immigrants from that education-origin group across departments. More specifically, we use $n = 5$ nationality groups (Latin nationalities, other European nationalities, Maghreb nationalities, other African nationalities and rest of the world) and $e = 3$ education groups (low, medium, and high education). We also
485 distinguish between the French individuals based on whether they are French-born (FB) or born with a foreign nationality (NFB). Our instrument is thus computed as follows:

$$\Delta \hat{m}_{it} = \left(\hat{imm}_{it} / Population_{it} \right) - \left(\hat{imm}_{it-1} / Population_{it-1} \right), \quad (2)$$

where \hat{imm}_{it} and $Population_{it}$ are the predicted number of immigrants and individuals in a given department at time t . We predict the number of immigrants \hat{imm}_{it} for each department-time cell by multiplying in each year the 1968 spatial distribution of immigrants of each education-origin
490 group by the total number of immigrants from the same education-origin group, as follows:

$$\hat{imm}_{it} = \sum_n \sum_e \frac{imm_i^{ne}(1968)}{imm^{ne}(1968)} \times imm^{ne}(t). \quad (3)$$

In Equation (2), we also predict population sizes across departments because of the potential endogeneity of population sizes. The population in a given department is composed of immigrants (without the French citizenship), French-born citizens (FB), and naturalized individuals (NFB). We instrument population sizes across departments at time t as follows:

$$Population_{it} = \hat{imm}_{it} + \sum_e \frac{FB_i^e(1968)}{FB^e(1968)} \times FB^e(t) + \sum_e \frac{NFB_i^e(1968)}{NFB^e(1968)} \times NFB^e(t). \quad (4)$$

495 Based on Equations (3) and (4), we can compute our instrument, defined in Equation (2). This instrument predicts different levels of immigration in a given department at different points in time for reasons unrelated to votes for far-left and far-right candidates.

The identifying assumption is that the distribution of immigrants in 1968 is not correlated with voting for the far-left or the far-right between 1988 and 2017 once we include our full set of controls. 500 This exclusion restriction means that, for instance, local economic shocks in 1968 are not correlated with voting more than 20 years later once we include our full set of controls. The assumption would be invalid if the initial distribution of immigrants is correlated with persistent local factors that influence future votes for far-left and far-right candidates. As indicated in [Dustmann et al. \(2005\)](#) and [Basso and Peri \(2015\)](#), a way to minimize the correlation between past immigration and current 505 outcomes is to use a sufficient time lag to predict the actual number of immigrants. Use of the 1968 census allows us to instrument current inflows based on immigration patterns that took place at least 20 years earlier. In addition, we control for the economic structure, employment patterns, and population characteristics to ensure that the exclusion restriction is met.

Moreover, Front National, which is the first post-1945 far-right party, was founded in 1972 and 510 participated in the presidential election for the first time in 1988. As a result, the spatial distribution of immigrants in 1968 cannot be caused by far-right voting and is very likely to guarantee the exclusion restriction of our instrument. As robustness tests, we use the 1975 and 1982 French censuses as initial years to compute two alternative instruments. Instead of using the 1968 census to predict the number of immigrants and individuals for each department-time cell, we thus use 515 their spatial distribution in 1975 and 1982.

Another potential concern with such a shift-share instrument has recently been brought forward by [Jaeger et al. \(2018\)](#). The authors argue that using an earlier distribution pattern of immigrants as an instrument can violate the exclusion restriction in the presence of general equilibrium adjustments and strong serial correlation of immigrant flows. However, for several reasons, it is very 520 unlikely that this is a problem for our identification strategy. First, the serial correlation in the number of immigrants by country of origin is lower in France compared to the United States as the immigration pattern has changed quite drastically over time. Migration from Spain, Italy, and Portugal has decreased constantly but migration from the rest of Europe first decreased and then picked up again. Especially for immigrants from the Maghreb countries, the serial correlation is 525 very low. Migration from Algeria, Morocco, and Tunisia increased at first and then dropped again.

Migration from the rest of Africa has increased in steps and migration from the rest of the world has increased tremendously. Consequently, the composition is quite diverse. This result is consistent with what Jaeger et al. (2018) write in their paper: “the prospects to satisfy the exclusion restriction may be better in settings in which the first-stage link is weaker because immigrant inflows
530 have been less stable over time, as is the case in many European countries” (p.3). The result is also in line with a recent study for France (Ortega and Verdugo (2016)), which also concludes that “this approach appears less problematic for France because the country-of-origin mix of immigrants dramatically changed in the period under consideration (1976-2007)”.

Second, the Jaeger et al. (2018) critique is less relevant in our setting as we do not use only
535 past settlement patterns, but also divide the nationality groups into three educational groups. This additional variation should help further reduce the issue of serial correlation.

Third, we think that our outcome variable, vote share for the far-left and far-right parties, does not trigger dynamic adjustments in outcomes in the same way as wages adjust to immigration. The far-left and the far-right parties did not come to power during the period of this study and thus
540 did not significantly influence policy. When there are no ongoing responses to previous shocks in the outcome variable, the critique seems less relevant.

5. The Average Impact of Immigration on Voting

This section investigates the effects of immigration on support for far-left and far-right candidates by exploiting (i) first-round voting in presidential elections since 1988 and (ii) second-round
545 voting in 2002 and 2017 for the Front National. We also study the impact of immigration on abstention from voting.

5.1. Far-Right Voting in the First-Round

Table 1 reports the estimates for our main coefficient of interest γ_1 for various specifications. As the dependent variable, we use the change in votes for far-right candidates during the first-round of
550 the presidential elections that took place between 1988 and 2012. We progressively add controls to isolate the impact of immigration on votes for far-right candidates. Each specification is weighted by the French local population and standard errors are clustered at the departmental level.

In Table 1, the OLS estimates indicate that immigration is positively correlated with votes for far-right candidates. The magnitude of the coefficients is stable across specifications and always

555 significant. In Columns 4-5, the OLS estimate implies that a 1 percentage point increase in the immigrant share increases the share of votes for far-right candidates by 0.4 percentage points. This result is moreover robust to the inclusion of area fixed effects, which controls for local-specific trends in votes and immigration. In the Appendix, Table A.3 reproduces the first four specifications of Table 1 by controlling for area fixed effects. The results are very similar and indicate a significant
560 relationship between immigration and far-right voting.

Tables 1 and A.3 show that the estimated coefficients of the unemployment rate are negative and statistically significant. The negative correlation between immigration and unemployment rate cannot be interpreted as causal and is consistent with Lubbers et al. (2002), who find that the estimated effects of unemployment rate on voting for extreme right-wing parties are negative across
565 a panel of European countries.¹⁰

In Table 2, we use the same specifications as in Table 1 and provide the IV estimates of γ_1 . To address the endogenous location choices of immigrants, we instrument the changes in immigrant share by using past immigrant settlement patterns. Our baseline instrument uses the 1968 French census. We also present the IV results based on two alternative instruments that are computed
570 using the 1975 and 1982 censuses. Not surprisingly, the first-stage regressions indicate a strong and positive correlation between our instruments and the endogenous regressor. We also provide the Kleibergen-Paap rk Wald F statistics. For the 1968 and 1982 instruments, these are larger than the lower bound of 10 suggested by the literature on weak instruments (Stock et al., 2002). This result indicates that our IV estimates are unlikely to suffer from a weak instrument problem. In Column
575 6, however, the Kleibergen-Paap rk Wald F statistic indicates that the 1975-based instrument is less powerful, meaning that the magnitude of the estimates should be read with caution.

The IV estimates reported in Table 2 reinforce our previous findings. First, a positive change in the immigrant share has a positive impact on votes for far-right candidates. In particular, correcting for endogeneity provides a stronger positive impact on votes for far-right candidates. In
580 columns 4-5, our baseline IV estimate implies that a 1 percentage point increase in the immigrant share increases the share of votes for far-right candidates by 2.2-2.4 percentage points. Finding a higher effect when using instrumented immigration than when using actual immigration is consistent

¹⁰ In Table A.5 in the Appendix, we go further and interact immigration and unemployment. We find that the positive effect of immigration is stronger in high unemployment areas. This result suggests that labor market conditions are important in determining the effects of immigration on far-right voting.

with the idea that immigrants are more likely to migrate to regions where the votes for far-right candidates are few or to regions with thriving economies, which may be less inclined to support far-right candidates. This set of results is also supported by Table A.4 in the Appendix, which reports all the specifications from Table 2 by absorbing the area fixed effects. More specifically, Tables A.4 and 2 report very similar estimated coefficients, indicating that controlling for local trends does not affect the estimated effect of immigration on far-right voting.

The finding that immigration is related to higher support for far-right candidates is consistent with what to expect based on labor market competition (see Hypothesis 1), concerns about public finances (see Hypothesis 2) and compositional amenities (see Hypothesis 5), but against what the contact hypothesis would suggest (see Hypothesis 6). We return to Hypotheses 1, 2, 5 and 6 in subsequent more detailed analyses.

We illustrate the link between immigration and changes in far-right support at the departmental level in Figures 6a and 6b. Figure 6a shows how changes in immigrant share are related to changes in far-right vote share between 1988 and 2012, suggesting that a 1 percentage point increase in the population share of immigrants is associated with a half percentage point increase in the support for far-right candidates. To account for endogenous migration responses, Figure 6b presents a corresponding relationship between instrumented changes in immigrants' population share and in the change in support for far-right candidates. The responses to instrumented migration are 10 times larger: an instrumented 1 percentage point increase on the population share of immigrants is associated with a 5.7 percentage point increase in the far-right vote share. Although this number should be viewed with caution, the main finding is clear: endogenous immigration responses considerably dampen the link between immigration and far-right voting. The link remains and is highly statistically significant even when using actual and not instrumented immigration.

5.2. Far-Left Voting in the First-Round

Table 3 investigates the effect of immigration on the change in votes for far-left candidates during the first-round of the presidential elections that took place between 1988 and 2012. The estimated OLS coefficients on the immigration variable are very stable across specifications, negative, and strongly significant but the estimated effects are smaller than the estimated effects on far-right voting. Table A.6 in the Appendix reproduces the same specifications as in Table 3 by controlling for area fixed effects and the estimated results are very similar.

In Table 4, we report the IV estimated results. The estimated coefficients are always negative, but not always statistically significant. Furthermore, the IV estimated effects are weaker than for far-right voting. The effect is not significant in the full specification without area fixed effects (Column 4), but becomes significant when including area fixed effects (Column 5). In the full specification of column 5, the estimate implies that a 1 percentage point increase in the immigrant share decreases the share of votes for far-left candidates by 0.7 percentage points. Table A.7 in the Appendix shows that all the other specifications from Table 4 provide significant effects when including area fixed effects. The discrepancy between the specifications with and without area fixed effects indicates that the non-inclusion of area fixed effects (which controls for local trends in immigration and far-left voting) tends to bias the IV estimated effects of immigration on far-left voting.

The negative relationship between far-left voting and immigration is in line with Hypothesis 3 (Support for redistribution and far-left voting). In particular, it could be explained by Alesina et al. (2018), Alesina et al. (2019) and Dahlberg et al. (2012) showing that native workers reduce their support for redistribution as immigration increases. Reduced support for redistribution, in turn, reduces support for far-left parties, which have consistently supported more extensive redistribution. As far-left support decreases, our findings do not provide support for Hypothesis 4 (Increased demand for insurance and far-left voting).

In the main specifications (Columns 4-5) of 3, the OLS estimate implies that a 1 percentage point increase in the immigrant share tends to increase the share of votes for far-left candidates by 0.1 percentage points. Table 3 and Table A.6 in the Appendix shows that the unemployment rate is not associated with far-left voting, but indicates that the votes for far-left candidates tend to be negatively correlated with the share of the inactive population, and positively correlated with the share of workers in the industrial sector.

5.3. Results using Alternative Geographical Units

Our previous regressions use variations across French departments to identify the impact of immigration on votes for far-left and far-right candidates in the first-round of the presidential elections. We now test whether our previous results hold when using three alternative geographical units of analysis: canton, employment-zone, and region.

Table 5 focuses on the impact of immigration on far-right and far-left voting. Specifications

1 and 2 use the canton and employment-zone levels, respectively, to run the regressions. These geographical units allow us to analyze the impact of immigration on extreme voting at finer levels
645 of aggregation. To use these geographical units, we rely on the French censuses from 1999, 2007, and 2012 and only focus on the presidential elections that occurred in 2002, 2007, and 2012. Specification 3 reports our baseline estimations for the 1988-2012 period. Specification 4 presents the results for regions and Specification 5 extends the period of analysis to account for the 2017 presidential elections and, therefore, uses variation at the regional level between 1988 and 2017.¹¹ For each
650 specification, we report the OLS and IV estimated effects of immigration on votes and use the same instrument as before: past immigrant settlement patterns (as defined in Section 4.2).¹² Each regression includes year dummies and the full set of employment and demographic controls discussed in Section 4.1. We also use local population size as weight and cluster the standard errors by areas to account for potential correlation of the residuals over time.

655 In Table 5, each cell reports the estimated coefficient on the immigration variable (or the estimate of γ_1). It shows that the OLS estimated effects of immigration on far-right voting are positive regardless of the geographical variations used. These estimated results indicate that the positive effect of immigration on votes for far-right candidates holds. The estimated coefficients are between 0.4 at the departmental level and 1.2 at the employment-zone level, implying that a 1 percentage
660 point increase in the immigrant share increases the share of votes for far-right candidates by 0.4 to 1.2 percentage points. At the regional level, the inclusion of the first-round results of the 2017 presidential election does not affect the magnitude of the relationship between immigration and far-right voting. Moreover, the signs of the IV estimated coefficients are not sensitive to whether the analysis takes place at the cantonal, employment-zone, departmental, or regional level. The
665 IV estimated coefficient is 3.0 at the cantonal level, jumps to 4.6 at the employment-zone level, decreases to 2.2 at the departmental level, and is 2.5 at the regional level.

The impact of the immigrant share on votes for far-left candidates is more ambiguous and depends on the specification. Although always negative, the estimated effect is not always significant.

¹¹To compute the explanatory variables, we use the most recent labor force survey, which was implemented in 2015. This labor force survey does not contain any information at the departmental level.

¹²To have an instrument that is not too weak at the employment-zone level (Specification 2), we predict the number of immigrants for each area-time cell by multiplying in each year the 1968 spatial distribution of immigrants of each origin group by the total number of immigrants from the same origin group. We also predict the number of French citizens for each area-time cell based on their 1968 spatial distribution. The predicted numbers of immigrants and French citizens are then used to build the instrument.

Note that the estimated effect of immigration on far-left voting becomes significant at the 5% level when we include area fixed effects (see Table A.7 in the Appendix). At the regional level, the IV estimated coefficients become -0.7 (the corresponding T-statistic is -2.2) and -0.8 (the corresponding T-statistic is -2.2) when we include area fixed effects. We thus conclude that the average effect of immigration on support for far-left candidates is negative, although not always significant.

5.4. Abstention

Table 6 shows the impact of the change in immigrant share on the change in abstention rate during the first-round of the presidential elections that took place between 1988 and 2012 at the departmental level. We progressively add controls in our OLS specifications and use the full specification in the IV specifications. As in Tables 2 and 4, we use three alternative instruments based on the 1968, 1975, and 1982 censuses. Each specification is weighted by the French local population and standard errors are clustered at the departmental level.

The OLS estimated effect of immigration on abstention is positive, but insignificant. The IV estimates, however, indicate that higher levels of immigration increase the abstention rate. Our baseline IV estimate indicates that a 1 percentage point increase in the immigrant share increases the abstention rate by 0.8 percentage points. Barone et al. (2016) also find that immigration has a significant negative effect on voter turnout. They theorize that this finding is due to left-wing voters who are worried about immigration trends, but prefer to not vote instead of voting for a far-right party. Moreover, they find that immigration increases blank/invalid votes and argue that, in general, recent trends in immigration could have contributed to dissatisfaction with how political parties address the issue.

5.5. Far-Right Voting in the Second-Round

Based on the first-round of the presidential elections, our previous findings indicate a robust positive effect of immigration on the electoral support for far-right candidates. This subsection goes beyond these results by documenting the role played by immigration in shaping the change in votes for Front National in the second-rounds of the 2002 and 2017 presidential elections.

Table 7 reports the estimated impact of the change in the immigrant share on the change in second-round votes for Front National between 2002 and 2017. We implement a set of OLS and IV regressions at the cantonal and employment-zone levels and OLS regressions at the departmental

and regional levels. We do not report IV regressions at the departmental and regional levels due to a weak first stage. Since there are no census data for 2017, we compute the change in the immigrant share for each canton on the basis of the 1999 and 2012 censuses. To compute the change in the immigrant share at the departmental and regional levels, we use a combination of the 2001-2002 LFS and 2012 census and a combination of the 2001-2002 LFS and 2015 LFS. To compute the change in the immigrant share for each canton, we use the 1999 and 2012 censuses, as no data are available for 2002 and 2017. All regressions are weighted by the size of the local French population and we report the Student T-statistics based on heteroskedasticity-robust standard errors.

The OLS estimates from Columns 1-2 of Table 7 indicate no correlation between changes in immigration and changes in second-round voting for Front National between 2002 and 2017. As already discussed, these estimates are likely to be downward biased due to the fact that immigrants are not randomly distributed across French localities. Specifically, immigrants could prefer to settle in places with a low propensity to vote for far-right candidates. To account for this potential bias, Columns 2 and 4 exploit an IV estimation technique and use the predicted number of immigrants based on the 1968 spatial distribution of immigrants with similar origin as an instrument. The IV estimated coefficients are positive and significant. This result is consistent with the theoretical direction of the bias, and therefore, supports the validity of our instrument. The specification in Column 2 indicates that a 1 percentage point increase in the immigrant share increases the share of votes for Front National by 1.5 percentage points at the cantonal level.

The two last columns report the OLS estimated effects of immigration on votes for Front National at the departmental and regional levels. Although we do not report the corresponding IV estimated effects, the results confirm that immigration was an important factor in the electoral success of Front National between 2002 and 2017.

6. Heterogeneous Effects of Immigration on Far-Right and Far-Left Voting

Tables 8, 9 and 10 go beyond the average impact of immigration on far-right and far-left voting. These tables present our analyses of the heterogeneous effects of immigrants on first-round voting outcomes depending on their nationality, educational level, and location. Each regression includes employment and demographic controls as well as time fixed effects. We always weight the regression by the French local population and standard errors are clustered at the area level.

In Table 8, we first decompose the effect across regions¹³ and educational attainment and distinguish between European and non-European immigrants.¹⁴ In Table 9, we use the settlement patterns of repatriates from Algeria to focus more explicitly on the heterogeneous effects of two distinct immigrant groups: Maghreb and Latin immigrants. In Table 10, we combine the educational and country of origin decomposition to examine whether the effect of immigrants depends on their nationality holding the educational level constant.

6.1. Decomposition Across Regions

The upper part of Table 8 contains subsample regressions for northern and southern French departments. This distinction is based on the fact that votes for far-right candidates mostly increased in northern departments, while votes for far-left candidates mostly increased in southern departments (see Figures 3b and 4b). Moreover, it was reported in the French media that far-right voters in the North were more concerned about economic conditions than were far-right voters in the South.¹⁵ The latter were more concerned with cultural considerations (e.g., core preferences for how a society should look like). We use three dependent variables: the change in votes for far-right candidates, the change in votes for Front National only and the change in votes for far-left candidates.

In Table 8, the effect of all immigrants is significant both for northern and southern regions for the far-right and Front National alone. The effect is negatively significant in all regions when considering far-left voting.

6.2. Decomposition Across Regions and Education Groups

The middle part of Table 8 breaks down the immigrant population across education groups (low, medium, and high education). This decomposition shows that the positive impact of immigration on votes for far-right and Front National candidates is mostly driven by low-educated immigrants.

¹³We divide France in two geographical parts, defining southern departments as being in the following regions: Aquitaine, Auvergne, Corse, Languedoc, Limousin, Midi-Pyrénées, Poitou-Charente, Provence-Alpes-Côte, and Rhône-Alpes. The rest are defined as northern departments.

¹⁴The spatial distribution of European and non-European immigrants between northern and southern France is quite similar and has been rather stable over time. The geographical distribution of immigrants by nationality group is thus very unlikely to explain our empirical results.

¹⁵See, e.g., the articles in Le Monde (“Sudiste” et “nordiste”, les deux électors du FN – August, 8, 2013) and Marianne (FN du Nord contre FN du Sud: Marine Le Pen évitera-t-elle les turbulences à l’Assemblée ? – June, 19, 2017).

750 The estimated coefficients on the shares of medium- and high-educated immigrants are negative and sometimes significant, indicating that an increase in the relative number of immigrants with a high education level tends to reduce far-right voting. This asymmetric impact across education groups is robust to implementing regressions for the South and the North of France. The positive impact of low-educated immigrants on votes for far-right candidates is thus strongly robust. These results
755 are in line with Hypothesis 2 as low-educated immigrants are more likely to contribute negatively to public finance as compared to high-educated immigrants (Rowthorn, 2008). The results from Table 8 thus indicate that economic concerns are important in understanding the positive relationship between immigration and the increase in the vote share for far-right candidates.

The negative effects of immigration on far-left voting are driven by low-educated immigrants,
760 which is consistent with the hypothesis that voters are less willing to support redistribution targeted at different ethnic groups. Similar to far-right and Front National, the effects for far-left candidates are estimated with greater precision when focusing on southern regions.

6.3. *Decomposition across Regions and Nationality Groups*

The bottom part of Table 8 disaggregates the immigrant population based on nationality, that is,
765 we look at whether the effects vary with ethnic differences. Since, we lack more precise information on religious or ethnic identities among immigrants, we broadly distinguish between European and non-European immigrants. The intuition is that voters have a different attitude toward immigrants from non-European countries as the cultural and ethnic differences are potentially larger (see, e.g., for the case of France, Adida et al., 2010; Edo et al., 2017). Hence, immigrants from non-European
770 countries should have a different effect on voting behavior than do immigrants from European countries. Our estimates show that the positive impact of immigration on votes for far-right candidates is driven by non-European immigrants in line with Hypothesis 5. The result is contrary to what Hypothesis 6 would predict, based on the contact hypothesis. Our geographical decomposition shows that the share of European immigrants has a negative but statistically insignificant impact
775 on far-right voting in the North and a positive and statistically significant one in the South. The results suggests that culture plays a role in explaining the effect of immigration on voting for the far-right. These results for far-right parties are similar to those for Front National alone. Moreover, we find that the negative correlation between immigration and far-left voting is mostly driven by non-European immigrants. This latter result is consistent with the idea that the negative effect

of immigration on native attitudes toward redistribution is weaker when immigrants are culturally closer to natives (Alesina et al., 2018).

Taken together, our findings suggest that immigration increases support for far-right parties and reduces support for far-left parties when economic and cultural concerns coincide, that is when immigrants are low-skilled and come from non-European countries.

To delve more deeply into the relationship between European and non-European immigrants and extreme voting, we use the groups of Latin and Maghreb immigrants and instrument them by the past settlement patterns of repatriates from Algeria after independence in 1962. As shown in Figure 5c, the non-European group of migrants is historically dominated by Maghreb nationalities, while the EU group is dominated by the Latin nationalities. Table 9 focuses on these two nationality groups to investigate the causal impact of Latin and Maghrebian immigration on extreme voting.

As an instrument, we exploit the past spatial distribution of repatriates from Algeria who came in 1962 after its independence. This spatial distribution was to a large extent determined by the port of arrival and climate, and therefore independent of current local economic conditions (Friedberg and Hunt, 1995, p. 37).¹⁶ Among the Algerian-born repatriates without French citizenship, 64% are Spanish and 20% are Algerian. We thus instrument the allocation of Italian, Portuguese, and Spanish immigrants by the past allocation of Spanish repatriates and the allocation of subsequent immigrants from the Maghreb by the distribution of Algerian repatriates. We define a Spanish repatriate as someone who declared to have a Spanish nationality in the 1968 census and who came from Algeria into France between March and December 1962. Algerian repatriates are defined as those having an Algerian nationality in 1968 and coming to France between March and December 1962. The idea is that settlement patterns of Algerian and Spanish repatriates across French departments had an impact on subsequent flows, but are uncorrelated with the unobserved changes in votes for far-right and far-left parties. We instrument the change in the number of Latin immigrants by the following instrument:

$$\Delta \hat{m}_{it}^{LAT} = \left(\hat{LAT}_{it} / \hat{Population}_{it} \right) - \left(\hat{LAT}_{it-1} / \hat{Population}_{it-1} \right), \quad (5)$$

¹⁶See also Edo (2017) for a detailed description of this event.

805 where we impute the number of Latin immigrants across departments based on the spatial distribution of Spanish repatriates from the 1968 census as follows:

$$L\hat{A}T_{it} = \frac{Spanish\ repatriates_i(1962)}{Spanish\ repatriates(1962)} \times LAT_t. \quad (6)$$

Similarly, we instrument the change in the number of Maghreb immigrants by the following instrument:

$$\Delta\hat{m}_{it}^{MAG} = \left(\hat{M}AG_{it}/\hat{Population}_{it} \right) - \left(\hat{M}AG_{it-1}/\hat{Population}_{it-1} \right), \quad (7)$$

810 where we impute the number of Maghreb immigrants across departments based on the spatial distribution of Algerian repatriates from the 1968 census as follows:

$$\hat{M}AG_{it} = \frac{Algerian\ repatriates_i(1962)}{Algerian\ repatriates(1962)} \times MAG_t. \quad (8)$$

The OLS estimates from Table 9 indicate that Latin and Maghreb immigrants increase the electoral success of far-right candidates. The imputed changes of immigrants with a Latin or Maghreb nationality have significant power in predicting immigration. The F-tests from the first-stage IV regressions are higher than 10. Moreover, the IV estimated coefficients on the change
815 in the population share of Latin and Maghreb immigrants report a stronger positive impact of votes for far-right candidates (Panels A and B). This confirms the idea that some reverse causality may bias the OLS estimates downward. For northern regions, however, our estimated coefficients show that the effect of immigrants on far-right voting is asymmetric according to whether they are coming from Maghreb or Latin countries. For these regions, the effect of Maghreb immigrants is
820 significantly positive, while the effect of Latin immigrants is not significantly different from zero. In contrast, the estimates for southern regions indicate that both Latin and Maghreb immigrants have a positive impact on far-right voting.

In all specifications of Panels A and B, the point estimate of Maghreb immigrants is stronger than the estimate for Latin immigrants. In line with Hypothesis 5, this result indicates that French

citizens are more responsive to Maghreb immigrants than to Latin immigrants in their voting behavior for far-right candidates. Panel C of Table 9 shows a robust and negative effect of Maghreb immigrants on far-left voting, especially for northern regions. The impact of Latin immigrants is only significantly negative when focusing on southern French regions.

6.4. *Decomposing the Average Effects Across Region-Education-Nationality Groups*

To better understand the relative relevance of cultural versus economic concerns, Table 10 decomposes the immigrant population across education-nationality groups. Since the educational composition can differ across the nationality groups of immigrants, it is important to look at the heterogeneous effects of immigrants from different nationalities within *each* educational group. Therefore, we compute the change in the population share of non-European and European immigrants for each educational group.

Table 10 provides three main findings. First, we show that the previous positive correlation between low-educated immigrants and far-right voting is strongly heterogeneous according to their nationality group. In particular, the positive impact of low-educated immigration on far-right voting is driven only by non-European migrants. Second, the positive impact of non-European immigrants on far-right voting is also driven only by those who have a low education level. We do not find a strong positive effect of non-European immigrants compared to European immigrants at higher educational levels. On the contrary, the effect of high-educated non-European immigrants seems to be negative, although this result is less robust and only significant in the southern regions of France. As both skills and origin of immigrants matter, this underlines the relevance of both hypotheses, labor market concerns and compositional amenities. Third, the evidence for the far-left is mixed, with some weak indication of a negative effect of low-skilled non-European immigrants and a positive effect of high-skilled European migration on far-left voting. Such a result is consistent with the redistribution hypothesis.

While the interaction between education and origin matters in determining the impact of immigration on voting behavior for far-right candidates, it is unclear whether it is relevant for understanding far-left voting.

7. Challenges to the Estimation Procedure and Robustness Tests

7.1. The Role of Naturalized Immigrants, Second-Generation Immigrants, and Pieds-Noirs

In the baseline estimations, naturalized immigrants and second-generation immigrants are not captured by our immigrant variable as we define an immigrant as one who is foreign born without French nationality.¹⁷ This can be problematic for our analysis, for two reasons. First, naturalized immigrants and second-generation immigrants are likely to be perceived as immigrants by the native population and could thus influence natives' voting. Second, naturalized immigrants and second-generation immigrants can vote themselves and are thus able to directly influence electoral outcomes.

Definition of Immigrant. To address the first concern, we add the change in the share of naturalized immigrants as a control to the baseline specification in Table 14; the results are robust. To include the second-generation is trickier. Following Algan et al. (2010), we define second-generation immigrants as individuals who are born in France but both of whose parents are born abroad. In the past, a 1978 law prevented the collection of personal data regarding the racial and ethnic origins of citizens and parents' place of birth was not recorded in the censuses. In 2005, this question was introduced in the French Labor Force Survey and we have data available from 2005-2014 at the regional level (as opposed to departmental level). However, due to our difference-in-difference setup, this allows us to compute only one difference (2007-2012), which is not enough to perform a difference-in-differences analysis as we would have only 22 observations (since there are 22 regions in France). We can, however, show that the location of first-generation non-naturalized, first-generation naturalized, and second-generation immigrants across departments is highly correlated. The correlation between these three groups of individuals is always higher than 0.95 for the years 2007 and 2012. The correlation between first-generation and second-generation immigrants coming from Maghreb is also higher than 0.95 for these years. As a result, our measure of first-generation immigrants also captures the presence of second-generation immigrants.

Voting by First- and Second-Generation Immigrants. Naturalized first-generation immigrants and second-generation immigrants have the right to vote and thus their presence can directly affect

¹⁷Second-generation immigrants typically have French nationality as it is acquired before 18 for those who are born in France with a foreign nationality (jus soli). For a detailed discussion of the procedure and development of naturalizations, see [Appendix.1](#).

voting outcomes. To investigate how this affects our results, it is necessary to know how naturalized
880 first-generation and second-generation immigrants vote. The literature has established that first-
and second-generation immigrants in France are less likely to vote (Pan Ké Shon, 2004; Maxwell,
2010) and, in the event that they do, are significantly less likely to vote for Front National (Richard,
1999). We analyzed the European Value Survey, which contains information about individual voting
and origin for the year 2008. This descriptive analysis confirms the literature’s finding: both first-
885 and second-generation immigrants are less likely than natives to vote for the far-right.

Voting by first- and second-generation immigrants could thus bias our estimates concerning
the effect of immigration on far-right voting downwards. This is causing our results to be rather
conservative estimates.

Pieds-Noirs. One specific subgroup of the French population is the so-called Pieds-Noirs, who are
890 French citizens who repatriated after the war in 1962 from Algeria to France. These approximately
1 million repatriates mostly settled in the South of France and previous literature using opinion
polls (Fourquet and Pratviel, 2012; Comtat, 2006) shows that this subpopulation is more likely to
vote for Front National. This, however, does not affect our results as the time-constant share of
Pieds-Noirs in a department is taken out in our difference-in-difference setting. Moreover, their
895 effect is rather small. Around 2.7% of the French electorate identify themselves as Pieds-Noirs
and they are at most 8.5 percentage points more likely to vote for Front National (Fourquet and
Pratviel, 2012). Therefore, higher FN support among Pied-Noirs accounts for less than 0.23% of
all votes cast.

7.2. Native Internal Migration Response

900 An important identification issue is related to the migration response of French citizens to the
influx of migrants in a particular area (Borjas, 2006; Peri and Sparber, 2011). In particular, French
citizens who tend to vote for far-right candidates could move into regions that are not affected by the
immigrant influx. These internal flows could therefore create a spurious negative correlation between
votes for far-right candidates and immigrants across areas, inducing the estimated coefficient of
905 immigration on far-right voting to be lower than in the absence of native flight. Table 11 investigates
this issue by estimating the effects of immigration on native internal migration at three alternative
geographical levels (employment-zone, department, region). More specifically, we strictly follow the
strategy proposed by Peri and Sparber (2011).

In Panel A of Table 11, we regress the change in the number of French citizens F on the change
 910 in the number of non-citizen immigrants I . We standardize both by the total population at time
 $t - 1$. In Panel B, we estimate the effect of a change in the number of all immigrants M (naturalized
 and non-naturalized) on the number of natives N at the local level. In both panels, we include
 area and time fixed effects to control for unobserved local effects and common factors specific to
 each year. A positive estimate would imply that immigration tends to attract more natives or
 915 French citizens. A negative estimate would imply that immigration tends to displace some natives
 or French citizens, indicating that the latter respond to immigration by moving to other areas.

The OLS estimates from Table 11 show a positive and significant correlation between immi-
 gration and the change in the number of natives at the employment-zone and departmental levels.
 The OLS estimated effects, however, are insignificant at the regional level and, in Panel A, at the
 920 departmental level. This can be explained by the much larger size of regions. Because the OLS
 estimates could be driven by omitted factors, we also provide IV estimations. We use the 1968
 census to predict the number of immigrants and natives to build our instrument. The IV estimated
 coefficients are negative at the employment-zone and departmental levels, but insignificant at the
 regional level. These IV results first indicate that our previous OLS estimates are upward biased
 925 due to local unobserved factors that attract both immigrants and natives. Once we account for
 the endogeneity of immigration, we find that immigrants tend to displace French citizens across
 areas. Moreover, the displacement effect is stronger at the employment-zone level and does not
 occur at the regional level. These differential effects across areas are consistent with the fact that
 employment-zones are smaller than departments, while regions are bigger than departments. Based
 930 on this set of results, we perform additional regressions estimating the effects of immigration on
 far-right and far-left voting at the regional level to show that our previous results are not driven by
 the reallocation of French citizens across areas due to immigration (see Table 5).

7.3. Additional Robustness Tests

Including Trade and GDP as Controls. Table 12 investigates the effects of immigration on far-
 935 right and far-left voting during the first-round presidential elections between 1995 and 2012 at the
 departmental level controlling for the change in log imports and the change in log exports.¹⁸ We

¹⁸The data on imports and exports come from the French Customs Ministerial Statistical Department.

exclude the 1988 presidential election year from the analysis because the trade data before 1995 underestimate the true value of local imports and exports. We also include the change in log wages to proxy the change in GDP per capita at the departmental level. Including wages or GDP per capita as an additional control can be important when measuring otherwise unobserved changes in the business cycle that can influence both migration patterns and voting outcomes.¹⁹ In Table 13, we perform the same set of regressions as in Table 12, but at the regional level and with GDP per capita as control (instead of wages). We again study the period 1995-2012 to ensure comparability with Table 12. In addition, we include the year 2017 to show that the results are robust and very similar as data are available at the regional level for this year. In both Tables 12 and 13, we include time fixed effects as well as the full set of employment and demographic controls discussed in Section 4.1. In Table 12, we cluster the standard errors at the departmental level and in Table 13 at the regional level.

The results from Table 12 indicate that the impact of immigration on far-right voting is positive. This positive effect is consistent with our previous result that immigration increases the electoral success of far-right candidates. We also find that the change in imports tends to increase far-right voting. This estimated impact is consistent with the study by [Malgouyres \(2017\)](#), who also find for France over the 1995-2012 period that exposure to low-wage country import competition increases the share of votes for Front National. Moreover, we find a negative association between exports and far-right voting. The negative effect of exports on votes for the far-right is consistent with the idea that more exports lead to better economic opportunities and, therefore, lower support for far-right voting. This is in line with findings by [Dippel et al. \(2015\)](#), who find that export opportunities have a moderating effect on far-right voting due to positive employment effects. The change in wages, however, is insignificant in our regressions for far-right voting. Table 12 also show that immigration tends to reduce the electoral success of far-left candidates. Moreover, the results show that trade and wages do not affect far-left voting.

One challenge when including imports as a control variable is its endogeneity. Imports could be determined by some unobserved factors, that might be correlated with immigration. To check the robustness of our results, we therefore follow the strategy of [Autor et al. \(2013\)](#) and [Malgouyres](#)

¹⁹The data on wages come from the French employment surveys. We use this proxy for the change in GDP because we do not have geographically disaggregated GDP data.

965 (2017) by calculating a measure of import penetration across departments and instrumenting it to account for endogeneity. More specifically, we use the 1999 French census and interact the industry composition at the departmental level with sector specific imports from China.²⁰ As in Autor et al. (2013), we calculate local import penetrations in the following way:

$$\Delta IP_{it} = \sum_i \frac{L_{is}(1999)}{L_i(1999)} \times \frac{\Delta M_{st}}{L_i(1999)}, \quad (9)$$

where ΔIP_{it} is the change in import penetration that varies by department i and time t , L is 970 total employment, i is department, s is sector, and ΔM_{st} is the change in French imports from China for a given sector s at time t .

To purge the data from demand-side effects that are driven by France, we follow Autor et al. (2013) and instrument imports from China to France by imports from China to eight other high-income countries.²¹ Table A.8 in the Appendix shows that the coefficients estimating the effects of 975 immigration on voting are robust to using instrumented import exposure as a control variable.

In Table 13, we corroborate previous results from Table 12 adding a different level of aggregation and a longer time period. The variable GDP per capita is never significant in our regressions.

In sum, Tables 12 and 13 tend to support our previous conclusion: an increase in the number of immigrants in a given area increases the share of votes for far-right candidates and decreases the 980 share of votes for far-left candidates.

Additional Tests. Table 14 tests the robustness of our results to alternative specifications at the departmental level only by implementing both OLS and IV strategies. For each specification, we always include year dummies and the full set of employment and demographic controls discussed in Section 4.1. We also use local population size as weight and cluster the standard errors by areas 985 to account for potential correlation of the residuals over time.

In Table 14, the first specification excludes the election year 1988 to focus on more recent episodes of migration and votes. Specification 2 excludes the year 2012 to avoid any bias that may be due to

²⁰We use import data from UN Comtrade for the years 1995, 2002, 2007 and 2012. We merge this data (4-digit HS 1996) to industry classifications (4-digit NACE Rev.1) using a conversion table provided by Eurostat RAMON.

²¹We follow Autor et al. (2013) and use Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland.

the economic crisis that started in 2008. Specification 3 excludes Paris, which is the capital as well as the wealthiest region in France. To avoid any composition effects due to the inclusion of immigrants with French citizenship, our baseline specification focuses on non-naturalized immigrants. Because the share of naturalized immigrants is likely to be correlated with the share of immigrants without French citizenship and votes for far-left and far-right candidates, Specification 4 thus includes the change in the population share of naturalized migrants (aged 18-64 years) as an additional control. Our main regressor of interest (i.e., the change in immigrant share) is computed among individuals aged 18-64 years because most migrants belong to this age group. In Specification 5, we compute immigrant shares among individuals aged 18 or more to show that our results are not sensitive to our sample restriction. More generally, note that all the results presented in our paper are fully robust to using this alternative explanatory variable. In Specification 6, we consider all immigrants regardless of their age. It is important to note that the employment surveys that we use to compute the immigrant share (as well as the covariates) for the election year 1995 surveyed only immigrants aged 15 or older. Specification 6 thus excludes the election year 1995 and focuses only on the years 2002, 2007 and 2012 when immigrants of all ages are included.

In Specifications 7 and 8, we respectively use the total number of votes for far-right and far-left candidates as share of all votes (valid and invalid votes) and as share of registered voters. The last specification uses an alternative regression model by taking variables in levels and including area fixed effects to control for local time-invariant characteristics. This specification naturally has more observations than our baseline specification, which is based on a first difference model.

All our OLS and IV estimates reinforce our previous conclusions.²² First, the results from Table 14 show that an increase in the share of immigrants tends to increase votes for far-right candidates. Second, they indicate an average impact on votes for far-left candidates that is negative but not always significant. Table A.9 in the Appendix reproduces the specifications from Table 14 by controlling for area fixed effects. The estimated results show that immigration has a positive impact on votes for far-right parties and a negative one for far-left parties.

²²Except for Specifications 1, 6 and 9, the F-test of excluded instrument from the first-stage IV regressions is between 15 and 38, which ensures that our instrument is a relevant predictor of the endogenous variable.

8. Multinomial Logit Model

1015 We complement our analysis by studying post-electoral survey data for the presidential elections from 1988 until 2012, using a multinomial logit framework.²³ This method is often used in research on voter choice when more than two parties are present (for a discussion, see [Dow and Endersby \(2004\)](#)). Each survey from 1988 until 2007 covers around 3,300 individuals who expressed a valid vote choice, and the 2012 survey around 1,700 individuals.²⁴ Presidential candidates belonging to
1020 center and right parties are the reference choice category. The alternative choices are candidates belonging to far-left, left and green, or far-right parties.

The goal is to examine the effect of the share of immigrants in a department on the relative probability of choosing far-left, left and green, or far-right over center and right candidates. As the post-electoral survey data record in which department the individual is living, we can combine
1025 individual level socioeconomic characteristics with departmental level data to study how individual characteristics and regional factors influence an individual's vote choice. [Moriconi et al. \(2018\)](#) adopt a similar strategy in their analysis by also studying, across European countries, how the immigrant share at the regional level influences an individual's voting preference.

Across all surveys, about half of the respondents are male, 37% are high educated, 22% young,
1030 5% unemployed, 6% either entrepreneurs or self-employed, 43% manual workers and 4% farmers. The average number of observations across all years for each department is 224. The bottom 10% record less than 100 and the top 10% more than 440 voters.²⁵

The multinomial logit model specifies the probability of choosing a particular presidential candidate as a function of a vector x_{idt} of sociodemographic characteristics at the individual level as well
1035 as variables at the departmental level. For each of the alternative choices, we estimate a vector of coefficients β_j . The coefficients measure the marginal effect on the relative probability of preferring outcome j over the reference category. The multinomial logit model specifies the probability that an individual i living in department d in year t chooses choice j as follows:

²³Post-electoral surveys are conducted by the Centre de Recherches Politiques de Sciences Po (CEVIPOF) and are distributed via the French Data Archives for social sciences (Reseau Quetelet) after registration on its website and upon request.

²⁴For each of the presidential elections, the number of observations is as follows: 3,280 (1988); 3,307 (1995); 3,179 (2002); 3,542 (2007); and 1,681 (2012).

²⁵Due to the data structure in survey 2012, we define young as 18-32.

$$Pr(y = j|x_{idt}) = \frac{e^{x'_{idt}\beta_j}}{1 + \sum_{l=2}^J e^{x'_{idt}\beta_l}} \quad (10)$$

The immigrant share at the departmental level is our main regressor of interest. Since the current
1040 immigrant share is likely to be endogenous to a number of regional factors that also influence an
individual's vote choice, we make use of our identification strategy from our baseline empirical
estimation as follows. First, we regress the current immigrant share on our instrument as well as
departmental level controls and fixed effects. Thereafter, we include the predicted immigrant share
from the instrumental variable regression in the analysis. We cluster the standard errors at the
1045 departmental level and include department as well as time fixed effects.

Table 15 is the baseline estimation for this model. Columns 1-3 present the multinomial logit
model using the current immigrant share as a regressor. The effect of the immigrant share at the
departmental level is positive for far-right candidates and statistically significant at the 5% level.
Immigration thus increases the probability of voting for far-right relative to center-right candidates.
1050 As the point estimates from the multinomial logit model do not necessarily indicate the direction of
the absolute effect of a regressor on the probability to vote for a particular group of candidates, we
calculate average marginal effects. The average marginal effect of an increase in the immigrant share
by 1 percentage point on the probability to vote for far-right candidates is around 0.8 percentage
points. Columns 4-6 present the analysis using the predicted immigrant share. The effect on far-
1055 right candidates is also positive, relatively higher, and significant at the 1% level. In that case, an
increase in the immigrant share by 1 percentage point raises the probability of voting for far-right
candidates by around 4 percentage points. This finding is in line with our previous regressions
where OLS estimates appear to be downward biased.

The analysis in a multinomial logit model shows that the estimated effect of immigration on
1060 far-left voting disappears when the analysis is carried out at the individual level. Furthermore,
being young, unemployed, or male increases the probability of voting far-left, left & green or far-
right relative to voting for the reference category of center-right. Being highly educated reduces
the probability of voting for far-left or far-right.

In Columns 1-3 of Table 16, we decompose the immigrant population across education groups.
1065 Consistent with our earlier findings, the presence of low-educated immigrants increases the proba-
bility of voting for far-right over right candidates, whereas the presence of high-educated immigrants

reduces the probability of voting for far-right over right candidates. The average marginal effect of the low-educated (high educated) immigrant share on the probability to vote for the far-right is 1.50 (-2.55) percentage points. Both average marginal effects are significant at the 1% level. Similarly, [Moriconi et al. \(2018\)](#) find a negative effect of high-educated immigrants and positive effect of low-educated immigrants on individuals' voting preferences for candidates with a nationalistic agenda.

In Columns 4-6 of Table [16](#), we study how the educational level of natives interacts with the educational level of immigrants. We thus interact the low-educated immigrant share with a dummy indicating whether or not the voter is highly educated. The estimated coefficient on this interaction term is negative, indicating that high-educated individuals react less to low-educated immigration by voting for the far-right. Voters without a high level of education therefore have a higher propensity to prefer far-right over right candidates when the share of low-educated immigrants increases.²⁶ As there is an unconditional positive significant effect of low-educated immigrants on the propensity to vote far-right, this would be consistent with the public finance hypothesis (Hypothesis 2). Natives oppose low-educated immigrants potentially because of the higher associated financial burden whereas they are more welcoming towards high-educated immigrants. The finding that low-educated natives respond more negatively to the presence of low-educated immigrants is consistent with the labor market competition hypothesis (Hypothesis 1). The finding is consistent with a labor market argument in which it is the low-educated natives who respond negatively to the presence of low-educated immigrants due to skill substitutability concerns.

We can also gain additional insights about relative party preferences from the multinomial logit model. As we have seen from the previous analysis, the far-right candidates gain and the far-left tends to lose but the losses of the far-left are not as high as the gains of the far-right. So which party is losing due to immigration? We can see from Table [15](#) that the estimated coefficients from all other categories are insignificant and very small. They are thus not significantly different from the reference category right and center. As the analysis is about choice between different candidates, a positive effect on far-right implies, by construction, that all other groups with insignificant

²⁶In Table [A.10](#) in the Appendix, we show that the results are robust to an IV estimation strategy. We interact the predicted immigrant share with the educational level of natives. The point estimates of the predicted immigrant share as regressor and the interaction term between the predicted immigrant share and the educational level of natives on voter's preference for far-right over right candidates are very close to the estimates in Table [16](#).

coefficients lose votes and the effect is of similar magnitude.

1095 We have seen in the analysis of the aggregate data that abstentions tend to be positively correlated with the share of immigrants. The decision to vote could thus be endogenous to the immigrant share present in an individual's region. To address this concern, we include abstention as a choice. This includes individuals who have expressed an erroneous vote, abstained from voting or did not respond to the survey question. Hence, this model includes five choice alternatives relative to
1100 right and center parties. The number of observations increase by around 3,000. Table A.11 in the Appendix shows that our results concerning far-right voting are robust to the inclusion of this choice alternative. If the immigrant share increases by one percentage point, the probability to vote far-right increases by 3.63 percentage points. This suggests that our findings are not driven by a selection effect of voters. The estimated effect of immigration on abstaining relative to voting for
1105 the right and center is statistically insignificant.

9. Conclusion

We estimate the causal effect of immigration on political support for far-left and far-right candidates in France, using panel data on presidential elections since 1988. To account for immigrants' endogenous choices on where to live we use past settlement patterns as an instrument for the allocation of recent immigrants. Our instrument relies on the spatial distribution of immigrants in 1968.
1110 Both OLS and IV estimates suggest that immigration increases support for far-right candidates and tends to have a weak negative effect on the support for far-left candidates at the departmental and regional levels. This is in line with the hypotheses that increasing immigration increases concerns about labor market competition and compositional amenities as well as reduces support
1115 for redistribution. The results hold when controlling for unemployment and various demographic factors.

Looking at different immigrant groups shows that the increase in electoral support for the far-right is driven by low-educated immigrants from non-Western countries. These results are encouraging from a policy perspective. As far-right voting responds primarily to low-educated
1120 immigration, policies promoting high-educated immigration are less likely to suffer from a political backlash, even if immigrants do come from non-Western countries of origin. The effect on the far-left is not driven by any nationality or education group in particular.

We also use survey data from electoral studies to analyze individual-level determinants of voting in a multinomial choice framework, distinguishing between choices representing candidates on the right and center, left and green candidates, and far-left and far-right candidates. The results for far-right voting are broadly in line with the analysis at the department and regional levels. The estimated effect of immigration on far-left voting is not statistically significant in the multinomial logit model. An increase in the department's immigrant share increases support for far-right candidates, an effect that is much stronger when using predicted immigrant shares, which is in line with the idea that immigrants are more likely to choose to live in regions where support for far-right candidates is lower. Nonetheless, as the estimated effect of the actual immigrant shares is also positive, the downward bias introduced by endogenous immigration choices is weaker than the general far-right-boosting effect of immigration. Analyzing separately the effects of low-educated, medium-educated, and high-educated immigrants shows that the increase in support for far-right candidates is driven by low-educated immigrants, and that this far-right-boosting effect is weaker among high-educated respondents. Furthermore, an increase in the population share of high-educated immigrants reduces far-right support.

Why is immigration so strongly related to electoral support for the far-right? [Card et al. \(2012\)](#) highlight the role of compositional amenities and conclude that concerns related to these are more important than economic concerns in explaining negative attitudes toward immigration. [Halla et al. \(2017\)](#) find support for the hypothesis that negative attitudes toward immigration in Austria are to an important extent driven by compositional amenities. Our result that far-right voting is driven by non-Western immigrants (especially those with low education) highlights the importance of immigrants' cultural background. The joint effect of the Eurozone economic crisis and the refugee crisis has been to increase both far-left and far-right voting. Front National more than doubled its first-round vote share from 10.4% in 2007 to 21.3% in 2017, and Marine Le Pen won 33.9% of the second round votes in 2017, compared with 17.8% for Jean-Marie Le Pen in 2002, the only previous election in which the Front National candidate proceeded to the run-off. Taken together, far-left and far-right candidates took 46.5% of the 2017 first-round votes. Although the outcomes of the next presidential elections most likely hangs on the economy, our results suggest that far-left and far-right candidates' electoral success is also going to depend on the size and composition of immigration in coming years.

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Figures

Figure 1a: Vote share in percent for far-left and far-right candidates in France

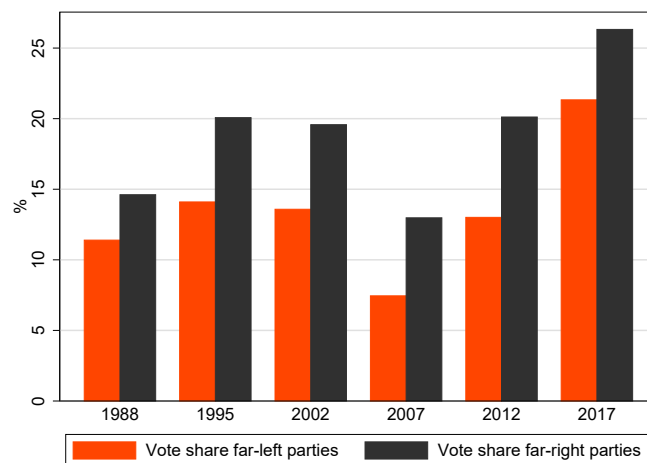


Figure 1b: Vote share in percent for Front National in France - first and second round

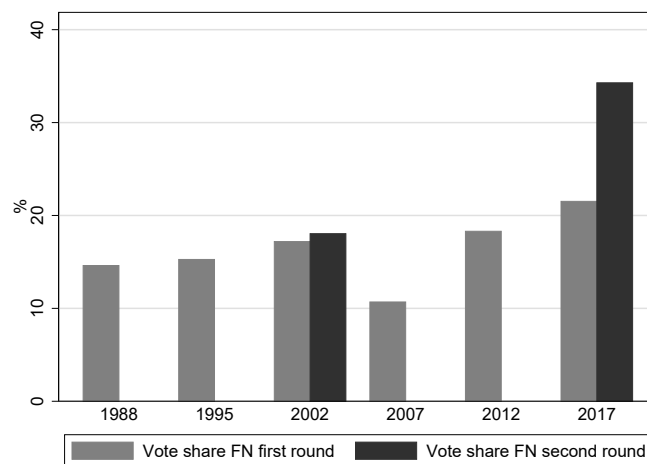


Figure 2a: Development of the unemployment rate over time

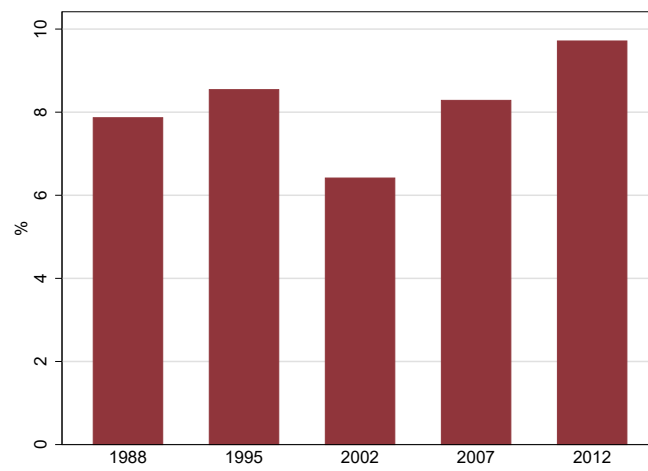


Figure 2b: Development of the immigrant share over time

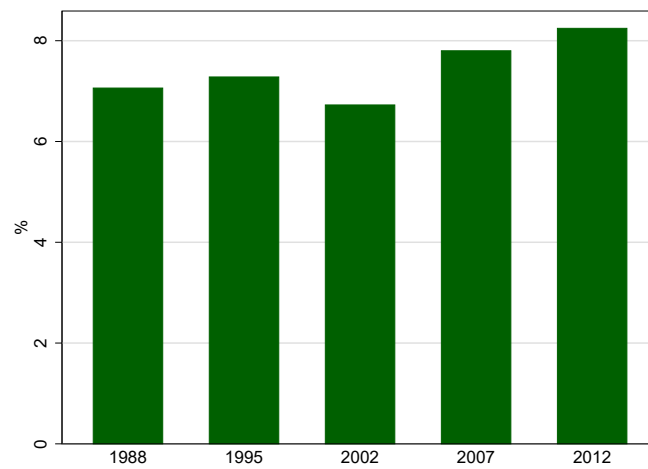
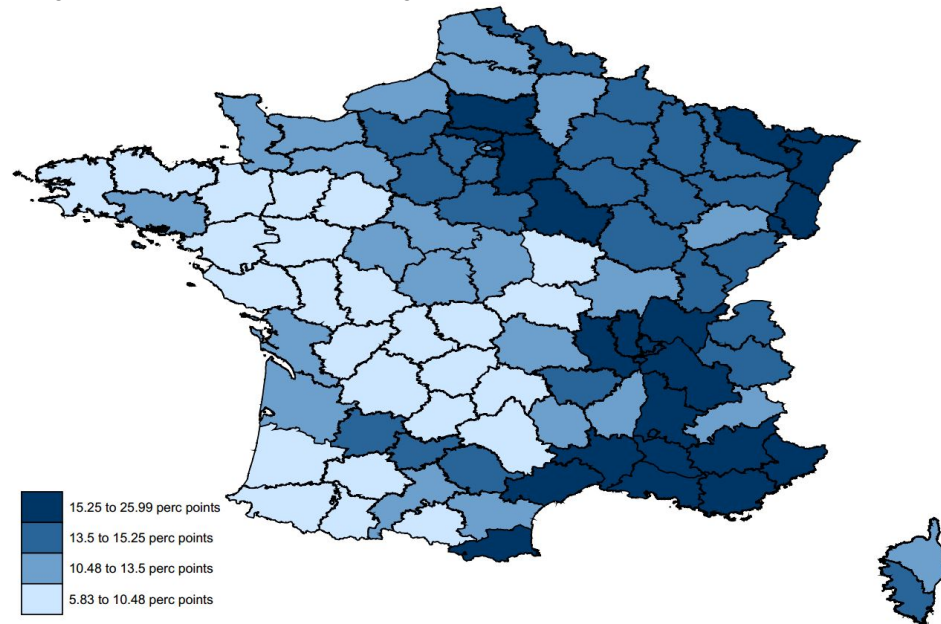
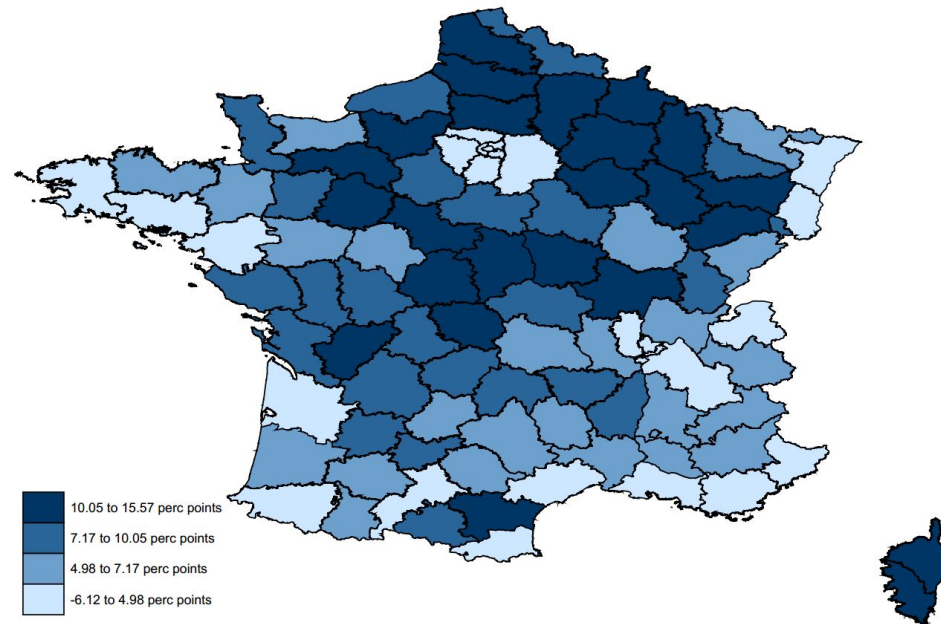


Figure 3a: Initial vote share for far-right candidates in France in 1988



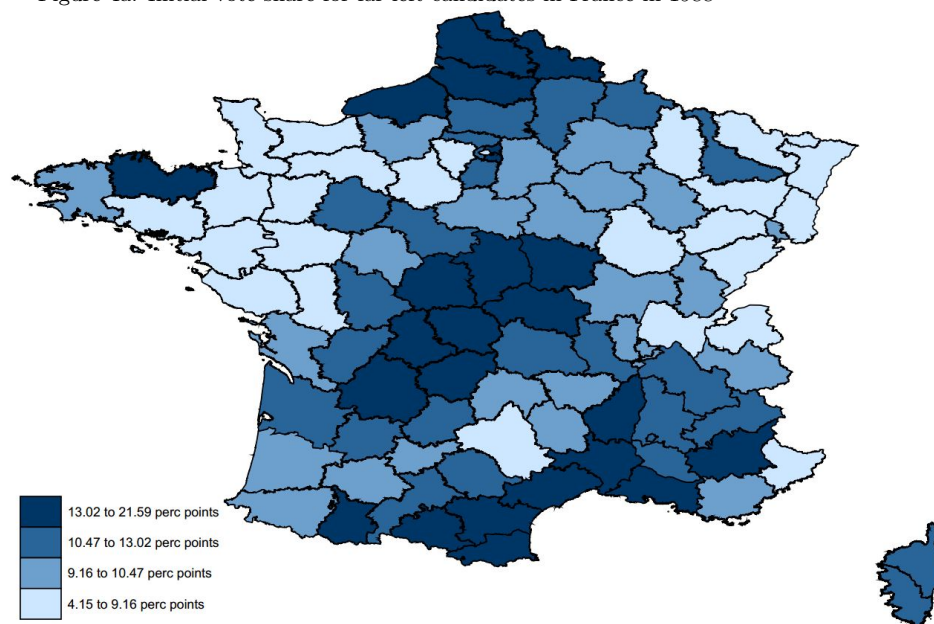
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Figure 3b: Increase in vote share for far-right candidates from 1988 until 2012



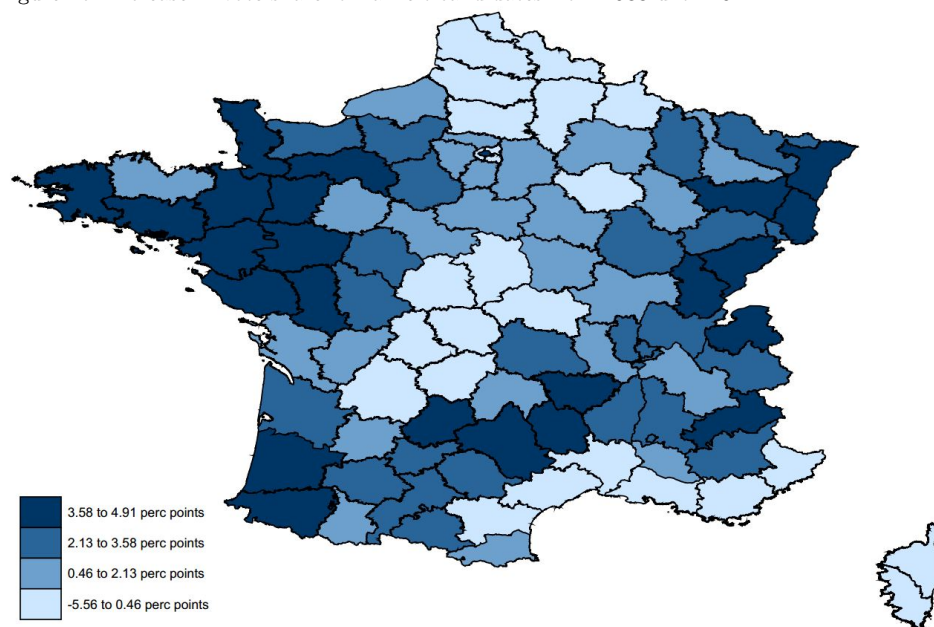
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Figure 4a: Initial vote share for far-left candidates in France in 1988



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Figure 4b: Increase in vote share for far-left candidates from 1988 until 2012



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Figure 5a: Distribution of non-citizen immigrants across education groups over time

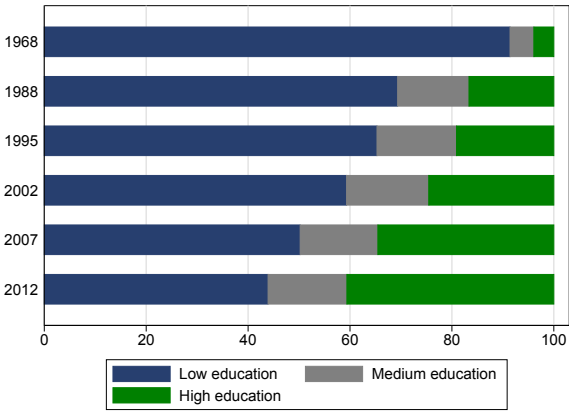


Figure 5b: Distribution of French citizens across education groups over time

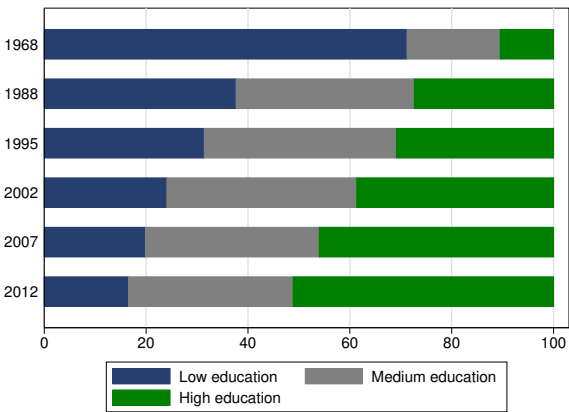


Figure 5c: Distribution of non-citizen immigrants across nationality groups over time

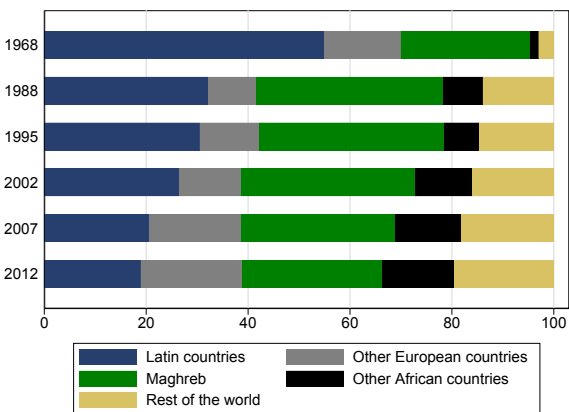


Figure 6a: Scatter plot of changes in immigrants' population share and the far-right vote share between 1988 and 2012

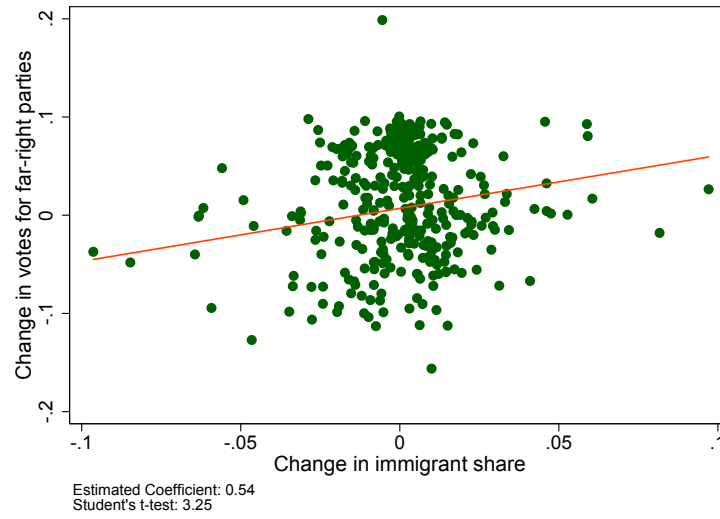


Figure 6b: Scatter plot of instrumented changes in immigrants' population share and the far-right vote share between 1988 and 2012

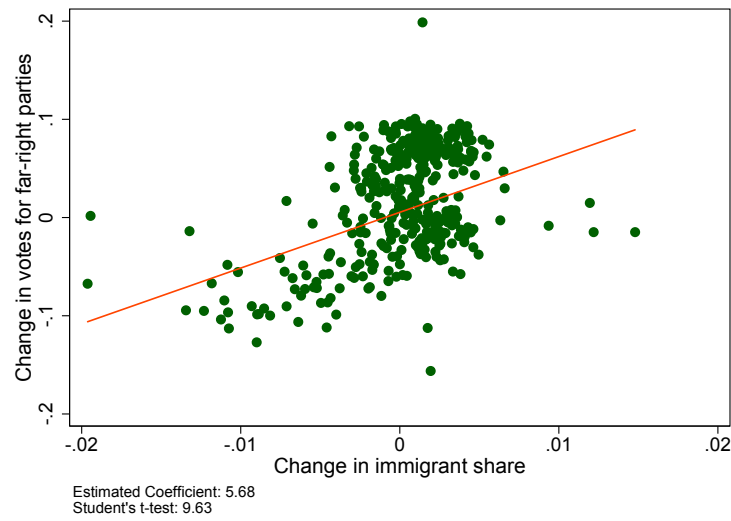


Table 1: OLS impact of immigration on votes for far-right candidates

| | (1) | (2) | (3) | (4) | (5) |
|------------------------------------------------------|-------------------|-------------------|--------------------|---------------------|--------------------|
| Δ Share of immigrants | 0.32*** (2.91) | 0.35*** (3.26) | 0.38*** (3.54) | 0.41*** (3.51) | 0.42*** (3.54) |
| Δ Unemployment rate | - | -0.35* (-1.97) | -0.30* (-1.79) | -0.41** (-2.54) | -0.31** (-2.09) |
| Δ Share of inactive population | - | -0.05 (-0.79) | -0.06 (-0.92) | -0.07 (-1.06) | -0.02 (-0.36) |
| Δ Share of young | - | - | -0.28** (-2.59) | -0.28*** (-2.83) | -0.13 (-1.32) |
| Δ Share of high educated | - | - | 0.01 (0.19) | -0.02 (-0.15) | -0.05 (-0.41) |
| Δ Share of manual workers | - | - | -0.01 (-0.07) | -0.02 (-0.19) | -0.11 (-0.98) |
| Δ Share of entrepreneurs and self-employed | - | - | -0.20* (-1.67) | -0.18 (-1.44) | -0.20 (-1.47) |
| Δ Share of workers in industry | - | - | - | -0.32** (-2.11) | -0.33** (-2.03) |
| Δ Share of workers in construction | - | - | - | 0.30 (1.54) | 0.24 (1.26) |
| Δ Share of workers in agriculture | - | - | - | -0.09 (-0.74) | -0.04 (-0.31) |
| Area fixed effects | No | No | No | No | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes |
| Adjusted R^2 | 0.78 | 0.79 | 0.79 | 0.80 | 0.79 |
| Cluster | 96 | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 2: IV impact of immigration on votes for far-right candidates

| | | Baseline instrument | | | | | 1975 | 1982 |
|------------------------------------------------------|---------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|---------------------|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Δ Share of immigrants | | 2.02*** (2.80) | 2.17*** (3.02) | 2.12*** (3.30) | 2.18*** (3.94) | 2.36*** (3.78) | 2.55*** (2.99) | 1.60*** (3.76) |
| Δ Unemployment rate | | - | -0.78*** (-2.66) | -0.63** (-2.37) | -0.75*** (-2.88) | -0.75** (-2.53) | -0.83*** (-2.72) | -0.64*** (-3.12) |
| Δ Share of inactive population | | - | -0.28* (-1.90) | -0.28* (-1.89) | -0.26* (-1.72) | -0.23 (-1.63) | -0.30** (-2.06) | -0.20* (-1.95) |
| Δ Share of young | | - | - | -0.49** (-2.55) | -0.46*** (-2.62) | -0.37* (-1.77) | -0.50** (-2.36) | -0.40*** (-2.87) |
| Δ Share of high educated | | - | - | 0.14 (1.45) | 0.18 (1.37) | 0.21 (1.41) | 0.22 (1.40) | 0.12 (1.03) |
| Δ Share of manual workers | | - | - | -0.03 (-0.20) | -0.03 (-0.19) | -0.08 (-0.42) | -0.03 (-0.18) | -0.03 (-0.20) |
| Δ Share of entrepreneurs and self-employed | | - | - | -0.10 (-0.48) | -0.07 (-0.31) | -0.03 (-0.15) | -0.04 (-0.18) | -0.10 (-0.60) |
| Δ Share of workers in industry | | - | - | - | -0.27 (-1.44) | -0.21 (-1.00) | -0.25 (-1.29) | -0.28* (-1.70) |
| Δ Share of workers in construction | | - | - | - | 1.06*** (3.00) | 1.10*** (2.94) | 1.23** (2.39) | 0.81*** (2.86) |
| Δ Share of workers in agriculture | | - | - | - | 0.02 (0.11) | 0.08 (0.48) | 0.04 (0.23) | -0.02 (-0.11) |
| Area fixed effects | | No | No | No | No | Yes | No | No |
| Time fixed effects | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| First-stage: | Instrument | 1.00*** (3.82) | 0.94*** (4.05) | 0.96*** (3.93) | 0.86*** (3.99) | 1.37*** (4.27) | 0.87*** (2.78) | 1.32*** (4.73) |
| | T-statistic | | | | | | | |
| | K.-P. rk Wald F statistic | 14.60 | 16.40 | 15.47 | 15.88 | 24.65 | 7.74 | 22.40 |
| N | | 384 | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. In Columns 1-5, our shift-share instrument is computed using the 1968 French census. In Columns 6-7, we use the 1975 and 1982 censuses to build the instrument, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level.
* p < .10, ** p < .05, *** p < .01.

Table 3: OLS impact of immigration on votes for far-left candidates

| | (1) | (2) | (3) | (4) | (5) |
|------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Δ Share of immigrants | -0.14*** (-3.21) | -0.12*** (-2.94) | -0.11*** (-2.90) | -0.11*** (-2.87) | -0.11*** (-2.68) |
| Δ Unemployment rate | - | -0.00 (-0.04) | 0.00 (0.05) | 0.05 (0.58) | 0.02 (0.27) |
| Δ Share of inactive population | - | -0.13*** (-3.20) | -0.12*** (-3.11) | -0.13*** (-3.32) | -0.12*** (-3.02) |
| Δ Share of young | - | - | -0.05 (-0.90) | -0.03 (-0.66) | -0.01 (-0.15) |
| Δ Share of high educated | - | - | 0.04 (0.88) | 0.02 (0.27) | 0.00 (0.06) |
| Δ Share of manual workers | - | - | 0.05 (1.64) | 0.00 (0.09) | -0.00 (-0.04) |
| Δ Share of entrepreneurs and self-employed | - | - | 0.10* (1.70) | 0.04 (0.53) | 0.03 (0.47) |
| Δ Share of workers in industry | - | - | - | 0.12*** (3.31) | 0.13*** (3.00) |
| Δ Share of workers in construction | - | - | - | 0.01 (0.09) | 0.00 (0.02) |
| Δ Share of workers in agriculture | - | - | - | -0.04 (-0.90) | -0.03 (-0.68) |
| Area fixed effects | No | No | No | No | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes |
| Adjusted R^2 | 0.90 | 0.90 | 0.90 | 0.91 | 0.89 |
| Cluster | 96 | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 4: IV impact of immigration on votes for far-left candidates

| | Baseline instrument | | | | | 1975 | 1982 |
|------------------------------------------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Δ Share of immigrants | -0.38** (-2.18) | -0.29* (-1.77) | -0.27 (-1.43) | -0.21 (-1.05) | -0.67*** (-2.73) | -0.10 (-0.44) | -0.22 (-1.54) |
| Δ Unemployment rate | - | 0.04 (0.43) | 0.03 (0.37) | 0.07 (0.76) | 0.15 (1.27) | 0.04 (0.50) | 0.07 (0.84) |
| Δ Share of inactive population | - | -0.10** (-2.45) | -0.11** (-2.34) | -0.12*** (-2.74) | -0.06 (-1.06) | -0.13*** (-2.75) | -0.12*** (-2.92) |
| Δ Share of young | - | - | -0.03 (-0.59) | -0.02 (-0.47) | 0.06 (0.95) | -0.03 (-0.65) | -0.02 (-0.47) |
| Δ Share of high educated | - | - | 0.03 (0.68) | 0.00 (0.07) | -0.07 (-1.10) | 0.02 (0.28) | 0.00 (0.06) |
| Δ Share of manual workers | - | - | 0.05* (1.71) | 0.00 (0.11) | -0.01 (-0.20) | 0.00 (0.09) | 0.00 (0.11) |
| Δ Share of entrepreneurs and self-employed | - | - | 0.09 (1.50) | 0.03 (0.42) | -0.01 (-0.16) | 0.04 (0.52) | 0.03 (0.42) |
| Δ Share of workers in industry | - | - | - | 0.12*** (3.23) | 0.09* (1.78) | 0.12*** (3.27) | 0.12*** (3.21) |
| Δ Share of workers in construction | - | - | - | -0.04 (-0.34) | -0.24* (-1.80) | 0.01 (0.09) | -0.04 (-0.36) |
| Δ Share of workers in agriculture | - | - | - | -0.04 (-0.99) | -0.06 (-1.08) | -0.04 (-0.86) | -0.04 (-1.02) |
| Area fixed effects | No | No | No | No | Yes | No | No |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| First-stage: Instrument | 1.00*** (3.82) | 0.94*** (4.05) | 0.96*** (3.93) | 0.86*** (3.99) | 1.37*** (4.27) | 0.87*** (2.78) | 1.32*** (4.73) |
| T-statistic | | | | | | | |
| K.-P. rk Wald F statistic | 14.60 | 16.40 | 15.47 | 15.88 | 24.65 | 7.74 | 22.40 |
| N | 384 | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. In Columns 1-5, our shift-share instrument is computed using the 1968 French census. In Columns 6-7, we use the 1975 and 1982 censuses to build the instrument, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 5: Immigration and voting using alternative geographical units of analysis

| | Far-right candidates | | Far-left candidates | | Time span | Cluster | N |
|-------------------------------------|----------------------|-------------------|---------------------|---------------------|-----------|---------|-------|
| | OLS | IV | OLS | IV | | | |
| 1. Canton | 0.41*** (7.47) | 3.01*** (3.44) | -0.02 (-0.59) | -0.27 (-0.68) | 2002-2012 | 1,989 | 3,895 |
| Kleibergen-Paap rk Wald F statistic | - | 17.26 | - | 17.26 | | | |
| 2. Employment zone | 1.21*** (5.41) | 4.57*** (2.98) | -0.11 (-1.13) | -2.20*** (-2.80) | 2002-2012 | 305 | 610 |
| Kleibergen-Paap rk Wald F statistic | - | 14.24 | - | 14.24 | | | |
| 3. Department | 0.41*** (3.51) | 2.18*** (3.94) | -0.11*** (-2.87) | -0.21 (-1.05) | 1988-2012 | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 15.88 | - | 15.88 | | | |
| 4. Region | 0.96** (2.15) | 2.95*** (2.79) | -0.34 (-1.68) | -0.50 (-1.55) | 1988-2012 | 22 | 88 |
| Kleibergen-Paap rk Wald F statistic | - | 11.72 | - | 11.72 | | | |
| 5. Region, including 2017 | 0.98** (2.66) | 2.52** (2.18) | -0.30 (-1.52) | -0.50 (-1.54) | 1988-2017 | 22 | 110 |
| Kleibergen-Paap rk Wald F statistic | - | 11.86 | - | 11.86 | | | |

Notes. The dependent variable in the first two columns is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2017. In the last two columns the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2017. The first and the third column use OLS estimation and the second and the fourth column use IV estimation. Our shift-share instrument is computed using the 1968 French census. The regressions are run at the cantonal, employment-zone, departmental and regional levels. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 6: OLS and IV impact of immigration on abstention from voting

| | OLS estimates | | | | IV estimates | | |
|------------------------------------------------------|----------------|------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| | (1) | (2) | (3) | (4) | 1968 | 1975 | 1982 |
| Δ Share of immigrants | 0.14 (1.23) | 0.15 (1.34) | 0.17 (1.52) | 0.18 (1.58) | 0.83** (2.45) | 1.50*** (3.01) | 1.53*** (4.61) |
| Δ Unemployment rate | - | -0.19 (-1.53) | -0.17 (-1.44) | -0.18 (-1.50) | -0.30** (-2.15) | -0.43** (-2.22) | -0.44** (-2.43) |
| Δ Share of inactive population | - | 0.06 (0.87) | 0.05 (0.87) | 0.05 (0.85) | -0.02 (-0.19) | -0.09 (-0.81) | -0.09 (-0.82) |
| Δ Share of young | - | - | -0.15* (-1.82) | -0.15* (-1.66) | -0.22** (-2.29) | -0.28** (-2.19) | -0.29** (-2.31) |
| Δ Share of high educated | - | - | 0.05 (0.62) | 0.05 (0.45) | 0.13 (1.03) | 0.20 (1.29) | 0.20 (1.30) |
| Δ Share of manual workers | - | - | 0.05 (0.79) | 0.04 (0.48) | 0.04 (0.41) | 0.04 (0.30) | 0.04 (0.30) |
| Δ Share of entrepreneurs and self-employed | - | - | 0.07 (0.88) | 0.07 (0.63) | 0.11 (0.96) | 0.16 (0.96) | 0.16 (0.94) |
| Δ Share of workers in industry | - | - | - | -0.02 (-0.26) | 0.00 (0.02) | 0.02 (0.20) | 0.02 (0.20) |
| Δ Share of workers in construction | - | - | - | 0.07 (0.51) | 0.35 (1.51) | 0.64* (1.92) | 0.65** (2.24) |
| Δ Share of workers in agriculture | - | - | - | -0.00 (-0.04) | 0.04 (0.39) | 0.08 (0.60) | 0.08 (0.60) |
| Adjusted R^2 | 0.93 | 0.93 | 0.93 | 0.93 | - | - | - |
| Kleibergen-Paap rk Wald F statistic | - | - | - | - | 15.88 | 7.74 | 22.40 |
| Cluster | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of abstention from voting between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Columns 1-4 use OLS estimation and Columns 5-7 use IV estimation. In Column 5, our shift-share instrument is computed using the 1968 French census. In Columns 6-7, we use the 1975 and 1982 censuses to build the instrument, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 7: Impact of the change in immigration on second-round votes for Front National between 2002 and 2017

| | Canton | | Employment zone | | Department | Region |
|------------------------------------------------------|----------------------|----------------------|---------------------|---------------------|--------------------|------------------|
| | OLS | IV | OLS | IV | OLS | OLS |
| Δ Share of immigrants | 0.01 (0.11) | 1.49*** (4.20) | 0.12 (0.51) | 4.88*** (3.28) | 0.87** (2.56) | 2.11* (1.75) |
| Δ Unemployment rate | -0.09 (-0.92) | -0.22* (-1.72) | 0.03 (0.11) | 0.25 (0.62) | 0.12 (0.16) | -1.77 (-0.68) |
| Δ Share of inactive population | -0.80*** (-13.91) | -1.00*** (-13.95) | -1.35*** (-9.96) | -1.53*** (-8.62) | -0.60* (-1.97) | 0.50 (0.73) |
| Δ Share of young | -0.65*** (-6.15) | -0.77*** (-6.21) | -0.91*** (-3.32) | 0.35 (0.71) | -1.11** (-2.57) | 0.83 (0.48) |
| Δ Share of high educated | 0.53*** (6.15) | 0.61*** (7.16) | 0.47** (2.21) | 0.25 (1.07) | 0.48 (1.25) | -1.20 (-1.16) |
| Δ Share of manual workers | 0.79*** (10.40) | 0.88*** (10.91) | 1.79*** (8.10) | 2.23*** (6.89) | 0.13 (0.41) | -1.11 (-1.53) |
| Δ Share of entrepreneurs and self-employed | 0.41*** (3.30) | 0.51*** (3.60) | 1.24** (2.58) | 1.28** (1.96) | 0.15 (0.31) | 0.06 (0.04) |
| Δ Share of workers in industry | -0.44*** (-9.97) | -0.64*** (-10.22) | -0.63*** (-4.51) | -1.21*** (-4.33) | -0.48** (-2.03) | -0.60 (-0.66) |
| Δ Share of workers in construction | -0.05 (-0.61) | -0.12 (-1.02) | -0.34 (-0.84) | -1.32** (-2.03) | 0.11 (0.13) | -2.35 (-1.08) |
| Δ Share of workers in agriculture | -0.20*** (-2.64) | -0.14 (-1.63) | 0.41 (1.38) | 1.59*** (2.98) | -0.72** (-2.38) | -1.73 (-1.10) |
| Adjusted R^2 | 0.49 | - | 0.64 | - | 0.22 | 0.16 |
| Kleibergen-Paap rk Wald F statistic | - | 103.93 | - | 18.67 | - | - |
| N | 1,995 | 1,995 | 305 | 305 | 96 | 22 |

Notes. The dependent variable is the change in the share of votes for Front National between the second-round of the presidential elections that took place in 2002 and 2017. Columns 1, 3, 5 and 6 use OLS estimation, while Columns 2 and 4 use IV estimation. Our shift-share instrument is computed using the 1968 French census. The regressions are run at the cantonal, employment-zone, departmental and regional levels. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 8: Decomposing the average effects across regions, education and nationality groups for far-right and far-left candidates

| | Far-right candidates | | | Front National only | | | Far-left candidates | | |
|-------------------------------|----------------------|-------------------|-------------------|---------------------|---------------------|-------------------|---------------------|--------------------|---------------------|
| | All regions | Northern regions | Southern regions | All regions | Northern regions | Southern regions | All regions | Northern regions | Southern regions |
| Δ All immigrants | 0.41*** (3.51) | 0.23** (2.24) | 0.65*** (4.77) | 0.29*** (3.44) | 0.15* (1.97) | 0.51*** (4.43) | -0.11*** (-2.87) | -0.10* (-1.85) | -0.18*** (-3.74) |
| Δ Low-educated imm. | 0.76*** (5.24) | 0.70*** (2.75) | 0.82*** (6.15) | 0.61*** (5.19) | 0.47** (2.26) | 0.69*** (5.70) | -0.12** (-2.00) | -0.16 (-1.49) | -0.17*** (-3.05) |
| Δ Medium-educated imm. | -0.61 (-1.26) | -1.35* (-1.80) | 0.06 (0.10) | -0.40 (-1.13) | -0.41 (-0.64) | -0.17 (-0.30) | -0.14 (-0.60) | -0.24 (-0.67) | -0.21 (-0.87) |
| Δ High-educated imm. | -0.38 (-1.18) | -0.18 (-0.30) | -0.05 (-0.08) | -0.77*** (-3.27) | -0.93*** (-3.06) | -0.13 (-0.28) | 0.04 (0.19) | 0.47 (1.50) | -0.19 (-0.83) |
| Δ Non-European imm. | 0.50*** (3.15) | 0.52*** (2.87) | 0.67*** (3.43) | 0.31** (2.19) | 0.21 (1.37) | 0.52*** (3.30) | -0.14** (-2.40) | -0.19** (-2.23) | -0.17** (-2.49) |
| Δ European imm. | 0.24 (1.11) | -0.48 (-1.17) | 0.62*** (3.16) | 0.26* (1.80) | 0.00 (0.00) | 0.49*** (2.87) | -0.05 (-0.43) | 0.13 (0.63) | -0.20** (-2.54) |
| Cluster | 96 | 51 | 45 | 96 | 51 | 45 | 96 | 51 | 45 |
| <i>N</i> | 384 | 204 | 180 | 384 | 204 | 180 | 384 | 204 | 180 |

Notes. The dependent variables are changes in the share of votes for far-right, Front National and far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 9: Impact of Latin and North-African immigrants on votes for far-right and far-left candidates

| | All regions | | Northern regions | | Southern regions | |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | OLS | IV | OLS | IV | OLS | IV |
| A. Far-right candidates | | | | | | |
| Δ North-African immigrants | 0.71*** (3.67) | 1.13*** (3.15) | 0.79*** (2.73) | 0.91** (2.10) | 0.73*** (3.54) | 1.19*** (3.33) |
| Δ Latin immigrants | 0.34* (1.66) | 0.79** (2.35) | -0.11 (-0.26) | 0.17 (0.36) | 0.51** (2.48) | 1.01*** (3.03) |
| Kleibergen-Paap rk Wald F statistic | - | 13.30 | - | 37.79 | - | 15.29 |
| B. Front National only | | | | | | |
| Δ North-African immigrants | 0.50*** (3.56) | 0.74*** (3.99) | 0.40** (2.03) | 0.69** (2.03) | 0.61*** (4.00) | 0.80*** (4.83) |
| Δ Latin immigrants | 0.26* (1.75) | 0.76** (2.52) | 0.13 (0.55) | 0.43 (1.19) | 0.39** (2.14) | 0.87*** (2.84) |
| Kleibergen-Paap rk Wald F statistic | - | 13.30 | - | 37.79 | - | 15.29 |
| C. Far-left candidates | | | | | | |
| Δ North-African immigrants | -0.16** (-2.13) | -0.21** (-2.25) | -0.31** (-2.09) | -0.46** (-2.01) | -0.13** (-2.09) | -0.20** (-2.13) |
| Δ Latin immigrants | -0.18* (-1.83) | -0.08 (-0.53) | -0.14 (-0.70) | 0.19 (0.52) | -0.24** (-2.37) | -0.29* (-1.83) |
| Kleibergen-Paap rk Wald F statistic | - | 13.30 | - | 37.79 | - | 15.29 |

Notes. The dependent variables are changes in the share of votes for far-right candidates (Panel A), Front National (Panel B) and far-left candidates (Panel C) between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Columns 1, 3 and 5 use OLS estimation and Columns 2, 4 and 6 use IV estimation. Our shift-share instrument is computed using the 1968 French census. Regressions are run the at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 10: Decomposing the average effects across education-nationality groups for far-right and far-left candidates

| | | Far-right candidates | | | Front National only | | | Far-left candidates | | |
|-----------------|----------|----------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|------------------|-------------------|
| | | All regions | Northern regions | Southern regions | All regions | Northern regions | Southern regions | All regions | Northern regions | Southern regions |
| △Low education | Non-Eur. | 1.11*** (5.31) | 1.31*** (4.11) | 0.96*** (5.03) | 0.78*** (4.18) | 0.71** (2.52) | 0.84*** (4.79) | -0.12 (-1.08) | -0.12 (-0.49) | -0.17* (-1.72) |
| — | European | 0.25 (1.03) | -0.39 (-0.78) | 0.56** (2.26) | 0.37** (2.32) | 0.14 (0.58) | 0.42* (1.96) | -0.10 (-0.73) | -0.06 (-0.20) | -0.16 (-1.00) |
| △Medium educ. | Non-Eur. | -1.17* (-1.84) | -2.60** (-2.25) | 0.54 (0.63) | -0.70 (-1.23) | -1.69* (-1.72) | 0.16 (0.21) | -0.30 (-0.80) | -0.48 (-0.76) | -0.18 (-0.39) |
| — | European | 0.15 (0.20) | 0.10 (0.06) | 0.03 (0.04) | 0.03 (0.05) | 0.89 (1.04) | -0.09 (-0.13) | 0.04 (0.12) | 0.23 (0.42) | -0.28 (-0.63) |
| △High education | Non-Eur. | -0.77* (-1.91) | -0.01 (-0.01) | -2.37*** (-2.82) | -1.07*** (-3.01) | -0.57 (-1.32) | -2.30*** (-3.36) | -0.02 (-0.06) | 0.08 (0.22) | 0.00 (0.01) |
| — | European | 0.05 (0.09) | -1.10 (-0.88) | 1.09* (1.70) | -0.39 (-0.78) | -1.79** (-2.05) | 0.93 (1.62) | 0.17 (0.61) | 1.42** (2.60) | -0.30 (-1.12) |
| Cluster | | 96 | 51 | 45 | 96 | 51 | 45 | 96 | 51 | 45 |
| N | | 384 | 204 | 180 | 384 | 204 | 180 | 384 | 204 | 180 |

Notes. The dependent variables are changes in the share of votes for far-right, Front National and far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * p < .10, ** p < .05, *** p < .01.

Table 11: Displacement effects due to immigration

| | Employment zone | | Department | | Region | |
|----------------------------------------------------|-------------------|--------------------|-----------------|--------------------|----------------|------------------|
| | OLS | IV | OLS | IV | OLS | IV |
| A. Dependent variable: $(F_t - F_{t-1})/All_{t-1}$ | | | | | | |
| $(I_t - I_{t-1})/All_{t-1}$ | 6.49*** (3.76) | -5.07** (-2.11) | 0.76 (1.07) | -1.92* (-1.88) | 0.44 (0.34) | 0.48 (0.39) |
| Kleibergen-Paap rk Wald F statistic | - | 20.82 | - | 7.57 | - | 19.78 |
| N | 610 | 610 | 384 | 384 | 110 | 110 |
| B. Dependent variable: $(N_t - N_{t-1})/All_{t-1}$ | | | | | | |
| $(M_t - M_{t-1})/All_{t-1}$ | 2.83** (2.08) | -2.03** (-2.11) | 1.25* (1.85) | -1.93** (-1.99) | 0.03 (0.03) | -0.12 (-0.15) |
| Kleibergen-Paap rk Wald F statistic | - | 50.60 | - | 9.60 | - | 10.72 |
| N | 610 | 610 | 384 | 384 | 110 | 110 |

Notes. Panel A reports the estimated effects of non-naturalized immigrants on the displacement of French citizens, while Panel B reports the estimated effects of immigrants on native displacement over the 1988-2012 period. In Panel A, the dependent variable is the change in French citizens divided by the whole population in $t - 1$. In Panel B, the dependent variable is the change in natives divided by the whole population in $t - 1$. Columns 1, 3 and 5 use OLS estimation and Columns 2, 4 and 6 use IV estimation. Our shift-share instrument is computed using the 1968 French census. The regressions are run at the employment-zone, departmental and regional levels. T-statistics are indicated in parentheses below the point estimate. Each regression includes time and area fixed effects. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 12: Adding trade and wages as additional regressors at the departmental level

| | Far-right candidates | | | | Far-left candidates | | | |
|-------------------------------------|----------------------|--------------------|-------------------|-------------------|---------------------|--------------------|---------------------|--------------------|
| | OLS | IV | OLS | IV | OLS | IV | OLS | IV |
| Δ Share of immigrants | 0.44*** (4.05) | 0.86* (1.88) | 0.44*** (4.22) | 0.80* (1.81) | -0.17*** (-3.04) | -0.31** (-1.98) | -0.16*** (-2.97) | -0.34** (-2.07) |
| Δ Imports | 0.02** (2.49) | 0.02** (2.48) | 0.02** (2.42) | 0.02** (2.49) | 0.01 (0.86) | 0.01 (0.76) | 0.01 (0.80) | 0.01 (0.69) |
| Δ Exports | -0.02* (-1.85) | -0.02** (-1.98) | -0.01* (-1.68) | -0.01* (-1.77) | 0.00 (0.10) | 0.00 (0.17) | 0.00 (0.24) | 0.00 (0.30) |
| Δ Wages | - | - | 0.01 (1.24) | 0.01 (1.28) | - | - | 0.01 (1.52) | 0.01 (1.30) |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Kleibergen-Paap rk Wald F statistic | - | 10.21 | - | 11.57 | - | 10.21 | - | 11.57 |
| N | 288 | 288 | 288 | 288 | 288 | 288 | 288 | 288 |

Notes. In Columns 1-4 (5-8), the dependent variable is the change in the share of votes for far-right (far-left) candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2012. Columns 1, 3, 5 and 7 use OLS estimation and Columns 2, 4, 6 and 8 use IV estimation. Our shift-share instrument is computed using the 1982 French census. Δ Imports, Δ Exports and Δ Wages refer to change in log imports, log exports and log wages between two consecutive years of presidential election, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 13: Adding trade and GDP per capita as additional regressors at the regional level

| | Far-right candidates | | | | Far-left candidates | | | |
|-------------------------------------|----------------------|--------------------|-------------------|--------------------|---------------------|---------------------|------------------|---------------------|
| | 1995-2012 | | 1995-2017 | | 1995-2012 | | 1995-2017 | |
| | OLS | IV | OLS | IV | OLS | IV | OLS | IV |
| Δ Share of immigrants | 0.93** (2.24) | 1.58*** (2.65) | 0.99*** (3.12) | 1.25** (2.03) | -0.49** (-2.15) | -1.43*** (-3.86) | -0.36 (-1.61) | -1.36*** (-3.74) |
| Δ Imports | 0.05* (1.98) | 0.05** (2.27) | 0.04 (1.70) | 0.04** (2.15) | -0.00 (-0.12) | -0.01 (-0.51) | -0.01 (-0.52) | -0.01 (-0.82) |
| Δ Exports | -0.06* (-2.01) | -0.07** (-2.26) | -0.06* (-1.87) | -0.06** (-2.29) | 0.01 (0.61) | 0.03 (1.20) | 0.02 (1.02) | 0.03 (1.17) |
| Δ GDP per capita | -0.13 (-0.63) | -0.13 (-0.71) | -0.17 (-0.86) | -0.16 (-0.90) | 0.22 (1.35) | 0.22 (1.59) | 0.11 (0.85) | 0.07 (0.50) |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Kleibergen-Paap rk Wald F statistic | - | 13.06 | - | 18.47 | - | 13.06 | - | 18.47 |
| <i>N</i> | 66 | 66 | 88 | 88 | 66 | 66 | 88 | 88 |

Notes. In Columns 1 and 2, the dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2012. In Columns 3 and 4, the dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2017. In Columns 5 and 6, the dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2012. In Columns 7 and 8, the dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2017. Columns 1, 3, 5 and 7 use OLS estimation and Columns 2, 4, 6 and 8 use IV estimation. Our shift-share instrument is computed using the 1968 French census. Δ Imports, Δ Exports and Δ GDP per capita refer to change in log imports, log exports and log GDP per capita between two consecutive years of presidential election, respectively. Regressions are run at the regional level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the regional level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 14: Impact of immigration on far-right and far-left voting using alternative specifications at the departmental level

| | Far-right candidates | | Far-left candidates | | Cluster | N |
|----------------------------------------|----------------------|-------------------|---------------------|--------------------|---------|-----|
| | OLS | IV | OLS | IV | | |
| 1. Excluding the 1988 election | 0.42*** (3.81) | 1.15* (1.89) | -0.17*** (-3.10) | -0.30* (-1.64) | 96 | 288 |
| Kleibergen-Paap rk Wald F statistic | - | 7.87 | - | 7.87 | | |
| 2. Excluding the 2012 election | 0.42*** (3.60) | 2.73*** (5.24) | -0.13*** (-3.14) | -0.41** (-2.09) | 96 | 288 |
| Kleibergen-Paap rk Wald F statistic | - | 24.94 | - | 24.94 | | |
| 3. Excluding Paris | 0.37*** (3.31) | 2.45*** (4.61) | -0.12*** (-3.24) | -0.31* (-1.88) | 95 | 380 |
| Kleibergen-Paap rk Wald F statistic | - | 37.51 | - | 37.51 | | |
| 4. Add Δ naturalized immigrants | 0.40*** (3.17) | 2.20*** (3.94) | -0.11*** (-2.65) | -0.21 (-0.98) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 15.26 | - | 15.26 | | |
| 5. Immigrants aged 18 and more | 0.48*** (3.55) | 2.56*** (3.65) | -0.17*** (-2.98) | -0.25 (-1.03) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 17.19 | - | 17.19 | | |
| 6. All immigrants | 1.14*** (4.80) | 4.06*** (2.68) | -0.03 (-0.25) | -0.20 (-0.33) | 96 | 192 |
| Kleibergen-Paap rk Wald F statistic | - | 6.52 | - | 6.52 | | |
| 7. Vote share of all votes | 0.41*** (3.60) | 2.16*** (4.03) | -0.10*** (-2.76) | -0.15 (-0.72) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 15.88 | - | 15.88 | | |
| 8. Vote share of registered voters | 0.28*** (2.74) | 1.59*** (4.08) | -0.10*** (-3.00) | -0.10 (-0.46) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 15.88 | - | 15.88 | | |
| 9. Regression model in levels | 0.41*** (3.58) | 2.07*** (2.63) | -0.15*** (-3.58) | 0.48 (0.87) | 96 | 480 |
| Kleibergen-Paap rk Wald F statistic | - | 7.37 | - | 7.37 | | |

Notes. The dependent variable in the first two columns is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012 and in the last two columns is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. The first and the third column use OLS estimation and the second and the fourth column use IV estimation. For all specifications, our shift-share instrument is computed using the 1968 French census. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 15: Impact of immigration on votes using a multinomial choice model

| <i>Reference: Right and Center</i> | Far-left | Left and green | Far-right | Far-left | Left and green | Far-right |
|------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Immigrant share | -0.01 (-0.48) | -0.00 (-0.13) | 0.07** (2.05) | - | - | - |
| Predicted immigrant share | - | - | - | 0.04 (0.22) | 0.12 (1.02) | 0.46*** (3.08) |
| Unemployed | 0.51*** (4.48) | 0.40*** (3.84) | 0.64*** (5.30) | 0.51*** (4.50) | 0.40*** (3.85) | 0.64*** (5.34) |
| Young | 0.33*** (4.94) | 0.26*** (6.03) | 0.36*** (4.98) | 0.33*** (4.94) | 0.26*** (6.02) | 0.36*** (4.95) |
| High education | -0.20*** (-2.64) | 0.04 (0.78) | -0.64*** (-7.42) | -0.20*** (-2.66) | 0.04 (0.77) | -0.64*** (-7.37) |
| Male | 0.30*** (5.86) | 0.21*** (5.24) | 0.51*** (8.99) | 0.30*** (5.86) | 0.21*** (5.24) | 0.51*** (8.98) |
| Entrepreneur and self-employed | -1.58*** (-8.71) | -0.78*** (-8.24) | -0.10 (-0.83) | -1.58*** (-8.71) | -0.78*** (-8.25) | -0.10 (-0.81) |
| Farmer | -1.70*** (-6.79) | -1.02*** (-6.60) | -0.46** (-2.49) | -1.70*** (-6.78) | -1.02*** (-6.61) | -0.45** (-2.45) |
| Manual worker | 0.25*** (4.10) | 0.13*** (2.77) | 0.37*** (5.32) | 0.25*** (4.10) | 0.13*** (2.74) | 0.37*** (5.32) |
| Unemployment rate | 0.01 (0.28) | 0.03 (1.13) | -0.01 (-0.19) | 0.00 (0.04) | 0.01 (0.32) | -0.09 (-1.55) |
| Share of inactive population | -0.01 (-0.45) | 0.01 (0.60) | 0.02 (0.86) | -0.02 (-0.57) | -0.00 (-0.22) | -0.03 (-1.08) |
| Share of young | -0.00 (-0.14) | 0.02 (0.89) | -0.05 (-1.30) | -0.01 (-0.23) | 0.00 (0.25) | -0.08** (-2.23) |
| Share of high educated | 0.01 (0.24) | 0.02 (1.33) | 0.00 (0.17) | 0.01 (0.34) | 0.03* (1.71) | 0.02 (0.78) |
| Share of manual workers | -0.01 (-0.49) | -0.01 (-0.56) | 0.01 (0.24) | -0.01 (-0.52) | -0.01 (-0.70) | -0.01 (-0.15) |
| Share of entrepreneurs and self-employed | 0.02 (0.59) | -0.01 (-0.30) | 0.02 (0.40) | 0.02 (0.58) | -0.01 (-0.30) | 0.03 (0.49) |

Table 15 (continued)

| | | | | | | |
|----------------------------------|------------------|----------------|------------------|------------------|----------------|------------------|
| Share of workers in industry | 0.00 (0.08) | 0.02 (1.28) | -0.02 (-0.74) | -0.00 (-0.02) | 0.02 (0.95) | -0.03 (-1.24) |
| Share of workers in construction | 0.01 (0.22) | 0.00 (0.11) | 0.03 (0.48) | 0.03 (0.38) | 0.05 (0.98) | 0.18** (1.97) |
| Share of workers in agriculture | -0.03 (-1.15) | 0.02 (0.93) | -0.03 (-0.91) | -0.02 (-1.02) | 0.03 (1.34) | -0.01 (-0.24) |
| Average marginal effect | - | - | 0.79 pp | - | - | 4.15 pp |
| Area fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| <i>N</i> | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 |

Notes. The table reports the estimated effects of immigration on votes for the far-left, left and green and the far-right candidates during the first-round of the presidential elections that took place between 1988 and 2012, using a multinomial logit framework. The dependent variable is a categorical unordered variable that takes a different value for a respondent's vote for a far-left, left and green, center and right, or far-right presidential candidate. Right and center candidates are the baseline category and candidates belonging to the other three respective categories are the alternative choices. In Columns 1-3, the key regressor of interest is the immigrant share in percent at the departmental level. In columns 4-6, we use the immigrant share predicted by our instrumental variable regression in percent. Z-statistics are indicated in parentheses below the point estimate. Each regression includes department and time fixed effects. We also provide the average marginal effect of a change in the immigrant share by one percentage point on the probability to vote for far-right candidates. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 16: Decomposing the average effects across education groups

| <i>Reference: Right and Center</i> | Far-left | Left and green | Far-right | Far-left | Left and green | Far-right |
|--------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Low-educated immigrants | 0.00 (0.11) | 0.01 (0.36) | 0.15*** (3.27) | 0.01 (0.27) | -0.00 (-0.03) | 0.16*** (3.49) |
| Low-educated immigrant share × High education | - | - | - | -0.02 (-1.13) | 0.02* (1.81) | -0.04* (-1.90) |
| Medium-educated immigrants | -0.08 (-0.62) | -0.12 (-1.32) | -0.11 (-0.70) | -0.08 (-0.58) | -0.13 (-1.39) | -0.11 (-0.64) |
| High-educated immigrants | 0.01 (0.14) | 0.11** (2.16) | -0.20** (-2.20) | 0.01 (0.17) | 0.10** (2.14) | -0.20** (-2.18) |
| Unemployed | 0.51*** (4.48) | 0.40*** (3.83) | 0.65*** (5.39) | 0.51*** (4.46) | 0.41*** (3.85) | 0.64*** (5.37) |
| Young | 0.33*** (4.94) | 0.26*** (6.01) | 0.36*** (5.01) | 0.33*** (4.94) | 0.26*** (6.04) | 0.36*** (5.02) |
| High education | -0.20*** (-2.65) | 0.04 (0.77) | -0.64*** (-7.44) | -0.13 (-1.44) | -0.04 (-0.68) | -0.47*** (-3.50) |
| Male | 0.30*** (5.86) | 0.21*** (5.22) | 0.51*** (9.00) | 0.30*** (5.87) | 0.21*** (5.22) | 0.51*** (9.02) |
| Entrepreneur and self-employed | -1.59*** (-8.70) | -0.79*** (-8.28) | -0.09 (-0.72) | -1.59*** (-8.70) | -0.79*** (-8.26) | -0.09 (-0.75) |
| Farmer | -1.70*** (-6.81) | -1.03*** (-6.65) | -0.44** (-2.39) | -1.70*** (-6.79) | -1.03*** (-6.68) | -0.44** (-2.38) |
| Manual worker | 0.25*** (4.10) | 0.13*** (2.77) | 0.37*** (5.39) | 0.25*** (4.10) | 0.13*** (2.80) | 0.37*** (5.40) |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Area fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| <i>N</i> | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 |

Notes. The table reports the estimated effects of immigration on votes for the far-left, left and green and the far-right candidates during the first-round of the presidential elections that took place between 1988 and 2012, using a multinomial logit framework. The dependent variable is a categorical unordered variable that takes a different value for a respondent's vote for a far-left, left and green, center and right, or far-right presidential candidate. Right and center candidates are the baseline category and candidates belonging to the other three respective categories are the alternative choices. The key regressors of interest are the low-educated, medium-educated and high-educated immigrant shares in percent at the departmental level as well as an interaction term between the low-educated immigrant share in percent and a dummy equal to 1 if a respondent is highly educated. Z-statistics are indicated in parentheses below the point estimate. As in Table 15, each regression includes departmental level controls, department and time fixed effects. * $p < .10$, ** $p < .05$, *** $p < .01$.

Appendix

Appendix.1. Discussion of the Procedure and Development of Naturalizations

1370 There are two ways to gain French nationality. The first way is by decree. In that case, it
is decided by the public authorities that French nationality shall be granted at the request of a
foreigner and provided under certain conditions. Conditions for eligibility to naturalization include
five consecutive years of prior residence in France, legal status (at the time of the request), no
criminal record and secured income, as well as social, professional, and cultural assimilation (Art.
1375 21 of the Code Civil). In some exceptional cases, naturalization can be granted after less than
five years of consecutive prior residence in France (e.g., French university graduates, French army
members, recognized refugees).

The second way to gain nationality for a foreigner is by declaration. This includes through
marriage or through birth in France. Through marriage applies to spouses of French citizens and
1380 can be requested after four years of marriage that must include three years of joint residency in
France. Through birth applies to children born in France from foreign parents (*jus soli*). The
parents can request the French citizenship for their child when the child is between 13 and 18 years
old; otherwise the child can become French at age 18 (if they live in France and have stayed in that
country more than five years since they were 11 years of age).

1385 Between 1995 and 2015, the average annual number of individuals gaining French nationality was
128,000, with 57% by decree and 43% by declaration.²⁷ Among the latter, 18% gained citizenship
through marriage. The number of naturalizations has been similar during different presidencies.
From 1995-2001, the average annual number of naturalizations was 123,898. From 2002-2006, it
was 148,851 and from 2007-2011, it was 132,574.

1390 Data on the country of origin for naturalized individuals is available from 1995-2015. Over
this period, 43% of naturalized immigrants originally came from the Maghreb, 13% came from the
rest of Africa, 14% came from Europe, and 16% from Asia. Detailed tables on the distribution of
nationalities by year are available on the website of the French Ministry of Interior.

²⁷Data are available from 1995-2015 from the French Ministry of Interior at the following web-
site: <https://www.immigration.interieur.gouv.fr/Accueil-et-accompagnement/La-nationalite-francaise/L-acces-a-la-nationalite-francaise-statistiques>

Table A.1: Overview of Papers Estimating the Effects of Immigration on Voting

| Publication | Country | Time period | Election | Immigrant type | Method | Unit of observation | Effect size | Channels | Heterogeneity |
|-------------------------------|--------------|------------------|-----------------------------------------------|-------------------|---------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Barone et al. (2016) | Italy | 2001, 2006, 2008 | National and mayoral | All immigrants | IV | 8,000 municipalities | 1pp increase in immig. share \rightarrow 0.24pp increase in far-right | Culture, labor market, public services competition, political competition | Municipality size |
| Becker and Fetzer (2016) | UK | 1999-2014 | European Parliament | Eastern Europeans | DiD | 380 local authority districts | Average effect of immigrant influx from Eastern Europe \rightarrow 0.4-0.9 pp increase in UKIP | Wages, housing, benefits | By country of origin |
| Brunner and Kuhn (2018) | Switzerland | 1970-2010 | Votes about immigration issues | All immigrants | IV | 2,544 communities | 1pp increase in immig. share \rightarrow 1.25 pp increase in anti-immigrant voting | Compositional amenities | Culturally distant vs. similar, areas with high unemployment, with many children |
| Dinas et al. (2017) | Greece | 2015 | National | Refugees | DiD | 95 islands | Affected islands \rightarrow 2pp increase in far-right for Greek islands with refugees | Exposure | None |
| Dustmann et al. (forthcoming) | Denmark | 1986-1998 | Parliament and municipal | Refugees | Random allocation, first differencing | 275 municipalities | 1pp increase in refugee share \rightarrow 1.2-2.0 pp increase in far-right | Crime, unemployment, previous exposure to immigrants, welfare dependency of immigrants | Size, urban, share of rich, share of religious |
| Edo et al. (2017) | France | 1988-2017 | National presidential | All immigrants | IV | 1,989 cantons, 305 employment-zones, 96 departments, 20 regions | 1pp increase in immig share \rightarrow =0.4-2.4pp increase in far-right | Labor market and culture | By education and by origin group |
| Gerdes and Wadensjö (2010) | Denmark | 1989-2001 | Local and parliament | Refugees | IV, fixed effects | 275 municipalities | 1 % increase in refugee share \rightarrow 0.2 % increase in far-right | Labor market and welfare | Large vs. small cities |
| Halla et al. (2017) | Austria | 1979-2002 | National parliament | All immigrants | IV, fixed effects | 2,106 municipalities | 1pp increase in immig. share \rightarrow 0.35pp increase in far-right | Labor market, compositional amenities | Skill level of natives and immigrants, share of immigrant children, separate effects for Muslims, Turks and Yugoslavs |
| Harmon (2018) | Denmark | 1981-2001 | Local and national | All immigrants | IV, first differencing | 273 municipalities | 1pp increase in immig share \rightarrow 1.3-2.8 pp increase in far-right | Labor market | None |
| Mayda et al. (2016) | USA | 1994-2012 | House, Senate, Presidential and Gubernatorial | All immigrants | IV | 50 states | increase in immig share \rightarrow non-linear effect on Republican votes | Naturalizations | By share of immigrants |
| Mendez and Cutilas (2014) | Spain | 1996-2011 | Congress | All immigrants | IV | 48 provinces | No robust effect | Participation rate, non-economic reasons | Nationality |
| Moriconi et al. (2018) | 12 countries | 2007-2016 | Parliament and president | All immigrants | IV | 114 regions | One sd increase in low skilled immigrants \rightarrow 0.73 sd increase of the nationalism indicator | Labor market, fiscal effects, culture | By education of immigrants and natives, age of natives |
| Otto and Steinhart (2014) | Germany | 1987-1998 | Federal state and national | All immigrants | Fixed effects, IV | 103 city districts | 1pp increase in immig share \rightarrow 0.22pp increase in far-right | Labor market, welfare, naturalizations, non-economic reasons | None |
| Vertier and Viskanic (2018) | France | 2012-2017 | National presidential | Refugees | IV | 203 municipalities | 2pp decrease in FN voting in villages with holiday home | Exclusion of labor market and welfare channel | Age structure, number of migrants |

Table A.2: Classification of Presidential Candidates

| Year | Far-left | Left and Green | Right and Center | Far-right |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1975 | Arlette Laguiller (Workers' Struggle) Alain Krivine (Revolutionary Communist Front) Jean-Claude Sebag (European Federalist Movement) Guy Héraud (European Federalist) | François Mitterrand (Socialist Party) Émile Muller (Democratic Socialist Movement of France) Bertrand Renouvin (New Royalist Action) René Dumont (Independent environmentalist) | Valéry Giscard d'Estaing (Union for French Democracy) Jacques Chaban-Delmas (Union of Democrats for the Republic) Jean Royer (Independent right-wing conservative) | Jean-Marie Le Pen (National Front) |
| 1981 | Georges Marchais (French Communist Party) Arlette Laguiller (Workers' Struggle) Huguette Bouchardeau (Unified Socialist Party) | François Mitterrand (Socialist Party) Michel Crépeau (Radical Party of the Left) Brice Lalonde (Political Ecology Movement) | Valéry Giscard d'Estaing (Union for French Democracy) Jacques Chirac (Rally for the Republic) Michel Debré (Gaullist miscellaneous right) Marie-France Garaud (Gaullist miscellaneous right) | |
| 1988 | André Lajoinie (French Communist Party) Pierre Juquin (Unified Socialist Party/Revolution Communist League) Arlette Laguiller (Workers' Struggle) Pierre Bousset (Movement for a Workers' Party) | François Mitterrand (Socialist Party) Antoine Waechter (The Greens) | Jacques Chirac (Rally for the Republic) Raymond Barre (Union for French Democracy) | Jean-Marie Le Pen (National Front) |
| 1995 | Robert Hue (French Communist Party) Arlette Laguiller (Workers' Struggle) | Lionel Jospin (Socialist Party) Jacques Cheminade (European Workers' Party) Dominique Voynet (The Greens) | Jacques Chirac (Rally for the Republic) Édouard Balladur (RPR, supported by the Union for French Democracy) | Jean-Marie Le Pen (National Front) Philippe de Villiers (Movement for France) |
| 2002 | Arlette Laguiller (Workers' Struggle) Olivier Besancenot (Revolutionary Communist League) Robert Hue (French Communist Party) Daniel Gluckstein (Workers' Party) | Lionel Jospin (Socialist Party) Jean-Pierre Chevènement (Citizens' Movement) Christiane Taubira (Radical Party of the Left) Noël Mamère (The Greens) Corinne Lepage (Citizenship, Action, Participation for the 21st Century) | Jacques Chirac (Rally for the Republic) François Bayrou (Union for French Democracy) Jean Saint-Josse (Hunting, Fishing, Nature, Traditions) Alain Madelin (Liberal Democracy) Christine Boutin (Forum of Social Republicans) | Jean-Marie Le Pen (National Front) Bruno Mégret (National Republican Movement) |
| 2007 | Marie-George Buffet (French Communist Party) Olivier Besancenot (Revolutionary Communist League) Arlette Laguiller (Workers' Struggle) | Ségolène Royal (Socialist Party) Gérard Schivardi (Workers' Party) Dominique Voynet (The Greens) José Bové (Alter-globalization activist) | Nicolas Sarkozy (Union for a Popular Movement) François Bayrou (Union for French Democracy) Frédéric Nihous (Hunting, Fishing, Nature, Traditions) | Jean-Marie Le Pen (National Front) Philippe de Villiers (Movement for France) |
| 2012 | Jean-Luc Mélenchon (Left Front) Philippe Poutou (New Anticapitalist Party) Nathalie Arthaud (Lutte Ouvrière) | François Hollande (Socialist Party) Jacques Cheminade (Solidarity and Progress) Eva Joly (Europe Ecology & The Greens) | Nicolas Sarkozy (Union for a Popular Movement) François Bayrou (Democratic Movement) | Marine Le Pen (National Front) Nicolas Dupont-Aignan (Debout la République) |
| 2017 | Jean-Luc Mélenchon (Left Front) Philippe Poutou (New Anticapitalist Party) Nathalie Arthaud (Workers' Struggle) | Benoît Hamon (Socialist Party) Jacques Cheminade (Solidarity & Progress) | Emmanuel Macron (En Marche!) Jean Lassalle (Résistons!) François Asselineau (Popular Republican Union) François Fillon (The Republicans) | Marine Le Pen (National Front) Nicolas Dupont-Aignan (Debout la République) |

Table A.3: OLS impact of immigration on votes for far-right candidates with area fixed effects

| | (1) | (2) | (3) | (4) |
|------------------------------------------------------|-------------------|-------------------|-------------------|--------------------|
| Δ Share of immigrants | 0.35*** (3.45) | 0.37*** (3.65) | 0.39*** (3.77) | 0.42*** (3.54) |
| Δ Unemployment rate | - | -0.29 (-1.66) | -0.24 (-1.46) | -0.31** (-2.09) |
| Δ Share of inactive population | - | -0.02 (-0.28) | -0.03 (-0.41) | -0.02 (-0.36) |
| Δ Share of young | - | - | -0.13 (-1.20) | -0.13 (-1.32) |
| Δ Share of high educated | - | - | -0.04 (-0.43) | -0.05 (-0.41) |
| Δ Share of manual workers | - | - | -0.12 (-1.22) | -0.11 (-0.98) |
| Δ Share of entrepreneurs and self-employed | - | - | -0.25* (-1.87) | -0.20 (-1.47) |
| Δ Share of workers in industry | - | - | - | -0.33** (-2.03) |
| Δ Share of workers in construction | - | - | - | 0.24 (1.26) |
| Δ Share of workers in agriculture | - | - | - | -0.04 (-0.31) |
| Area fixed effects | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes |
| Adjusted R^2 | 0.77 | 0.77 | 0.78 | 0.79 |
| Cluster | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.4: IV impact of immigration on votes for far-right candidates with area fixed effects

| | | Baseline instrument | | | | 1975 | 1982 |
|------------------------------------------------------|---------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | (1) | (2) | (3) | (4) | (5) | (6) |
| Δ Share of immigrants | | 2.28*** (2.82) | 2.29*** (3.05) | 2.21*** (3.01) | 2.36*** (3.78) | 2.59** (2.12) | 1.36*** (2.79) |
| Δ Unemployment rate | | - | -0.80** (-2.25) | -0.63** (-2.09) | -0.75** (-2.53) | -0.80** (-1.99) | -0.52** (-2.39) |
| Δ Share of inactive population | | - | -0.26* (-1.79) | -0.25* (-1.77) | -0.23 (-1.63) | -0.26* (-1.76) | -0.12 (-1.43) |
| Δ Share of young | | - | - | -0.38* (-1.73) | -0.37* (-1.77) | -0.39 (-1.50) | -0.24 (-1.64) |
| Δ Share of high educated | | - | - | 0.14 (1.22) | 0.21 (1.41) | 0.25 (1.24) | 0.08 (0.60) |
| Δ Share of manual workers | | - | - | -0.10 (-0.69) | -0.08 (-0.42) | -0.08 (-0.39) | -0.10 (-0.70) |
| Δ Share of entrepreneurs and self-employed | | - | - | -0.10 (-0.46) | -0.03 (-0.15) | -0.02 (-0.06) | -0.12 (-0.71) |
| Δ Share of workers in industry | | - | - | - | -0.21 (-1.00) | -0.20 (-0.88) | -0.27 (-1.52) |
| Δ Share of workers in construction | | - | - | - | 1.10*** (2.94) | 1.20* (1.90) | 0.66** (2.25) |
| Δ Share of workers in agriculture | | - | - | - | 0.08 (0.48) | 0.10 (0.54) | 0.02 (0.16) |
| Area fixed effects | | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | | Yes | Yes | Yes | Yes | Yes | Yes |
| First-stage: | Instrument | 1.59*** (4.05) | 1.57*** (4.23) | 1.57*** (4.21) | 1.37*** (4.27) | 1.31*** (2.23) | 1.69*** (3.56) |
| | T-statistic | | | | | | |
| | K.-P. rk Wald F statistic | 21.90 | 23.98 | 23.80 | 24.65 | 6.73 | 17.06 |
| N | | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. In Columns 1-4, our shift-share instrument is computed using the 1968 French census. In Columns 5-6, we use the 1975 and 1982 censuses to build the instrument, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.5: Interacting immigration and unemployment rate

| | Far-right candidates | | | | Front National only | | | |
|-------------------------------------------------------------------|----------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|
| | OLS | IV | OLS | IV | OLS | IV | OLS | IV |
| Δ Share of immigrants | 0.33*** (2.87) | 1.67** (2.21) | 0.40*** (3.16) | 1.92*** (3.05) | 0.23** (2.39) | 0.53 (0.82) | 0.28*** (2.95) | 0.74 (1.13) |
| Δ Unemployment rate | -0.34** (-2.08) | -0.73** (-1.96) | -0.43*** (-2.66) | -0.87*** (-2.85) | -0.17 (-1.58) | -0.33 (-1.40) | -0.25** (-2.03) | -0.47** (-2.08) |
| Δ Share of immigrants $\times \Delta$ Unemployment rate | 8.56*** (2.90) | 63.33** (2.20) | 6.73** (2.01) | 47.86 (1.63) | 7.65*** (3.45) | 50.14*** (2.74) | 7.69*** (3.43) | 44.71** (2.56) |
| Demographic controls | No | No | Yes | Yes | No | No | Yes | Yes |
| Employment controls | No | No | Yes | Yes | No | No | Yes | Yes |
| Year dummies | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| K.-P. rk Wald F statistic | - | 6.88 | - | 6.80 | - | 6.88 | - | 6.80 |
| Adjusted R^2 | 0.79 | - | 0.81 | - | 0.85 | - | 0.86 | - |
| Cluster | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variables are changes in the share of votes for far-right and Front National candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Columns 1, 3, 5 and 7 use OLS estimation, while Columns 2, 4, 6 and 8 use IV estimation. Our shift-share instrument is computed using the 1968 French census. Regressions are run the at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the department level.

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.6: OLS impact of immigration on votes for far-left candidates with area fixed effects

| | (1) | (2) | (3) | (4) |
|------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| Δ Share of immigrants | -0.13*** (-3.12) | -0.12*** (-2.79) | -0.11*** (-2.84) | -0.11*** (-2.68) |
| Δ Unemployment rate | - | -0.00 (-0.01) | -0.00 (-0.02) | 0.02 (0.27) |
| Δ Share of inactive population | - | -0.11*** (-2.78) | -0.11*** (-2.71) | -0.12*** (-3.02) |
| Δ Share of young | - | - | -0.02 (-0.30) | -0.01 (-0.15) |
| Δ Share of high educated | - | - | 0.02 (0.43) | 0.00 (0.06) |
| Δ Share of manual workers | - | - | 0.03 (0.97) | -0.00 (-0.04) |
| Δ Share of entrepreneurs and self-employed | - | - | 0.09 (1.52) | 0.03 (0.47) |
| Δ Share of workers in industry | - | - | - | 0.13*** (3.00) |
| Δ Share of workers in construction | - | - | - | 0.00 (0.02) |
| Δ Share of workers in agriculture | - | - | - | -0.03 (-0.68) |
| Area fixed effects | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes |
| Adjusted R^2 | 0.89 | 0.89 | 0.89 | 0.89 |
| Cluster | 96 | 96 | 96 | 96 |
| N | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.7: IV impact of immigration on votes for far-left candidates with area fixed effects

| | Baseline instrument | | | | 1975 | 1982 |
|------------------------------------------------------|---------------------|---------------------|--------------------|---------------------|-------------------|--------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Δ Share of immigrants | -0.74*** (-2.92) | -0.69*** (-2.81) | -0.66** (-2.62) | -0.67*** (-2.73) | -0.73* (-1.71) | -0.58** (-2.33) |
| Δ Unemployment rate | - | 0.15 (1.16) | 0.12 (0.94) | 0.15 (1.27) | 0.16 (1.07) | 0.13 (1.15) |
| Δ Share of inactive population | - | -0.04 (-0.70) | -0.04 (-0.76) | -0.06 (-1.06) | -0.05 (-0.86) | -0.07 (-1.38) |
| Δ Share of young | - | - | 0.06 (0.89) | 0.06 (0.95) | 0.07 (0.83) | 0.05 (0.79) |
| Δ Share of high educated | - | - | -0.03 (-0.70) | -0.07 (-1.10) | -0.08 (-1.04) | -0.06 (-0.93) |
| Δ Share of manual workers | - | - | 0.02 (0.55) | -0.01 (-0.20) | -0.01 (-0.21) | -0.01 (-0.19) |
| Δ Share of entrepreneurs and self-employed | - | - | 0.04 (0.54) | -0.01 (-0.16) | -0.02 (-0.21) | -0.01 (-0.08) |
| Δ Share of workers in industry | - | - | - | 0.09* (1.78) | 0.09 (1.53) | 0.10* (1.96) |
| Δ Share of workers in construction | - | - | - | -0.24* (-1.80) | -0.27 (-1.22) | -0.20 (-1.37) |
| Δ Share of workers in agriculture | - | - | - | -0.06 (-1.08) | -0.07 (-1.11) | -0.06 (-1.08) |
| Area fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| First-stage: Instrument | 1.59*** | 1.57*** | 1.57*** | 1.37*** | 1.31*** | 1.69*** |
| T-statistic | (4.05) | (4.23) | (4.21) | (4.27) | (2.23) | (3.56) |
| K.-P. rk Wald F statistic | 21.90 | 23.98 | 23.80 | 24.65 | 6.73 | 17.06 |
| N | 384 | 384 | 384 | 384 | 384 | 384 |

Notes. The dependent variable is the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. In Columns 1-4, our shift-share instrument is computed using the 1968 French census. In Columns 5-6, we use the 1975 and 1982 censuses to build the instrument, respectively. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression is weighted by the local population size. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.8: Effects of immigration and import penetration on votes for far-right and far-left candidates

| | Far-right candidates | | | Far-left candidates | | |
|-------------------------------------|----------------------|-------------------|-------------------|---------------------|-------------------|--------------------|
| | IV estimate | | | IV estimate | | |
| | OLS | 1968 | 1982 | OLS | 1968 | 1982 |
| Δ Share of immigrants | 0.43*** (3.76) | 1.17** (2.00) | 0.80* (1.68) | -0.17*** (-3.11) | -0.30* (-1.65) | -0.32** (-2.14) |
| Δ Import penetration | 0.03* (1.82) | 0.04*** (2.75) | 0.04*** (2.75) | -0.00 (-0.55) | 0.00 (0.31) | 0.00 (0.31) |
| Δ Exports | -0.01 (-0.97) | -0.01 (-1.01) | -0.01 (-1.03) | 0.00 (1.00) | 0.00 (1.10) | 0.00 (1.10) |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Kleibergen-Paap rk Wald F statistic | - | 3.95 | 5.38 | - | 3.95 | 5.38 |
| N | 288 | 288 | 288 | 288 | 288 | 288 |

Notes. In Columns 1-3, the dependent variable is change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1995 and 2012. In Columns 4-6, the dependent variable is change in the share of votes for far-left candidates during two consecutive first-rounds of the presidential elections that took place between 1995 and 2012. Columns 1 and 4 use OLS estimation while the other columns use IV estimation. In Columns 2 and 5, our shift-share instrument is computed using the 1968 French census. In Columns 3 and 6, our shift-share instrument is computed using the 1982 French census. Δ Import penetration refers to the change in imports per worker and Δ Exports refers to the change in log exports between two consecutive years of presidential election. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects and is weighted by the local population size. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.9: Impact of immigration on far-right and far-left voting using alternative specifications at the departmental level with area fixed effects

| | Far-right candidates | | Far-left candidates | | Cluster | N |
|----------------------------------------|----------------------|-------------------|---------------------|---------------------|---------|-----|
| | OLS | IV | OLS | IV | | |
| 1. Excluding the 1988 election | 0.41*** (3.37) | 1.46** (2.25) | -0.19*** (-3.35) | -0.53** (-2.54) | 96 | 288 |
| Kleibergen-Paap rk Wald F statistic | - | 15.18 | - | 15.18 | | |
| 2. Excluding the 2012 election | 0.39*** (3.36) | 2.16*** (3.94) | -0.12*** (-2.91) | -1.36*** (-3.62) | 96 | 288 |
| Kleibergen-Paap rk Wald F statistic | - | 20.31 | - | 20.31 | | |
| 3. Excluding Paris | 0.38*** (3.31) | 2.54*** (3.51) | -0.12*** (-3.25) | -0.75*** (-3.08) | 95 | 380 |
| Kleibergen-Paap rk Wald F statistic | - | 29.03 | - | 29.03 | | |
| 4. Add Δ naturalized immigrants | 0.44*** (4.29) | 2.68*** (4.28) | -0.11** (-2.44) | -0.70** (-2.60) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 18.91 | - | 18.91 | | |
| 5. Immigrants aged 18 and more | 0.52*** (3.87) | 2.83*** (3.60) | -0.14*** (-2.84) | -0.80*** (-2.64) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 20.92 | - | 20.92 | | |
| 6. All Immigrants | 1.14*** (3.30) | 4.12*** (2.86) | 0.34 (1.42) | 0.97* (1.67) | 96 | 192 |
| Kleibergen-Paap rk Wald F statistic | - | 8.14 | - | 8.14 | | |
| 7. Vote share of all votes | 0.41*** (3.63) | 2.36*** (3.86) | -0.10** (-2.57) | -0.58** (-2.47) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 24.65 | - | 24.65 | | |
| 8. Vote share of registered voters | 0.28*** (2.68) | 1.65*** (3.64) | -0.10*** (-3.03) | -0.46** (-2.04) | 96 | 384 |
| Kleibergen-Paap rk Wald F statistic | - | 24.65 | - | 24.65 | | |

Notes. The dependent variable in the first two columns is the change in the share of votes for far-right candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012 and in the last two columns the change in the share of votes for far-left candidates between two consecutive first-rounds of the presidential elections that took place between 1988 and 2012. The first and the third column use OLS estimation and the second and the fourth column use IV estimation. Our shift-share instrument is computed using the 1968 French census. Regressions are run at the departmental level. T-statistics are indicated in parentheses below the point estimate. Each regression includes the same demographic and employment controls as in column 4 of Table 1 and time fixed effects. Each regression is weighted by the local population size. Standard errors are clustered at the local level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.10: Interacting immigrant share with respondent's education

| <i>Reference: Right and Center</i> | Far-left (1) | Left and green (2) | Far-right (3) | Far-left (4) | Left and green (5) | Far-right (6) |
|-----------------------------------------------|---------------------|--------------------------|---------------------|---------------------|--------------------------|---------------------|
| Immigrant share | -0.01 (-0.34) | -0.01 (-0.64) | 0.08** (2.38) | - | - | - |
| Immigrant share × High education | -0.01 (-0.60) | 0.02** (2.30) | -0.04** (-2.01) | - | - | - |
| Predicted immigrant share | - | - | - | 0.03 (0.21) | 0.11 (0.95) | 0.46*** (3.14) |
| Predicted immigrant share × High education | - | - | - | -0.00 (-0.06) | 0.03*** (3.01) | -0.04** (-2.06) |
| Unemployed | 0.51*** (4.46) | 0.41*** (3.86) | 0.64*** (5.27) | 0.51*** (4.49) | 0.41*** (3.87) | 0.64*** (5.31) |
| Young | 0.33*** (4.94) | 0.26*** (6.03) | 0.36*** (4.99) | 0.33*** (4.94) | 0.26*** (6.03) | 0.36*** (4.95) |
| High education | -0.15* (-1.70) | -0.08 (-1.14) | -0.40*** (-2.73) | -0.19** (-2.07) | -0.11* (-1.65) | -0.39*** (-2.62) |
| Male | 0.30*** (5.86) | 0.21*** (5.25) | 0.51*** (9.00) | 0.30*** (5.86) | 0.21*** (5.26) | 0.51*** (8.98) |
| Entrepreneur and self-employed | -1.58*** (-8.71) | -0.78*** (-8.20) | -0.10 (-0.85) | -1.58*** (-8.71) | -0.78*** (-8.21) | -0.10 (-0.82) |
| Farmer | -1.70*** (-6.77) | -1.03*** (-6.66) | -0.46** (-2.45) | -1.70*** (-6.77) | -1.03*** (-6.68) | -0.45** (-2.41) |
| Manual worker | 0.25*** (4.11) | 0.13*** (2.79) | 0.37*** (5.35) | 0.25*** (4.11) | 0.13*** (2.77) | 0.37*** (5.34) |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Area fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| <i>N</i> | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 | 14,989 |

Notes. The table reports the estimated effects of immigration on votes for the far-left, left and green and the far-right candidates during the first-round of the presidential elections that took place between 1988 and 2012, using a multinomial logit framework. The dependent variable is a categorical unordered variable that takes a different value for a respondent's vote for a far-left, left and green, center and right, and far-right presidential candidate. Center-right candidates are the baseline category and candidates belonging to the other three respective categories are the alternative choices. The key regressor of interest is the immigrant share in percent at the departmental level as well as an interaction term between the immigrant share in percent and a dummy equal to 1 if a respondent is highly educated. While Columns 1-3 use the actual immigrant share, Columns 4-6 use the immigrant share predicted by our instrumental variable regression in percent. Z-statistics are indicated in parentheses below the point estimate. As in Table 15, each regression includes departmental level controls, department and time fixed effects. Standard errors are clustered at the departmental level. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table A.11: Including abstentions in the multinomial logit model

| <i>Reference: Right and Center</i> | Abstentions | Far-left | Left and green | Far-right | Abstentions | Far-left | Left and green | Far-right |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Immigrant share | 0.01 (0.34) | -0.01 (-0.43) | -0.00 (-0.09) | 0.08** (2.28) | - | - | - | - |
| Predicted immigrant share | - | - | - | - | -0.01 (-0.05) | 0.02 (0.10) | 0.10 (0.91) | 0.45*** (3.07) |
| Unemployed | 0.57*** (5.67) | 0.52*** (4.53) | 0.40*** (3.82) | 0.64*** (5.23) | 0.57*** (5.67) | 0.52*** (4.55) | 0.40*** (3.82) | 0.63*** (5.24) |
| Young | 0.62*** (12.26) | 0.31*** (4.69) | 0.25*** (5.81) | 0.33*** (4.54) | 0.62*** (12.27) | 0.31*** (4.69) | 0.25*** (5.81) | 0.33*** (4.50) |
| High education | -0.48*** (-9.06) | -0.18** (-2.49) | 0.05 (0.90) | -0.62*** (-7.40) | -0.48*** (-9.06) | -0.19** (-2.50) | 0.05 (0.90) | -0.62*** (-7.35) |
| Male | 0.14*** (2.99) | 0.30*** (5.74) | 0.21*** (5.19) | 0.51*** (9.14) | 0.14*** (2.99) | 0.30*** (5.75) | 0.21*** (5.19) | 0.51*** (9.14) |
| Entrepreneur and self-employed | -0.32*** (-2.89) | -1.59*** (-8.79) | -0.79*** (-8.28) | -0.09 (-0.75) | -0.32*** (-2.89) | -1.59*** (-8.79) | -0.79*** (-8.29) | -0.08 (-0.71) |
| Farmer | -0.54*** (-4.14) | -1.69*** (-6.74) | -1.01*** (-6.54) | -0.44** (-2.42) | -0.54*** (-4.14) | -1.69*** (-6.73) | -1.01*** (-6.56) | -0.44** (-2.39) |
| Manual worker | 0.20*** (3.61) | 0.26*** (4.18) | 0.13*** (2.74) | 0.38*** (5.48) | 0.20*** (3.62) | 0.25*** (4.18) | 0.13*** (2.71) | 0.37*** (5.46) |
| Average marginal effect | - | - | - | 0.72 pp | - | - | - | 3.61 pp |
| Departmental-level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Area fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Time fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| <i>N</i> | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 |

Notes. The table reports the estimated effects of immigration on abstentions and votes for the far-left, left and green and the far-right candidates during the first-round of the presidential elections that took place between 1988 and 2012, using a multinomial logit framework. The dependent variable is a categorical unordered variable that takes a different value for an abstention and a respondent's vote for a far-left, left and green, center and right, or far-right presidential candidate. Right and center candidates are the baseline category and abstentions and candidates belonging to the other three respective categories are the alternative choices. Z-statistics are indicated in parentheses below the point estimate. As in Table 15, each regression includes departmental level controls, department and time fixed effects. * $p < .10$, ** $p < .05$, *** $p < .01$.

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- Reform of EU policies and the EU budget
- Capital markets and the regulation of the financial sector
- Governance and macroeconomic policy in the European Monetary Union

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