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Dismantling the "Jungle": migrant relocation and extreme voting in France

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Abstract

Large migrant inflows have spurred anti-immigrant sentiment, but can small inflows have a different impact? We exploit the redistribution of migrants after the dismantling of the "Calais Jungle" in France to study the impact of the exposure to few migrants, which we estimate using difference-in-differences and instrumental variables. We find that in the presence of a migrant center (CAO), the growth rate of vote shares for the main far-right party (Front National (FN), our proxy for anti-immigrant sentiment) between 2012 and 2017 is reduced by about 12 percentage points. This effect, which crucially depends on the inflow's size, points toward the contact hypothesis (Allport, 1954).

Keywords: EU; France; migrants; migration; political economy; voting 2020 Mathematics subject classification: C36; D72; J15; P16; R23

1. Introduction and background

In recent years, the number of asylum applications in the European Union increased from 431,000 in 2013 to 627,000 in 2014 and approximately 1.3 million in 2015 (Eurostat, 2016). Given the high numbers of migrants reaching Europe and the future increased immigration projections both across and within countries, anticipating how natives respond when interacting with immigrants is crucial. Migrants will influence the labor force's composition, interact with natives in many commercial transactions, and influence politics both on the supply and demand side.

The considerable rise in the number of asylum applications and the difficulties experienced by European countries in redistributing asylum seekers across countries have drawn media, politicians, and scholars' attention. However, the existing literature has provided contradictory evidence, as some studies show that immigration increases the support for far-right parties (Otto and Steinhardt, 2014; Mendez and Cutillas, 2014; Barone et al., 2016; Halla et al., 2017; Harmon, 2017; Viskanic, 2017; Brunner and Kuhn, 2018; Edo et al., 2019), while others find opposite results (Lonsky, 2020; Gamalerio et al., 2022). Specifically for refugee and asylum seekers, Hangartner et al. (2019) and Dinas et al. (2019) show that exposure to migrants on the Greek islands, but no contact with them, increases hostility of natives toward them and voting for the extreme right-wing party "Golden Dawn". In contrast, Steinmayr (2020) shows that the interaction between migrants and natives in Upper-Austria has led to a decrease in votes for the Extreme Right. Additionally, Dustmann et al. (2019) show that the effects of refugee relocation on voting behavior in Denmark differ across rural and urban areas.

This evidence calls for further research on the mechanisms behind these results. Specifically, what is missing in the existing literature is an analysis of the potential role of the immigration inflows' size. It is poorly understood if *small* immigration inflows shape the anti-immigrant sentiment of natives differently than large inflows. This difference is particularly salient in the setting of asylum seekers' migration. This knowledge gap makes it more challenging to develop efficient relocation schemes for refugees across and within countries. Many national and local governments refuse to host refugees and asylum seekers as they fear a rise in anti-immigrant resentment in places supposed to host the migrants. Hence, understanding whether the effect of refugee migration inflows changes with their size can inform policymakers.

A few reasons can explain this knowledge gap. First, it is challenging to separate the direct effect on voting behavior from the indirect effect through mediating variables. In many of the studies above, the effects are likely to be *indirect*. Large migration waves are likely to affect different intermediate variables, such as amenities, public spending, the labor market, or the local economy, which in turn affect voting. Therefore, identifying the direct effects is empirically challenging, as it requires settings in which indirect effects are negligible. Second, collecting information on the size and duration of exposure to migrants is a hard task that may require many hours of work. Third, migration inflows are not random, as many economic factors can affect locational choices (Ravenstein, 1885). Hence, one needs a source of exogenous variation in the migrants' final location. The same requirement applies to the case of asylum seekers (Neumayer, 2005; Hangartner et al., 2019).

Our setting enables us to deal with these challenges. We focus on the dismantling of the Calais "Jungle", an encampment in the North of France. In October 2016, this illegal camp reached 6400 inhabitants (Le Monde, 2016), shortly before the government closed it and relocated the migrants in other areas of the country. Between October 2015 and 2016, the government relocated the migrants to more than 300 migrant centers called *Centres d'Accueil et d'Orientation (CAOs)*.

This setting presents important advantages that we exploit in the analysis below. First, it is unlikely that the relocation affected the local economy. CAOs hosted the migrants for a short period (typically less than 3 months), during which they did not have the right to work. Besides, the central government paid the cost of the relocation. These conditions enable us to study the effect of direct contact between migrants and natives while excluding potential indirect effects. Consistent with this claim, in the analysis below, we show that migrants' did not affect the local economic activity. Second, we collected information about CAOs' location through a systematic analysis of local newspapers (Factiva) and combined them with a dataset that was publicly released by CIMADE (the main association helping migrants) on 24 October 2016. We also collected precise information on CAOs' size. Among the municipalities that hosted a CAO, we find that, on average, these centers could host 31 migrants at the same time, which means 16 migrants per 1000 inhabitants.¹

Third, this framework enables us to link municipality-level variation in exposure to migrants to electoral outcomes. Specifically, we exploit the fact that the 2017 French presidential election was held after dismantling the Calais "Jungle". We use the change in the FN municipal-level vote shares from the 2012 and 2017 presidential elections as the main outcome in our analysis and as a proxy for anti-immigrant sentiment. During the campaign, the rhetoric of the FN was anti-immigrant, referring continuously to the migrant crisis. The FN diffused this anti-immigrant stance through general and social media, public gatherings, and the party's election manifesto.²

Finally, this setting allows us to deal with the potential endogeneity of CAOs' location. More in detail, we estimate the effect of CAOs on electoral outcomes in two ways. First, we run a difference-in-differences model that exploits the fact that we do not observe different parallel

¹These numbers (16 migrants per 1000 inhabitants or 0.016 migrants per capita) give an idea of how small was the inflow of migrants generated by CAOs. For example, in the context studied by Hangartner et al. (2019) and Dinas et al. (2019), the Greek islands were receiving between 1 and 4 asylum seekers per capita, with a few of them receiving more than 4 per capita.

²See La Croix (2017), BBC (2017), and Le Monde (2017a) amongst others.

trends in the elections before the dismantling between municipalities with and without a CAO. However, given the potential involvement of local governments in the allocation process, we cannot consider the assignment of CAOs as random.

Indeed, the French government could have chosen the location of CAO centers exploiting information unobservable to us. We rely on an instrumental variable (IV) approach based on pre-existing (i.e., built before the dismantling of the Calais Jungle) buildings that can accommodate groups of people to deal with this challenge. Specifically, we use two types of buildings that we combine in one instrument. First, we consider the number of "Holiday Villages" ("Village Vacances" in French) located in a municipality.³ We expect a positive correlation between the presence of a CAO and a holiday village because one of the criteria used for choosing CAOs' location was potential additional space in those holiday villages. Specifically, given that the "Jungle" was shut down mostly in October 2016, the holiday villages would be unoccupied at that time and could thus be used as temporary shelters for migrants. Besides, holiday villages were built mainly in the 1970s, much before the current migrant surge that led to the creation of the CAOs, and certainly not to host migrants.

Second, in line with the recent literature (Steinmayr, 2020; Gamalerio et al., 2022), we consider the number of buildings such as homes for the elderly, disabled, drug addicts, and orphans that can accommodate groups of people. The idea behind using these buildings in constructing the instrument is that the government considered several venues, with a strong emphasis on buildings that could commodate groups of people. Besides, these buildings were built before the dismantling of the Calais Jungle and for reasons different than hosting migrants. Our instrument is equal to the sum of the number of these buildings plus holiday villages. Crucially, we show how the instrument correlates with electoral outcomes only for the presidential elections between 2012 and 2017 when the buildings could accommodate migrants due to the Calais Jungle dismantling. In contrast, we do not find any correlation between the instrument and electoral outcomes for the elections between 2007 and 2012. Thus, the exclusion restriction assumption (i.e., the assumption that the instrument must affect the dependent variable only through the endogenous treatment variable) appears plausible in this context. In addition, our regressions consider many potential covariates that control for municipal sociodemographic features and local politicians' characteristics.⁴

Depending on the approach considered, our main results show that the growth in FN's vote shares between the 2012 and 2017 presidential elections was between 4 and 12 percentage points lower in municipalities that hosted a CAO. Looking at the IV results, as the average increase of FN's votes over this period corresponded to about 20%, they indicate that the increase of FN vote in municipalities with a CAO was 40% of the growth rate in municipalities without a CAO. Our interpretation of these findings is that citizens developed greater acceptance toward migrants. The fact that we observe an increase in the vote shares received by the far-left party *Front de Gauche*, which had a more open stance toward migrants, but a similar political platform to the FN on other issues, further confirms our interpretation of the results. In contrast, the evidence appears to rule out that mobilization of voters and changes in electoral turnout drive our results. Besides, we find spillover effects on neighboring municipalities.

Importantly, our analysis shows that municipalities with smaller CAOs drive the main results. Our difference-in-differences estimates suggest that the municipalities in which CAOs negatively affected the FN vote shares hosted approximately less than 47 migrants per 1000 inhabitants. The IV estimates indicate a threshold of about 32 migrants per 1000 inhabitants. Above these

³"Holiday Villages" are structures owned by a public company managed by the state to be used by their employees to go on holiday. Since those structures were mostly empty during the dismantling, the central government used them to host migrants. In some cases, these structures were not used, but they were still kept as an alternative solution if collective houses or other empty flats did not prove sufficient.

⁴We also control for the overall tourism level. We think it is important to control for the overall tourism level because touristic municipalities may follow different electoral trends than non-touristic ones. This fact could generate doubts about alternative channels through which holiday villages may affect electoral outcomes besides CAOs.

thresholds, CAO's estimated average effect on FN vote shares switches sign and eventually becomes both positive and statistically significant for very large CAOs. This finding is consistent with the evidence that large inflows contributed to the rise of right-wing parties in many western countries.

Our paper provides three main contributions. First, the event study analyzed led to proper direct contact between natives and migrants, not to a short and transient exposure. Since migrants were not allowed to work, and the government covered the costs, our setting allows us to estimate the effect of direct contact while ruling out potential indirect impacts. As outlined in the next section, we believe this setting meets some of the conditions described by contact theory (Allport, 1954), such as authorities' role in supporting the contact between natives and immigrants. Therefore we expect a decrease in anti-immigrant sentiments.

Second, our analysis reveals that the negative effect can potentially become positive in municipalities with many migrants. This evidence suggests that natives may perceive the inflow of new immigrants as a threat to their social, cultural, and economic hegemony when the number of migrants received overcomes a certain threshold. As suggested by "realistic group conflict theories" (Blumer, 1958; Campbell, 1965; Blalock, 1967; Bobo, 1983; Quillian, 1995; Taylor, 1998; Sidanius and Pratto, 1999; Lahav, 2004), this perceived threat can potentially determine a rise in prejudice and anti-immigrant sentiment. However, given that migrants could not work, we do not think that the perceived threat generated by big CAOs should be due to economic concerns related to the potential competition in the labor market (Bobo and Hutchings, 1996; Scheve and Slaughter, 2001; Mayda, 2006). In the context studied, it is more likely that natives perceive the opening of too big CAOs as a threat to their identity and cultural dominance (Golder, 2003). In addition, large CAOs may have made fostering contact between natives and immigrants more complicated, leaving the natives affected only by a pure exposure effect not counterbalanced by contact, which can explain the rise in anti-immigrant sentiments (Hangartner et al., 2019; Dinas et al., 2019). Third, the evidence provided in this paper has a clear and direct policy implication. It suggests that governments should develop a more proportional relocation mechanism (Bansak et al., 2017), redistributing refugees in a more homogeneous and diffuse way.

2. Conceptual framework

This section summarizes the main theories that drive our empirical analysis on the effect of the contact between immigrants and natives. It also briefly describes the predictions that originate from these theories and how they apply to our context. For more detailed reviews on these theories see the works of Paluck and Green (2009), Hainmueller and Hopkins (2014), Hangartner et al. (2019), and Dustmann et al. (2019).

We refer to two theories. The first is contact theory (Allport, 1954), which describes how the direct contact between immigrants and natives can reduce anti-immigrant sentiments when the following four conditions are met: equal status between the two groups, common goals, intergroup cooperation, and the support of authorities. However, as suggested by the literature (Hangartner et al., 2019), it is difficult to find natural experiments and event studies in which all these conditions are simultaneously met. Besides, the literature has shown how direct contact can potentially reduce prejudice, even when only a subset of these conditions is met (Pettigrew and Tropp, 2006; Paluck et al., 2019). Specifically, some scholars have suggested and provided evidence that contact between migrants and natives can increase knowledge about the outgroup, leading potentially to a reduction in prejudice (Pettigrew and Tropp, 2008; Barlow et al., 2012).

The second stream of theories is the one that Campbell (1965) labeled "realistic group conflict theories" (Blumer, 1958; Blalock, 1967; Bobo, 1983; Sidanius and Pratto, 1999). According to this theoretical framework, natives can potentially perceive the inflow of a sufficiently big group of immigrants as a threat to their social, cultural, and economic dominance. This threat can then

lead to an increase in prejudice against the outside group and a rise in anti-immigrant sentiment. Consistent with these intuitions, Taylor (1998) suggests that an increase in the outside group's size can lead to a rise in prejudice. Besides, Quillian (1995) and Lahav (2004) indicate that the largest is the size of the outside group, the highest is the threat perceived by the members of the dominant group.

Besides these two main theories, recent evidence in the literature (Hangartner et al., 2019; Dinas et al., 2019) shows how the effect of exposure to migrants without contact can lead to an increase in prejudice and exacerbate anti-immigrant sentiments. For example, as documented by Hangartner et al. (2019) for the case of the Greek islands, exposure without contact can exacerbate anti-immigrant sentiments when the arrival of big numbers of migrants can generate disruptions in natives' everyday life. This disruption could be simply represented by authorities' inability to provide basic services such as waste collection and medical support while dealing with the inflow of migrants. Natives can then perceive this disruption of everyday life as a threat to social order, leading to an increase in prejudice.

Which predictions can we generate from these theories that can guide the empirical analysis in the context of the Calais "Jungle" dismantling? According to the original formulation of the contact theory (Allport, 1954), the contact between natives and immigrants should lead to a decrease in anti-immigrant attitudes when the four conditions described above apply. However, more recent investigations of the theory suggest that a subset of these conditions can lead to a reduction in anti-immigrant attitudes (Pettigrew and Tropp, 2006; Paluck et al., 2019). In our setting, national and local governments had an essential role in managing the dismantling and the relocation of migrants. Hence, given the involvement of national and local authorities in supporting the contact between natives and immigrants, we can expect the opening of CAO centers to reduce the FN's vote shares. Besides, the small immigration inflows generated on average by the opening of CAO centers should have increased the likelihood of contact and intergroup cooperation. Finally, the contact between natives and a small group of migrants should have increased the knowledge about the outside group, potentially generating a prejudice reduction (Pettigrew and Tropp, 2008; Barlow et al., 2012). Thus, based on the general features of the event studied in this paper, we expect the effect on the FN's vote shares to be negative.

On the other hand, we know that CAOs centers' size was heterogeneous across municipalities, with some receiving more migrants than others. Hence, following the intuitions of the "realistic group conflict theories" (Campbell, 1965) and the evidence on the effect of exposure without contact (Hangartner et al., 2019; Dinas et al., 2019), we can expect the baseline effect of the opening of CAOs centers on FN's vote shares to be heterogeneous across the size. Specifically, we can expect this effect to become smaller and eventually become positive when the centers' size becomes sufficiently big. For example, natives may perceive the inflow of many migrants as an economic or cultural threat, or large inflows may make contact with migrants more complicated, leaving the natives to be affected only by a pure exposure effect. In conclusion, given the theoretical intuitions provided by the contact theory, the "realistic group conflict theories", and the recent literature on the pure effect of exposure, we expect the effect of the CAO centers on FN's vote shares to change with the inflow size.

3. Institutional framework and data

3.1 Migrants and the Calais "Jungle"

The Calais "Jungle" was a migrant camp, which first took form in the late 1990s and grew following the European migrant crisis in 2014–2015, reaching a peak of more than 7000 inhabitants in 2015 (Figure 1). Therefore, the government decided to dismantle the camp progressively starting from October 2015 by creating CAOs, temporary reception centers established to deal with this crisis. These centers aim at receiving migrants who have not yet started procedures to obtain

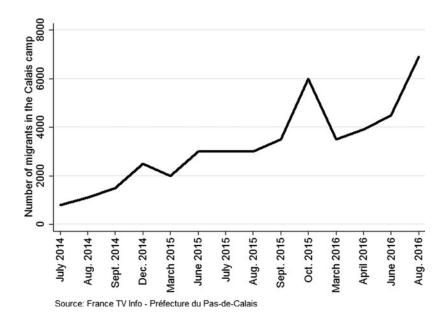


Figure 1. Evolution of the number of migrants in the Calais camp.

refugee status. They receive bed and board but no separate financial assistance. The average cost to the government is 25 Euros a day (Ministère de l'Intérieur, 2017). Migrants are meant to stay in CAOs only for a short period, usually three months, and then move to other reception centers. Migrants who have started a procedure to obtain refugee status are redirected to the CADA (Centres d'Accueil pour Demandeurs d'Asile) while awaiting a decision. Between 2015 and 2017, the CADA places increased to 40,000 places (La Cimade, 2017). Other structures were also created over time, such as the AT-SA (Accueil Temporaire du Service de l'Asile—6000 places), the HUDA (Hebergement d'Urgence des Demandeurs d'Asile—15,000 places), the CPH (Centre Provisoire d'Hebergement—2300 places), and PRAHDA (Programme d'Accueil et d'Hebergement des Demandeurs d'Asile—5351 places) (La Cimade 2017).

The dismantling occurred between October 2015 and October 2016. The government reported having relocated 13,366 migrants of those more than 7000 inhabitants in October 2016. This event received considerable media attention (Figure 2, shows mentions for "Jungle de Calais"). To the best of our knowledge, the French government did not provide official information on the location of the CAOs. The total number of CAOs is also uncertain, with different government sources citing different numbers (more details on request). To circumvent this issue, we combine the manual collection of information with a public database released by *CIMADE* in October 2016. Using Factiva, we systematically searched for articles mentioning the terms "CAO" for each French *départment*. When available, we recorded the number of migrants. This procedure enabled us to recover 291 CAOs. We combined this information with a dataset provided by CIMADE, listing 210 centers and their capacity. The union of these two datasets results in 349 centers, close to the government's number in January 2017, namely 365 (Ministère de l'Intérieur, 2017). Therefore, there should be only a few CAOs missing, if at all. Hence, since we probably assign some treated municipalities to the control group, we would slightly underestimate our treatment effect.

⁵The general rule was that migrants had to move to other receptions centers, and in particular CADA centers. However, we cannot exclude that some migrants remain to live in the municipality where the CAO was established in few specific cases. However, we do not have specific data on these cases.

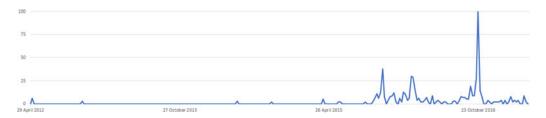


Figure 2. Google Trends for the expession "Jungle de Calais".

We also create a measure of CAO capacity through the following procedure. For CAOs recorded only in our manually collected dataset, we define a CAO's capacity as the maximum number of migrants ever recorded among all articles mentioning it. For CAOs belonging only to the CIMADE dataset or our manually collected dataset and the CIMADE dataset, the capacity is measured using the number of beds in the CIMADE dataset. This measure of capacity cannot give information about the *total* number of migrants or the length of their stay. However, it informs about the *maximum* number of migrants that could be hosted at any point in time.

The second challenge is that the criteria of allocation of the CAOs have not been clearly defined, making the use of an instrumental variable approach important to validate the results. Even though the government announced that the allocation of CAOs across regions would be based on "socio-demographic criteria" (Ministère de l'Intérieur, 2017), no comprehensive list of factors was provided, except for the fact that the Parisian agglomeration and Corsica would be excluded.

Finally, the last issue to consider is the extent to which the mayors were involved in the allocation process. Although many mayors were contacted to receive migrants (Le Monde, 2015; Association des Maires de France, 2016), during the final dismantling, the Minister of Interior, entrusted the final decision to the local representatives of the government, i.e., the *préfets*. The *préfets* would first identify suitable premises without prior consultation and then negotiate with the mayors. Even though mayors' compliance is not generally observed, we exploit additional information about a list of mayors who publicly declared their willingness to welcome migrants. We use this list of mayors as an additional control variable in the analysis below.

3.2 French presidential elections

French presidential elections have been held every five years since 2002, using a two-round majoritarian system. If no candidate receives more than 50% of the expressed votes, a second-round is held between the two candidates with the largest shares. Our main outcome of interest is the share of votes received by the FN candidates in the first round of the presidential election. Figure 3 shows the geographic repartition of FN voters between 2012 and 2017. The FN's strongholds are the south-eastern and north-eastern parts of France. In those areas, more than 30% of the population voted for FN both in 2012 and 2017. One can also see that the FN vote increased substantially between 2012 and 2017 (by 20% on average).

⁶Reassuringly, even though our capacity measure is not defined in the same way, its internal consistency seems warranted. To check it, we compare, among CAOs observed in both datasets, the maximum number of sheltered migrants observed in our manually collected dataset and the capacity registered in the CIMADE dataset. Excluding outliers for which the difference between the two measures is more than two standard deviations away from the mean in absolute value, i.e., less than 10% of cases, the correlation between the two measures is 88%. Therefore, our capacity measure is likely to indicate the number of migrants that were actually sheltered in CAOs.

⁷The *préfets* have authority at the level of the *département*.

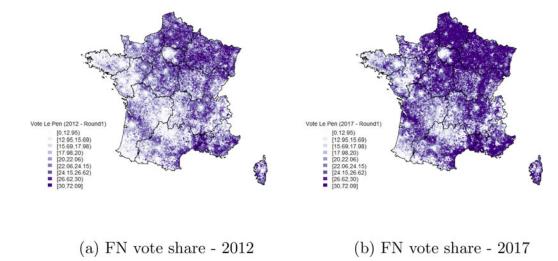


Figure 3. FN vote shares in the first round of 2012 and 2017 presidential elections, (a) FN vote share—2012, (b) FN vote share—2017.

4. Empirical specifications

4.1 Difference-in-differences approach

The first approach that we use is the following difference-in-differences model:

$$\log(FN)_{i,t} = \gamma_0 + \gamma_1 CAO_i + \gamma_2 2017_t + \gamma_3 CAO_i \cdot 2017_t + \gamma_k X_{k,i,t} + \xi_{i,t}$$
 (1)

Where $log(FN)_{i,t}$ is the log of FN votes shares in municipality i and presidential election at time t, with t = 2017, 2012; CAO_i is a dummy equal to 1 if the municipality i has a CAO, and $2017_t = 1$ for the 2017 presidential election. In the vector $X_{k,i,t}$, we find k control variables for municipality i and year t, outlined in the data described in the online Appendix. Specifically, we use all the socio-economic controls, political and administrative characteristics, and mayors' demographics. We cluster the standard errors at the municipality level. The coefficient of interest is γ_3 , which captures the effect of CAO on the dependent variable. Then we modify equation (1) in the following version with municipal and year of election fixed effects:

$$\log(FN)_{i,t} = \beta_0 + \beta_1 CAO_i \cdot 2017_t + \beta_k X_{k,i,t} + \delta_i + \lambda_t + \xi_{i,t}$$
 (2)

Where the municipal FE δ_i control for all the municipal characteristics that do not change over time, and the year of election FE λ_t control for temporal shocks that hit all the municipalities at the same time. The coefficient of interest in Equation 2 is β_1 . Given the logarithmic form used for the dependent variable, we interpret the coefficients as the percentage change in electoral outcomes between the 2017 and 2012 presidential elections. Finally, we describe the main assumptions of the difference-in-differences model in the Appendix.

4.2 Instrumental variable approach

As explained in the Appendix, OLS and diff-in-diff models may underestimate the effect of CAOs. To circumvent these potential biases, we propose to instrument CAOs location with the presence at the municipal level of pre-existing (i.e., built before the dismantling of the Calais Jungle) buildings that can accommodate groups of individuals. We use two different types of buildings, which we combine in one instrument. First, we collect data on the number of holiday

villages. Second, in line with the recent literature (Steinmayr, 2020; Gamalerio et al., 2022), we collect data on the number of group accommodation buildings such as homes for elderly, disabled, drug addicts, and orphans. The idea behind the construction of the instrument is that the government considered several types of venues, with a strong emphasis on buildings that could commodate groups of people. We start the IV analysis with the following first stage regression:

$$CAO_i = \gamma_0 + \gamma_1 GroupBuildings_i + \gamma_k X_{k,i} + \varepsilon_i$$
(3)

where $GroupBuildings_i$ is equal to the sum of the number of group accommodation buildings plus holiday villages located in municipality i. Then, we run the following second stage regression:

$$\Delta FN \equiv \log(FN_{2017})_i - \log(FN_{2012})_i = \beta_0 + \beta_1 C\hat{A}O_i + \beta_k X_{k,i} + \eta_i$$
 (4)

Where $\log(FN_{2017})_i - \log(FN_{2012})_i$ is the difference of log voting shares for the FN between 2017 and 2012 elections; $\hat{CAO_i}$ is the predicted value of CAO_i obtained from the first stage regression, while $X_{k,i}$ are k control variables for municipality i, described in the Appendix. Specifically, we use all the socio-economic controls and their evolutions, log distance to the closest permanent migrant center, the evolution in the number of CADA places between 2012 and 2016, log hotel rooms, political and administrative characteristics, and mayors' demographics. The standard errors are clustered at the *département* level. Finally, this IV approach relies on two main assumptions, described in the Appendix.

5. Empirical results

5.1 Baseline results

Table 1 reports the baseline results of our analysis. In panel A, we report the results of the difference-in-differences analysis. Across the five columns, we add covariates, year of election FE, and municipal FE. The variable of interest is the interaction term between CAO and the dummy variable for the 2017 presidential elections. The coefficients are stable across the different specifications. They indicate that CAOs reduce by 4 percentage points the change of FN vote shares between the 2017 and 2012 elections. Considering spillover effects in column 5, we can see that localities in a 5 or 10 km radius experienced a negative impact on the FN vote, but not as strong as the municipalities with a CAO.

Moving to the instrumental variables approach in panel B, the reduced form coefficient in column 1 indicates that our instrument negatively correlates with the growth in FN votes shares between 2017 and 2012. Crucially, the same thing does not happen if we look at the change between the 2012 and 2007 elections, as shown in the pre-trends analysis in the Appendix. In column 2, we get a first-stage regression with F-statistics that are above the customary values indicated by the weak instrument guidelines given in Stock and Yogo (2005). Looking at the IV coefficients in columns 4-5, we get an even more negative and highly significant effect. As we previously discussed, not instrumenting the allocation of CAOs could bias our estimates toward zero. When we run the IV strategy controlling only for our proxy for overall tourism (i.e., the log of the number of rooms in hotels and the dummy variable for municipalities on the coast), a CAO's presence decreases the growth rate of FN votes by 8.6 percentage points (column 4). The coefficient does not change much when adding the other controls (column 5). As we can see from column 5, a CAO's presence decreases FN votes' growth rate by 12 percentage points. Since the FN vote increased by 20% on average in French municipalities between 2012 and 2017 (corresponding to a change of 5.1 points if we look at shares as outcome variables rather than logs), this estimation suggests that the

Table 1. Main results on the impact of migrants on the Front National vote

	(1)	(2)	(3)	(4)	(5)
	Panel A:	difference-in-differe			
Dependent variables	Log(FN)	Log(FN)	Log(FN)	Log(FN)	Log(FN)
Covariates	No	Yes	No	Yes	Yes
Time FE	No	No	Yes	Yes	Yes
Municipal FE	No	No	Yes	Yes	Yes
CAO x 2017	- 0.042***	- 0.043***	- 0.036***	- 0.037***	- 0.041***
	(0.010)	(0.009)	(0.012)	(0.012)	(0.012)
CAO	- 0.205***	- 0.116***			
	(0.018)	(0.015)			
2017	0.208***	0.206***			
	(0.001)	(0.002)			
ring5_CAO x 2017					- 0.016**
					(0.008)
ring10_CAO x 2017					- 0.012**
					(0.006)
ring15_CAO x 2017					- 0.006
					(0.004)
Observations	58,066	58,066	58,066	58,066	58,066
		Panel B: IV estimo	ntes		
Dependent variables	Δ_{FN}	CAO	$\Delta_{ extit{FN}}$	$\Delta_{ extit{FN}}$	Δ_{FN}
Covariates	Yes	Yes	Yes	No	Yes
Regions FE	Yes	Yes	Yes	Yes	Yes
Model	Reduced form	First stage	OLS	IV	IV
Group buildings	- 0.001***	0.005***			
	(0.000)	(0.001)			
CAO	, ,	, ,	0.001	- 0.086***	- 0.120***
			(0.008)	(0.031)	(0.039)
Coastal			, ,	- 0.041***	- 0.030***
				(0.013)	(0.011)
Log hotel rooms				- 0.005 ^{***}	- 0.004***
-				(0.001)	(0.001)
Observations	26,888	26,888	26,888	26,888	26,888
F-statistic	•	41.05	•	65.11	41.05

Difference-in-differences estimates in panel A, instrumental variables estimates in panel B. Variables reported in the table: CAO = 1 for a migrant center in the municipality; 2017 = 1 for 2017 presidential election; the rings (ring5_CAO, ring10_CAO, ring15_CAO) in panel A denote municipalities within the 5, 10, and 15 km radius respectively; group buildings = number of village vacances and group accommodation buildings in the municipality; coastal = 1 for municipalities on the coast; log hotel rooms = log of the total number of hotels in the municipality. Control variables in panel A: municipality sociodemographic characteristics, the mayor's party, and personal characteristics. Control variables in panel B: municipality sociodemographic characteristics (in 2013 and evolution between 2006 and 2013), coastal dummy variable, the log of the number of hotel rooms, whether the municipality volunteered to receive migrants, the log of distance to the closest permanent migrant center, the evolution of the number of places in CADAs, the mayor's party and personal characteristics. In column 4 of panel B, the only control variables in regressions are the coastal dummy variable, the log of the number of hotel rooms and regions FE. Standard errors clustered at the municipality level in parentheses in panel B. Significance levels: *p < 0.1, **p < 0.05, ***p < 0.01.

growth rate of FN vote in municipalities with a CAO was 40% of the growth rate in municipalities without a CAO.

In Table 2, we investigate what impact the relocation of migrants had on votes for the extreme left-wing party *Front de Gauche* and electoral turnout. In columns 1–2, we provide the results of the diff-in-diff analysis. In columns 3–4, the results of the IV analysis. The results are very clear for what concerns the vote shares of the FG (columns 1 and 3).⁸ Both diff-in-diff and IV estimates indicate a positive effect of CAOs on FG votes shares. Conversely, the results are contradictory for the electoral turnout, with the diff-in-diff analysis indicating a negative effect and the IV one a

⁸We do not carry out a separate analysis for electoral outcomes for the center-left and center-right parties because the candidacy of Emmanuel Macron, an ex-socialist minister and centrist, makes it difficult to compare those votes with the election in 2012.

	/1\	(2)	(2)	(4)
	(1) Log(FG)	(2) Log(Turnout)	(3) Δ_{FG}	(4) $\Delta_{ au urnout}$
CAO x 2017	0.035***	-0.009***		
	(0.013)	(0.003)		
CAO			0.166***	0.026***
			(0.062)	(0.009)
Model	DiD	DiD	IV	IV
Covariates	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	No	No
Municipal FE	Yes	Yes	No	No
Regions FE	No	No	Yes	Yes
<i>F</i> -statistic	_	_	41.05	41.05
Observations	58,047	58,068	26,878	26,888

Table 2. Effect of migrant relocation on extreme-left wing votes and turnout

Difference-in-differences estimates in columns 1–2, instrumental variables estimates in columns 3–4. Variables reported in the table: CAO = 1 for a migrant center in the municipality; 2017 = 1 for 2017 presidential election. Control variables in columns 1–2: municipality sociodemographic characteristics, the mayor's party, and personal characteristics. Control variables in columns 3–4: municipality sociodemographic characteristics (in 2013 and evolution between 2006 and 2013), coastal dummy variable, the log of the number of hotel rooms, whether the municipality volunteered to receive migrants, the log of distance to the closest permanent migrant center, the evolution of the number of places in CADAs, the mayor's party and personal characteristics. Standard errors clustered at the municipality level in parentheses in columns 1–2. Standard errors clustered at the *département* level in parentheses in columns 3–4. Significance levels: *p < 0.1, **p < 0.05, ***p < 0.01.

positive impact. Hence, while it is clear that the votes lost by the FN due to CAOs went to the major left-wing pro-immigrant party, it is not clear which exactly is the role of electoral turnout and voters' mobilization. However, in the Appendix, we provide evidence that rules out that our results are due to a mobilization story or changes in electoral turnout.

5.2 Heterogeneous effects of migrant relocation

We conduct regressions showing heterogeneous effects in Table 3. We focus on the size of the immigration inflow generated by the opening of CAOs, for which we can find the descriptive statistics about the distribution in the bottom panel of Table 3. We run the heterogeneity analysis for the diff-in-diff (columns 1–2), and the IV (columns 3–4) approaches. In the IV analysis, we instrument the interaction term with the interaction between the instrument and the inflow size. We measure the size of the inflow as the capacity of the CAO per 1000 inhabitants. We standardize this variable so that it takes mean 0 and standard deviation 1.

Interestingly, the FN's vote share's negative effect is reduced in places where more migrants were allocated. The analysis of the intensive margin yields important results for the understanding of electoral reaction to migrant inflows. We find that FN's negative effect is stronger in municipalities with fewer migrants per inhabitant hosted in the CAOs. Looking at the diff-in-diff results, we estimate that municipalities that decreased their FN vote upon receiving migrants were those that, on average, hosted less than 47 migrants per 1000 inhabitants, which corresponds to 12 standard deviations in the distribution of CAOs capacity (a standard deviation being equal to 3.96). In the IV results, the estimated threshold is approximately 32 migrants per 1000 inhabitants (i.e., 8 standard deviations). Above these thresholds, CAO's estimated average effect on FN vote switches sign and eventually becomes positive and statistically significant for very large CAOs. This result is in line with the literature on the impacts of immigrants' large inflows on political outcomes. This evidence indicates that, while small immigration inflows can reduce prejudice, inflows above a certain threshold can produce the opposite effect, suggesting a potential "Tipping point".

⁹We could not find information on the capacity for a small number of municipalities with a CAO. These municipalities appear to be small towns for which it is more complicated to recover information. Hence, we replace the missing information with the smaller value taken by the distribution of the capacity of CAOs. If we repeat the analysis dropping these municipalities with missing information, the results do not change. Results can be made available upon request.

Table 3. Heterogeneous effects of the impact of migrants on the Front National vote

	(1) Log(FN)	(2) Log(FN)	(3) Δ_{FN}	$\begin{array}{c} (4) \\ \Delta_{FN} \end{array}$
CAO x 2017	- 0.037***	- 0.057***		
CAO_migrants	(0.012)	(0.012)		
CAO $\times \frac{CAO-migrants}{Population} \times 2017$		0.005* (0.003)		
CAO			- 0.120***	- 0.113***
			(0.039)	(0.037)
CAO $\times \frac{CAO-migrants}{Population}$				0.015***
горишион				(0.005)
Model	DiD	DiD	IV	IV
Covariates	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	No	No
Municipal FE	Yes	Yes	No	No
Regions FE	No	No	Yes	Yes
F-statistic	_	_	41.05	13.14
Observations	58,066	58,066	26,888	26,888
Distrib	ution of the size of CAOs			

	Mean	Standard deviation	Min	Max
CAO—migrants Population	0.18	3.96	0	253.81
$\frac{CAO-migrants}{Population} \text{ if } CAO = 1$	15.97	33.99	0.035	253.81

Difference-in-differences estimates in columns 1–2, instrumental variables estimates in columns 3–4. Variables reported in the table: CAO = 1 for a migrant center in the municipality; 2017 = 1 for 2017 presidential election; $\frac{CAO-migrants}{Population}$ = number of migrants in CAO every 1000 inhabitants. We standardize the variable so that it takes mean 0 and standard deviation 1. Control variables in columns 1–2: municipality sociodemographic characteristics, the mayor's party, and personal characteristics. Control variables in columns 3–4: municipality sociodemographic characteristics (in 2013 and evolution between 2006 and 2013), coastal dummy variable, the log of the number of hotel rooms, whether the municipality volunteered to receive migrants, the log of distance to the closest permanent migrant center, the evolution of the number of places in CADAs, the mayor's party and personal characteristics. Standard errors clustered at the municipality level in parentheses in columns 1–2. Standard errors clustered at the $\frac{departement}{departement}$ level in parentheses in columns 3–4. Significance levels: *p < 0.1, **p < 0.05, ***p < 0.05. The bottom panel reports the descriptive statistics on the distribution of the size of CAOs.

5.3 Contact theory versus realistic group conflict theories versus pure exposure effect

We think that the negative baseline effect in Table 1 is in line with contact theory (Allport, 1954), which suggests that the contact between natives and immigrants should lead to a decrease in antiimmigrant attitudes when certain conditions apply. The anecdotal evidence on the CAOs' experience seems to confirm this idea. When collecting our data on the location of the CAOs, we came
across many examples that suggest that the interactions between migrants and local populations
were generally successful. While at the onset of the dismantling process, protests seemed to be
widespread (La Depeche, 2016), and sometimes violent (La Croix, 2016), several articles mention
that local populations regret migrants have to leave after only a few months, even within municipalities where protests took place initially (Liberation, 2017; Charente Libre, 2018). Many forms
of interactions emerged, through charity dinners (La Nouvelle Republique du Centre Ouest,
2017), car-pooling (Liberation, 2017), or football games. Officials of small municipalities argued
that the arrival of migrants revitalized football teams in rural areas, which lacked players to compete in amateur leagues (20 Minutes, 2016). Although we cannot systematically analyze those
events, they do not seem rare and repeatedly appear in newspapers. A map released by
Le Monde (2017b) shows that initiatives helping migrants being integrated were far from scarce.

Conversely, the results in Table 3 indicate that CAO centers' negative effect on FN votes shares can turn positive when the centers' size reaches a certain threshold. We believe that this evidence indicates that natives can perceive the inflow of new immigrants as a threat to their social, cultural, and economic hegemony when their number is too large. This evidence is consistent

IV

Yes

No

No

Yes

41.05

26,888

IV

Yes

No

Nο

Yes

41.05

26,888

	(1) NJC	(2) Log(FN)	(3) NJC Post — 10/2016	$\begin{array}{c} (4) \\ \Delta_{\mathit{FN}} \end{array}$
CAO x 2017	2.335	- 0.037***		
NJC	(2.523)	(0.012) 0.000		
C4.0		(0.000)	2.112	0.120***
CAO			- 2.112 (1.779)	- 0.120*** (0.039)
NJC _{Post-10/2016}			(1.775)	0.000

DiD

Yes

Yes

Yes

No

58,066

Table 4. Effect of migrant relocation on net job creation

DiD

Yes

Yes

Yes

No

58,066

Difference-in-differences estimates in columns 1–2, instrumental variables estimates in columns 3–4. Variables reported in the table: CAO = 1 for a migrant center in the municipality; 2017 = 1 for 2017 presidential election; NJC = net job creation rate per 1000 inhabitants; $NJC_{Post-10/2016}$ = net job creation rate per 1000 inhabitants after October 2016. Control variables in columns 1–2: municipality sociodemographic characteristics, the mayor's party, and personal characteristics. Control variables in columns 3–4: municipality sociodemographic characteristics (in 2013 and evolution between 2006 and 2013), coastal dummy variable, the log of the number of hotel rooms, whether the municipality volunteered to receive migrants, the log of distance to the closest permanent migrant center, the evolution of the number of places in CADAs, the mayor's party, and personal characteristics. Standard errors clustered at the municipality level in parentheses in columns 1–2. Standard errors clustered at the *département* level in parentheses in columns 3–4. Significance levels: *p < 0.10, *p < 0.05, ***p < 0.05.

with the "realistic group conflict theories". For this event study, we think that the potential threat generated by large CAOs should be due to cultural rather than economic concerns. In Table 4, we use data from Trendeo - Observatoire de l'investissement et de l'emploi (2017), which reports the number of job creations and destructions at the municipality level from January 2009 to June 2017, to test the potential economic consequences. As shown in Table 4, we do not find any significant relationship between the presence of a CAO and net job creation (columns 1 and 3). Besides, controlling for net job creation per inhabitant does not affect our diff-in-diff and IV estimates (columns 2 and 4). Therefore it is more likely that when entering in contact with a large group of outsiders, natives perceived the opening of big CAOs as a threat to their identity and cultural dominance. In addition, an alternative or perhaps coexisting explanation to the "realistic group conflict theories" story is the one based on the recent evidence on the pure effect of exposure without contact (Hangartner et al., 2019; Dinas et al., 2019). Specifically, big CAO centers may have made contact between natives and migrants more complicated, leaving the natives to be affected by a pure exposure effect, potentially leading to an increase in prejudice.

6. Conclusion

Model

Covariates

Municipal FE

Observations

Regions FE

F-statistic

Time FE

We have tried to answer important questions regarding the electoral impact of migrants' relocation after the dismantling of the Calais "Jungle". We find a negative effect on the FN's vote shares, consistent with the contact hypothesis. We provide some anecdotal evidence that supports this claim. We also provide empirical evidence on the heterogeneity behind the baseline effect. We show that the effect can potentially turn positive for municipalities that received a larger number of migrants, which is consistent with "realistic group conflict theories". Given that CAO centers did not have any local economic impact, we think that large reception centers' positive effect on FN votes shares is likely due to cultural and identitarian rather than economic concerns. In conclusion, this paper gives some indication also on the allocation mechanisms of migrants. Small

numbers seem to decrease prejudice against them. Overall, our results suggest that there is a difference in perceived immigration through the media compared to real immigration. The electoral reaction to actual migration seems to depend crucially on the size of the inflow.

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