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# **FACTS, ALTERNATIVE FACTS, AND FACT CHECKING IN TIMES OF POST-TRUTH POLITICS**

Oscar Barrera, Sergei Guriev, Emeric Henry, and Ekaterina Zhuravskaya

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# Facts, Alternative Facts, and Fact Checking in Times of Post-Truth Politics \*

Oscar Barrera, Sergei Guriev, Emeric Henry, and Ekaterina Zhuravskaya

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## Abstract

How effective is fact checking in countervailing “alternative facts,” i.e., misleading statements by politicians? In a randomized online experiment during the 2017 French presidential election campaign, we subjected subgroups of 2480 French voters to alternative facts by the extreme-right candidate, Marine Le Pen, and/or corresponding facts about the European refugee crisis from official sources. We find that: (i) alternative facts are highly persuasive; (ii) fact checking improves factual knowledge of voters (iii) but it does not affect policy conclusions or support for the candidate; (iv) exposure to facts alone does not decrease support for the candidate, even though voters update their knowledge. We argue that the main channel is that fact checking increases the salience of the immigration issue.

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# 1 Introduction

The recent rise of nativist populism in the West has been accompanied by politicians' extensive use of "alternative facts," statements on key policy issues that directly or indirectly contradict real facts. Many anti-establishment politicians have used easily refutable statements to promote their political agenda. For example, pro-Brexit campaign falsely claimed that EU membership cost the UK over 350 million British pounds per week (about 500 million US dollars at the pre-Brexit exchange rate) and this money could be saved by the national budget in the case of exit from the European Union.<sup>[1]</sup> Donald Trump and his 2016 campaign staff repeatedly circulated wrong unemployment numbers for the US and made false claims about US homicide rate being at its highest in several decades.<sup>[2]</sup> Alternative facts are noticed by voters: [Allcott and Gentzkow \(2017\)](#) show that fake news in favor of Trump were shared 30 million times on Facebook. The use of alternative facts is not confined to populists: some mainstream politicians also resort to alternative facts.

As alternative facts become part of modern politics in established democracies, so does fact checking: mainstream media have increasingly invested in checking politicians' claims and provided rebuttals. For example, *Le Monde*, one of the leading French newspapers, identified and corrected 19 misleading statements made by Marine Le Pen, the extreme-right candidate who reached the runoff of the 2017 French presidential election, during her televised debate against Emmanuel Macron.<sup>[3]</sup> Similar efforts are taken by most leading media in the US and Europe — as well as by many independent organisations.<sup>[4]</sup>

Given the substantial fact-checking efforts, it is puzzling why populist politicians double down on their use of alternative facts. If such behavior is rational, this means that, even in the presence of fact checking, alternative facts bring political benefits. In this pa-

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<sup>1</sup>See, for instance: <http://www.telegraph.co.uk/news/0/eu-referendum-claims-won-brexit-fact-checked/> (accessed on May 26, 2017).

<sup>2</sup>See, for instance: <http://edition.cnn.com/2017/02/07/politics/donald-trump-murder-rate-fact-check/> and <http://www.npr.org/2017/01/29/511493685/ahead-of-trumps-first-jobs-report-a-look-at-his-remarks-on-the-numbers> (both accessed on May 26, 2017).

<sup>3</sup>[http://www.lemonde.fr/les-decodeurs/article/2017/05/03/des-intox-du-debat-entre-emmanuel-macron-et-marine-le-pen-verifiees\\_5121846\\_4355770.html](http://www.lemonde.fr/les-decodeurs/article/2017/05/03/des-intox-du-debat-entre-emmanuel-macron-et-marine-le-pen-verifiees_5121846_4355770.html) (accessed on May 26, 2017).

<sup>4</sup>See for example <https://www.nytimes.com/spotlight/fact-checks>, <https://www.bbc.com/news/topics/cp7r8vgl2rgt/reality-check>, <https://www.channel4.com/news/factcheck>, [http://www.repubblica.it/argomenti/Fact\\_Checking](http://www.repubblica.it/argomenti/Fact_Checking) (all accessed on July 13, 2018) and the report on the rise of fact checking in Europe by the Reuters Institute at Oxford ([Graves and Cherubini \(2016\)](#)).

per, we show that indeed fact checking is ineffective in correcting the positive effect of the politicians' propaganda.

What are the potential explanations for the ineffectiveness of fact checking? One possibility is that voters lack trust in mainstream media and the experts on whom the media relies for fact checking. If voters are more confident in numbers provided by politicians than by the media, they would rationally update their prior beliefs in the direction of the alternative facts away from the truth provided by the fact checkers. This explanation is empirically testable, by conducting a randomized control trial where some voters are exposed to alternative facts (with attribution to their source), while other voters are exposed alternative facts and their fact checking (also attributed to the source). In such an experiment, if the voters do not have much trust in the source of fact checking, the posterior of voters exposed to alternative facts and fact checking should be closer to the posterior of those exposed to alternative facts alone than to the posterior of the control group.

Another explanation is that being exposed to the numbers (true or false) raises the salience of the issue central to the politician's narrative (for instance, immigration). The voters may then choose to support the politician who focuses on this issue irrespective of their posterior beliefs on facts, and this is all that matters for the politician.<sup>5</sup> To test this explanation one could expose a group of voters to true facts alone (also with attribution to their source). If salience explains the ineffectiveness of fact checking, one should expect to see a shift in voting intentions in favor of the politician who puts this contentious issue at the center of her program, after exposing voters to true facts on a contentious issue (e.g., immigration). This could happen even when voters find official sources credible and do not doubt fact checkers.

In this paper, we shed light on these alternative hypotheses on the impact of fact checking. We test how exposure of voters to alternative facts, fact checking, or true facts affect voting intentions, policy positions, knowledge of facts, and trust in official institutions.

In March 2017, during the French presidential campaign, we administered an online survey-based experiment to 2480 voting-age French inhabitants of five French regions

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<sup>5</sup>The effect of salience is similar to the "availability heuristic"; both are well documented in experimental economics and psychology.

with traditionally strong support for the extreme right. The sample was stratified on gender, age and education to make it similar to a nationally representative sample.

The participants were randomly allocated to four equally sized groups: (i) control group, (ii) alternative facts group, (iii) fact checking group, and (iv) real facts group. The participants in different groups were asked to read different messages. The control group was presented with no information. Participants in the group “Alt-Facts” (for alternative facts) were asked to read several statements by Marine Le Pen (MLP) on immigration, each containing factually incorrect or simply misleading information, used as part of a logical argument. Participants in group “Facts” were asked to read a short text containing facts from official sources on the same issues. Participants of the group “Fact-Check” were provided first with the same quotes from MLP and then the same text with facts from official sources. All texts presented to participants had a clear indication of the source. Before being subjected to the treatments, participants of all groups filled in a short questionnaire about their socio-economic background and were asked one question that aimed at measuring their prior knowledge of the statistics on immigration. After the treatments, following general questions on political opinions, participants were asked about their voting intentions (using three different methods), their opinions on immigration policy, and their posterior beliefs about the facts, related to numbers cited in the treatments, as well as their prior voting behaviour.

Identifying the causal effect of the treatments is straightforward because the four treatment groups are balanced in terms of observables. The results of our experiment confirm that on average the use of alternative facts increases the political support of the politicians irrespective of fact checking, which explains why politicians use alternative facts despite facing the risk of being fact checked. We find that political statements based on alternative facts are highly persuasive and fact checking is ineffective in undoing their effect on voting: being exposed to MLP’s rhetoric significantly increases voting intentions in favor of MLP by 5 percentage points, *irrespective* of whether they are or are not accompanied by fact checking.

Furthermore, we explore the reasons for the absence of voters’ reaction to fact checking. First, we reject the explanation that voters trust the politician with alternative facts

more than they trust the source providing the fact checking. In general, voters behave as Bayesians, updating factual knowledge in the direction of the signal they receive, placing much higher confidence in the statistical facts from the official sources than in the alternative facts from MLP. The majority of voters presented with official statistics learn them (irrespective of whether they were exposed to alternative facts). Both the facts and the fact-checking treatment (i.e., the combination of alternative facts with facts) shifts voter posteriors on facts significantly toward the truth (relative to the control group). In other words, fact-checking works well in terms of communicating the facts. Voters also learn facts presented in isolation: posteriors are much closer to the truth in the Facts group compared to the Control group. Voters presented with alternative facts alone move their posterior beliefs away from the truth, but the absolute magnitude of the effect of alternative facts treatment on posterior knowledge is much smaller than that of the facts treatment. Furthermore, the Alt-Facts treatment does not significantly affect the rate of giving correct responses to factual questions but increases the average distance to the truth, which means that those voters who knew correct answers to start with were not misled by the alternative facts and only those who had incorrect priors were moved even further away from the truth by the alternative facts.

Second, we find some support for the hypothesis that salience makes fact checking ineffective. On average, voters exposed to true facts without MLP's statements are not less likely to vote for Marine Le Pen compared to the control group. In fact, the share of those who want to vote for MLP if anything is slightly *higher* than that in the control group (although the difference is not statistically significant). This, however, does not mean that the facts are irrelevant because we observe a strong negative and significant association between facts and voting intentions in control group: those voters who believe that the situation with refugees is worse than it actually is are more likely to vote for MLP. Thus, the exposure to facts may have two effects that go in the opposite directions: on the one hand, facts increase the salience of the immigration issue, which boosts support for MLP, and on the other hand, it corrects the beliefs about facts in the direction that lowers the support for MLP. Indeed, we find that the effect of the treatments controlling for the posteriors on facts is positive and significant for both Facts and Fact-Checking treatments,

which is consistent with the hypothesis that the exposure to information about migrants raises the salience of this issue in voters' minds and, therefore, leads to a higher support of a candidate with anti-immigrant agenda.

To understand better what makes voters turn to MLP as a result of the treatments, we consider the effect of the treatments on the subjective opinion of voters about the policy issue. In particular, the answers to the questions: (i) whether refugees come for security or for economic reasons (MLP argues the latter) and (ii) whether the respondents agree with MLP specifically on immigration policy. Participants in the Alt-Facts and Fact-Check treatments think that refugees come for economic reasons in significantly higher proportions than participants in the control group. The difference with control group is 13 percentage points for Alt-Facts and 7 percentage points for Fact-Check. These effects are statistically different in size. Facts treatment, in contrast, does not significantly affect the assessment of reasons for refugees to come. This suggests that the narrative used in the alternative facts plays a role in persuasion: those voters who are exposed to the MLP's conclusion that refugees come for economic reasons tend to believe it more. In contrast, the agreement with MLP on immigration policy is significantly affected only by Alt-Facts treatment: voters in Alt-Facts treatment are 5 percentage points more likely to agree with MLP, while the agreement with MLP on immigration policy among Fact-Checking and Facts control group is not significantly different from that in the control group (albeit also negative). The fact that Alt-Facts and Fact-Check have the same-size effect on voting, whereas Fact-Check has a smaller effect compared to Alt-Facts on policy conclusions of voters (significant for the beliefs about the reasons for the refugees to come and insignificant for the overall agreement with MLP on immigration policy) also is consistent with salience mechanism rather than persuasion: voters change their voting intentions more than their policy views, on average, because the treatments make them see this particular aspect of policy (i.e., immigration) as more important.

Overall, the magnitude of the average treatment effects is fairly large: the persuasion rates to declare the intention to vote for MLP of our treatments, calculated using the formula from [DellaVigna and Gentzkow \(2010\)](#), are as follows: 7.8% for the alternative facts treatment and 7.7% for the fact checking treatment. It is likely that the magnitude of these



effects decrease over time, as the findings of the literature suggest both in experimental and the real-world settings (e.g., [Gerber et al., 2011](#); [Swire et al., 2017](#)). Furthermore, one cannot directly translate a change in reported voting intention to a change in how people vote in an election. The literature generally finds stronger effects for voting intentions than for actual voting ([Gerber et al., 2011, 2009](#); [Chiang and Knight, 2011](#)). Importantly, our results and conclusions rely on the direction and the relative magnitudes of the effect across treatments rather than on the absolute magnitude of the effect in each of the treatments. The important message of our analysis is that the effects of the Alt-Facts and Fact-Check treatments on voting intentions are similar, whereas on posteriors on facts they go in the opposite directions. There is no reason to believe that these relative effects evolve differentially over time.

We explore the heterogeneity of the effects across different groups of voters and find two important dimensions along which the effects of the treatments differ sharply: prior knowledge of voters (about the unemployment level among migrants) and prior support for MLP (during the 2012 presidential elections). We divide voters into four groups – i.e., two groups according to each of these two dimensions: informed vs. uninformed and supporters vs. non-supporters. Whereas the effects on uninformed non-supporters and informed supporters are particularly large, we find no significant effects of the treatments on informed non-supporters and on non-informed supporters. The fact that among non-supporters, we find larger effects for voters with incorrect prior knowledge is also consistent with salience mechanism, as (e.g., [Bordalo et al., 2012, 2013](#)) have shown that salience increases with the distance between the prior and the truth.

We use the self-reported voting intentions as the main political outcome. To show that voting intentions are not just cheap talk, we use two different methods: dictator games and a list experiment. The survey participants were asked to play two dictator games with real payoffs: one with a random anonymous counterpart among survey participants and the other with an anonymous counterpart randomly chosen among survey participants who said that he or she intended to vote for MLP. First, we show that larger donations to MLP supporters are associated with the intention to vote for MLP. Second, we show that alternative facts treatment significantly reduces the share of respondents who chose

to donate to a random participant, but does not share any money with a MLP supporter. The effects of other treatments on the dictator game outcomes are imprecisely estimated, but the signs of the coefficients are consistent with the effects of treatments on voting intentions.

One could potentially worry about a Bradley effect, i.e., respondents hiding their support for MLP in their responses, for instance due to shame. Even though it is unlikely, as we argue below, we take this concern seriously and carry out a list experiment. This experiment is specifically designed to infer the average support for MLP within a group of participants without having the participants admit that they support MLP. We present each respondent with a list of presidential candidates and ask *how many* of them they would support, without asking *whom* they would support. One half of these lists includes the names of four presidential candidates and does not include MLP; the other half lists the same four names plus MLP. We randomize both the exposure to the lists with and without MLP's name and the order of candidates within each list. The average difference in the responses about the number of candidates between lists with and without MLP is a measure of inferred average support for MLP. The results of the list experiment corroborate our findings for voting intentions. First, we find a statistically significant correlation between the responses to the question about voting intentions and the support for MLP inferred from the list experiment. Second, the level of inferred support for MLP across treatments lines up in a way consistent with the effect of treatments on voting intentions; however, the differences between treatments are not statistically significant due to a small sample size.

Our main contribution to the literature is in identifying the causal effect of alternative facts and of fact checking in a real-world setting. We subject the experiment's participants to the real quotes from a leading presidential candidate on a key policy issue in the middle of a presidential campaign and to facts from official sources.

The rest of the paper is structured as follows. Section 2 discusses the related literature. Section 3 describes the design of the study. Section 4 presents the main results and discusses mechanisms. Section 5 establishes the validity of our measure of voting intentions and examines heterogeneity of the results. Section 6 concludes.

## 2 Related literature

The impact of slanted political information on political outcomes has been extensively studied in the context of traditional media (e.g., Gerber et al., 2009; DellaVigna and Kaplan, 2007; Enikolopov et al., 2011; Adena et al., 2015). Recently, researchers turned to studying the circulation of biased or outright false news on new online media platforms and social media, where fact checking standards are lax or missing (Mocanu et al., 2015), for example, document the rapid spread of fake news over social media during the 2012 elections in Italy. Allcott and Gentzkow (2017) show that fake stories were intensely shared on Facebook during the 2016 U.S. presidential election campaign.

With the important exception of the two studies in political science, Swire et al. (2017) and Nyhan et al. (2017), to the best of our knowledge, there is little systematic evidence about the impact of fact checking on subjective beliefs and voting intentions. Both of these studies focus on Trump’s presidential campaign of 2016. Swire et al. (2017) conducted a randomized controlled trial treating participants with Trump’s misinformation with and without attribution to Trump, subsequently correcting the misinformation either immediately or one week later. They found that the impact on the beliefs depend on both attribution to the source and partisanship (i.e., whether the participants were Trump supporters to start with). Using within-subject variation (rather than comparison across treatments), they also found that Trump supporters did not change their voting behavior after seeing the corrective information. Nyhan et al. (2017) conducted a randomization experiment to show that when Trump’s misinformation is corrected, Trump voters update their factual beliefs but do not change their level of support of Trump. In both of these studies, the main effect of fact checking is to show that the candidate was lying and both studies conclude that it does not affect voting intentions of Trump’s supporters. We reach a similar conclusion about the ineffectiveness of fact checking. The robustness of this finding across different contexts (Trump vs. MLP) and methods (experimental and non-experimental) strongly suggests external validity, which usually is hard to claim for any individual RCT study.

Our paper contributes to the literature in a number of additional ways. As the alter-

native facts are included in a narrative in our study, we explore the effect of fact checking separately on each of the three elements of the narrative: beliefs about facts, policy impressions and voting intentions; this has not been done in the previous literature. Further, we find the effect on both supporters and non-supporters of MLP, showing that policy conclusions can be swayed, even for non-supporters. Finally, because our experiment includes the Facts treatment, absent in the other studies, we are able to test for the salience explanation for the ineffectiveness of fact checking.

A growing literature in economics, political science and psychology studies the impact of information on political beliefs and knowledge. [Kuziemko et al. \(2015\)](#) carried out a randomized online experiment exposing participants to information on US income inequality and found a strong effect of this information on the support for the estate tax. [Grigorieff et al. \(2016\)](#) carried out a series of randomized experiments measuring the impact of information on the attitude toward immigrants. [Alesina et al. \(2018\)](#) studied the impact of information about immigrants on preference for redistribution in a large sample of respondents in six Western countries. [Bursztyn et al. \(2017\)](#) estimate the causal impact of Donald Trump’s rise on the willingness to express xenophobic opinions publicly.

A number of studies examined the effect of information on knowledge. For example, [Nyhan and Reifler \(2010, 2015\)](#) document the shift in posterior beliefs about facts in the direction opposite of what the content of the information would imply for extremely salient issues, such as WMD in Iraq in 2005 and vaccine safety. However, the literature finds no such “backfiring” of information on facts for less salient issues ([Wood and Porter, 2016](#)). [Hatton \(2017\)](#) makes a similar argument analyzing survey data on Europeans’ attitudes to immigration and showing that public opinion on immigration in Europe depends on both preferences and salience of the immigration issue. [Swire et al. \(2017\)](#) synthesize the literature on this issue saying that “backfire effects only occur when an issue is strongly and currently connected with an individual’s political identity.”<sup>6</sup> In addition, [Berinsky](#)

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<sup>6</sup>Backfiring can be explained by motivated cognition (or the “self-confirming bias”) where information is evaluated in a biased way to reinforce pre-existing views ([Lord et al., 1979](#); [Edwards and Smith, 1996](#); [Taber and Lodge, 2006](#)). [Bénabou and Tirole \(2016\)](#) provide a recent review of this literature and discuss many examples of motivated beliefs and self-deception. They suggest three mechanisms avoiding costly cognitive dissonance: strategic ignorance, reality denial and self-signaling. Strategic ignorance involves choosing to avoid information sources that contradict the preferred beliefs. Reality denial is the failure

(2015) shows that rumors may gain power due to “fluency”: Attempts to fact check them using credible sources leads to repeating the rumor, which increases its diffusion.

## 3 Experimental design

### 3.1 Context

We use the context of the French presidential election and focus on the misleading statements of the extreme-right candidate Marine Le Pen. The 2017 French presidential election was held on April 23 (first round) and May 7 (runoff). It attracted global attention for a number of related reasons. First, this election witnessed the downfall of traditional parties: the candidates from both mainstream parties, the one on the right (LR) and the other one on the left (PS), did not qualify for the second round. Second, this election led to the victory of a relative newcomer in politics, who created his party a few months before the election and ran on a pro-European platform. Finally, candidates from populist parties, both of the extreme left (Jean-Luc Melenchon) and the extreme right (Marine Le Pen) performed very well.<sup>7</sup>

Marine Le Pen’s strong results in 2017 elections followed a series of electoral successes of her party National Front (FN, for *Front National* in French) in the preceding years. In the elections of the European Parliament in May 2014 the FN came first with nearly 25% of the votes. In the regional elections of December 2015 it nearly won several regions in spite of an alliance between the other main parties. Throughout the 2017 campaign, Marine Le Pen was expected to get into the runoff polling first or close second. The final result was considered disappointing for MLP. She did qualify for the runoff but by a relatively small margin (21% of votes against Emmanuel Macron’s 24% and François Fillon’s 20%) and lost by a large margin in the second round with 34% of the total vote.

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to update the beliefs even in the presence of the bad news. Finally, self-signaling is the manufacturing of signals that can be interpreted as the objective proof of desired conclusions. While our experiment does not allow for a direct test of self-signaling, we can distinguish between strategic ignorance and reality denial. The respondents in our experiment do learn the facts but fail to update conclusions based on these facts. Thus, our results are consistent with the importance of reality denial rather than strategic ignorance.

<sup>7</sup>We follow the conventional French classification of parties into extreme left (Melenchon), center-left (PS), center (Macron), center-right (LR), and extreme right (Le Pen).

## 3.2 Facts and alternative facts

Following an influx of refugees into Europe, the issue of immigration policy played an important role in the 2017 presidential campaign. The stance on immigration policy was one of the MLP's important messages during the campaign, even though she did not make it the central one during the first stages of the campaign, preferring to focus on economic and social issues and on attacking the European union, in an effort to change the image of her party in the public opinion. She returned to immigration as a central theme only in late April 2017 after the 1st round of the election (i.e., after our experiment was completed).

On immigration, she proposed to close the French borders to refugees and substantially limit legal immigration. To convince voters that such tough measures were acceptable, MLP tried to persuade voters that immigrants, including refugees, come to France for economic rather than security reasons and, in particular, to benefit from the generous French welfare system. She often provided factually incorrect or misleading numbers, always with substantial prudence in the way they were expressed, and provided arguments that used these misleading numbers to make her point.

In the experiment, we use three quotes from MLP, which were characteristic of the arguments she made during the campaign. The *alternative facts* on which MLP based her arguments can be and were checked using official sources, such as the UN High Commissioner for Refugees (UNHCR) and INSEE, the French statistical institute. Each of the statements of MLP that we use for the experiment were made in the media and were subsequently fact checked by the newspaper *Liberation* and/or the online edition of the radio station Europe 1.<sup>8</sup> Below, we present the precise quotes of MLP and the corresponding text with facts from official sources as they were presented to the participants of our experiment. The full text can be found in the Online Appendix.

*Argument 1:* If refugees had really been fleeing their countries for security reasons, they would not have left their families behind.

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<sup>8</sup>In the Facts and Fact-Check treatments we did not expose participants to the whole text of the published fact-checking articles; instead, we showed short factual statements containing the statistical figures and their sources.

- **Alternative fact:** MLP: “A very small minority of them are really political refugees (...). I have seen the pictures of illegal immigrants coming down, who were brought to Germany, to Hungary, etc... Well, on these pictures there are 99% of men (...). Men who leave their country leaving their families behind, it is not to flee persecution but of course for financial reasons. Let’s stop telling stories. We are facing an economic migration, these migrants will settle.”<sup>9</sup>
- **Official fact:** The UNHCR estimates that among the migrants crossing the Mediterranean in 2015, 17% are women, 25% are children and 58% are men.

Argument 2: Migrants come to benefit from France’s generous welfare system.

- **Alternative fact:** MLP: “5% of the foreigners who come to France have a work contract. This means there are 95% of those coming to France who are taken care of by our nation (...). There are 95% of people who settle in France who don’t work, either because of their age, or because they can’t as there is no work in France.”<sup>10</sup>
- **Official fact:** According to the National Statistics Institute (INSEE) in 2015, 54.8% of the immigrant population were in the labor force (working or looking for a job) against 56.3% for the rest of the French population. The rate of unemployment for the immigrant population is 18.1% against 9.1% for the rest of the population. There is therefore 44.9% of the immigrant population that works (51.1% for the rest of the population).

Argument 3: Refugees should really not flee but fight.

- **Alternative fact:** MLP: “Everyone of us has good reasons to flee war, but there are also some who fight. Imagine during the Second World War, there were surely many French, believe me, who had good reasons to flee the Germans and yet, they went to fight against the Germans.”<sup>11</sup>

<sup>9</sup>Source: <http://lelab.europe1.fr/marine-le-pen-affirme-a-tort-que-les-refugies-sont-tres-majoritairement-des-migrants-economiques-debarquant-sans-leur-famille-2511737> (accessed on July 15, 2017).

<sup>10</sup>Source: [http://www.liberation.fr/france/2013/12/09/le-pen-met-les-immigres-au-chomage-force\\_965300](http://www.liberation.fr/france/2013/12/09/le-pen-met-les-immigres-au-chomage-force_965300) (accessed on July 15, 2017).

<sup>11</sup>Source: <http://lelab.europe1.fr/refugies-comme-nadine-morano-marine-le-pen-prend-lexemple-des-francais-qui-sont-alles-se-battre-contre-les-allemands-pendant-la-seconde-guerre-mondiale-2515045> (accessed on July 15, 2017).

- **Official fact:** *During the First and Second World Wars, the French fled war zones in much larger numbers than the current refugees. After the defeat of the French army in the North of France in the Spring 1940, 8 million civilians, that is one quarter (25%) of the population of the time, took the road to go to the South of the country that was not occupied (according to Jean-Pierre Azema, a renowned French historian).*

### 3.3 Setup of the experiment

In March 2017, one month before the first round of the presidential election, we conducted an online survey of 2480 French voting-age individuals using the Qualtrics online platform, an analogue of the Amazon Mechanical Turk. This platform is mostly used by companies to conduct market research. The survey respondents were drawn at random from a pool of Qualtrics subscribers, individuals who participate in online surveys for pay. The pool of potential participants of our survey was contacted by Qualtrics team via email. This email indicated the compensation fee upon completion of the survey and the link to it, which the participants could chose to click on. At the start of the survey, the participants were presented with a brief introduction to the survey indicating its focus on political preferences, voting intentions, and attitudes toward immigrants. It was also stated that only aggregate results would be published. There was no mention any political party or political candidate. The introductory page allowed participants to drop out at this stage. The research institutions to which we belong were not specified, since the participants might have inferred possible ideological biases of survey designers from that information. We describe the sample in detail in the next section.

The survey consisted of four parts. In the first part, we asked all participants a series of questions regarding their socio-economic characteristics, such as age, gender, education, income, religion. In addition, the first part of the survey included one question measuring the respondents' prior knowledge of facts related to immigration. In particular, we asked: "What do you think the unemployment rate among immigrants was in France in 2015?" The respondents were asked to pick their response from 10 intervals: (1): 0-10%, (2): 11-20%, ..., (10): 91-100%.



The second part of the survey varied across treatments. The participants were randomly allocated to four equally-sized groups. Each participant in three out of four groups was asked to read a short text before going to the third part of the survey. The texts were different across groups. In the online appendix, we present the full text of each treatment.

- *Control group (Control)* received no text to read, and the respondents were immediately directed to the third part of the survey;
- *Alternative facts group (Alt-Facts)* was presented with a one-sentence introduction (“You will read several statements by Marine Le Pen about migrants: their reasons for coming, the impact of migrants on French working and retired population; read them carefully”), and then with quotes from MLP containing alternative facts, including those that we presented in the previous section, stating the exact date these statements were made;
- *Facts group (Facts)* was presented with a different one-sentence introduction (“You will read below several numbers about migrants related to their reasons to come and their impact on French working and retired population; read them carefully”) followed by the real facts corresponding to alternative facts from the MLP’s quotes, stating their official sources;
- *Fact-checking group (Fact-Check)* was first presented with the same text as the Alternative facts group followed by exactly the same text as in the Facts group.

The third part of the survey was designed to measure voting intentions and attitudes toward MLP’s program. In addition to asking a set of questions regarding voting intentions, we carried out a list experiment. We also used two dictator games: the first one played with a random participant and the second played with a participant who reported that he/she was likely or very likely to vote for MLP.<sup>12</sup>

The fourth part of the survey examined opinions on the reasons for migration, asking the participants whether they thought migrants were coming for security or economic

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<sup>12</sup>The participants got no new information or payoffs in between the two games.

reasons and then tested the participants knowledge on the three main facts used in the study.<sup>13</sup>

### 3.4 Sample, balance across treatments and descriptive statistics

The sample was drawn from five French regions, presented in Figure A1 in the online appendix. These five regions were those with the highest score for the FN in the regional elections of 2015 (as presented on the left of Figure A2 in the online appendix) and were chosen to guarantee a sufficient proportion of MLP supporters among respondents. The regions are Hauts de France, Provence-Alpes-Côte d’Azur, Occitanie, Grand Est et Centre Val de Loire.<sup>14</sup> Most of our sample comes from the region Hauts-de-France (35,8%), followed by Provence-Alpes-Côte d’Azur (26,1%) and Grand Est (19%).<sup>15</sup> MLP indeed did relatively well in these regions in the 2017 election: they ranked 1st, 2nd, 3rd, 6th, and 7th out of 13 regions of mainland France in terms of MLP’s vote share in the first round of the presidential election (see the map on the right of Figure A2 in the online appendix).

We stratified our sample on education, age and gender by treatment. The sampling quotas were designed to make the sample as representative of the French adult population eligible to vote as possible.<sup>16</sup>

For a broad range of variables, Table 1 presents the means by treatment group (Columns 1 to 4 show the means in Alt-Facts, Fact-Check, Facts, and Control groups, respectively) and the p-values for the test of the equality of these means across different treatment groups (columns 5 to 10). In column 11, we correct for multiple hypotheses testing. The table suggests that the four randomized groups are largely balanced in observable char-

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<sup>13</sup>The questionnaire translated into English is presented in the online appendix. The original survey in French is available online at: [https://survey.eu.qualtrics.com/jfe/form/SV\\_cZ80nbVMLPTfoYFj](https://survey.eu.qualtrics.com/jfe/form/SV_cZ80nbVMLPTfoYFj) (accessed on June 12, 2017).

<sup>14</sup>The region Bourgogne Franche Comté had a slightly higher score for the FN in the 1st round of the regional election than Centre Val de Loire, but this was an unexpected result due to the particularities of the race in the region. We thus chose Centre Val de Loire instead.

<sup>15</sup>The respective population of these regions in 2016 was Hauts-de-France 6 million, Occitanie 5.7M, Grand Est 5.5M, Provence-Alpes-Côte d’Azur 5M and Centre Val de Loire 2.6M. The unemployment rates in these regions was as follows in 2016: 12.2 for Hauts de France, 11.7 for Provence-Alpes-Côte d’Azur, 11.7 for Occitanie, 9.9 for Grand Est and 9.6 for Centre Val de Loire.

<sup>16</sup>Qualtrics allowed for three levels of quotas. We imposed quotas on gender (50% male, 50% female), on birth year (25% 1981 - 1989, 45% 1956 - 1980, 30%  $\leq$  1955), on education (high school and below 72%, undergraduate degree 12%, graduate degree 16%).

acteristics. The largest imbalance that we observe is in the proportion of wage earners vs. pensioners: wage earners are 7 and 5 percentage points more frequent in the Fact-Check group and in the Facts group, respectively, compared to Control and the Alt-Facts groups; and there are no significant differences between Control and Alt-Facts groups and between Facts and Fact-Check groups. In all regressions that we present below, we control for a dummy indicating whether respondent is a wage earner as well as other socio-economic characteristics.

In line with the results of the European elections of 2014, regional elections of 2015, and the presidential elections of 2017 in the regions from which the sample was drawn, 22% of the sample voted for Marine Le Pen in the previous presidential election. Television is the main source of information for the majority of respondents, that is 61% of the sample, whereas about 22% of the sample prefer to get information from the Internet and only 10% of the respondents use radio as their main source of information. In addition, we observe that our sample has a strong representation of Catholics (57%) and those who reported no religion (37%). Together, Catholics and non-religious make about 94% of the sample. Table [A1](#) in the online appendix provides summary statistics for the main variables of interest in the full sample.

## 3.5 Variables

### 3.5.1 Voting intentions

Participants were asked how likely they were to vote for MLP in the upcoming presidential election using a four-point scale (“very unlikely”, “unlikely”, “likely”, “very likely”). We also created a binary measure of voting intentions that indicates whether the respondent self-reports that she is “likely” or “very likely” to vote for Marine Le Pen. To check whether self-reported measure is a valid measure of support for MLP, we use two additional methods to assess political preferences. A potential concern is the Bradley effect mentioned in the introduction. While underreporting of the intended vote for FN was a big issue for pollsters during the 2002 presidential campaign leading to a surprise qualification of MLP’s father for the second round of elections, underreporting is no longer

quantitatively important: in the 2017 campaign pollsters applied the same intentions-to-vote correction factor to FN as to other parties and they were proven right to do so *ex post*.<sup>17</sup> Nevertheless, we take this issue seriously and address it in two ways.

The first is the list method (as described in Blair and Imai, 2012). Each respondent is randomly allocated to one of the two groups: participants in the first group are presented with a list of four key MLP's competitors in the 2017 presidential elections: Francois Fillon, Benoit Hamon, Emmanuel Macron, Jean-Luc Melenchon (in random order). Participants in the second group are presented with a list of five candidates, which includes the four who appear in the list of the first group plus Marine Le Pen, also in random order. Then, all respondents, irrespective of which list they see, are asked programs of how many politicians they support overall. There are no questions about *which* politicians the respondents support — the respondents only are asked to give the number of supported candidates. Due to the law of large numbers, the average difference in the number of supported politicians between the two groups reveals the average support of Marine Le Pen in the population.

The second approach is based on the dictator game with real payoffs. All participants played two dictator games in a row. In the first they were asked how much out of 10 euros they would send to another randomly selected participant of the study. In the second game participants were asked how much out of 10 euros they would send to another randomly selected participant of the study among those who reported he/she was likely or very likely to vote for MLP. The difference in amounts transmitted between the first and the second game can be seen as a measure of support for MLP. The literature shows a strong in-group bias for supporters of the same party in such dictator games.<sup>18</sup>

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<sup>17</sup>See, for instance, the articles published on June 2, 2016 in the French addition of *the Slate* magazine entitled "A taboo has fallen: the vote FN is no longer under-declared in the polls," <http://www.slate.fr/story/118917/tabou-vote-fn-sondages> (accessed on September 29, 2017) and on April 24, 2017 in *the Guardian* entitled "Pollsters breathe sigh of relief after calling French election right," <https://www.theguardian.com/world/2017/apr/24/french-pollsters-relief-after-calling-election-right> (accessed on September 29, 2017).

<sup>18</sup>For instance, Fowler and Kam (2007) found that Democrats and Republicans in the US both give more to the anonymous experiment participants from their own party than to those from the opposing party. In addition, they observed that independents give more to independents than to partisans, while partisans behave in the opposite way (see also Rand et al., 2009).

### 3.5.2 Past support for MLP

As it is often harder to influence voting intentions of those voters who once already voted for the candidate (Mullainathan and Washington, 2009), we asked respondents whom they voted for during the 2012 presidential elections. In order not to contaminate the experiment by framing effect or other aspects of cognitive dissonance, we asked this question after the experiment (in the third part of the survey). This, however, means that the answers to could potentially be affected by the treatment. We check this and find that the past vote for each candidate, including MLP, is balanced across treatment and control groups as reported in Table 1. 21.6% of respondents reported having voted for MLP in 2012, which is consistent with the aggregate election results for the regions in our sample.<sup>19</sup>

### 3.5.3 Prior knowledge

In order to test how the effects of alternative facts and fact checking depends on the knowledge of voters about the subject matter, we need a measure of prior beliefs. In the first part of the survey, before the experiment, all participants were asked about their beliefs on the rate of unemployment among the immigrant population in 2015. In particular, they were asked to chose their response from ten 10-percentage-point intervals. Unemployment rate among working-age foreign-born residents of France in 2015 was 18%, falling into the second category. We define a dummy for “correct prior” as any response below category 4, i.e., the respondent should believe that unemployment among immigrants was below 31%. The reasons behind this definition are that: 1) the question did not specify the precise definition of the “immigrant population” and respondents

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<sup>19</sup>We also asked whether respondents ever voted for the National Front in the past. In this variable, we find a small, but statistically significant imbalance: in each of the treatment groups, Alt-Facts, Fact-Check, and Facts, the share of those who voted for FN in the past is 33%, whereas as in control group, it is 38%. These differences are statistically significant but only if we do not correct standard errors for multiple hypothesis testing (see the last row of “prior voting behavior” section of Table 1). In order not to contaminate our analysis by controlling for a variable that potentially can be affected by the treatments, we do not control for whether respondents voted for FN in the past in our regressions. Note, however, that this imbalance (if it is a result of random realization) potentially could bias our results against finding positive effect of the treatments on the intention vote for MLP compared to the control group. Consequently, our results are qualitatively similar, but stronger when this variable is included in the list of covariates (unreported).

may have interpreted it differently, for instance, by not including naturalized immigrants into this group or only considering naturalized immigrants; and 2) 18% is very close to the border between categories 2 and 3. The priors are balanced across the four treatments as can be seen from the last two rows of Table 1. Overall, 39% of respondents hold incorrect prior and grossly overestimate the unemployment among immigrants.<sup>20</sup> Only 238 respondents picked the first interval, i.e., between 0 and 10%, i.e., underestimated the unemployment rate among immigrants under a reasonable definition of who one considers an immigrants.

Figure A3 in the online appendix present the histograms of the answers to the question on prior knowledge by groups of voters. We find that MLP supporters in 2012 elections, rural residents, residents in regions with higher unemployment rate, and less educated respondents are more likely to grossly overstate the level of unemployment among migrants.

## 4 Results

The experimental design allows us measuring the impact of alternative facts and fact checking on voting intentions and understand whether it is driven by differences in knowledge of facts or by impressions about policy conclusions. We address the following questions: How do different treatments affect voting intentions? Do the participants learn factual information differently depending on who provides it? Does knowledge of facts translate into policy impressions, such as opinions on the reasons for migration? Do policy impressions translate into voting intentions?

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<sup>20</sup>This is consistent with the results of polls that show that Europeans countries overestimate the presence of immigrants and their importance of the economy. See, for instance, the results of a study by Ipsos MORI, which shows that native populations of France, Italy, Belgium, Poland and Germany vastly overestimate the number of Muslims living in their countries, and that the largest misconception was in France: <https://www.theguardian.com/society/datablog/2016/dec/13/europeans-massively-overestimate-muslim-population-poll-shows> (accessed on October 12, 2017).

## 4.1 The average treatment effect

Figures 15 provide an illustration of the main results by plotting the distributions of raw outcome variables across treatments. Due to randomization and balance across treatments, our empirical methodology is based on a simple comparison of means. To make the estimates more precise, we control for the conventional determinants of political preferences. In particular, we regress the outcomes on dummies indicating each of the three treatments, namely, Alt-Facts, Fact-Check, and Facts (our main variables of interest) controlling for gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, and dummies for having voted for each of the main candidates in the 2012 presidential elections. In all the reported results, we adjust standard errors for heteroscedasticity.

In Table 2 we present the results for the main outcomes. Panel A of the table presents the regression results. Column 1 shows that the exposure to MLP's rhetoric, *with or without* the additional fact checking from official sources, results in an additional 5 percentage points in terms of intention to vote for MLP relative to the control group. Thus even in the presence of fact checking, alternative facts do deliver political benefits for the populist politician. Moreover, exposure to facts from official sources positively affects voting intentions for MLP, with a 3 percentage point difference between Facts and the Control groups, even though this difference is not significant.

The last four rows of panel A of Table 2 report the p-values of the tests for the equality of the effects between different treatments (Alt-Facts vs. Fact-Check; Facts vs. Fact-Check; and Alt-Facts vs Facts) and of the test for whether the coefficient on the Fact-Check treatment is equal to the sum of the coefficients on the Alt-Facts and Facts treatments. The point estimates of the effects of the Alt-Facts and Fact-Check treatments are virtually identical. The point estimate of the effect of Facts treatment is substantially smaller in magnitude than that of the other two treatments; however, we cannot reject the equality of the effects across all three treatments. The magnitude of the effect of Alt-Facts and



Fact-Check treatments is large compared to the average intention to vote for MLP in the Control group, which is equal to 37.3% (as reported at the bottom of the table), but it is consistent with the immediate effects of political campaign ads on voting intentions found in the literature.<sup>21</sup> Figure 1 illustrates these results in the absence of controls.<sup>22</sup>

The comparison of the effects of Alt-Facts and Fact-Check treatments suggests that fact checking is completely ineffective in undoing the persuasion effect of populist arguments based on alternative facts. Does this mean that fact checking fails in communicating the facts or that voters distrust official sources more than MLP? Columns 2-5 of Table 2 address this question. In column 2, the dependent variable is the absolute value of the distance between individual (posterior) responses and the true value for the proportion of men among refugees crossing the Mediterranean. In column 3, it is the absolute value of the distance between the responses and the true value for the share of working among migrants. We find that participants do learn the statistical facts when the facts are provided to them. Both alternative facts and facts are effective but participants attach a much higher weight to the official sources compared to MLP. The absolute value of the distance to true value for both questions decreases substantially after the Facts treatment and slightly increases after the Alt-Facts treatment; both effects are statistically significant. The absolute value of the point estimate is much smaller for Alt-Facts treatment than for the Facts treatment. Furthermore, the Fact-Check treatment significantly reduces the absolute value of the distance to truth compared to the control group, suggesting that information from official sources dominates the effect of alternative facts. The effect of the Fact-Check treatment on the distance to truth is similar in magnitude to the sum of

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<sup>21</sup>The magnitudes are also comparable to those reported by Bartels (1996) who analyzes survey data on the actual voting in the U.S. presidential elections and shows that the incumbent candidate's vote share would have been five percentage points lower if all voters were "fully informed." He shows that the informed voters are more likely to vote right (Republican) rather than left (Democrat): the Republican candidate would have had two percentage points higher score if all voters were "fully informed."

<sup>22</sup>Previous voting behaviour is an important determinant of voting intentions. In the control group, among those who reported having voted for MLP in the past, 81% report intention to vote for her in 2017, whereas among those who did not vote for MLP in 2012, only 24% intend to vote for her in 2017. In Figure A4 in the online appendix we present differences in voting intentions across treatments separately for those who reported having voted and not having voted for MLP in the past. Qualitatively, the effects of the treatments are similar, but the level of intention to vote for MLP is drastically different and so are the magnitudes of the treatment effects. We come back to the question of how and when the prior support for MLP interacts with treatment effects below.



the positive effect of the Facts treatment and the negative effect of the Alt-Facts treatment.

We compare the shares of participants who report the correct answers across treatments in columns 4 and 5. Alt-Facts treatment does not significantly affect the probability of being correct on either of these factual questions in sharp contrast to both Facts and Fact-Check treatments. The comparison between the results presented in columns (2) and (3) vs. columns 4 and 5 implies that MLP manages to change the opinion about the facts only among those who did not know these facts to begin with. Facts and Fact-Check treatments increase the probability of a correct response about the share of men among refugees by 44 and 31 percentage points from the baseline level of 16% (the share of correct responses in the control group) and increase the probability of a correct response about the share of working among migrants by 38 and 26 percentage points from the baseline of 8%.

We illustrate how respondents update their posteriors on facts as a results of the treatments in Figures 2 and 3, which present the distributions of answers to the questions on the proportion of men among refugees and on the share of working among migrants across treatments. We do observe that the mass of respondents moves slightly toward the alternative facts in the Alt-Facts treatment and moves substantially towards the true facts in Facts and Fact-Check treatments, as compared to the control group<sup>23</sup>

Figures A6 and A7 in the online appendix provide further evidence that respondents behave as Bayesian updaters who have higher confidence in the official sources than in MLP. It presents how the non-parametric relationship between the prior and the posterior is affected by the treatments. For every prior, the Facts and the Fact-Check treatments lower the posterior on the share of men among refugees (with a stronger effect of the Facts treatment), whereas the Alt-Facts treatment increases respondents' posterior

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<sup>23</sup>Table A2 and Figure A5 in the online appendix present the results for the effect of the treatments on the respondents' knowledge about the percentage of French population that fled to the South during the Second World War. We find no significant effect of any of the treatments for the absolute value of the distance to truth, but for the probability of the correct response, treatments have similar effect as for getting correct responses on other factual questions: Alt-Facts had no effect, while Facts and Fact-Checking groups have significantly higher rate of correct responses (by 11 and 14 percentage points, respectively) compared to the Control group, in which 5% of respondents gave the right answer. Note, however, that on this particular question, MLP did not provide an actual alternative figure but just suggested that the French had not fled but had fought during the war. We relegate these results to appendix because there are no explicit alternative facts.

about the share of men among refugees.<sup>24</sup> Overall, we find overwhelming evidence that participants learn the facts whenever exposed to them.

The knowledge of facts, however, does not translate into changes in the impressions about the reasons for migration, as can be seen in Figure 4. Participants in both the Alt-Facts and the Fact-Check group are more likely to believe that migrants come for economic reasons. Fact checking corrects the factual knowledge, but does not correct the policy conclusions advocated by MLP. The Facts treatment does not affect the policy-relevant impressions at all. These results are presented formally in column 6 of Table 2. The alternative facts treatment reinforces the belief that refugees come for economic reasons by 13 percentage points and the fact checking treatment by 7 percentage points compared to the 32% mean in the control group.

Finally, the discourse of MLP (Alt-Facts) makes people more likely to agree with her on immigration policy, as illustrated by Figure 5 and shown in column 7 of Table 2. Participants in the Alt-Facts group are 5 percentage points more likely to agree with MLP than those in the control group. The rate of agreement with MLP in Fact-Check and Facts treatment is not statistically different from that in the control group. Yet, both coefficients have positive sign.

Panel B of Table 2 presents persuasion rates of treatments for each of the binary outcomes. In particular, the persuasion rate of MLP's narrative with or without fact-checking on voting intentions for her candidacy is about 8%. As for the beliefs about the reasons for migration, alternative facts are about twice as persuasive as alternative facts accompanied by fact checking (12 vs. 7%).

Overall, we find that alternative facts treatment does convince voters, fact checking corrects the beliefs about facts but does nothing for voting intentions and only partially corrects policy conclusions of voters.

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<sup>24</sup>Note that the prior and the posterior beliefs are about related but different variables.

## 4.2 Salience

In this subsection, we test whether at least a part of the effect of the fact checking and facts treatments is driven by the fact they raise the salience of the immigration issue in voters' minds, and the fears associated to it, which in turn brings them closer to MLP's agenda, who has always made immigration a centerpiece of her proposals. We start by showing that beliefs about facts are related to political outcomes independently of the treatments. In order to do so, we regress the three political outcomes (voting intentions, beliefs of respondents about the reason for refugees to come to France, and the general agreement with MLP on immigration policy) on the individual beliefs about the share of men among refugees and the share of working among migrants, focusing only on the control group subsample. Columns 1, 3, and 5 of Table 3 present the results. In the absence of any treatment, all three outcomes are significantly associated with stronger beliefs that refugees come for economic reasons and that immigrants do not work.

Given this relationship, the salience mechanism implies the following testable predictions. After controlling for posteriors on facts, all the treatments—including the Facts treatment—should have a positive effect on the support for Marine Le Pen. This is because all three treatments, including the Facts treatment, attract voters' attention to the issue of immigration. Furthermore, controlling for posteriors on facts, the effects of both the Facts treatment and the Fact-Check treatment should be larger in magnitude than without such a control because these treatments make people update away from the belief that immigrants pose a threat to them. In contrast, the effect of the Alt-Facts treatment should decrease in magnitude with the inclusion of the controls for the posteriors on facts because this treatment moves factual beliefs in the anti-immigrant direction.

Columns 2, 4, and 6 of Table 3 test and confirm these predictions. Controlling for the (posterior) beliefs about the share of men among refugees and the share of working among immigrants, Facts treatment, despite having no negative content about refugees, makes people significantly more likely to report intention to vote for MLP, more likely to agree with her on immigration policy and more likely to believe that refugees come for economic rather than security reasons. The magnitudes of both Facts and Fact-Check

treatments conditional on posteriors on facts are larger than without this control (which can be seen from comparing the coefficients at treatment dummies in Tables 2 and 3) and the opposite is true for the effect of the Alt-Facts treatment, which, nonetheless, remains positive for all outcomes and statistically significant and rather large for the belief about the economic reason for refugees to come.

The salience mechanism explains why fact checking is ineffective: the effect of the shift in factual knowledge, which makes voters move away from the anti-immigrant policy position, is compensated by the increased salience of the issue of immigration. In the next section, we examine the heterogeneity of treatment effects among different groups of voters.

### 4.3 Heterogeneity

We start by exploring two essential dimensions of heterogeneity: (i) respondent's prior voting behavior measured by a dummy for whether respondents had voted for MLP during the 2012 presidential election (thereafter referred to as "supporters of MLP" vs. "non-supporters of MLP") and (ii) the ex-ante knowledge of the respondents measured by whether they had a prior about the unemployment rate among immigrants close to its true value or far away from it. As described above, we measure the correctness of the prior with a dummy which equals one if the respondent indicated that the unemployment among immigrants in France in 2015 was below 31% (i.e., chose one of the first three 10-percentage-point intervals among ten possible intervals). 968 of 2,480 respondents had an incorrect prior according to this definition.

Neither the prior support for MLP, nor the ex-ante knowledge considered alone has a significant *average* impact on the effect of the treatments on voting intentions — as shown in Panels A and B of Table A3 in the online appendix, which present the coefficients of the interaction terms between treatment dummies and these two variables.<sup>25</sup> These rela-

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<sup>25</sup>We do see from Panel B that incorrect priors make people less willing to adjust their posteriors on facts after having been exposed to official information in Fact-Checking and Facts treatments (columns 2 and 3). Note that even those who hold incorrect prior beliefs do respond to Facts and Fact-Check by updating their posterior beliefs toward the truth. This effect is strong, although it is weaker than for those who hold correct prior beliefs. Respondents with incorrect priors were 30 percentage points more likely to have correct posterior about participation rate among immigrants after the Facts treatment and 17 percentage

tionships, however, mask important heterogeneity with respect to how prior knowledge interacts with prior political support for MLP illustrated in Figure 6.

It is important to note that both prior support for MLP and the correctness of the prior themselves are significant predictors of all political outcomes, with the effect of the prior political support quantitatively being much more important. In particular, in the control group, voters for MLP in 2012 are 60 percentage points more likely to vote for MLP in 2017, 21 percentage points more likely to believe that refugees come to France for economic reasons, and 52 percentage points more likely to agree with MLP on immigration policy compared to those who did not vote for MLP in 2012; whereas the participants with incorrect priors are 8 percentage points more likely to report intending to vote for MLP, 6 percentage points more likely to believe in economic reasons behind refugees' migration, and 11 percentage points more likely to agree with MLP on immigration than participants with correct priors.

Table 4 examines the effect of the treatments separately in four subgroups of voters: non-supporters with correct priors (column 1), non-supporters with incorrect priors (column 2), supporters with correct priors (column 4), and supporters with incorrect priors (column 5) and shows that the treatment effects do differ across these groups of voters. The three panels of the table report the results for the three political outcomes: intention to vote (Panel A), posterior beliefs about the reason for refugees to come (Panel B), and the overall agreement with MLP on immigration policy (Panel C). Columns 3 and 6 of each panel report the p-value of the test for equality of treatment effects between voters with correct vs. incorrect prior for non-supporters and supporters of MLP, respectively.

Results presented in Panel A show that among non-supporters of MLP in 2012 only those voters who hold incorrect priors are affected by the treatments. In contrast, among supporters of MLP in 2012 only those voters who hold correct priors are affected by the treatments. First, let us consider the non-supporters. The coefficients on treatment dummies are precisely-estimated zeros in column 1 (i.e., for non-supporters with correct priors), whereas they are all positive in column 2 (i.e., for non-supporters with incorrect

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points after Fact-Checking treatment. The respective figures for the share of men among refugees are 42 and 25 percentage points. We report these results in Table A5 in the online appendix.

priors). In the subsample of non-supporters with incorrect priors, Alt-Facts and Fact-Check treatments lead to a significant increase in the intention to vote for MLP of 11 percentage points (from the mean level of 26% in control group) and the magnitude of the Facts treatment effect is 3 percentage points (albeit not statistically significant). The difference in results for non-supporters between those who hold correct and incorrect priors are consistent with the salience explanation developed in the previous section, which implies that the topic becomes particularly salient when the truth is far from the prior (e.g., [Bordalo et al., 2012, 2013](#)).

Second, let us consider the supporters, i.e. respondents who have voted for MLP in 2012. Columns 4 and 5 of Table [4](#) show that, among MLP supporters, the effects are reversed: those who hold correct priors significantly increase their support for MLP after each of the treatments by 12 to 16 percentage points (from what is already a very high level of 78% intention to vote for MLP in control group). In contrast, those who hold incorrect priors are not affected by Alt-Facts or Facts treatments and, if anything, their intention to vote for MLP decreases (although not statistically significantly) after being exposed to fact checking treatment.<sup>[26](#)</sup> Importantly, in the control group, the average support for MLP among supporters with incorrect prior is 86.4%, and consequently, the share of people who potentially could be persuaded to vote for MLP in this group is very small, as the vast majority is already convinced. Interestingly, despite the fact that the agreement with MLP about immigration policy among past supporters with correct priors is 92% in control, being exposed to Facts (with or without Alt-Facts) increases further the agreement with MLP on immigration policy effectively to 100% in this group.

Why are supporters affected by official information if they have the correct priors? One possibility is that Facts and Fact-Check treatments raise the salience of counter-MLP actions by the establishment; so these MLP supporters decide to proactively fight these actions. They understand that the official data are correct. This is exactly why they are concerned that the dissemination of official data may dissuade other potential MLP vot-

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<sup>26</sup>This could be interpreted as weak evidence in support of the view that fact checking may work on the group of uninformed supporters of MLP, as the intention to vote for MLP among such voters in Fact-checking group is lower than in both Alt-Facts and control groups. This effect is statistically insignificant, possibly due to the lack of statistical power. Despite this negative effect, on the net, MLP gains from fact checking treatment (both among supporters and non-supporters).

ers. Therefore, they decide to increase their support for MLP to countervail the factually correct information that effectively undermines MLP's case.

Do these results mean that non-supporters with correct priors and supporters with incorrect priors are completely unaffected by the treatments? Panels B Table 4 shows that this is not the case. In particular, the non-supporters with correct priors do become more convinced in the MLP's message about the economic reason for refugees to come to France both with and without fact checking: without fact checking, the effect is 15 percentage points and with fact checking, it is 6.5 percentage points.

Tables A3 and A4 in the online appendix explore other potentially relevant dimensions of heterogeneity of treatment effects on the main political outcomes: voting intentions, the dummy for a belief that refugees come for economic reason, and a dummy for agreement with MLP on immigration policy, and on posteriors on facts: absolute value of the distance to truth on the posterior beliefs about the share of men among refugees and absolute value of the distance to truth on the posterior about the share of working among migrants. Each panel of these Tables presents the coefficients at the interaction terms between each treatment and a particular characteristic from five different regressions. We also present the coefficients estimating direct effects of these characteristics in the control group, when they matter for interpretation of the results about the treatment heterogeneity.

We have already discussed Panels A and B of Table A3 above. In Panel C, we show that those individuals who get their news mainly from TV (about 60% of the sample) are more responsive to MLP's arguments when it comes to voting intentions and posteriors on the reasons for refugees to come. In contrast, Panel D shows that Alt-Facts treatment is less effective on those who get their news from internet (20% of the sample). Panel E shows that those who get most of their income from social security and pensions (35% of the sample) are, on average, more inclined to vote for MLP, but their voting intentions are less sensitive to any of the treatments than for the rest of the population. In Panel F, we show that having completed secondary education (62% of the sample) makes people adjust their posteriors more toward the truth after being exposed to official information in facts and fact-checking treatments, but does not affect sensitivity of respondents' voting



intentions to treatments.

Panel A of Table [A4](#) shows that individuals with higher income tend to be more sensitive to official information in the Fact-checking and Facts treatment, which makes them less likely to believe that refugees come for economic reason. The rest of the Table [A4](#) shows no heterogeneity of treatments' effects with respect to age, gender, being a second-generation immigrant (we have no first-generation immigrants in the sample), self-reported score on the left-right political axis, or regional-level election results.

#### 4.4 Alternative explanations

Large magnitudes of many experimental studies may be driven by the Experimenter Demand Effects (EDE) ([Zizzo, 2010](#)), such as the Hawthorne effect. Even though it is difficult to rule out such effects formally, they seem unlikely for the outcome of voting intentions in our study for two reasons. First, for the demand effect to be the main driver of the magnitude, the participants would have to infer from the way we present the evidence on MLP, which was rather neutral, that we actually want them to express support for MLP. Second, to generate the comparison between Alt-Facts and Fact-Check treatment, they would in addition need to infer that the facts can be ignored when they report voting intentions. Note that it was very difficult to make inferences about our own preferences based on the experiment's introduction.<sup>[27](#)</sup> Third, as we show below, the results are corroborated by the dictator game and the list experiment, where demand effects are even less likely.

Alternatively, the conflicting effects of fact-checking treatment on posteriors about facts and on voting intentions can be rationalized if the relationship between facts and voting intentions is highly nonlinear. To illustrate this, suppose that the support for MLP depends only on the beliefs about the unemployment rate among immigrants. Suppose further that voters have a simple decision rule in which they vote for MLP if they

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<sup>27</sup>One cannot completely rule out experimenter demand effects for the posteriors on facts if the respondents believed that the survey designers shared the official rather than MLP's version of facts, despite the fact that there was no indication of experimenter preferences or affiliations presented to the participants. Yet, if the pro-establishment EDE were present for the facts treatment, they should have worked in the opposite direction to our findings for the voting intentions, making participants less likely to report voting intentions for MLP in all treatments containing the official facts.



think that the unemployment among immigrants is above 10%. If the prior is uniformly distributed, the average belief about the unemployment among migrants in the control group would have been 50% and the share of MLP supporters would have been 90%. Further, suppose that voters have full confidence in the official figures, which means that in the Facts and Fact-Check treatments they learn that the unemployment rate among immigrants is 18%. In that case, the average posterior beliefs would have converged to the true value, i.e., would have fallen from 50 to 18%, but the voting intentions would have increased from 90 to a 100%. This theoretical possibility is, however, not supported by our data. In Figure [A8](#) in the online appendix we plot the unconditional non-parametric relationships between factual knowledge in the control group and the likelihood of voting for MLP; this exercise does not reveal any striking nonlinearities.

## 5 Credibility of self-reported voting intentions

In the analysis above we proxied the support for Marine Le Pen by the self-reported voting intentions. In this section we check the validity of this measure.

### 5.1 Evidence from the dictator games

In order to check whether the self-reported voting intentions are not a cheap talk, we administered two dictator games involving real payoffs to survey participants (see section [3.5.1](#)). In the first game, every respondent was given a 10 percent chance to win 10 euros. He/she was *ex ante* requested to decide which part of this prize he/she would share with another, randomly selected respondent. The second game was exactly the same except that respondents were told that they are sharing the money with another participant randomly selected among those who reported that they were likely or very likely to vote for MLP in the upcoming election. 42% of respondents did not share any money with a random counterpart; 50% of respondents did not share money with a MLP supporter; 18.5% of respondents decided to share a higher amount with a potential MLP voter than with a random participant; 13.2% of respondents chose to give some money to a random

participant and chose to give nothing to a MLP supporter.

In Panel A of Table 5, we examine how donations in these dictator games are related to self-reported voting intentions and whether outcomes of dictator games were affected by the treatments. In column 1 we show that the amount given to a MLP supporter is highly correlated with self-reported willingness to vote for MLP. Column 2 shows that the individuals reporting intention to vote for MLP are less likely to make a donation to a random participant and are more likely to give to another MLP supporter. As we express donations in euros (with the potential range from 0 to 10), a one euro increase in a donation to a MLP supporter, conditional on the amount donated to a random counterpart, is associated with additional 3.9 percentage points in the probability to vote for MLP. In column 3, we show that those who shared monetary payoffs with a random participant, but chose not give any money to a MLP supporter are 18.4 percentage points less likely to be supporters of MLP themselves. These results suggest that the self-reported voting intentions do reflect the real preferences of respondents.

The last two columns Panel A of Table 5 examines differences in the outcome of dictator games across treatments. In column 5, we show that there is no significant effect of treatments on the amounts donated to the MLP supporters in the second dictator game. Column 6, however, shows that people who donated a non-zero amount to a random counterpart and gave strictly zero a MLP supporter are significantly less frequent in Alt-Facts group. Among those who gave non-zero amounts in the first dictator game, those who received Alt-Facts treatment are 3.5 percentage points more likely to give to MLP supporters as well. The effects of other treatments on this outcome are imprecisely estimated, but have the same sign as the effects of treatments on voting intentions.

Given that the overall rate of donations is rather small, and therefore, one would need very large samples to detect significant differences across treatments, we take this evidence as supportive of the conclusion that we can rely on voting intentions as an informative measure of political preferences. Another reason to use the survey question rather than the approach using the dictator game is that donations are on average low, even in the first dictator game where 41.7% of the participants transferred 0, compared to the standard results in the literature (Fowler and Kam, 2007; Rand et al., 2009). It is worth

noting that there are two differences between our setup and the conventional dictator games. First, we stated that there was one chance out of ten that participants would actually receive the amount and have the transfer implemented. Second, the amounts were expressed in Qualtrics points rather than euros, yielding higher nominal amounts.<sup>28</sup> Both differences might account for the nonstandard behavior of our subjects in the dictator game.

## 5.2 Evidence from the list experiments

We use the results of the list experiment (see section 3.5.1) as yet another check of the validity of self-reported voting intentions. Panel B of Table 5 reports the results. In the first column, we regress on the whole sample the response about the total number of supported politicians from the list on a dummy indicating whether the list contained the name of Marine Le Pen. The estimated coefficient on this dummy equals 0.44. This implies that in our sample about 44% of the respondents support MLP. This is slightly higher than 39% share of those who self reported their intention to vote for MLP. This difference may mean that about 5% of voters do support MLP but are not willing to openly declare intentions to vote for her. However, this difference may also be due to the difference in the formulations of the list experiment's question ("overall support of the politician's program") and the voting intention question ("intention to vote"). On that point, we note that the percentage of participants reporting 0 candidates in the list without MLP is 35% while it is 18% in the list with MLP. The difference between these two figure corresponds closely to the percentage of individuals reporting to be very likely to vote for MLP, suggesting for many participants a quite conservative interpretation of the wording "overall support of the politician's program."

In columns 2 and 3 of Table 5 we check whether support for Marine Le Pen inferred from the list experiment is higher among those who declared an intention to vote for her. In particular, we repeat the exercise presented in column 1 separately for the subsample of those who did and who did not declare intention to vote for MLP (columns 2

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<sup>28</sup>10 euros is equivalent to 2500 Qualtrics points. These points are used also to reward the participation in the survey and can be used as currency with the Qualtrics partners.

and 3, respectively). As expected, the inferred level of support for MLP is much higher among those who self-report their support of her: 91.5% vs. 12%. To show that this difference is statistically significant we use the whole sample and add the voting intention dummy and its interaction with the dummy for the list with MLP to the set of covariates (in column 4). The coefficient at the interaction term is highly statistically significant. The confidence interval for the inferred support for MLP among those who self-declare the intention to vote for her is  $[0.79; 1.04]$  and therefore includes 1. Thus, we cannot reject the hypothesis that everyone who reported intention to vote for MLP supported her in the list experiment.

Finally, in the last column of Table 5, we report the estimates of the inferred support for MLP in each of the treatment groups and in the control group. The sample size is not large enough for the differences in the inferred support for MLP to be significantly different across treatments, but the differences in magnitudes of point estimates are consistent with the effects of the treatments on voting intentions. The inferred support for MLP is the lowest in the control group, and is equal to 38%. It is 46% in both Alt-Facts and Fact-Checking groups, and it is 45% in the Facts group. (Formal tests cannot reject equality of any of these numbers.) Overall, the results of the list experiment also suggest that the self-reported voting intentions are rather reliable.

## 6 Concluding remarks

We have carried out an online randomized control experiment to measure the persuasion power of alternative facts and the effectiveness of fact checking to counter their impact.

Our results show that fact checking can correct biases in factual knowledge introduced by politically-charged alternative facts. We find that voters update their priors as rational Bayesian updaters with greater confidence in official sources than in politicians providing alternative facts.

Fact checking's success in correcting factual knowledge however does not translate into an impact on voting intentions. There is no effect of fact checking on the support for the misleading interpretation of the alternative facts offered by a politician — and

on the intentions to vote for this politician. This implies that the impact of the political campaign messages is not limited to facts and figures; the campaign's impact is first and foremost is due to its narratives emphasizing the salience of certain issues and anchoring the respective policy conclusions.

Taken together, our results imply that providing the correct statistical evidence is not sufficient to counter the effect that populist politicians have on voters. When a statistical fact is used in a narrative presenting a logical link to reach a conclusion, fact checking would presumably need to question the policy conclusion, using the correct facts, logical links and narratives. This raises an important question about the design of impartial fact-checking institutions — as preserving impartiality is much easier for institutions focusing on facts and statistics than for those producing interpretations, conclusions, and narratives.

In our experiment, fact checking is the exposure of voters to raw facts from official sources. In practice, fact checkers may produce longer analyses and discussions of facts. For instance, the article in newspaper *Le Monde* which fact checked the statement by Marine Le Pen on the proportion of men among refugees, embedded true facts in a short narrative containing several paragraphs. The exposure to this sort of fact checking may have a different effect from the one demonstrated by our experiment. The effects of counter-narratives are understudied and should become subject of future research. However, the main conclusion of our paper should hold even in the case of a counter-narrative: by insisting on the same issue as the original political communication based on alternative facts, fact checking contributes to an increase in the salience of this issue, which may indirectly serve the goal of the original communication.

## References

- Adena, M., Enikolopov, R., Petrova, M., Santarosa, V., and Zhuravskaya, E. (2015). Radio and the rise of the nazis in prewar germany. *The Quarterly Journal of Economics*, 130(4):1885–1939.
- Alesina, A., Miano, A., and Stantcheva, S. (2018). Immigration and redistribution. *CEPR Discussion Paper 13035*.
- Allcott, H. and Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2):211–36.
- Bartels, L. (1996). Uninformed votes: Information effects in presidential elections. *American Journal of Political Science*, 40(1):194–230.
- Bénabou, R. and Tirole, J. (2016). Mindful economics: The production, consumption, and value of beliefs. *The Journal of Economic Perspectives*, 30(3):141–164.
- Berinsky, A. J. (2015). Rumors and health care reform: experiments in political misinformation. *British Journal of Political Science*, pages 1–22.
- Blair, G. and Imai, K. (2012). Statistical analysis of list experiments. *Political Analysis*, pages 47–77.
- Bordalo, P., Gennaioli, N., and Shleifer, A. (2012). Salience theory of choice under risk. *Quarterly Journal of Economics*, 127(3):1243–1285.
- Bordalo, P., Gennaioli, N., and Shleifer, A. (2013). Salience and consumer choice. *Journal of Political Economy*, 121(5):803–843.
- Burszтын, L., Egorov, G., and Fiorin, S. (2017). From Extreme to Mainstream: How Social Norms Unravel. NBER Working Papers 23415, National Bureau of Economic Research, Inc.
- Chiang, C.-F. and Knight, B. (2011). Media bias and influence: Evidence from newspaper endorsements. *The Review of Economic Studies*, 78(3):795–820.
- DellaVigna, S. and Gentzkow, M. (2010). Persuasion: Empirical evidence. *Annual Review of Economics*, 2(1):643–669.
- DellaVigna, S. and Kaplan, E. (2007). The Fox News Effect: Media Bias and Voting. *The Quarterly Journal of Economics*, 122(3):1187–1234.
- Edwards, K. and Smith, E. E. (1996). A disconfirmation bias in the evaluation of arguments. *Journal of Personality and Social Psychology*, 71(1):5.
- Enikolopov, R., Petrova, M., and Zhuravskaya, E. (2011). Media and political persuasion: Evidence from russia. *The American Economic Review*, 101(7):3253–3285.

- Fowler, J. H. and Kam, C. D. (2007). Beyond the self: Social identity, altruism, and political participation. *Journal of Politics*, 69(3):813–827.
- Gerber, A. S., Gimpel, J. G., Green, D. P., and Shaw, D. R. (2011). How large and long-lasting are the persuasive effects of televised campaign ads? results from a randomized field experiment. *The American Political Science Review*, 105(1):135–150.
- Gerber, A. S., Karlan, D., and Bergan, D. (2009). Does the media matter? a field experiment measuring the effect of newspapers on voting behavior and political opinions. *American Economic Journal: Applied Economics*, 1(2):35–52.
- Graves, L. and Cherubini, F. (2016). The rise of fact-checking sites in europe.
- Grigorieff, A., Roth, C., and Ubfal, D. (2016). Does Information Change Attitudes Towards Immigrants? Representative Evidence from Survey Experiments. IZA Discussion Papers 10419, Institute for the Study of Labor (IZA).
- Hatton, T. J. (2017). Public Opinion on Immigration in Europe: Preference versus Salience. IZA Discussion Papers 10838, Institute for the Study of Labor (IZA).
- Kuziemko, I., Norton, M. I., Saez, E., and Stantcheva, S. (2015). How elastic are preferences for redistribution? evidence from randomized survey experiments. *The American Economic Review*, 105(4):1478–1508.
- Lord, C. G., Ross, L., and Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of personality and social psychology*, 37(11):2098.
- Mocanu, D., Rossi, L., Zhang, Q., Karsai, M., and Quattrociocchi, W. (2015). Collective attention in the age of (mis) information. *Computers in Human Behavior*, 51:1198–1204.
- Mullainathan, S. and Washington, E. (2009). Sticking with your vote: Cognitive dissonance and political attitudes. *American Economic Journal: Applied Economics*, 1(1):86–111.
- Nyhan, B., Porter, E., Reifler, J., and Wood, T. (2017). Taking corrections literally but not seriously? the effects of information on factual beliefs and candidate favorability. Unpublished.
- Nyhan, B. and Reifler, J. (2010). When corrections fail: the persistence of political misperceptions. *Political Behaviour*, 32(2):303–330.
- Nyhan, B. and Reifler, J. (2015). Does correcting myths about the flu vaccine work? an experimental evaluation of the effect of correcting information. *Vaccine*, 33:459–464.
- Rand, D. G., Pfeiffer, T., Dreber, A., Sheketoff, R. W., Wernerfelt, N. C., and Benkler, Y. (2009). Dynamic remodeling of in-group bias during the 2008 presidential election. *Proceedings of the National Academy of Sciences*, 106(15):6187–6191.
- Romano, J. P. and Wolf, M. (2005). Exact and approximate stepdown methods for multiple hypothesis testing. *Journal of the American Statistical Association*, 100(469):94–108.

- Swire, B., Berinsky, A., Lewandowsky, and Ecker, U. (2017). Processing political misinformation: comprehending the trump phenomenon. *Royal Society Open Science*, 4(3).
- Taber, C. S. and Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50(3):755–769.
- Wood, T. and Porter, E. (2016). The elusive backfire effect: Mass attitudes' steadfast factual adherence. Unpublished.
- Zizzo, D. J. (2010). Experimenter demand effects in economic experiments. *Experimental Economics*, 13(1):75–98.



# Figures

FIGURE 1: Voting intentions

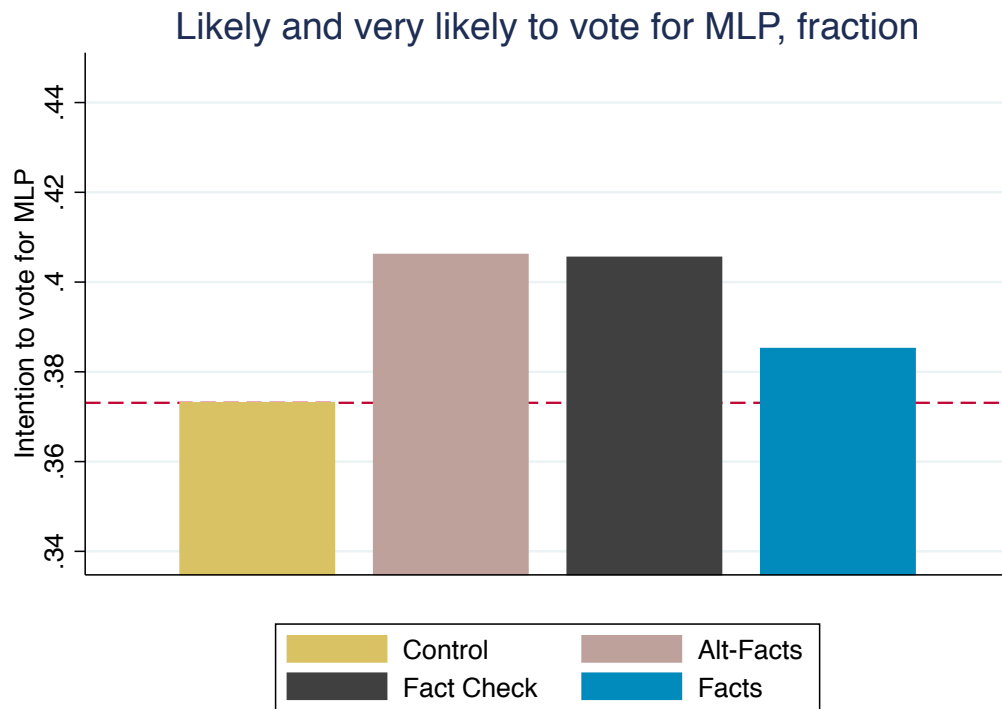
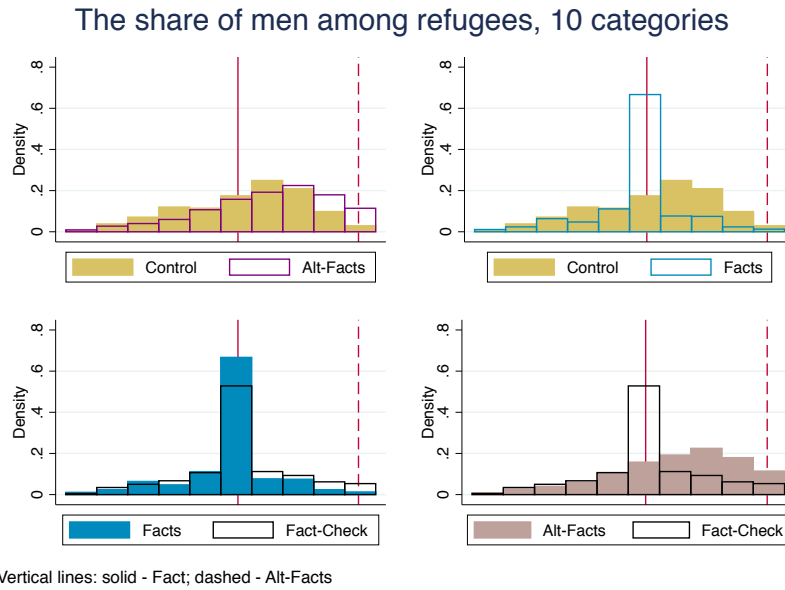
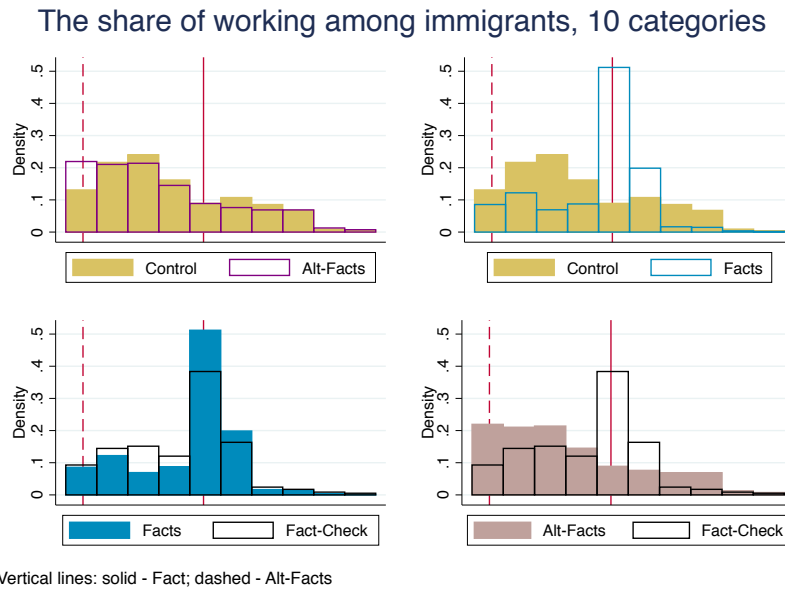


FIGURE 2: Posterior beliefs on proportion of men among refugees



Note: Horizontal axis represents the 10 percentage point intervals for the proportion of men among refugees.

FIGURE 3: Posterior beliefs on the share of working among migrants



Note: Horizontal axis represents the 10 percentage point intervals for the share of working among migrants.

FIGURE 4: Reported reasons for migrants to come

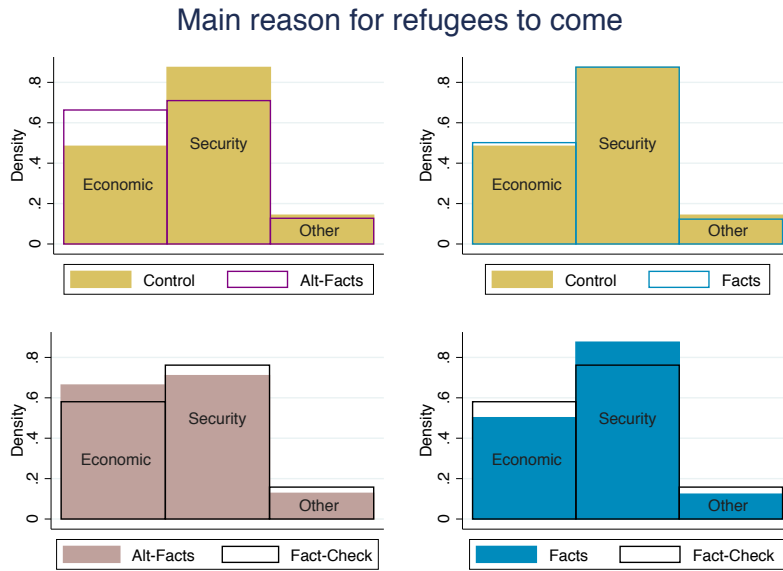


FIGURE 5: Overall policy impressions: agreement with MLP on immigration policy

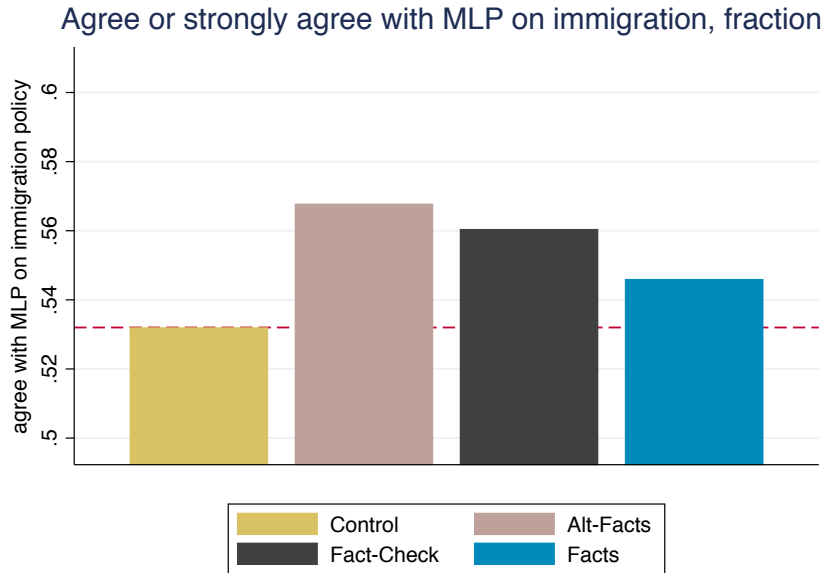
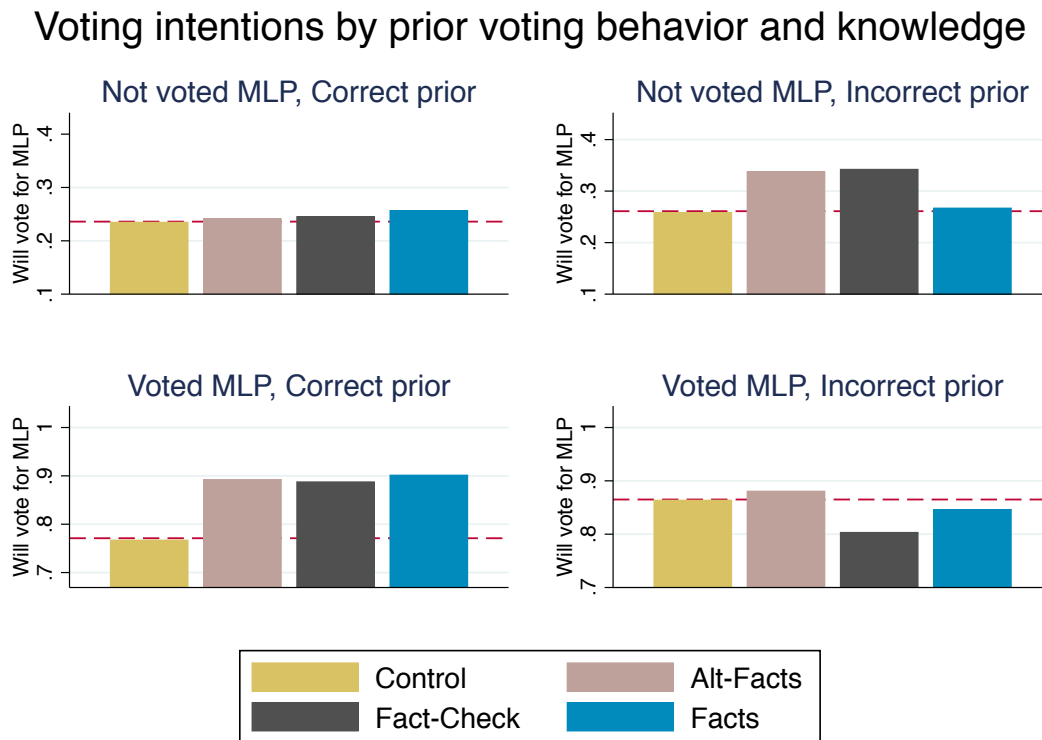


FIGURE 6: Voting intentions depending on the voting choice in 2012 and the correctness of the prior



Note: The range of the y-axis differs between the top-row and bottom-row graphs

Note: The numbers of observations: 1,223 for Not voted MLP&Correct prior; 722 for Not voted MLP&Incorrect prior; 289 for Voted MLP&Correct prior; 246 for Voted MLP&Incorrect prior.

# Tables

TABLE 1: Balancing test across randomized groups

(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)	(11)	
	Mean of variable by treatment				P-value for the test of equality of means				Alt-Fact vs Control		Fact-Check vs Control		Alt-Fact vs Fact-Check		Facts vs Fact-Check		Alt-Fact vs Facts	Signif. under multiple hypotheses testing:	
	Alt-Fact	Fact-Check	Facts	Control	Alt-Fact	Fact-Check	Facts	Control	Alt-Fact	Fact-Check	Facts	Control	Alt-Fact	Fact-Check	Facts	Control	Alt-Fact	Facts	
<b>Socio-economic characteristics</b>																			
Have children	0.68	0.71	0.70	0.70	0.48	0.69	0.97	0.73	0.27	0.73	0.46	No							
Number of children	2.08	2.19	2.10	2.10	0.73	0.18	0.97	0.18	0.09*	0.18	0.77	No							
Married	0.49	0.48	0.43	0.41	0.01**	0.02**	0.67	0.06*	0.87	0.06*	0.04**	No							
Single	0.18	0.20	0.23	0.21	0.30	0.72	0.36	0.49	0.30	0.20	0.05*	No							
Income level	4.95	5.03	4.91	4.76	0.17	0.05***	0.27	0.38	0.55	0.38	0.78	No							
Land owner	0.50	0.53	0.51	0.48	0.53	0.10*	0.27	0.60	0.31	0.60	0.63	No							
Student	0.05	0.04	0.03	0.04	0.41	0.62	0.54	0.27	0.74	0.27	0.15	No							
Unemployed	0.08	0.08	0.09	0.08	0.90	0.99	0.68	0.89	0.11	0.24	0.67	No							
Full or part time worker	0.52	0.48	0.51	0.53	0.86	0.08*	0.55	0.24	0.11	0.24	0.67	No							
Retired	0.24	0.31	0.26	0.26	0.49	0.05**	0.99	0.05**	0.01***	0.05**	0.48	No							
Source of income – wage	0.63	0.53	0.57	0.62	0.83	0.00***	0.05**	0.15	0.00***	0.15	0.03**	Yes (at 1%)							
Source of income – social benefits	0.06	0.08	0.08	0.06	0.73	0.16	0.21	0.90	0.29	0.90	0.36	No							
Source of income – pension	0.25	0.32	0.29	0.26	0.72	0.01**	0.14	0.36	0.01***	0.36	0.06**	Yes (at 10%)							
Source of news – TV	0.58	0.65	0.61	0.60	0.35	0.10	0.74	0.19	0.01***	0.19	0.21	No							
Source of news – radio	0.11	0.09	0.10	0.09	0.20	0.76	0.62	0.42	0.11	0.42	0.42	No							
Source of news – internet	0.23	0.20	0.21	0.24	0.82	0.09*	0.22	0.66	0.15	0.66	0.32	No							
Religion – Catholic	0.54	0.60	0.56	0.57	0.25	0.32	0.59	0.12	0.03**	0.12	0.54	No							
Religion – Muslim	0.03	0.02	0.02	0.02	0.26	0.73	0.43	0.25	0.14	0.25	0.73	No							
Religion – none	0.38	0.34	0.38	0.37	0.67	0.30	0.62	0.13	0.14	0.13	0.95	No							
<b>Prior voting behavior</b>																			
Voted in 2012 – Hollande	0.22	0.21	0.22	0.19	0.21	0.29	0.13	0.64	0.83	0.64	0.80	No							
Voted in 2012 – Sarkozy	0.20	0.21	0.23	0.20	0.97	0.73	0.16	0.28	0.76	0.28	0.17	No							
Voted in 2012 – Melenchon	0.07	0.07	0.05	0.07	0.81	0.88	0.19	0.24	0.93	0.24	0.29	No							
Voted in 2012 – Le Pen	0.22	0.22	0.20	0.23	0.61	0.70	0.27	0.47	0.90	0.47	0.56	No							
Voted in 2012 – Other candidate	0.12	0.10	0.12	0.12	0.61	0.28	0.99	0.28	0.11	0.28	0.62	No							
Did not vote in 2012	0.18	0.20	0.18	0.20	0.30	0.94	0.28	0.31	0.32	0.31	0.97	No							
Voted for FN in the past	0.33	0.33	0.33	0.38	0.05*	0.05**	0.05*	0.99	0.99	0.99	0.99	No							
<b>Prior knowledge</b>																			
Unemployment rate among immigrants, scale 1-10	3.56	3.54	3.63	3.60	0.74	0.60	0.78	0.85	0.54	0.85	0.42	No							
Correct prior, dummy	0.62	0.62	0.60	0.60	0.49	0.58	0.96	0.89	0.51	0.89	0.60	No							

Note: First four columns present mean values by randomized groups and the rest of the table presents p-values for the test of difference in means across groups. Standard errors are corrected for heteroscedasticity. Last column reports the results of these balancing tests if one, in addition to heteroscedasticity, corrects for the multiple hypotheses testing (Romano and Wolf 2005).  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$ .

TABLE 2: Effect of the treatments on the main outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Differences in outcomes across treatments							
<i>Dep. Var.</i>	Will vote for MLP	Distance to truth on %: men-refugees	migrants working	men-refugees	Correct posterior on %: migrants working	Reason for refugees: Economic	Agree with MLP on immigrants
Alt-Facts	0.049** (0.023)	0.298*** (0.070)	0.253*** (0.069)	-0.023 (0.021)	-0.006 (0.016)	0.127*** (0.027)	0.050** (0.024)
Fact-Check	0.048** (0.024)	-0.505*** (0.070)	-0.685*** (0.070)	0.312*** (0.025)	0.255*** (0.022)	0.067** (0.027)	0.036 (0.024)
Facts	0.030 (0.023)	-0.845*** (0.068)	-0.984*** (0.071)	0.444*** (0.025)	0.376*** (0.023)	0.017 (0.027)	0.022 (0.025)
Observations	2480	2480	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.137	0.175	0.188	0.172	0.068	0.280
Mean of DV in control group	0.373	1.651	2.115	0.157	0.080	0.322	0.532
p-val: Alt-Facts=Fact-Check	0.959	0.000	0.000	0.000	0.000	0.026	0.570
p-val: Facts=Fact-Check	0.432	0.000	0.000	0.000	0.000	0.062	0.576
p-val: Alt-Facts=Facts	0.403	0.000	0.000	0.000	0.000	0.000	0.272
p-val: Alt-Facts+Facts=Fact-Check	0.351	0.680	0.649	0.002	0.000	0.046	0.300
Panel B: Persuasion rates of treatments for binary outcomes							
<i>Dep. Var.</i>	Will vote for MLP	Correct posterior on %: men-refugees	migrants working	men-refugees	Correct posterior on %: migrants working	Reason for refugees: Economic	Agree with MLP on immigrants
Alt-Facts	7.8%	—	—	—	—	12.2%	3.7%
Fact Check	7.7%	37.0%	37.0%	37.0%	23.6%	6.5%	2.6%
Facts	4.8%	52.7%	52.7%	52.7%	34.8%	1.6%	1.6%

Note: The set of unreported covariates is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections. Robust standard errors are in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

TABLE 3: The effect of the treatments on voting intention and policy preferences controlling for posterior knowledge

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dep. Var:</i>	Will vote for MLP		Reason for refugees: Economic		Agree with MLP on immigration policy	
	Control	Full	Control	Full	Control	Full
<i>Sample:</i>						
(Posterior) knowledge about % men-refugees	0.021** (0.009)	0.020*** (0.005)	0.050*** (0.009)	0.042*** (0.005)	0.015* (0.009)	0.025*** (0.005)
(Posterior) knowledge about % working migrants	-0.027*** (0.009)	-0.021*** (0.004)	-0.019** (0.010)	-0.022*** (0.005)	-0.026*** (0.008)	-0.035*** (0.004)
Alt-Facts		0.028 (0.023)		0.089*** (0.027)		0.020 (0.024)
Fact-Check		0.058** (0.023)		0.080*** (0.027)		0.050** (0.024)
Facts		0.051** (0.023)		0.050* (0.027)		0.053** (0.025)
Observations	611	2480	611	2480	611	2480
Adjusted R <sup>2</sup>	0.300	0.316	0.086	0.098	0.309	0.303

*Note:* (Posterior) knowledge about % men-refugees and (Posterior) knowledge about % working migrants range from 1 to 10 and measure 10-percentage-point intervals: from 0-10% (category 1) to 91-100% (category 10). The set of unreported covariates is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

TABLE 4: Voting intentions and policy preferences by prior voting for MLP and prior knowledge

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Sample restriction</i>						
<i>- on voting for MLP in 2012:</i>	Not voted for MLP			Voted for MLP		
<i>- on correctness of prior:</i>	Correct	Incorrect		Correct	Incorrect	
<i>p-value of test:</i>	(1)=(2)			(4)=(5)		
Panel A: <i>Dep. var.</i> : Will vote for MLP						
Alt-Facts	-0.002 (0.034)	0.108** (0.048)	0.048**	0.123* (0.067)	0.016 (0.060)	0.205
Fact-Check	0.023 (0.034)	0.110** (0.047)	0.157	0.147** (0.064)	-0.032 (0.065)	0.034**
Facts	0.001 (0.034)	0.033 (0.045)	0.605	0.157** (0.063)	-0.002 (0.070)	0.063*
Observations	1223	722		289	246	
Adjusted $R^2$	0.097	0.101		-0.011	0.041	
mean of Dep. Var. in control	0.235	0.258		0.767	0.864	
Panel B: <i>Dep. var.</i> : Reason for refugees: Economic						
Alt-Facts	0.148*** (0.038)	0.066 (0.052)	0.251	0.061 (0.093)	0.240** (0.093)	0.303
Fact-Check	0.065* (0.037)	0.038 (0.051)	0.672	0.024 (0.084)	0.112 (0.096)	0.457
Facts	0.033 (0.037)	-0.023 (0.050)	0.638	-0.105 (0.087)	0.097 (0.103)	0.160
Observations	1223	722		289	246	
Adjusted $R^2$	0.051	0.059		0.004	-0.039	
mean of Dep. Var. in control	0.238	0.337		0.534	0.424	
Panel C: <i>Dep. var.</i> : Disagree with MLP on immigration policy						
Alt-Facts	-0.035 (0.038)	-0.076 (0.052)	0.435	-0.053 (0.042)	-0.013 (0.034)	0.660
Fact-Check	-0.008 (0.039)	-0.066 (0.050)	0.311	-0.072* (0.041)	-0.044 (0.029)	0.802
Facts	-0.037 (0.039)	0.019 (0.050)	0.460	-0.082** (0.038)	0.034 (0.045)	0.077*
Observations	1223	722		289	246	
Adjusted $R^2$	0.121	0.126		0.055	0.043	
mean of Dep. Var. in control	0.619	0.534		0.082	0.045	

*Note:* The set of unreported covariates is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



TABLE 5: Voting intentions are not cheap talk

Panel A: The results of the dictator game					
<i>Dep. Var.:</i>	(1)	(2)	(3)	(4)	(5)
	Will vote for MLP			Donation to MLP	Give others not MLP
Donation to MLP	0.010*** (0.004)	0.039*** (0.005)			
Donation to anybody		-0.037*** (0.004)		0.679*** (0.024)	
Give others, not MLP			-0.184*** (0.018)		
Alt-Facts				0.004 (0.091)	-0.035* (0.019)
Fact-Check				-0.073 (0.092)	-0.017 (0.019)
Facts				0.029 (0.104)	-0.007 (0.020)
Observations	2480	2480	2480	2480	2480
Adjusted $R^2$	0.306	0.324	0.319	0.529	0.051

Panel B: The results of the list experiment					
<i>Dep. Var.:</i>	(1)	(2)	(3)	(4)	(5)
	Number of supported politicians on the list				
<i>Sample:</i>	Full	Will vote for MLP:		Full	Full
		Yes	No		
List with MLP	0.438*** (0.042)	0.915*** (0.061)	0.122** (0.055)		
Will vote MLP				-0.698*** (0.048)	
Will vote MLP $\times$ List with MLP				0.915*** (0.061)	
List with MLP $\times$ Control					0.380*** (0.070)
List with MLP $\times$ Alt-facts					0.457*** (0.069)
List with MLP $\times$ Fact Check					0.464*** (0.064)
List with MLP $\times$ Facts					0.447*** (0.070)
Observations	2480	974	1506	2480	2480
Adjusted $R^2$	0.041	0.187	0.003	0.083	0.040

*Note:* The set of unreported covariates in Panel A is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections. There are no additional covariates in Panel B. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

# Online Appendix

## Appendix Tables

TABLE A1: Summary statistics for main outcome and treatment variables

	Obs.	Mean	SD	Min	Max
<b>Outcomes:</b>					
Will vote for MLP	2,480	0.39	0.49	0	1
Reason for migration: economic	2,480	0.37	0.48	0	1
Agree with MLP on immigration policy	2,480	0.55	0.50	0	1
Distance to truth for:					
The share of men among refugees	2,480	1.37	1.31	0	5
The share of migrants working	2,480	1.73	1.37	0	5
The share of french refugees during WWII	2,480	1.57	1.59	0	7
Correct about:					
The share of med among refugees	2,480	0.35	0.48	0	1
The share of migrants working	2,480	0.24	0.43	0	1
The share of french refugees during WWII	2,480	0.32	0.47	0	1
<b>Treatment groups:</b>					
Alt-Facts	2,480	0.25	0.43	0	1
Fact-Check	2,480	0.26	0.44	0	1
Facts	2,480	0.25	0.43	0	1
Control	2,480	0.25	0.43	0	1

TABLE A2: Effect of the treatments on knowledge about French refugees in WWII

	(1)	(2)
	The share of refugees among French population in WWII:	
	distance to truth	correct answer
Alt-Facts	0.058 (0.088)	-0.022 (0.025)
Fact-Check	-0.106 (0.089)	0.136*** (0.026)
Facts	0.033 (0.093)	0.105*** (0.027)
Observations	2480	2480
Adjusted $R^2$	0.021	0.052
mean of Dep. Var. in control	1.589	0.264

Robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

*Note:* The set of unreported covariates is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections.

TABLE A3: Heterogeneity

	(1)	(2)	(3)	(4)	(5)
	Will vote for MLP	Distance to truth on %:		Reason for refugees:	Agree with MLP
		men-refugees	migrants working	economic	on immigrants
Panel A: Voted for MLP during 2012 presidential elections					
Voted for MLP, 2012 × Alt-facts	0.033 (0.053)	0.072 (0.170)	-0.279* (0.167)	0.026 (0.068)	-0.014 (0.042)
Voted for MLP, 2012 × Fact-Check	-0.000 (0.054)	0.069 (0.179)	0.007 (0.173)	0.008 (0.067)	0.012 (0.039)
Voted for MLP, 2012 × Facts	0.070 (0.053)	-0.107 (0.178)	0.092 (0.180)	-0.015 (0.069)	0.019 (0.042)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.137	0.176	0.067	0.279
Panel B: Correct vs. Incorrect priors					
Incorrect prior × Alt-facts	0.065 (0.048)	0.203 (0.139)	0.087 (0.140)	-0.027 (0.055)	-0.032 (0.049)
Incorrect prior × Fact-Check	0.021 (0.048)	0.368*** (0.141)	0.518*** (0.141)	-0.002 (0.055)	0.042 (0.048)
Incorrect prior × Facts	-0.012 (0.048)	0.149 (0.135)	0.348** (0.142)	0.017 (0.055)	-0.059 (0.050)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.138	0.180	0.068	0.280
Panel C: News from TV					
News from TV × Alt-facts	0.093** (0.047)	0.016 (0.143)	-0.014 (0.142)	0.118** (0.056)	0.064 (0.050)
News from TV × Fact-Check	0.007 (0.048)	-0.196 (0.147)	-0.017 (0.146)	0.140** (0.055)	0.016 (0.050)
News from TV × Facts	0.048 (0.049)	-0.118 (0.140)	0.038 (0.148)	0.031 (0.056)	-0.019 (0.052)
News from TV	-0.010 (0.034)	0.061 (0.095)	-0.076 (0.097)	-0.041 (0.040)	0.051 (0.036)
Observations	2415	2415	2415	2415	2415
Adjusted R <sup>2</sup>	0.307	0.137	0.173	0.071	0.285
Panel D: News from internet					
News from internet × Alt-facts	-0.118** (0.054)	0.030 (0.162)	-0.218 (0.160)	-0.076 (0.065)	-0.066 (0.056)
News from internet × Fact-Check	-0.047 (0.058)	0.424** (0.173)	-0.059 (0.166)	-0.077 (0.065)	-0.048 (0.058)
News from internet × Facts	-0.040 (0.058)	0.108 (0.162)	-0.126 (0.174)	0.039 (0.066)	-0.033 (0.060)
News from internet	0.051 (0.040)	-0.146 (0.105)	0.162 (0.108)	0.014 (0.046)	0.020 (0.040)
Observations	2415	2415	2415	2415	2415
Adjusted R <sup>2</sup>	0.306	0.139	0.173	0.069	0.280
Panel E: Recipient of social security benefits					
Income from soc.security × Alt-facts	-0.076 (0.051)	-0.252* (0.151)	-0.113 (0.145)	-0.037 (0.059)	0.023 (0.054)
Income from soc.security × Fact-Check	-0.076 (0.049)	-0.232 (0.146)	-0.149 (0.143)	-0.048 (0.056)	0.069 (0.051)
Income from soc.security × Facts	-0.125** (0.049)	-0.286** (0.143)	-0.185 (0.147)	-0.020 (0.058)	-0.039 (0.053)
Income from soc.security	0.116** (0.049)	0.275* (0.145)	0.211 (0.145)	0.066 (0.056)	-0.025 (0.051)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.306	0.137	0.175	0.067	0.280
Panel F: Secondary education					
Secondary education × Alt-facts	0.022 (0.050)	-0.092 (0.143)	-0.004 (0.141)	-0.028 (0.056)	0.021 (0.051)
Secondary education × Fact-Check	0.085* (0.049)	-0.324** (0.143)	-0.110 (0.143)	-0.047 (0.055)	0.032 (0.049)
Secondary education × Facts	0.019 (0.050)	-0.391*** (0.142)	-0.314** (0.151)	-0.067 (0.056)	0.030 (0.051)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.140	0.176	0.067	0.279

Robust standard errors in parentheses.

Baseline set of controls and the direct effects of treatments and of the variable with respect to which we study heterogeneity are included.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

TABLE A4: Heterogeneity, continued

	(1)	(2)	(3)	(4)	(5)
	Will vote for MLP	Distance to truth on %: men-refugees	migrants working	Reason for refugees: economic	Agree with MLP on immigrants
Panel A: Income					
Income × Alt-facts	-0.002 (0.009)	0.002 (0.029)	-0.013 (0.030)	-0.014 (0.011)	0.000 (0.010)
Income × Fact-Check	0.009 (0.010)	-0.032 (0.028)	-0.076*** (0.028)	-0.017 (0.011)	0.001 (0.010)
Income × Facts	-0.004 (0.010)	-0.040 (0.028)	-0.031 (0.030)	-0.029*** (0.011)	-0.006 (0.010)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.137	0.177	0.070	0.279
Panel B: Age					
Age × Alt-facts	-0.000 (0.002)	-0.007 (0.005)	-0.004 (0.004)	-0.004** (0.002)	0.002 (0.002)
Age × Fact-Check	-0.003* (0.002)	-0.009* (0.005)	-0.005 (0.005)	-0.005*** (0.002)	-0.000 (0.002)
Age × Facts	-0.003* (0.002)	-0.002 (0.004)	-0.001 (0.005)	-0.003* (0.002)	-0.001 (0.002)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.306	0.138	0.175	0.070	0.280
Panel C: Gender					
Male × Alt-facts	-0.009 (0.047)	-0.291** (0.138)	-0.009 (0.138)	-0.039 (0.054)	-0.060 (0.049)
Male × Fact-Check	-0.031 (0.047)	-0.022 (0.138)	-0.086 (0.139)	-0.064 (0.053)	-0.079* (0.048)
Male × Facts	-0.033 (0.047)	0.043 (0.133)	0.286** (0.140)	0.017 (0.054)	-0.055 (0.049)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.304	0.138	0.177	0.068	0.280
Panel D: Parents born outside France					
Immigrant parents × Alt-facts	-0.100 (0.065)	0.385* (0.207)	-0.027 (0.208)	-0.004 (0.078)	-0.046 (0.070)
Immigrant parents × Fact-Check	-0.097 (0.069)	0.100 (0.206)	-0.174 (0.196)	-0.051 (0.077)	-0.130* (0.071)
Immigrant parents × Facts	-0.008 (0.075)	0.298 (0.203)	-0.042 (0.222)	0.085 (0.084)	0.034 (0.079)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.137	0.175	0.069	0.281
Panel E: Political orientation					
Score on left-right axis × Alt-facts	0.010 (0.008)	0.015 (0.025)	-0.000 (0.024)	0.027*** (0.009)	0.005 (0.008)
Score on left-right axis × Fact-Check	0.003 (0.007)	-0.012 (0.024)	0.022 (0.024)	0.021** (0.009)	0.007 (0.007)
Score on left-right axis × Facts	0.010 (0.007)	-0.027 (0.023)	0.002 (0.025)	0.005 (0.009)	0.007 (0.007)
Score on left-right axis	0.036*** (0.006)	0.016 (0.018)	-0.001 (0.018)	0.017** (0.007)	0.039*** (0.006)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.338	0.137	0.174	0.090	0.315
Panel F: Regional-level election results					
Reg. vote for MLP, 2nd round × Alt-facts	0.010 (0.007)	0.011 (0.019)	-0.026 (0.019)	0.007 (0.007)	0.007 (0.007)
Reg. vote for MLP, 2nd round × Fact-Check	0.001 (0.006)	0.031* (0.018)	-0.002 (0.018)	0.007 (0.007)	-0.005 (0.007)
Reg. vote for MLP, 2nd round × Facts	0.009 (0.007)	0.018 (0.021)	-0.002 (0.023)	0.003 (0.008)	-0.000 (0.008)
Reg. vote for MLP, 2nd round	-0.002 (0.007)	0.007 (0.021)	0.018 (0.022)	-0.001 (0.008)	0.006 (0.008)
Observations	2480	2480	2480	2480	2480
Adjusted R <sup>2</sup>	0.305	0.137	0.175	0.067	0.280

Robust standard errors in parentheses

Baseline set of controls and the direct effects of treatments and of the variable with respect to which we study heterogeneity are included.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

TABLE A5: No backfiring on factual knowledge

	(1)	(2)	(3)
	Correct on the posterior on:		
	% men-refugees	% migrants working	% French refugees in WWII
Alt-Facts	-0.046 (0.033)	-0.024 (0.027)	-0.003 (0.036)
Fact-Check	0.248*** (0.040)	0.166*** (0.033)	0.120*** (0.039)
Facts	0.418*** (0.040)	0.302*** (0.037)	0.153*** (0.040)
Correct prior × Alt-facts	0.039 (0.042)	0.030 (0.033)	-0.034 (0.049)
Correct prior × Fact-Check	0.104** (0.050)	0.146*** (0.043)	0.025 (0.052)
Correct prior × Facts	0.045 (0.051)	0.123*** (0.047)	-0.079 (0.053)
Observations	2480	2480	2480
Adjusted $R^2$	0.189	0.176	0.055

Robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

*Note:* The set of unreported covariates is as follows: gender, age (linearly and as a dummy for each age quota), family status, income (with dummies for each of the 10 income categories), education (with dummies for each of the 9 education levels), regional dummies, religion dummies, a dummy indicating that the respondent is a wage-earner, dummies for voting for each candidate in the 2012 presidential elections.

# Appendix Figures

FIGURE A1: 5 regions from which the sample was drawn

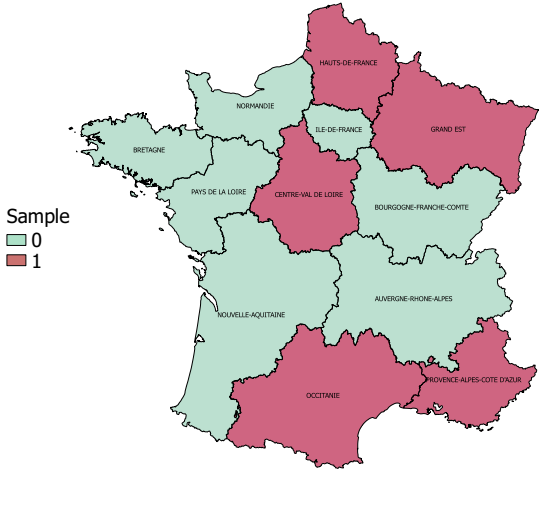


FIGURE A2: Vote for FN in the 2015 regional elections (left) and for MLP in the first round of the 2017 presidential elections (right)

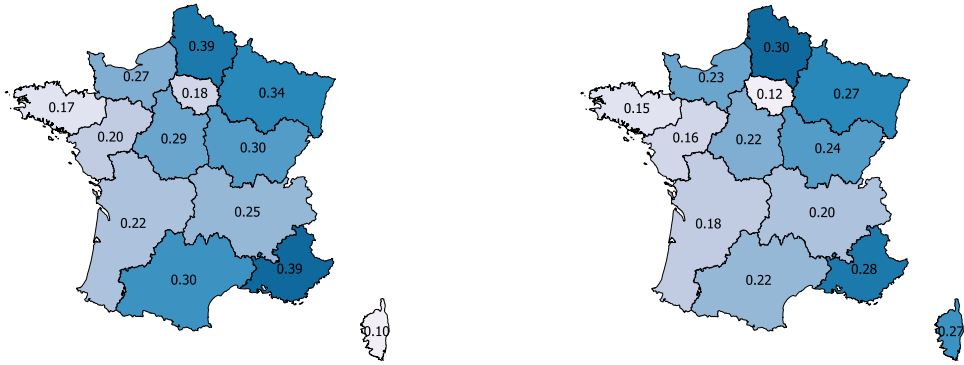
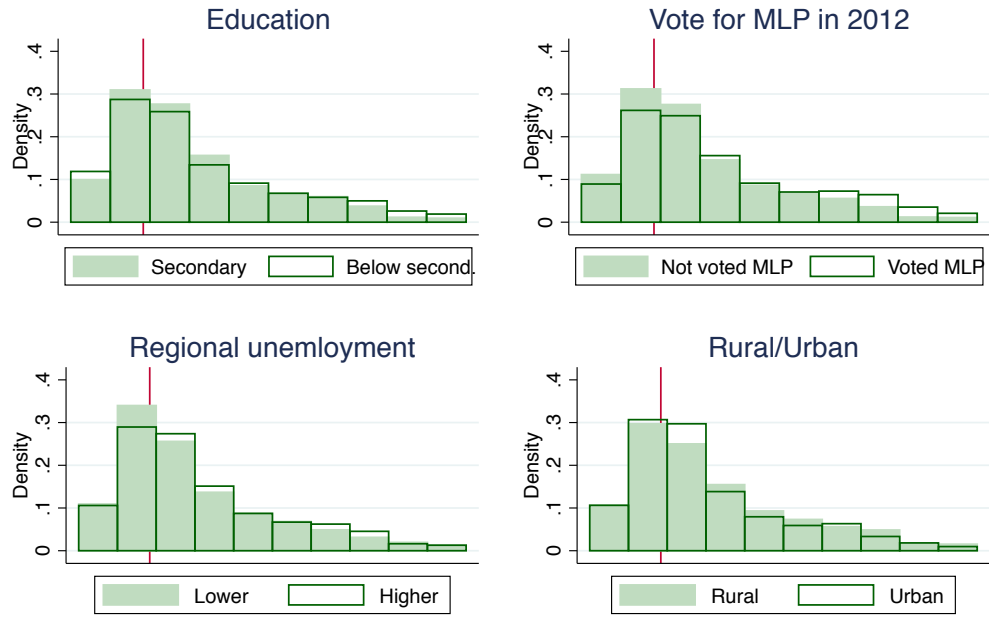


FIGURE A3: Prior beliefs about unemployment among immigrant population

### Prior on unemployment rate among immigrants, 10 categories



Full sample; vertical lines indicate 18%

*Note:* Horizontal axis represents the 10 percentage point intervals for the unemployment among immigrant population.



FIGURE A4: Voting intentions separately for prior non-supporters of MLP (left) and prior supporters of MLP (right)

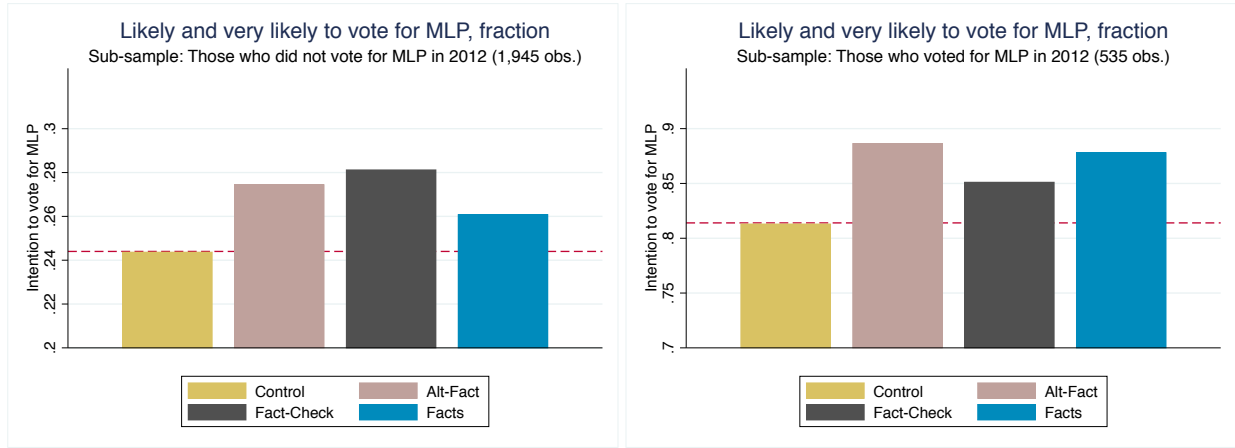
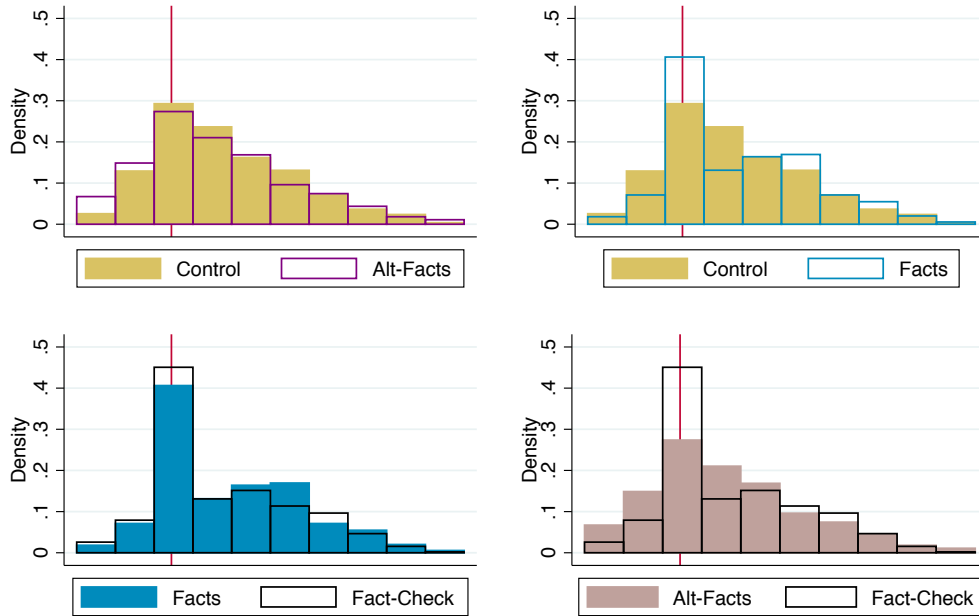


FIGURE A5: Posterior beliefs on the share of French refugees during WWII

The share of French refugees during WWII, 10 categories

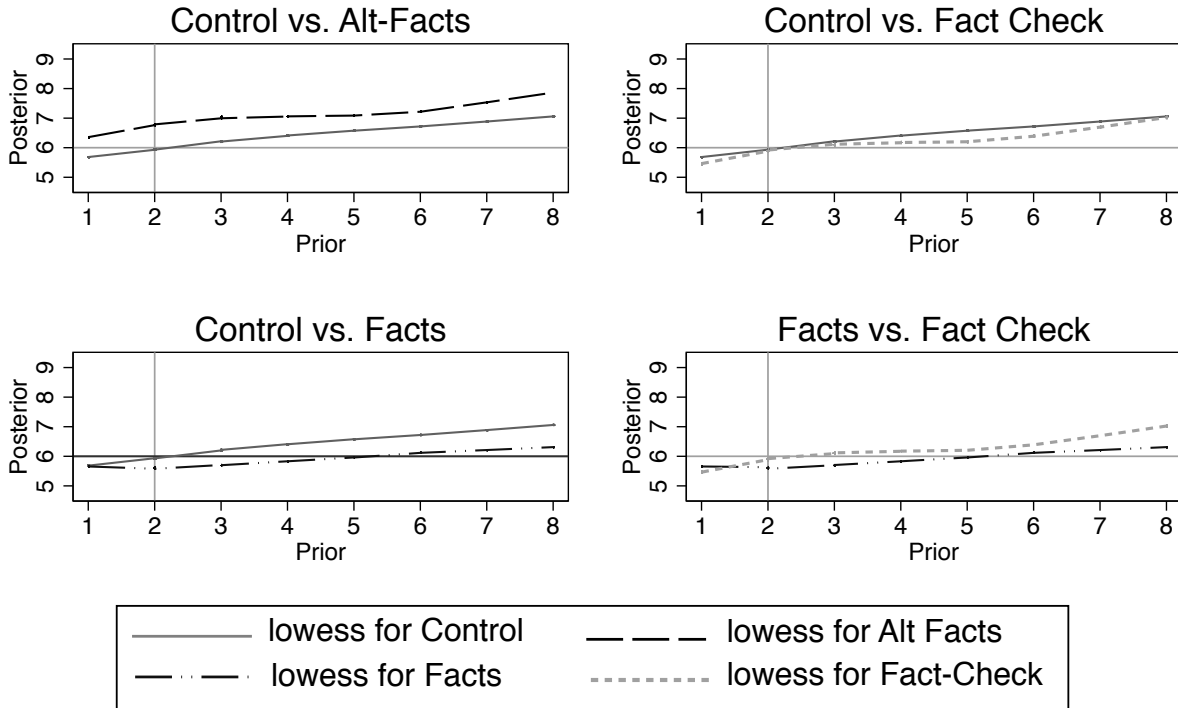


Vertical line indicates the Fact

Note: Horizontal axis represents the 10 percentage point intervals for the share of French refugees during WWII.

FIGURE A6: The relationship between posteriors and priors by treatment

## Posterior on men among refugees vs. Prior on unemployment rate among immigrants

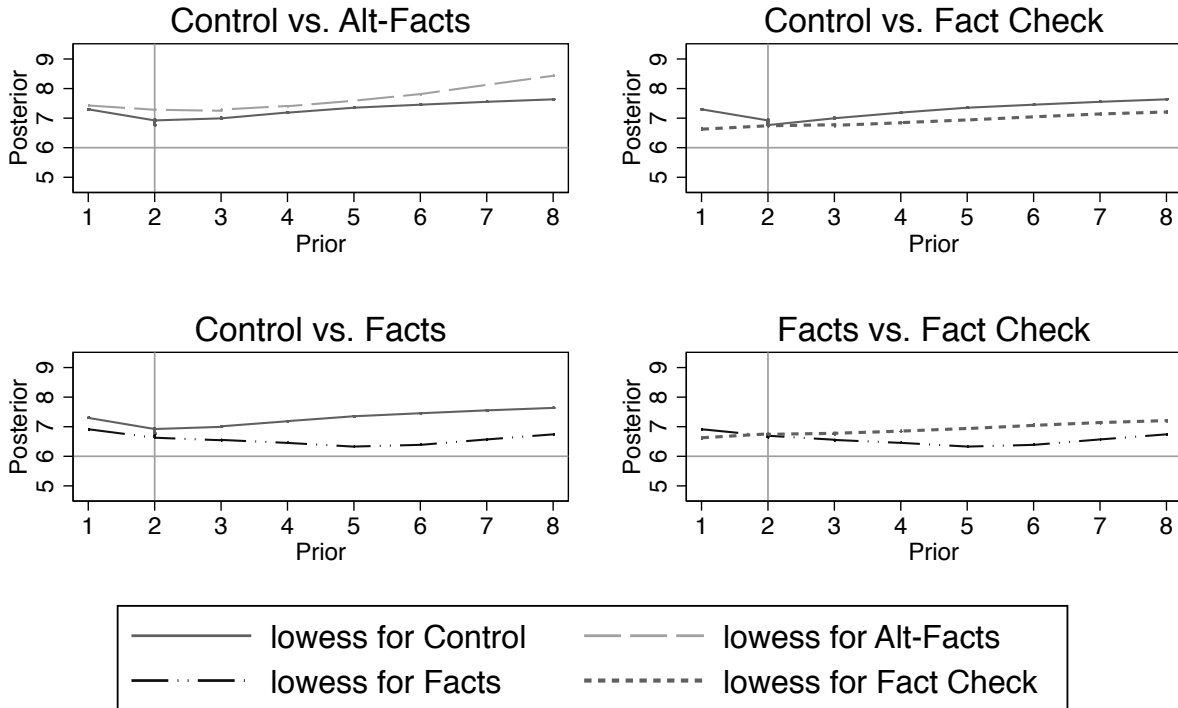


Vertical and horizontal lines indicate the truth for prior and posterior, respectively.

Horizontal axis: categories of priors on unemployment rate among immigrants: 1 for 0-10%, 2 for 11-20% etc. We do not report the 9th and 10th categories where the number of observations is very small. Vertical axis: average for the posterior on the share of men among refugees crossing the Mediterranean Sea (1 for 0-10%, 2 for 11-20% etc.) averaged out for the respondents with the respective priors.

FIGURE A7: The relationship between posteriors and priors by treatment

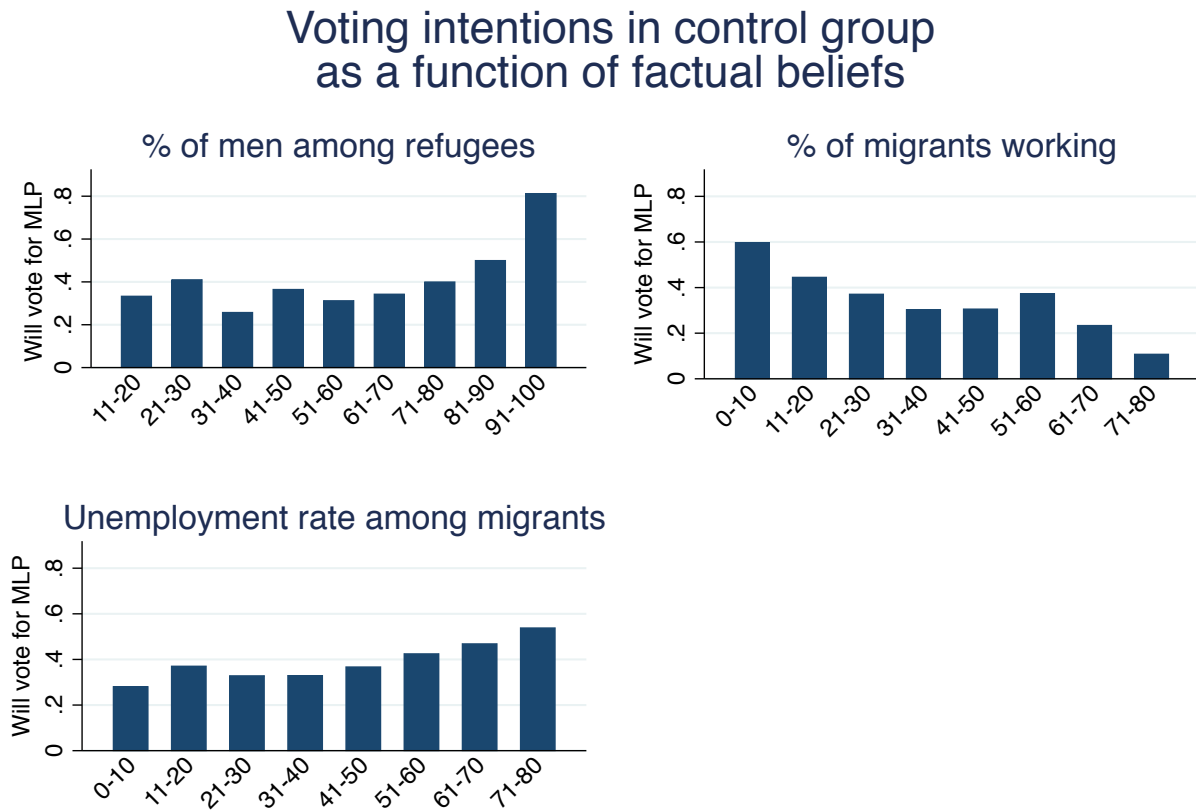
## Posterior on migrants not working vs. Prior on unemployment rate among immigrants



Vertical and horizontal lines indicate the truth for prior and posterior, respectively.

Horizontal axis: categories of priors on unemployment rate among immigrants: 1 for 0-10%, 2 for 11-20% etc. We do not report the 9th and 10th categories where the number of observations is very small. Vertical axis: average for the posterior on share of immigrant population working (1 for 0-10%, 2 for 11-20% etc.) averaged out for the respondents with the respective priors.

FIGURE A8: The relationship between voting intentions and factual beliefs in the control group



Voting intentions calculated for categories of x-variable with at least 20 observations in each graph

# The text of the treatments as it appeared in the experiment (English translation)

## Treatment: Alt-Facts

You will read several statements by Marine Le Pen about migrants: their reasons for coming and the impact of migrants on French working and retired population; please read them carefully.

### Screen 1

*Reasons to come:* the National Front, in its program, promises a drastic reduction of the number of asylum seekers allowed to stay in France. This follows a number of statements by Marine Le Pen about migrants and refugees:

8/9/2015: "A very small minority of them are really political refugees (...) I have seen the pictures of illegal immigrants coming down, who were brought to Germany, to Hungary, etc... Well, on these pictures there are 99% of men (...). Men who leave their country leaving their families behind, it is not to flee persecution but of course for financial reasons. Let's stop telling stories. We are facing an economic migration, these migrants will settle."

15/09/2015: "Everyone of us has good reasons to flee the war, but there are also some who fight. Imagine during the Second World War, there were surely many French, believe me, who had good reasons to flee the Germans; and yet, they went to fight against the Germans."

### Screen 2

*Pensions and work:* in the program of the Front National, immigration is presented as being used by big firms to push wages down. This follows a number of statements by Marine Le Pen relative to work and retirement benefits going to refugees:

8/12/2016: "Without mentioning the policies that allow people to obtain a minimum pension under the single condition of coming to France and being above 65, i.e., without having ever worked or paid social contributions in France; and we hand out 750 euros per person, 1500 euros for a couple (...) close to you there are farmers who live with 300 or 400 euros."

27/11/2013: "5% of the foreigners who come to France have a work contract. This means that there is 95% who come to France who are taken care of by our nation (...). There are 95% of people who settle in France who don't work, either because of their age, either because they cannot as there is no work in France."

08/12/2016: "But they [the immigrant population] do not work. They do not work. There are seven million unemployed in our country. How could they work? They do not work, these lies have to stop."

## **Treatment: Facts**

You will read below several numbers and statistics about migrants, related to their reasons to come and their impact on French working and retired population; please read them carefully.

### **Screen 1**

#### *Reasons to come*

According to the UNHCR, among the migrants crossing the Mediterranean in 2015, the vast majority was coming from countries at war or in conflict, 50% were Syrians, 21% Afghans, 9% Iraqis and 4% Eritreans.

The UNHCR estimates that among the migrants crossing the Mediterranean in 2015, 17% are women, 25% are children and 58% are men.

During the First and Second World Wars, the French fled war zones in much larger numbers than the current refugees. After the defeat of the French army in the North of France in the Spring 1940, 8 million civilians, that is one quarter (25%) of the population of the time, took the road to go to the South of the country that was not occupied (according to Jean-Pierre Azema, a renowned French historian).

### **Screen 2**

#### *Pensions and work*

The “old age minimum” guarantees elderly people a minimum of 801 euros for people above 65. This social benefit is available to all French nationals, under the condition of being below a certain level of income. It is also available to foreigners, under the condition of meeting at least one of the following requirements: have a work visa for the past 10 years. Have the refugee status or benefit from French protection for having fought under the French flag. Be a national from a EU state or from Switzerland.

According to the National Statistics Institute (INSEE) in 2015, 54.8% of the immigrant population were in the labor force (working or looking for a job) against 56.3% for the rest of the French population. The rate of unemployment for the immigrant population is 18.1% against 9.1% for the rest of the population. There is therefore 44.9% of the immigrant population that works (51.1% for the rest of the population).

## **Treatment: Fact-Check**

The respondents first are shown the full text of Alt-Facts treatment and then full text of Facts treatment.

## Questionnaire (English translation)

**Q1** We are running a study of electoral behavior and attitudes toward migrants. This survey involves a series of questions about yourself and your political beliefs. You will also be asked to play short games that will allow you to win up to 5000 Maximille points. Finally, at the end of the survey you will be asked a series of questions on your political attitudes. You should be able to complete the survey in 10 minutes. Your answers will remain anonymous and we will only publish aggregate results of the study. You can now decide whether you want to continue answering the survey:

- Yes
- No

**Q2** What is your birth year?

**Q3** What is the size of the village or town you live in?

- Less than 2000 inhabitants
- Between 2000 and 10000 inhabitants
- More than 10000 inhabitants

**Q4** What is the highest degree you have obtained?

- No diploma
- Certificat d'Etudes Primaires
- Ancien brevet, B.E.P.C.
- Certificat d'Aptitude Professionnelle (CAP)
- Brevet d'Enseignement Professionnel (BEP)
- BAC d'enseignement technique ou professionnel
- BAC d'enseignement general
- BAC + 2 ou niveau Bac + 2 ans (DUT, BTS, Instituteurs, DEUG, diplomes paramedical ou social)
- Diplome de l'enseignement superieur (2eme ou 3eme cycles, grande ecole)

**Q5** Gender

- Male
- Female

**Q6** Place of birth

- France
- Abroad

**Q7** Place of birth of your father

- France
- Abroad

**Q8** Place of birth of your mother

- France
- Abroad

**Q9** What is your marital status?

- Married
- In a relationship but not married
- Civil union
- Divorced
- Widowed

**Q10** If you add up all the sources of income of your household, in what bracket would your income, net of social contributions, be?

- Less than 1000 euros per month
- Between 1001 and 1500 euros per month
- Between 1501 and 1750 euros per month
- Between 1751 and 2000 euros per month
- Between 2001 and 2500 euros per month
- Between 2501 and 3000 euros per month
- Between 3001 and 4000 euros per month
- Between 4001 and 5000 euros per month
- Between 5001 and 7000 euros per month
- More than 7001 euros per month



**Q11** What is the highest degree obtained by your father?

- No diploma
- Certificat d'Etudes Primaires
- Ancien brevet, B.E.P.C.
- Certificat d'Aptitude Professionnelle (CAP)
- Brevet d'Enseignement Professionnel (BEP)
- BAC d'enseignement technique ou professionnel
- BAC d'enseignement general
- BAC + 2 ou niveau Bac + 2 ans (DUT, BTS, Instituteurs, DEUG, diplomes paramedical ou social)
- Diplome de l'enseignement superieur (2eme ou 3eme cycles, grande ecole)

**Q12** What is the highest degree obtained by your mother?

- No diploma
- Certificat d'Etudes Primaires
- Ancien brevet, B.E.P.C.
- Certificat d'Aptitude Professionnelle (CAP)
- Brevet d'Enseignement Professionnel (BEP)
- BAC d'enseignement technique ou professionnel
- BAC d'enseignement general
- BAC + 2 ou niveau Bac + 2 ans (DUT, BTS, Instituteurs, DEUG, diplomes paramedical ou social)
- Diplome de l'enseignement superieur (2eme ou 3eme cycles, grande ecole)

**Q13** Do you have children?

- Yes
- No

**Q14** How many?

- 1
- 2
- 3
- 4
- 5 or more

**Q15** Regarding your lodging, are you

- Homeowner
- Currently buying
- Renter
- Housing for free (family, work accommodation...)

**Q16** Among the following categories, which one corresponds best to the occupation you have held over the last 7 days?

- Full time paid work
- Part time paid work
- Paid work for less than 15 hours per week
- Employed in family firm
- Studying
- Unemployed
- Retired
- At home
- Sick or handicapped

**Q17** Taking into account all the sources of income in your household, what would you say is the primary source?

- Wages
- Income from nonwage work (not including farm work)
- Income from farm work
- Pensions
- Unemployment benefits or severance package
- Social benefits
- Income from savings, insurance, rent
- Other

**Q18** To obtain political information, what media do you use most often?

- Television
- Radio
- Internet
- National newspapers
- Local newspapers
- Free newspapers
- Other (specify)
- None

**Q19** In your opinion, what was the unemployment rate among immigrants in 2015 in France?

- Between 0% and 10%
- Between 11% and 20%
- Between 21% and 30%
- Between 31% and 40%
- Between 41% and 50%
- Between 51% and 60%

- Between 61% and 70%
- Between 71% and 80%
- Between 81% and 90%
- Between 91% and 100%

**Q20** What is your religion if you have one?

- Catholic
- Protestant
- Jewish
- Muslim
- Buddhist
- No religion

**Q21** How often do you visit religious institutions

- Several time per week
- Once per week
- Once or twice per month
- From time to time
- Only for celebrations, such as weddings
- Never

**Q22** Are you registered to vote?

- Yes
- No
- Soon

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**TREATMENTS:**

- 25% chance: Control, which goes directly to Q23
  - 25% chance: Alt-Facts
  - 25% chance: Fact-Check
  - 25% chance: Facts
-

**Q23** Among the following candidates how many have programs you overall agree with:

50% chance of getting the following list (with names in random order):

Francois FILLON  
Benoit HAMON  
Emmanuel MACRON  
Jean-Luc MELENCHON

50% chance of getting the following list (with names in random order):

Francois FILLON  
Benoit HAMON  
Emmanuel MACRON  
Jean-Luc MELENCHON  
Marine LE PEN

**Q24** Did you vote for the National Front in the past?

- Yes
- No

**Q25** Are you going to vote for Marine Le Pen in the next presidential election?

- Very unlikely
- Unlikely
- Likely
- Very likely

**Q26** Do you agree with Marine Le Pen's proposed policies on immigration?

- Totally agree
- Agree
- Disagree
- Totally disagree

**Q27** You are going to have one chance out of ten to win 2500 Maximille points. The result of the lottery will be announced at the end of the survey. If you do obtain the 2500 Maximille points, you have to decide whether you want to transfer part of the amount to a random participant in this survey. You can give all, nothing, or part of the 2500 points. You will never find out the identity of the other participant and she/he will never discover yours.

How much do you want to transfer?

**Q28** Again, you are going to have another one chance out of ten to win 2500 Maximille points. The result of the lottery will be announced at the end of the survey. If you do obtain the 2500 Maximille points, you have to decide whether you want to transfer part of the amount to a participant in this survey who answered likely or very likely to the question "Are you going to vote for Marine Le Pen in the next presidential election?." You can give all, nothing, or part of the 2500 points. You will never find out the identity of the other participant and she/he will never discover yours.

How much do you want to transfer?

**Q29** The political beliefs of French voters are usually measured on a left-right scale. Personally how would you place yourself on such a scale?

from -5 (extreme left) to 5 (extreme right)

**Q30** Who did you vote for in the first round of the presidential election of 2012?

- Hollande
- Sarkozy
- Melenchon
- Le Pen
- Another candidate
- Blank vote
- Did not vote
- Not registered to vote

**Q31** In your opinion, what reasons drive migrants to Europe in the last two years?

- Mostly economic reasons
- Mostly security reasons
- Other reasons

**Q32** We are going to present you with a list of institutions. For each of them, please indicate the level of confidence you have in them: a lot, some, not a lot, not at all.

- (a) INSEE (French Statistical Agency)
- (b) United Nations
- (c) Ministry of economy
- (d) OECD

**Q33** What is the proportion of men among refugees who crossed the Mediterranean in 2015?

- Between 0% and 10%
- Between 11% and 20%
- Between 21% and 30%
- Between 31% and 40%
- Between 41% and 50%
- Between 51% and 60%
- Between 61% and 70%
- Between 71% and 80%
- Between 81% and 90%
- Between 91% and 100%

**Q34** What proportion of the French population fled from the North to the South of France in the spring of 1940?

- Between 0% and 10%
- Between 11% and 20%
- Between 21% and 30%
- Between 31% and 40%
- Between 41% and 50%
- Between 51% and 60%
- Between 61% and 70%
- Between 71% and 80%
- Between 81% and 90%
- Between 91% and 100%



**Q35** In 2015 what proportion of the French immigrant population was working?

- Between 0% and 10%
- Between 11% and 20%
- Between 21% and 30%
- Between 31% and 40%
- Between 41% and 50%
- Between 51% and 60%
- Between 61% and 70%
- Between 71% and 80%
- Between 81% and 90%
- Between 91% and 100%

**Q36** In the first game you played, what were your chances of getting 2500 Maximille points (before your transfer decision)?

- 0 chances out of 10
- 1 chances out of 10
- 2 chances out of 10
- 3 chances out of 10
- 4 chances out of 10
- 5 chances out of 10
- 6 chances out of 10
- 7 chances out of 10
- 8 chances out of 10
- 9 chances out of 10
- 10 chances out of 10

# Sources for Alt-Facts and Facts

## Sources for Alt-Facts

8/9/2015: “A very small minority of them are really political refugees (...) I have seen the pictures of illegal immigrants coming down, who were brought to Germany, to Hungary, etc... Well, on these pictures there are 99% of men (...). Men who leave their country leaving their families behind, it is not to flee persecution but of course for financial reasons. Let’s stop telling stories. We are facing an economic migration, these migrants will settle.”

- Source: <http://lelab.europe1.fr/marine-le-pen-affirme-a-tort-que-les-refugies-sont-tres-majoritairement-des-migrants-economiques-debarquant-sans-leur-famille-2511737> (accessed on October 12, 2017).

15/09/2015: “Everyone of us has good reasons to flee the war, but there are also some who fight. Imagine during the Second World War, there were surely many French, believe me, who had good reasons to flee the Germans; and yet, they went to fight against the Germans.”

- Source: <http://lelab.europe1.fr/refugies-comme-nadine-morano-marine-le-pen-prend-l'exemple-des-francais-qui-sont-alles-se-battre-contre-les-allemands-pendant-la-seconde-guerre-mondiale-2515045> (accessed on October 12, 2017).

8/12/2016: “Without mentioning the policies that allow people to obtain a minimum pension under the single condition of coming to France and being above 65, i.e., without having ever worked or paid social contributions in France; and we hand out 750 euros per person, 1500 euros for a couple (...) close to you there are farmers who live with 300 or 400 euros.”

- Source: [http://www.lemonde.fr/les-decodeurs/article/2016/12/09/scolarisation-retraites-emploi-les-intox-de-marine-le-pen-sur-l-immigration\\_5046118\\_4355770.html](http://www.lemonde.fr/les-decodeurs/article/2016/12/09/scolarisation-retraites-emploi-les-intox-de-marine-le-pen-sur-l-immigration_5046118_4355770.html) (accessed on October 12, 2017).

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- Source: [http://www.liberation.fr/france/2013/12/09/le-pen-met-les-immigres-au-chomage-force\\_965300](http://www.liberation.fr/france/2013/12/09/le-pen-met-les-immigres-au-chomage-force_965300) (accessed on October 12, 2017).

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- Source: <http://lelab.europe1.fr/categorique-marine-le-pen-affirme-que-la-population-immigree-en-france-ne-travaille-pas-2922071> (accessed on October 12, 2017).

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- Source: <http://www.unhcr.org/576408cd7.pdf> p.34 (accessed on October 12, 2017).

The UNHCR estimates that among the migrants crossing the Mediterranean in 2015, 17% are women, 25% are children and 58% are men.

- Source: <http://www.unhcr.org/576408cd7.pdf> p.33 (accessed on October 12, 2017).

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- Source: [http://www.france3.fr/emissions/un-village-francais/un-village-francais-ils-y-etaient\\_433728](http://www.france3.fr/emissions/un-village-francais/un-village-francais-ils-y-etaient_433728) (accessed on October 12, 2017).

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- Source: <https://www.service-public.fr/particuliers/vosdroits/F16871> (accessed on October 12, 2017).

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