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Does Information Change Attitudes Towards Immigrants?

Representative Evidence from Survey Experiments*

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December 5, 2016

Abstract

We study whether providing information about immigrants affects people’s attitude towards them. First, we use a large representative cross-country experiment to show that, when people are told the share of immigrants in their country, they become less likely to state that there are too many of them. Then, we conduct two online experiments in the U.S., where we provide half of the participants with five statistics about immigration, before evaluating their attitude towards immigrants with self-reported and behavioral measures. This more comprehensive intervention improves people’s attitude towards existing immigrants, although it does not change people’s policy preferences regarding immigration. Republicans become more willing to increase legal immigration after receiving the information treatment. Finally, we also measure the same self-reported policy preferences, attitudes, and beliefs in a four-week follow-up, and we show that the treatment effects persist.

Keywords: Biased Beliefs, Survey Experiment, Immigration, Policy Preferences, Persistence.

JEL classification: C90, J15, Z1, Z13

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1 Introduction

In recent years, the United States and many European countries have witnessed a surge in anti-immigrant sentiment, and a large proportion of the population views immigration as one of the most pressing issues facing their country. For instance, more than three quarters of British citizens want to reduce immigration (Blinder, 2015), while more than forty percent of Americans are dissatisfied with the level of immigration in the U.S. (Gallup, 2016). Political parties and politicians who have tapped into these concerns have gained a lot of support in the last few years, such as the Front National in France, or Donald Trump in the United States.

However, even though immigration is a central issue in many national elections, such as the 2016 US Presidential election or the EU referendum in the UK, voters remain highly misinformed about the topic (Blinder, 2015; Citrin and Sides, 2008; IpsosMori, 2014). For example, people consistently over-estimate the proportion of immigrants in their own country, as we show in Figure 1. In the United States, the average person thinks that 37 percent of the population are immigrants, whereas the true figure is only 13 percent. It is therefore crucial to understand whether people would change their attitude towards immigrants if they received accurate information about immigration.

[insert Figure 1]

To answer this question, we present the results from three studies. First, we analyze a large cross-country survey experiment conducted in thirteen countries around the world, including the United States, Canada, Russia, and several European countries. In the survey, half of the 19,000 respondents were told the proportion of immigrants in their country, before being asked whether they thought that there were too many immigrants. The other half did not receive any information about the proportion of immigrants in their country, but they were asked the same question. We find that people who were told the exact percentage of immigrants in their country are significantly less likely to say that there are too many immigrants, although they do not become less worried about immigration generally.

This could be due to the fact that they only received information about the proportion of immigrants, and not about their characteristics. People care deeply about the kind of immigrants living in their country, and they often have very inaccurate beliefs on the crime rate of immigrants, their ability to speak the local language, and their integration in society more generally. It is therefore important to understand whether a more comprehensive information treatment could

change people’s opinions of immigrants, and affect their policy preferences regarding immigration. We conduct an additional experiment in order to test this hypothesis.

We implement our experiment with two large samples from the U.S. The first sample is composed of 1,200 observations, and it is representative of the U.S. population in terms of age, gender and region of residence. The second sample consists of 800 people recruited on Amazon Mechanical Turk (MTurk), who were re-surveyed four weeks after taking part in the main experiment. This allows us to examine whether treatment effects persist over time.

The experiment is structured as follows: First, we provide half of the participants with five general facts about immigration in the U.S.: (i) the share of immigrants, (ii) the share of illegal immigrants, (iii) the unemployment rate and (iv) the incarceration rate of immigrants, and (v) the share of immigrants who cannot speak English. Then, we ask all participants to complete a questionnaire on their beliefs about immigrants and their policy preferences regarding immigration. We also obtain two behavioral measures of their attitude towards immigrants, first by asking them how much money they want to donate to a pro-immigrant charity, and then by asking them whether they are willing to sign a real petition on the White House website in favor of increasing the number of available green cards.¹

We find that the information treatment improves people’s impression of immigrants, and that it moderately increases people’s willingness to donate money to a pro-immigrant charity.² Moreover, people in the treatment group become slightly more willing to increase the number of legal immigrants (0.13 of a standard deviation), which is completely driven by Republican respondents. However, respondents’ policy preferences regarding illegal immigrants remain on average unchanged. We also find that participants who receive the information treatment are not more likely to sign the petition in favor of increasing the number of green cards, and they are as likely to be in favor of deporting all illegal immigrants as the control group.³ This evidence indicates that, while providing information can change how people perceive immigrants, it might not be enough to significantly change their policy preferences.

In our follow-up survey with the MTurk sample, we ask participants the same set of self-reported questions on immigration as the ones they answered in the main experiment. Overall,

¹We pre-specified our empirical strategy and our hypotheses in two pre-analysis plans, which were registered on the Social Science Registry website prior to running the experiment with each of the two samples. <https://www.socialscienceregistry.org/trials/1092>

²For the donation measure, the effect size of the treatment effect varies with the sample. In the MTurk sample, the treatment effect is fairly large and highly significant (0.22 of a standard deviation), whereas in the TNS sample, the treatment effect is small and not statistically significant (0.07 of a standard deviation).

³These effects are precisely estimated, as we have enough statistical power to detect even small effect sizes.

88 percent of the original MTurk sample completed the follow-up survey, and we observe no differential attrition between the treatment and the control arm. We find that the treatment effects are very similar four weeks after the treatment. Participants who received the information four weeks earlier still remember it, have a more positive opinion of immigrants, and are more supportive of increasing the number of incoming legal immigrants. However, their policy preferences regarding illegal immigrants remain unchanged.

We hypothesize that people’s attitudes towards immigrants become more positive after the information treatment because participants realize that existing immigrants tend to be more law-abiding, employed, and fluent in English than they originally thought. People care strongly about the characteristics of immigrants, and Hainmueller and Hopkins (2014) and Bansak et al. (2016) show that there is a consensus among Americans and Europeans that immigrants should speak the local language, should not be unemployed and should be in the country legally. Our treatment changes people’s beliefs on these key characteristics.

Across all of our different samples, we find evidence that people who identify as right-wing and who have more negative views on immigration respond more strongly to the information treatment. In our U.S. samples, we find that not only do participants who self-identify as Republicans develop a more positive opinion of immigrants, but they also become more likely to support pro-immigrant policies, even four weeks after they received the information treatment. Similarly, in the cross-country experiment, respondents who self-identify as right-wing change their attitudes more strongly after being told the share of immigrants in their country compared to people not identifying as right-wing.

Finally, we examine which characteristics predict how biased people’s beliefs are about immigrants. We find that people who are more educated have much less biased beliefs about immigration, which is consistent with the evidence showing that education can reduce the level of political misinformation among the general public (d’Hombres and Nunziata, 2016). Moreover, people who live in areas with a larger share of immigrants have more biased beliefs, which suggests that people’s beliefs on immigration are heavily influenced by what they experience at a local level.

Our paper adds to the literature examining whether people’s political attitudes respond to information (Gilens, 2001; Kuklinski et al., 2000; Lawrence and Sides, 2014; Lergetporer et al., 2016).⁴ Overall, there is mixed evidence on the impact that information has on people’s policy

⁴For an overview on the related literature on persuasion, see DellaVigna and Gentzkow (2010).

preferences. For example, Cruces et al. (2013) and Karadja et al. (2016) find that informing people about their position in the income distribution changes their redistributive preferences, while Kuziemko et al. (2015) observes that giving people information about the level of inequality in the U.S. does not change their redistributive preferences.

Our paper is most closely related to Hopkins et al. (2016). They conduct four survey experiments with representative samples of the American population, where they tell a random subset of their participants the proportion of immigrants in the U.S., before asking them a series of questions on their attitude towards immigrants and policy preferences regarding immigration. They find that the information they provided has no significant effect on people's policy preferences.

Our survey experiments extend the work by Hopkins et al. (2016) in several ways. First, we provide people with a more comprehensive information treatment by also giving them statistics about the characteristics of immigrants. Second, we employ behavioral measures to assess the impact of information on people's political preferences, instead of relying solely on self-reported measures. Third, our follow-up experiment allows us to show that the treatment effects persist over time. This is important as experimenter demand is likely lower in the follow-up, where no additional treatment was administered. Fourth, the cross-country survey experiment allows us to get representative evidence from thirteen countries on the effects of information on people's attitude towards immigration, which reduces concerns about external validity.

We also contribute to the literature on the determinants of people's attitude towards immigrants (Algan et al., 2012; Bisin et al., 2008; Hainmueller et al., 2015; Scheve and Slaughter, 2001). Previous studies have focused on characteristics such as age, media exposure, competition in the labor market, exposure to immigrants, education or income to explain people's attitude towards immigrants (Card et al., 2012; Citrin et al., 1997; Dustmann and Preston, 2001, 2006; Dustmann et al., 2016; Facchini et al., 2009; Halla et al., 2016; Mayda, 2006; Mayda and Facchini, 2009). Our paper shows that misinformation about the proportion and the characteristics of immigrants also play an important role in shaping people's views on immigrants.

This paper proceeds as follows: in section 2, we outline the evidence from the cross-country survey experiment. In section 3, we present the design of the online experiment and describe our two samples. The results from the online experiment are described in section 4. Finally, section 5 concludes.

2 Cross-Country Experiment

2.1 Description of the Dataset

We use data from the Transatlantic Trends Survey, which is a large representative survey on political attitudes conducted every year in the U.S. and in many other countries around the world. In particular, we focus on two waves of the survey, the 2010 and 2014 waves, which included an experiment on the effect of information on people’s attitude towards immigration.

The 2010 wave of the Transatlantic Trends Survey was conducted in the United States, Canada, Germany, France, Italy, the UK, the Netherlands and Spain. In each country, participants were randomly drawn from the adult population who had access to a landline.⁵ The 2014 wave was conducted in the United States, Germany, France, Italy, the UK, the Netherlands, Spain, Greece, Portugal, Sweden, Russia and Poland. In most countries, participants were randomly drawn from the adult population who had access to a landline or a mobile phone.⁶ Importantly, more than 94 percent of those who started the survey answered the main questions of interest, which means that attrition is not an issue for this experiment.⁷

2.2 Information Treatment

At the start of the survey, participants were asked which issues they thought were the most important ones facing their country, and how closely they followed news on immigration. Then, they were randomly asked one of the following two questions:

- **Treatment:** As you may know, according to official estimates, around [X] percent of the [COUNTRY] population was born in another country. In your opinion, is this too many, a lot but not too many, or not many?
- **Control:** Generally speaking, how do you feel about the number of people living in [COUNTRY] who were not born in [COUNTRY]? Are there too many, a lot but not too many, or not many?

⁵The landline numbers were first randomly drawn. Then, the respondent was randomly chosen among the people who had access to that landline, using a randomization procedure based on birth dates. The response rate for phone interviews ranged from 4 percent in France, the UK and the Netherlands to 27 percent in the US.

⁶In Germany and in the UK, only people with access to a landline could take part in the survey. In Poland and Russia, participants were randomly selected from the general population, and face-to-face interviews were conducted instead of phone interviews. For face-to-face interviews, the response rate was significantly higher: 49 percent in Russia and 40 percent in Poland (Stelzenmueller et al., 2014; Wunderlich et al., 2010).

⁷In order to get as representative a sample as possible for each country, we use the probability weights constructed by the Transatlantic Trends Survey in the main analysis. Our results are not affected in any way by the use of these weights, which shows that our results are robust to slight changes in the sample composition.

Only participants in the treatment group are informed about the true proportion of immigrants in their country, before being asked whether they think that there are too many immigrants in their country. Thereafter, all respondents are asked a series of questions on their level of concern regarding immigration, their perception of immigrants and on the legalization of undocumented immigrants. For example, people are asked whether they are worried about legal and illegal immigration into their country, whether immigrants increase crime and whether illegal immigrants should be given the opportunity to obtain legal status.

2.3 Results

2.3.1 Main Results

As Figure 2 and Table 1 clearly show, people who receive information about the share of immigrants in their country become much less likely to say that there are too many immigrants in their country, and they become more likely to say that there are not many immigrants. The probability of saying that there are too many immigrants is 11.3 percentage points lower for those who receive the information treatment, while the probability of saying that there are not many immigrants is 15.7 percentage points higher.⁸

[insert Table 1]

[insert Figure 2]

We expected that this light information treatment would not meaningfully shift people's policy preferences regarding immigration. In line with our expectation, tables A11 to A13 show that being informed about the proportion of immigrants does not make people less worried about immigration, and it does not change people's policy preferences regarding undocumented immigrants. The treatment effects are precisely estimated, and they are in line with Hopkins et al. (2016), who find that giving people information about the share of immigrants does not affect their policy preferences.

2.3.2 Heterogeneous Treatment Effects

In Figure 3, we show for each country the proportion of people in the control group and in the treatment group who say that there are too many immigrants in their country. In most

⁸The results are robust to the inclusion of control variables, and wave- and country-fixed effects.

countries, the information treatment reduces the likelihood of people saying that there are too many immigrants. The magnitude of the treatment effects varies a lot by country. We observe the largest effect sizes for countries where a larger share of people think that there are too many immigrants, such as Greece, Italy, the UK, and the U.S. These results are also displayed in Table A1.

[insert Figure 3]

We then evaluate whether there are heterogeneous treatment effects.⁹ We estimate the following equation, where *interaction_i* refers to the interaction variable:

$$y_i = \pi_0 + \pi_1 Treatment_i \times interaction_i + \pi_2 Treatment_i + \pi_3 interaction_i + \varepsilon_i$$

We find that people who think that the main reason why immigrants come to their country is to receive social benefits respond particularly strongly to the treatment.^{10,11} The treatment effect is twice as large for this group, as can be seen in Panel A of Table 2.

In Panel B of Table 2, we examine heterogeneous treatment effects by people’s political orientation. We create a dummy variable which is equal to one if people say that their political orientation is center right, right, or extreme right, and zero otherwise. We find that treated individuals who self-identify as right-wing react more strongly to the treatment.

[insert Table 2]

3 Online Experiment

The cross-country experiment shows that informing people about the proportion of immigrants in their country makes them less likely to state that there are too many immigrants, although it does not make them less worried about immigration. However, people are not only concerned about the number of immigrants in their country, they also care about the characteristics of

⁹For all of the heterogeneity analysis, we use either questions which were asked before the treatment, or pre-determined characteristics, such as political orientation. The choice of variables for the heterogeneity analysis in this sample is motivated by our findings in the online experiments presented below.

¹⁰We create an indicator variable, called “negative view on immigrants”, which is equal to one if people state that the main reason why immigrants come to their country is to receive social benefits, and zero if they think that it is for other reasons, such as to be united with family members, to seek asylum, to work or to study.

¹¹This question was only asked in the 2014 wave of the survey, which is why we restrict the analysis to the 2014 wave.

these immigrants, and whether they integrate into society. It is therefore important to understand whether a more comprehensive information treatment could improve people’s opinions of immigrants, and affect their policy preferences regarding immigration. To test this hypothesis, we designed an experiment which provides not only information about the share of immigrants, but also on the characteristics of existing immigrants, namely their unemployment rate, their incarceration rate, and the proportion of immigrants who cannot speak English.

We conducted this experiment using two different samples, each with its own advantages. TNS Global provided us with an online sample of 1193 U.S. citizens, representative of the general population in terms of age, gender, and region of residence. TNS Global was well suited for our experiment, since they had already provided the samples for the Transatlantic Trends Surveys. The other sample was obtained through Amazon Mechanical Turk (MTurk), which enabled us to collect follow-up data to test whether the treatment effects would persist over time.

3.1 Experimental Design

3.1.1 Main Experiment

The experiment is structured as follows: First, all respondents are asked a few questions on how much they trust official statistics, how many petitions they have signed in the last 12 months, and how worried they are about immigration. Then, we ask them to estimate five statistics about immigration: the proportion of immigrants in the U.S., the proportion of illegal immigrants in the U.S., the unemployment rate of immigrants, their incarceration rate, and the proportion of immigrants who cannot speak English.^{12,13}

To help participants give plausible estimates for the unemployment rate and the incarceration rate of immigrants, we tell them what these rates are for U.S.-born citizens.¹⁴ In the MTurk sample, participants receive 10 cents for each question (this is 8 percent of the participation fee) if their estimate is within three percentage points of the official value, which we obtained from the American Community Survey. Moreover, to avoid having MTurk participants look up the

¹²We chose these statistics for two main reasons. First, there is some evidence showing that people are particularly concerned about these issues. Recent evidence by Bansak et al. (2016) and Hainmueller and Hopkins (2014) suggests that people prefer immigrants who are not unemployed, who speak English and who did not enter illegally. Second, there exists Census data on these issues, which increases the reliability of the information we provide.

¹³For a complete description of the experimental design, please refer to the pre-analysis plan, which is available at <https://www.socialscienceregistry.org/trials/1092/history/7106>.

¹⁴Both the treatment and the control group receive this information, and the internal validity of our study is therefore not compromised.

answers online, we only give them 25 seconds to answer each question.¹⁵

Then, only the treatment group is told the correct answers to these five questions. We remind participants in the treatment group of the estimate they gave, before providing them with the correct answer. For instance, participants get the following feedback for the question on the unemployment rate of immigrants:¹⁶ *“You estimated that X percent of immigrants are unemployed. According to the American Community Survey, around 6 percent of immigrants are unemployed.”*

We then ask all participants a series of questions on their perception of legal and illegal immigrants, as well as on their policy preferences regarding immigration. For instance, we ask them whether they think that there are too many immigrants in the U.S., whether legal immigration should be reduced and whether immigrants have a negative impact on American society as a whole.

We also use two behavioral measures to assess whether the treatment changed our participants’ attitude towards immigrants and their policy preferences.¹⁷ First, we give participants the option of signing an online petition in favor of facilitating legal immigration into the U.S., by increasing the number of green cards available for immigrants. We created two identical petitions on the White House website, and we gave different links to participants in the treatment and control groups.¹⁸ Only participants with a link can actually see the petition until at least 150 people sign it and then it becomes public. Moreover, if the petition reaches 100,000 signatures in 30 days, it is entitled to get an official reply from the White House. This is a credible measure of people’s support for immigration, as it requires some effort to sign the petition (people need to create an online profile and to sign with their initials). Furthermore, this behavioral measure involves a real petition with potentially concrete consequences, which attenuates concerns about its external validity.

Second, we tell participants that ten percent of them will receive ten dollars, and that they must specify how much money they want to keep for themselves, and how much they want to give to the American Immigration Council, a non-profit organization which “promotes laws, policies, and attitudes that preserve [the United States’] proud history as a nation of immigrants”

¹⁵TNS Global faced some implementation constraints which prevented them from incentivizing the belief questions, and from imposing a time limit to the participants.

¹⁶To make the treatment more salient, we also present the feedback using bar charts, where we show participants their estimate and the correct one.

¹⁷We randomize the order of the behavioral measures.

¹⁸The text used for the petition can be found online at the following URL: <https://petitions.whitehouse.gov/petition/facilitate-legal-immigration-us-1>.

(Council, 2016), in case they receive the ten dollars. Since people need to forgo some of their own money in order to support the pro-immigrant NGO, this behavioral measure may be deemed more credible than self-reported measures.¹⁹

Once the behavioral measures are over, participants from the TNS sample have to complete an attention check, whose purpose is to assess how attentive participants were in the experiment.²⁰ Then, we ask participants in the treatment group to estimate the same five statistics as before (proportion of immigrants, proportion of illegal immigrants, etc.), so that we can test how well they remember the information that we gave them. Finally, respondents complete a questionnaire on demographics including variables such as gender, age, education and income.

3.1.2 Follow-Up Study

To examine whether the treatment effects persisted over time, we conducted a follow-up study four weeks after the main experiment, using the MTurk sample. We asked people the same set of self-reported questions on immigration as the ones they answered in the main experiment, and we also asked them to estimate the same five statistics about immigration.²¹ This allows us to see whether people in the treatment group remember the provided information.

Half of the sample in the follow-up experiment had to estimate the five statistics first, and then answer the set of self-reported questions on immigration, while the other half of the sample had to answer the set of self-reported questions on immigration first, and then had to estimate the five statistics. This allows us to check whether the order of the questions affects people's answers.²²

3.2 Description of the Samples

3.2.1 TNS Global

We conducted our experiment using a representative sample of the U.S. population, which was provided by TNS Global, a world-leading company in market research and political surveys. We

¹⁹Donations to NGOs with clear ideological inclinations and in particular campaign contributions have been used previously to measure political preferences (Perez-Truglia and Cruces, 2016).

²⁰The attention check was not included in the experiment with the MTurk sample.

²¹See the online Appendix for a complete description of the follow-up study.

²²We did not include any of the behavioral measures in the four-week follow-up as it would not make sense to ask people to sign the same petition a second time and to donate to the same charity twice. Using a different petition or a different charity would also have posed some problems, as we can expect people's behavior to depend on their choices in the main experiment. For instance, those who signed the first petition might be less inclined to sign the second one, and those who already donated might be less inclined to donate to another charity.

obtained a sample of 1193 people living in the United States, which is representative of the U.S. population in terms of age, gender and region of residence. All the participants completed the survey online, using a link which was provided by TNS Global.²³

To participate in the experiment, people had to pass an attention screener at the start of the survey (Berinsky et al., 2014).²⁴ The experiment was run at the beginning of September 2016. The characteristics of the whole sample are described in Table A15. Overall, 49 percent of participants are male, and the median age in our sample is 39, which is very close to the national average of 38. Similarly, 81 percent of our participants identify as white, while the proportion of white people in the U.S. is 80 percent (CIA, 2015). The median household income in the TNS sample is \$65,000, compared to \$56,516 for the national estimate (Census Bureau, 2016). Finally, 66 percent of the TNS sample report being employed either part-time or full-time, which is close to the employment-population ratio for the U.S. (60 percent according to the Bureau of Labor Statistics (2016)).

3.2.2 MTurk: Main Experiment

We also conducted our experiment on Amazon Mechanical Turk (MTurk), an online labor marketplace developed by Amazon.com, which is commonly used by academics to recruit participants for online experiments (Paolacci and Chandler, 2014). The pool of workers on MTurk is much more representative of the U.S. population than student samples.

Moreover, MTurk participants have been shown to be more attentive to instructions than college students (Hauser and Schwarz, 2016), and to give high-quality answers. To guarantee that the data we obtain are reliable, we only allowed workers who had an overall rating of more than 95 percent and who had completed more than 500 tasks on MTurk to take part in our study.²⁵

The experiment was run in March 2016. In total, 802 participants completed it. Less than 10 people dropped out after the treatment, which means that the attrition rate was less than two percent. Table A15 summarizes the characteristics of the sample. Overall, 55 percent of

²³TNS provided us with 1193 observations rather than 1,000 as we had specified in the pre-analysis plan due to a technical problem.

²⁴The attrition rate in our experiment with TNS was extremely low. Only 18 participants (i.e. less than 2 percent of the sample) dropped out of the experiment after the initial screener was administered and only 9 participants (less than 1 percent of the overall sample) dropped out after the treatment was allocated. We also find no evidence of differential attrition across treatment arms.

²⁵This means that at least 95% of the tasks completed by these workers were approved by the people who employed them. A task can be anything from classifying images to participating in an academic study. A threshold of 500 tasks is not very high, but it guarantees that participants are not newcomers.

participants are male. The median age in our sample is 35, while the median age in the U.S. is 38 (CIA, 2015). Moreover, the median income in our sample is \$45,000, compared to \$56,516 for the general population. Similarly, 78 percent of our participants identify as white, while the proportion of white people in the U.S. is 80 percent (CIA, 2015). The proportion of unemployed people in our sample (8%) is slightly higher than in the general population (5.1%) (Bureau of Labor Statistics, 2015). Overall, this sample is not as representative of the U.S. population as the TNS one. In particular, people in the MTurk sample are younger, more likely to be employed, less likely to be Christian, and more likely to be Democrat. Participants in both the MTurk and the TNS samples are more educated than the average American.

3.2.3 MTurk: Follow-Up

Four weeks after our main experiment, we re-invited everyone who had completed the main experiment for a follow-up survey. The proportion of participants who completed both the main experiment and the follow-up is 88 percent. This high re-contact rate indicates that it is possible to construct panels on MTurk with relatively low attrition, which is an additional advantage of the platform. The recontact rates for the treatment group and the control group are very similar, and statistically indistinguishable (p -value = 0.708). The overall sample composition remained more or less unchanged compared to the main experiment.

4 Results

We pre-registered the experimental design, our hypotheses and our empirical specifications on the Social Science Registry before running the experiment with MTurk and with TNS. Almost all of the analyses presented in this paper were pre-specified.²⁶

4.1 Baseline Balance for the MTurk and TNS samples

In Tables A16 and A17, we examine in how far the control group and the treatment group differ in terms of observable characteristics for the MTurk and the TNS samples. Overall, both samples are well balanced. We find a few small imbalances for the MTurk sample, and we therefore

²⁶We explicitly mention in the paper which analyses were not part of the part of the pre-analysis plan. The full pre-analysis plan can be accessed at <https://www.socialscienceregistry.org/trials/1092/history/7106>.

show our main results controlling for these pre-determined characteristics.^{27,28} Including control variables improves the precision of the treatment effect estimates compared to the specifications without controls, but barely changes the coefficient estimates.

4.2 Estimates of Statistics

We first check that participants in the treatment group updated their beliefs about immigrants after having received the information treatment. In figure 4, we show the average estimates that participants in treatment group gave before receiving the correct information, and after the treatment, for the MTurk sample and the TNS sample.

It is clear that, before the treatment, participants had biased beliefs about immigration. Their estimates were on average consistently higher than the actual values. For instance, people in the TNS sample over-estimated the percentage of immigrants in the U.S. by more than 20 percentage points, while MTurkers over-estimated the share of immigrants who cannot speak English by more than 24 percentage points. The estimates given by participants from the TNS sample are much more upward biased than those provided by MTurkers. Moreover, participants from both MTurk and TNS significantly update their estimates after receiving the treatment. The mean bias in the answers goes down by more than 13 percentage points on average for the MTurk sample, and by 16 percentage points for the TNS sample.

The differences between the MTurk and TNS sample could be explained by the fact that we did not incentivize beliefs for the TNS sample, whereas we did so for the MTurk sample. It is possible that the incentives made people more attentive to these questions. In line with this explanation, we find that people in the TNS sample who passed the additional attention screener have less biased beliefs about immigrants, and they update their beliefs more strongly after receiving the information treatment.

[insert Figure 4]

We also test the extent to which MTurkers in the treatment group remember the information four weeks after the main experiment. In Figure 5, we show that people's estimates four weeks after the treatment are still fairly accurate. For instance, the average estimate of the proportion

²⁷The results without controls are very similar and can be found in the online Appendix.

²⁸Some people did not provide an estimate for the five statistics within the time limit and some people did not respond to all questions, and there are therefore some missing values in the data. We include these observations in the regression by coding the missing values as zero and by including for each question with missing values a dummy variable which is equal to one if the participant failed to give an answer for that question.

of immigrants is 15 percent in the follow-up, whereas the true value is 13 percent. However, we do find that the variance of estimates is larger for the treatment group in the follow-up than in the main experiment, as can be seen in Figure 5.²⁹ Finally, even for the treatment group, estimates in the follow-up are statistically different from their estimates in the main experiment, but the differences are not very large. This indicates that only some people in the follow-up forgot the information that they were given in the main experiment.

[insert Figure 5]

4.3 Main Results

In this section, we explore how the information treatment affected people’s beliefs and attitudes towards immigration, as well as their policy preferences regarding immigration. To do so, we compare the behavior of people in the treatment group with that of people in the control group, by estimating the following equation:³⁰

$$y_i = \pi_0 + \pi_1 Treatment_i + \Pi^T \mathbf{X}_i + \varepsilon_i$$

where y_i is the outcome variable, and $Treatment_i$ is the treatment indicator. For the sake of clarity, we recode all of our outcomes such that higher values denote a more positive attitude towards immigrants. We present all results controlling for the covariates X_i , which we pre-specified for the balance test.³¹

We account for multiple hypothesis testing by adjusting the p-values using the “sharpened q-value approach” (Anderson, 2008; Benjamini et al., 2006).³² For each table, we also create an index of the outcomes, which we regress on the treatment indicator, as specified in the pre-analysis plan.

²⁹People in the control group do not update their beliefs in the follow-up, indicating that they did not make the effort to look up the information we provided to the treatment group.

³⁰Robust standard errors are used throughout the analysis.

³¹We use the same strategy as before to deal with missing values. Our results are nearly identical when we do not recode missing values in this way.

³²For each family of outcomes, we control for a false discovery rate of 5 percent, i.e. the expected proportion of rejections that are type I errors (Anderson, 2008). These adjusted p-values are displayed in the tables as FDR-adjusted p-values.

4.3.1 Manipulation Checks

In Table 3, we show that, compared to the control groups, the treatment groups from both the MTurk and the TNS samples are less inclined to say that immigrants are more likely to commit crimes than U.S. citizens. Moreover, participants in the treatment group are more likely to state that immigrants generally learn English within a reasonable amount of time, and that the unemployment rate of immigrants is similar to that of U.S. citizens. All of these results are statistically significant and the effect sizes are large and correspond to more than half of the gap between Democrats and Republicans.³³ We also show in Panel D of Table 3 that these effects persist four weeks after the treatment, that they are statistically significant, and that they remain fairly large (about 0.20 of a standard deviation effect size). This demonstrates that the effect of the treatment on people’s beliefs about immigrants persisted at least for a month. However, the effect sizes are statistically significantly smaller in the follow-up compared to the main experiment, as shown in table A21.

[insert Table 3]

4.3.2 Results

The information treatment had an effect on how people perceive immigration generally, as shown in Table 4. People in the treatment group were less likely to say that immigrants have produced more disadvantages than advantages for the U.S. as a whole over the last ten years. This result is significant at the five percent level, and the effect size is around 0.15 of a standard deviation.³⁴

MTurkers in the treatment group did not change their opinion as to whether removing almost all illegal immigrants from the U.S. would have a positive or a negative impact on the economy, while TNS participants in the treatment group became slightly more likely to state that removing illegal immigrants would not have a major impact on the U.S. economy. In the four-week follow-up, we observe very similar treatment effects, and some of them are actually slightly larger than in the main experiment as can be seen in Table A21.

We also provide some evidence that participants in the treatment group donated more money to a pro-immigration charity than participants in the control group. MTurkers in the treatment group donated on average \$0.44 more to the American Immigration Council than MTurkers in

³³On average, Republicans have a significantly more negative view of immigrants than Democrats.

³⁴We asked the TNS sample some additional questions on the respective contributions of legal and illegal immigrants, for which we find very similar treatment effects.

the control group. As shown in Column 4 of Table 4, this effect is statistically significant, and the effect size is moderate once we include control variables (0.2 of a standard deviation). Put differently, the treatment effect is equal to one third of the difference in the amount donated between Democrats and Republicans in the control group.

We find that the treatment effect on donations is weaker in the TNS sample. Indeed, participants increase their donations to the American Immigration Council only by seven percent of a standard deviation, which is not statistically significant. Still, it is worth noting that we cannot reject that the treatment effects in the MTurk sample and in the TNS sample are equal. Moreover, if we pool the two samples, we find that our information treatment led to a statistically significant increase in donations of 13 percent of a standard deviation.

[insert Table 4]

For both of our samples, we clearly see that people in the treatment group are less likely to state that there are too many legal and illegal immigrants in the U.S., as shown in Columns 1 and 2 of Table 8. These effects are statistically significant, their effect size is large (approximately 0.25 of a standard deviation), and they persist even four weeks after the main experiment. To a large extent, these results are compatible with the findings from the cross-country experiment presented in section 2. When people learn about the actual proportion of immigrants in their country, they become less inclined to say that there are too many immigrants.

Moreover, we observe that respondents who receive the information become more likely to be in favor of increasing the number of legal immigrants (0.13 of a standard deviation). However, if we look at Table 5 we clearly see that participants in the treatment group do not change their views on the number of green cards to issue every year, or on the legalization of undocumented immigrants. Similarly, their views on the budget that should be devoted to deporting undocumented immigrants are not affected by the treatment. These effects are small in magnitude (mostly around 0.05 of a standard deviation) and precisely estimated, and we can therefore be confident that the treatment did not significantly affect these variables. In the four-week follow-up, we see slightly larger treatment effects for all of our policy preferences (mostly around 0.1 of a standard deviation). Table A21 shows that we cannot reject that the effects are statistically different for the follow-up.³⁵

³⁵In Table A10 we also provide evidence on two additional questions that we included in our experiment with TNS. We show that people's views on granting immigrants access to local public goods is virtually unchanged in response to the information treatment, which is consistent with the small treatment effects we observe on policy preferences.

[insert Table 5]

Moreover, in Table 6, we show that, for both the MTurk and the TNS samples, the treatment group is not more likely to sign the online petition on the White House’s website in favor of increasing the number of green cards available for immigrants.³⁶ Similarly, approximately the same fraction of people in the treatment and control group reported both intending to sign and having signed the petition.³⁷

[insert Table 6]

To sum up, we find that, for both the TNS and MTurk samples, participants who receive the information develop a more positive attitude towards immigrants and are more willing to increase the number of legal immigrants. However, the treatment did not affect people’s policy preferences regarding illegal immigrants.

4.4 Heterogeneous Treatment Effects

In the main analysis, we focused on five families of outcomes: people’s beliefs about immigrants, their general opinion on immigration, their generosity towards a pro-immigrant charity, their policy preferences, and their willingness to sign a petition in favor of more green cards.³⁸ For all of the heterogeneity analysis, we only look at the indices for these families of outcomes. We estimate the following equation, where $interaction_i$ refers to the pre-specified interaction variable, and X_i is a vector of pre-determined characteristics:³⁹

$$y_i = \pi_0 + \pi_1 Treatment_i \times interaction_i + \pi_2 Treatment_i + \pi_3 interaction_i + \Pi^T \mathbf{X}_i + \varepsilon_i$$

4.4.1 Republicans

In Panel A of Tables A4 and A5, we show that, for both the MTurk sample and the TNS sample, people who self-identify as Republican respond more strongly to the information treatment than

³⁶It is worth noting that about 10 percent of our sample actually ended up signing the petition. This means that we had sufficient variation to detect treatment effects.

³⁷The number of people who reported having signed the petition is higher than the number of signatures, which can partly be explained by the fact that signing the petition was a multi-stage process. People who signed the petition received a confirmation email which contained a link that they had to click on to confirm their signature. If they did not complete this second step, their signature was not counted. People’s intention to sign the petition and their self-reported signature are strongly correlated with their self-reported support for increasing the number of green cards for immigrants.

³⁸A precise definition of the different families can be found in the pre-analysis plans: <https://www.socialscienceregistry.org/trials/1092>.

³⁹We include control variables in the analysis due to the slight imbalances we observed between the treatment group and the control group in the MTurk sample.

people who identify as Democrat or as neither Republican nor Democrat. Indeed, we observe that Republicans are more likely than other political groups to change their beliefs about immigrants, to become more supportive of policy reforms favoring immigrants, and to accept to sign a pro-immigrant petition. These effects are highly significant, and are also quite large (0.25 of a standard deviation).⁴⁰

Moreover, these effects are robust to using other measures of political conservatism.⁴¹ For instance, we find that MTurkers who favoured Trump or Cruz in the Republican primary respond more strongly to the information treatment. Similarly, participants from the TNS sample who intended to vote for Trump in the presidential election react more strongly to the treatment than people planning to vote for another candidate. We also find that these results are robust to simultaneously including the interaction of treatment with other variables, such as education as well as mean biases in beliefs.

In Table 7, we show that pooling the two samples yields the same results as those described above. It is also important to note that these heterogeneous treatment effects are in line with what we observed in the cross-country experiment.

[insert Table 7]

In Table A7, we show the disaggregated results for the heterogeneous effects on policy preferences. We find that the information treatment makes Republicans more willing to increase the number of green cards and the number of incoming immigrants (0.3 of a standard deviation). Moreover, as Table A8 clearly shows, treated Republicans become much more likely to report intending to sign and having signed the online petition than non-Republicans. This result can be partly explained by the fact that Republicans have more negative views to begin with, which implies that the information treatment is actually stronger for them.

4.4.2 Initial Attitudes towards Immigrants

In Panel B of Tables A4 and A5, we show that participants from the TNS and MTurk samples who are particularly worried about immigration tend to respond more strongly to the treatment. Indeed, not only do they change their views on immigrants, but they also become more supportive of immigration reform. This is also in line with what we had observed in the cross-country

⁴⁰We find that these heterogeneous treatment effects become even stronger if we focus exclusively on Democrats and Republicans, and exclude people who belong to neither party.

⁴¹These additional results (which were not-pre-specified) are available upon request.

experiment. However, they are not differentially more generous towards the American Immigration Council, and they are not more willing to sign a petition in favor of immigration than people who are not particularly worried about immigration.

These findings can be related to the literature on motivated reasoning (Taber and Lodge, 2006) and confirmation bias (Nickerson, 1998). According to those theories, people who receive information which goes against their political convictions should be less willing to update their beliefs than people for whom the information is in line with their political orientation. In some cases, one might even expect to observe a backfire effect (Nyhan and Reifler, 2010), where people’s beliefs actually get reinforced in the face of contradictory evidence. In our experiments, we do not see any evidence for such a phenomenon, as Republicans and participants who initially have more negative views on immigrants update their beliefs and policy preferences more than people who have a positive attitude towards immigrants.

4.4.3 Other Heterogeneity

In Panel C of Tables A4 and A5, we examine whether participants who have a high level of trust in official statistics respond more strongly to the information treatment. Indeed, one might expect that people who do not trust official statistics will not change their beliefs regarding immigration after receiving the information treatment, whereas people who trust official statistics will. Overall, we find no consistent evidence that people who trust official statistics respond more strongly to the information treatment.

We also examined heterogeneous treatment effects by people’s biases in beliefs with three different pre-specified measures of biases. We find that the patterns are as expected: people with higher biases seem to respond more strongly to information. However, in both of our samples, this effect is not statistically significant for most families of outcomes. This could be due to measurement error as we do not know how people weigh the five different biases, which causes some issues for the aggregation of the biases. This measurement error naturally results in attenuation bias which renders the detection of significant effects much harder. These results can be found in the online Appendix. Moreover, we find that the size of the bias is negatively correlated with respondents’ attention level. Indeed, once we restrict the TNS sample to people who passed the attention screener, the coefficients for the interaction between the treatment and our measures of biases increase. We even observe statistically significant heterogeneous treatment effects on the index of people’s beliefs about immigrants.

Lastly, we also examine whether trust in the government moderates the size of our estimated treatment effects.⁴² Unlike Kuziemko et al. (2015), we do not find any evidence that the participants' level of trust in the government was affected by our information treatment. We also find no strong heterogeneous treatment effects by people's trust in the government. If anything, we find that people who trust the government more respond less to our information treatment.

4.4.4 Persistence of Heterogeneous Effects

In Table A6, we show that the heterogeneous treatment effects are qualitatively similar in the follow-up. Indeed, we find that, even four weeks after the treatment, the effects are stronger for Republicans, especially regarding policy preferences and their general opinion of immigrants. There is also some indication that people who are worried about immigration still respond more strongly to the treatment, although the interaction effect is not as large in the follow-up. Finally, we do not observe any heterogeneous treatment effects for people who trust official statistics.

4.5 Discussion

In this section, we consider different explanations for why the information treatment affects people's attitude towards immigrants, but not their policy preferences. First, it could be the case that policy preferences are more stable than attitudes, which would explain why we only observe treatment effects on people's attitude towards immigrants. For instance, policy preferences are often influenced by party affiliation, which tends to stay the same over time. Similarly, other stable characteristics could have a very strong influence on people's policy preferences, which would make it more difficult to find treatment effects. To corroborate this hypothesis, we find that temporal correlations are higher for policy preferences than for attitudes.⁴³ These results on the stability of preferences over time are displayed in Table A22. However, this explanation cannot explain the differential effects for Republicans.

One could also argue that the information treatment changed the way participants viewed current immigrants, but not necessarily future immigrants. Indeed, we provide statistics about immigrants currently living in the United States, whose characteristics could be different from those of incoming immigrants. This could explain why participants in the treatment group seem

⁴²We did not specify this analysis in the pre-analysis plan.

⁴³We only calculate these correlations for the control group, as we expect the treatment effects to vary over time, which would mechanically lower the temporal correlations.

to develop a more positive image of existing immigrants, although they are not willing to accept more immigrants into the country.

Another related explanation is that the questions on policy preferences are less directly related to the information treatment than some of the attitudinal questions. The topics mentioned in the attitudinal questions were addressed in the information treatment, which is not necessarily the case for the policy preference measures. Participants only change their views when the information given is in direct contradiction with their beliefs. If the information provided is theoretically compatible with their set of beliefs, they will refrain from updating their views. This interpretation would be in line with the existing literature on belief updating, which finds that most people are reluctant to update their opinions based on new information (Falk and Zimmermann, 2016; Taber and Lodge, 2006) and that people update their beliefs in a self-serving manner (Di Tella et al., 2015). It is possible that policy preferences would change if people received information about the effect of immigration policies.

4.6 Potential Confounds

4.6.1 Experimenter Demand Effects

We are confident that our results are not caused by experimenter demand effects. First of all, online studies have been shown to be less affected by experimenter demand effects (Van Gelder et al., 2010), since participants do not interact at all with the experimenter.

Since our treatment effects persist four weeks after the main experiment, experimenter demand effects unlikely explain the patterns in our data. Indeed, it seems unlikely that respondents from the treatment and the control group will hold different beliefs about the experimenters' hypotheses and intentions four weeks after receiving the information treatment (Cavallo et al., 2016).⁴⁴

Moreover, the patterns of heterogeneity we observe in the data are not consistent with experimenter demand effects unless demand effects are systematically stronger for Republicans compared to Democrats. We think that such an explanation of differential experimenter demand effects based on political affiliation is unlikely.

⁴⁴This is particularly true for respondents who answered the explicit questions before the factual questions on immigrants. We find no heterogeneous treatment effects by the order in which questions were presented in the follow-up.

4.6.2 Other Potential Confounds

One might also worry that the lack of significant treatment effects on policy preferences is due to low levels of attention. In the TNS sample, participants had to complete a standard attention check at the end of the survey. We observed no difference in attention between the treatment group and the control group, and we can therefore use this measure to test for heterogeneous treatment effects by people’s attention level. As can be seen in the online Appendix, we find little evidence that the respondents who pay more attention to the questions react more to the information.

4.7 Determinants of the Biases

In this section, we try to understand why some people have much more biased beliefs about immigration than others.⁴⁵ This empirical analysis is related to theoretical work on how people form beliefs and stereotypes (Bordalo et al., 2016). For each type of belief, we regress the bias on a large set of demographics, such as income, education, age, as well as on a set of regional controls such as the share of immigrants in the respondent’s zip code area.⁴⁶ Overall, we find that more educated people are less biased, that males are less biased than women about the share of immigrants, and that the local context shapes beliefs about immigration at the national level.

4.7.1 Representative Sample: TNS

In Table A18, we provide evidence that people who live in zipcode areas with a large share of immigrants have more biased beliefs about the national share of immigrants (both legal and illegal), and about certain characteristics of immigrants, such as their propensity to commit crimes and to be unemployed. One reason why they might over-estimate the national average is that their beliefs are shaped by immigration at the local level.

Turning to demographics, we show that more educated people tend to have less biased beliefs about the share and characteristics of immigrants. Male respondents have less biased beliefs about the share of legal and illegal immigrants than female participants. We find no significant

⁴⁵In this section, we do not strictly follow the pre-analysis plan. The results from the pre-specified regressions are available upon request.

⁴⁶We use data from the 2007-2011 American Community Survey, which is to the best of our knowledge the only recent Census dataset containing data on the share of immigrants at the zip code level.

conditional correlation between being a Republican and the size of the biases. But, we do observe that individuals who watch Fox News have more biased beliefs about immigrants.

4.7.2 MTurk Sample

The same analysis for the MTurk sample also indicates that people living in areas with a large share of immigrants have more biased beliefs about the national share of immigrants, as shown in Table A19. However, the share of immigrants at the zip code level does not predict any of the other biases, which is not in line with our evidence from the representative sample. We also show that richer, older and more educated people have less biased beliefs about immigrants. As before, males are less biased about the share of legal and illegal immigrants than females.

4.7.3 Transatlantic Trends

In the 2010 wave of the Transatlantic Trends Survey, participants in the control group were asked to give an estimate for the share of immigrants in their country. In Table A20, we show that people who are employed full-time, who are more educated and who identify as right-wing are more biased about the share of immigrants. Moreover, we provide evidence that the estimates provided by males are much less biased than those given by females. All of these results are robust to the inclusion of country fixed effects.

5 Conclusion

We show that providing information about immigration affects people’s attitude towards immigrants. Participants in the treatment group update their beliefs about immigrants, develop a more positive attitude towards them and are more willing to increase the number of legal immigrants. However, on average, participants who receive the information treatment do not become more supportive of undocumented immigrants. They do not become more willing to sign a petition in favor of immigration reform, and their self-reported policy preferences regarding illegal immigration remain broadly unchanged.

In our two online samples, we find that Republicans respond more strongly to the information treatment, both in terms of their views on immigrants and in terms of their policy preferences. Indeed, Republicans who receive the treatment become generally more supportive of immigration. Similarly, we observe that people who are initially more worried about immigration react more

to the information, and they update their views on immigration more than people who are less worried about immigration. Using the MTurk sample, we show that the treatment effects remain similar four weeks after the main experiment.

Future research should extend our work in at least two ways: first, it is important to grasp whether the effects of information on political attitudes depend on the credibility of the agent who provides the information (e.g. the government, the media or other sources). Second, we need to get a better understanding of how people form their political attitudes, and how they process factual information compared to emotionally loaded content. Answering these questions will be necessary to find the most effective ways of fighting people's misinformation on important political issues, such as immigration.

Our research has potentially important policy implications. In particular, the government could disseminate information about immigrants in order to reduce people's biases. Our results on heterogeneous treatment effects suggest that targeting certain subgroups of the population could increase the effectiveness of information interventions. Specifically, our results suggest that targeting individuals with the most negative views on immigration would be the most effective way of changing people's attitudes towards immigrants.

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6 Main Tables

Table 1: Main Result: Transatlantic Trends Survey

	Percentage of people saying yes to:		Ordered Variable
	“Too Many”	“Not Many”	
	(1)	(2)	(3)
Panel A: Between			
Treatment	-0.1190*** (0.0095)	0.1639*** (0.0093)	0.2829*** (0.0155)
Control Mean	0.3651	0.1876	1.8225
<i>N</i>	19407	19407	19407
Scaled Effect	.55	1.5	.88

In Panel A, we present the results of the experiment embedded in the Transatlantic Trends survey. The scaled effect is the treatment effect divided by the average difference in the answers given by participants in the control group who are right-wing and those who are left-wing. The ordered outcome variable takes value one if individuals agree that there are too many immigrants in their country, value two if individuals agree that there are a lot but not too many immigrants in their country, and value three if they agree that there are not many immigrants. Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Heterogeneity: Transatlantic Trends Survey

Percentage of people saying yes to the following statement:
 “Too many immigrants”

Panel A: Negative View on Immigrants	
Treatment	-0.1062*** (0.0126)
Treatment × Negative View on Immigrants	-0.0905*** (0.0296)
Negative View on Immigrants	0.2906*** (0.0218)
Constant	0.2836*** (0.0098)
<i>N</i>	11845
Panel B: Right-wing	
Treatment	-0.0980*** (0.0118)
Treatment × Right-wing	-0.0494** (0.0193)
Right-wing	0.1420*** (0.0145)
Constant	0.3055*** (0.0088)
<i>N</i>	19407

In Panel A, we look at heterogeneity by people’s pre-treatment views on immigration. In particular, we create a dummy variable which is equal to one for individuals who say that most immigrants come to receive welfare benefits. In Panel B, we create a dummy variable which is equal to one if people say that their political orientation is center right, right, or extreme right, and zero otherwise. Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Main Effects: Opinion about Immigrants 1

	(1)	(2)	(3)	(4)
	Opinion: Crime	Opinion: Unemployment	Opinion: English	Index
A: MTurk sample				
Treatment	0.176*** (0.055)	0.519*** (0.062)	0.398*** (0.064)	0.387*** (0.044)
FDR-adjusted p-value	[.002]***	[.001]***	[.001]***	
<i>N</i>	800	800	800	800
Scaled Effect	.19	1.23	.47	.54
B: TNS sample				
Treatment	0.268*** (0.047)	0.309*** (0.052)	0.312*** (0.053)	0.302*** (0.033)
FDR-adjusted p-value	[.001]***	[.001]***	[.001]***	
<i>N</i>	1193	1193	1193	1193
Scaled Effect	0.688	2.576	0.572	0.830
C: Pooled Results				
Treatment	0.238*** (0.035)	0.395*** (0.039)	0.337*** (0.041)	0.334*** (0.026)
FDR-adjusted p-value	[.001]***	[.001]***	[.001]***	
<i>N</i>	1993	1993	1993	1993
D: Follow-up: MTurk				
Treatment	0.107* (0.063)	0.289*** (0.066)	0.211*** (0.067)	0.215*** (0.050)
FDR-adjusted p-value	[.084]*	[.001]***	[.005]***	
<i>N</i>	696	696	696	696

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. The scaled effect is the treatment effect divided by the average difference in the answers given by participants in the control group who are Republicans and those who are Democrats. In Panel A, we display the results from the MTurk sample. In Panel B, we display the results from the representative sample. In Panel C, we show results pooling together the MTurk sample and the representative sample. In Panel D we display the results from the follow-up experiment from the MTurk sample. We include the following control variables: log income, age, gender, household size, indicators for race, religion, indicators for employment status and education, whether the respondent was born in the U.S., a question capturing pre-treatment worries about immigration, a dummy variable for Democrats as well as a set of prior beliefs about immigrants. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Main Effects: Opinion on Immigrants 2

	(1)	(2)	(3)	(4)
	No positive effect of Removing all illegals	Immigrants produce more advantages	Index Opinions	Donation
A: MTurk sample				
Treatment	0.046 (0.056)	0.176*** (0.052)	0.111** (0.047)	0.219*** (0.083)
FDR-adjusted p-value	[.496]	[.002]***		
<i>N</i>	800	800	800	800
Scaled Effect	.04	.17	.10	.34
B: TNS sample				
Treatment	0.090* (0.049)	0.139*** (0.048)	0.115*** (0.040)	0.070 (0.056)
FDR-adjusted p-value	[.034]**	[.009]***		
<i>N</i>	1193	1193	1193	1193
Scaled Effect	0.317	0.440	0.380	0.223
C: Pooled				
Treatment	0.075** (0.037)	0.155*** (0.035)	0.115*** (0.030)	0.133*** (0.047)
FDR-adjusted p-value	[.02]**	[.001]***		
<i>N</i>	1993	1993	1993	1993
D: Follow-up: MTurk				
Treatment	0.118* (0.061)	0.139** (0.055)	0.129** (0.050)	
FDR-adjusted p-value	[.062]*	[.01]***		
<i>N</i>	695	695	695	

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. The scaled effect is the treatment effect divided by the average difference in the answers given by participants in the control group who are Republicans and those who are Democrats. In Panel A, we display the results from the MTurk sample. In Panel B, we display the results from the representative sample. In Panel C, we show results pooling together the MTurk sample and the representative sample. In Panel D we display the results from the follow-up experiment from our MTurk sample. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Main Effects: Policy Preferences

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	There are not too many		Increase the number of		Decrease	Facilitate	Not Deport	Index
	Legal Imm	Illegal Imm	Incoming Legal Imm	Green cards	Budget to deport	Legalization	Illegals	Policy Preference
A: MTurk sample								
Treatment	0.249*** (0.056)	0.270*** (0.052)	0.153*** (0.059)	0.105* (0.059)	0.054 (0.060)	0.022 (0.060)	0.027 (0.058)	0.123*** (0.038)
FDR-adjusted p-value	[.001]***	[.001]***	[.045]**	[.114]	[.692]	[.822]	[.822]	
<i>N</i>	800	800	800	800	800	800	800	800
Scaled Effect	.29	.26	.17	.12	.05	.01	.02	.12
B: TNS sample								
Treatment	0.102** (0.046)	0.240*** (0.049)	0.127** (0.050)	0.047 (0.052)	0.053 (0.048)	0.003 (0.051)	0.080 (0.051)	0.090*** (0.031)
FDR-adjusted p-value	[.049]**	[.001]***	[.038]**	[.261]	[.261]	[.594]	[.134]	
<i>N</i>	1193	1193	1193	1193	1193	1193	1193	1193
Scaled Effect	0.40	0.36	0.27	0.08	0.09	0.01	0.16	0.18
C: Pooled								
Treatment	0.160*** (0.035)	0.256*** (0.036)	0.124*** (0.039)	0.061 (0.039)	0.056 (0.037)	0.004 (0.039)	0.060 (0.039)	0.100*** (0.024)
FDR-adjusted p-value	[.001]***	[.001]***	[.001]**	[.148]	[.173]	[.291]	[.148]	
<i>N</i>	1993	1993	1993	1993	1993	1993	1993	1993
D: MTurk Follow-up								
Treatment	0.136** (0.061)	0.174*** (0.058)	0.183*** (0.062)	0.124** (0.062)	0.117** (0.059)	0.119* (0.062)	0.019 (0.065)	0.121*** (0.042)
FDR-adjusted p-value	[.042]**	[.018]**	[.018]**	[.102]	[.102]	[.102]	[.857]	
<i>N</i>	697	697	695	695	695	695	695	695

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. The scaled effect is the treatment effect divided by the average difference in the answers given by participants in the control group who are Republicans and those who are Democrats. In Panel A, we display the results from the MTurk sample. In Panel B, we display the results from the representative sample. In Panel C, we show results pooling together the MTurk sample and the representative sample. In Panel D we display the results from the follow-up experiment from our MTurk sample. We include the same list of controls as in 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Main Effects: Online Petition

	(1)	(2)	(3)	(4)
	Intention to sign	Self-report: Sign	Actual Sign-up	Index: Petition
A: MTurk				
Treatment	0.065 (0.064)	-0.068 (0.054)	-0.036* (0.019)	-0.001 (0.055)
FDR-adjusted p-value	[.842]	[.183]	[.165]	
<i>N</i>	802	802	802	802
Scaled Effect	.11	-.16	-	0
Control mean	0	0	.106	0
B: TNS sample				
Treatment	-0.031 (0.053)	0.021 (0.055)	0.002 (0.019)	-0.005 (0.050)
FDR-adjusted p-value	[1]	[1]	[1]	
<i>N</i>	1193	1193	1193	
Scaled Effect	-0.044	0.033	-	-0.007
Control mean	0	0	0.112	0
C: Pooled				
Treatment	0.004 (0.041)	-0.017 (0.040)	-0.012 (0.017)	-0.006 (0.038)
FDR-adjusted p-value	[1]	[1]		
Control mean	0	0	.11	0
<i>N</i>	1993	1993	1993	

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. The scaled effect is the treatment effect divided by the average difference in the answers given by participants in the control group who are Republicans and those who are Democrats. In Panel A, we display the results from the MTurk sample. In Panel B, we display the results from the representative sample. In Panel C, we show results pooling together the MTurk sample and the representative sample. We include the same list of controls as in 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Heterogeneous Effects: Pooled

	(1)	(2)	(3)	(4)	(5)
	Beliefs	Donation	Petition	Policy Preferences	Opinions
Panel A					
Treatment	0.286*** (0.031)	0.096* (0.055)	-0.074* (0.044)	0.055* (0.028)	0.086** (0.035)
Treatment × Republican	0.171*** (0.058)	0.138 (0.104)	0.245*** (0.082)	0.162*** (0.053)	0.105 (0.066)
Republican	-0.193*** (0.044)	-0.316*** (0.078)	-0.392*** (0.062)	-0.276*** (0.040)	-0.214*** (0.050)
<i>N</i>	1993	1993	1993	1993	1993
Panel B					
Treatment	0.323*** (0.026)	0.126*** (0.047)	-0.010 (0.037)	0.086*** (0.023)	0.096*** (0.029)
Treatment × Concerned about immigration	0.044 (0.037)	0.037 (0.066)	0.088* (0.053)	0.119*** (0.033)	0.064 (0.040)
Concerned about immigration	-0.333*** (0.037)	-0.238*** (0.068)	-0.166*** (0.054)	-0.478*** (0.033)	-0.570*** (0.041)
<i>N</i>	1993	1993	1993	1993	1993
Panel C					
Treatment	0.320*** (0.030)	0.132*** (0.047)	-0.035 (0.038)	0.079** (0.031)	0.086** (0.039)
Treatment × Trust in statistics	0.016 (0.029)	0.089** (0.045)	-0.072* (0.037)	-0.018 (0.030)	-0.047 (0.037)
Trust in statistics	0.121*** (0.020)	0.209*** (0.032)	0.266*** (0.026)	0.211*** (0.021)	0.128*** (0.026)
<i>N</i>	1993	1993	1993	1993	1993
P-value (Tr + Tr×Rep)	0.000	0.007	0.0141	0.000	.0000
P-value (Tr + Tr× Concerned)	0.000	0.045	0.229	0.000	0.001
P-value (Tr + Tr× Trust Stat)	0.000	0.001	0.055	0.182	0.491
Controls	Y	Y	Y	Y	Y

All of the outcomes are indices. The definition of the indices is in Appendix C. The outcomes from the petition question are self-reported. All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

7 Figures

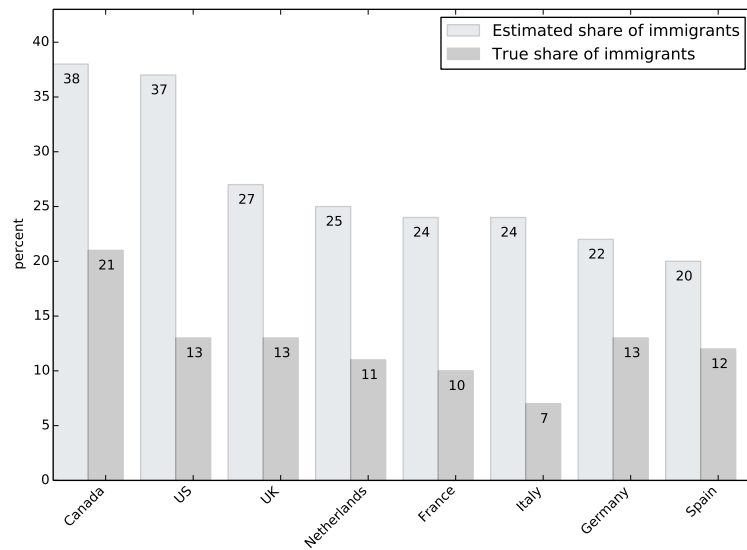


Figure 1: Biases in beliefs about the share of immigrants in different OECD countries. Source: 2010 wave of the Transatlantic Trends Survey.

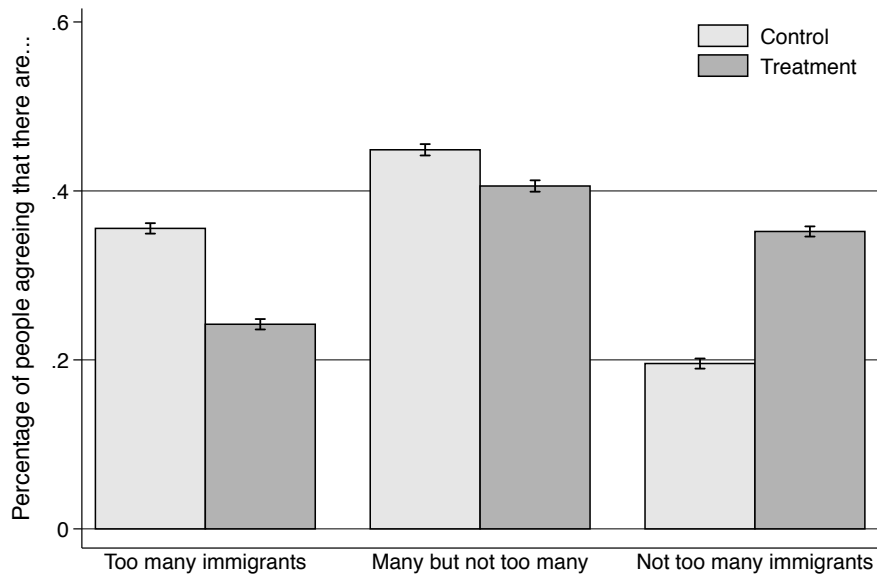


Figure 2: This figure presents the distribution of answers given by the treatment group and the control group to the question on whether there are too many immigrants in this country.

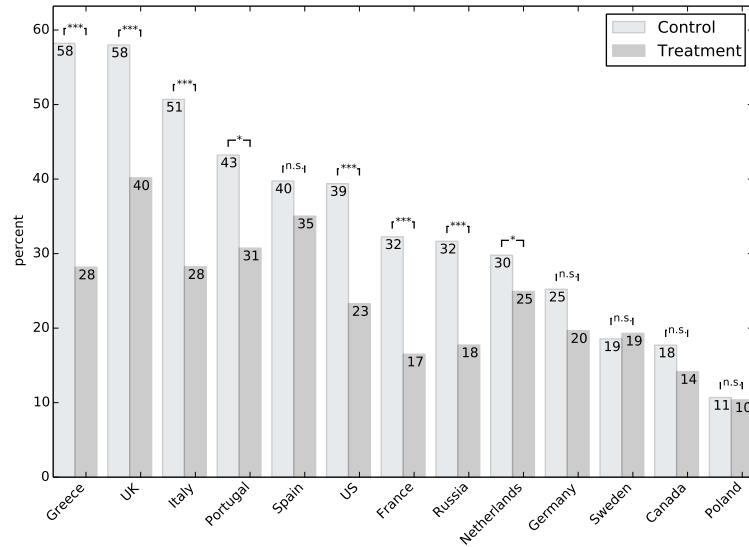


Figure 3: Cross-country evidence: the effect of information on the probability of saying that there are too many immigrants.

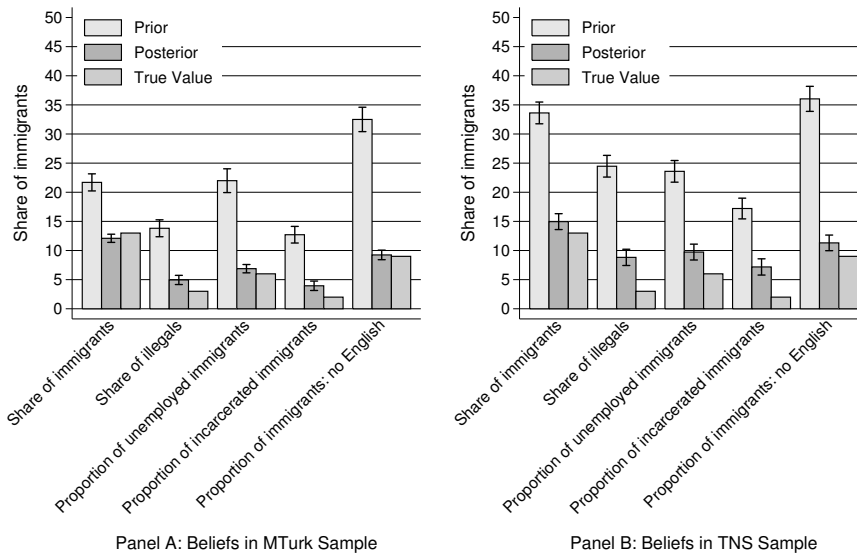


Figure 4: This figure presents the prior and posterior beliefs about the statistics about immigrants. On the left-hand side, in Panel A we show results for the MTurk sample. On the right-hand side, in Panel B we show results for the TNS sample. The figures display the means as well as the 95% confidence intervals.

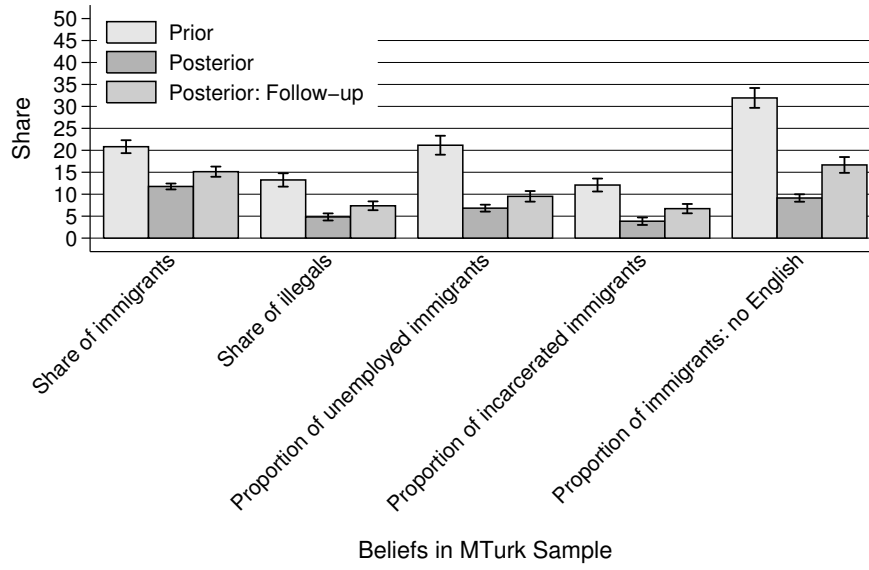


Figure 5: This figure presents prior and posterior beliefs for the sample who answered the four-week follow-up. We also present beliefs elicited in the four-week follow up.

A Additional tables

Table A1: Heterogeneity by Countries

Percentage of people saying yes to the following statement: “There are too many immigrants in this country”							
	Germany	France	Spain	Italy	UK	NL	US
Treatment	-0.0556*	-0.1575***	-0.0471	-0.2246***	-0.1782***	-0.0486**	-0.1610***
	(0.0309)	(0.0245)	(0.0323)	(0.0323)	(0.0307)	(0.0234)	(0.0352)
FDR-adjusted p-values	[0.106]	[0.001]***	[0.189]	[0.001]***	[0.001]***	[0.062]*	[0.001]***
Control Mean	0.2521	0.3225	0.3974	0.5069	0.5799	0.2978	0.3938
<i>N</i>	1938	1892	1919	1888	1917	1922	1858
	Portugal	Poland	Greece	Sweden	Russia	Canada	
Treatment	-0.1249**	-0.0031	-0.3003***	0.0075	-0.1392***	-0.0356	
	(0.0590)	(0.0268)	(0.0418)	(0.0338)	(0.0286)	(0.0352)	
FDR-adjusted p-values	[.062]*	[0.909]	[0.001]***	[0.893]	[0.001]***	[0.368]	
Control Mean	0.4322	0.1068	0.5821	0.1855	0.3165	0.1771	
<i>N</i>	908	889	965	965	1406	940	

We present the results from the 2010 and 2014 waves of the Transatlantic Trends survey for the different countries in our sample. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A2: Prior and Posterior Beliefs

	(1)	(2)	(3)	(4)	(5)
	Beliefs about Immigrants				
	Share Immigrants	Share Illegal Immigrants	Share Unemployed	Share Incarcerated	Can't Speak English
MTurk sample					
Panel A					
Prior	21.94	13.88	22.25	12.66	32.62
Panel B					
Posterior	12.11	4.93	6.80	3.94	9.25
Panel C					
Difference (A - B)	9.83*** (0.76)	8.95*** (0.69)	15.45*** (1.03)	8.72*** (0.69)	23.37*** (1.08)
<i>N</i>	403	407	404	404	405
TNS sample					
Panel D					
Prior	33.61	24.46	23.59	17.21	36.03
Panel E					
Posterior	14.95	8.82	9.73	7.18	11.31
Panel F					
Difference (D - E)	15.64*** (0.89)	15.97*** (0.77)	13.85*** (0.81)	10.03*** (0.66)	24.72*** (1.05)
<i>N</i>	598	598	598	598	598
True values	13	3	6	2	8

The five outcome variables are people's beliefs about: the share of immigrants in the U.S., the share of illegal immigrants, the share of unemployed immigrants, the share of incarcerated immigrants, and the share of immigrants who cannot speak English. For the treatment group from the MTurk experiment, participants' beliefs prior to the treatment are displayed in Panel A, while their beliefs after the treatment are displayed in Panel B. In Panel C, we show the difference between people's beliefs before and after the treatment. For the treatment group from the experiment with TNS Global, participants' beliefs prior to the treatment are displayed in Panel D, while their beliefs after the treatment are displayed in Panel E. In Panel F, we show the difference between people's beliefs before and after the treatment. Standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A3: MTurk: Persistence of Belief Changes

	(1)	(2)	(3)	(4)	(5)
	Beliefs about Immigrants				
	Share Immigrants	Share Illegal Immigrants	Share Unemployed	Share Incarcerated	Can't Speak English
Panel A					
Prior (Baseline)	21.02	13.24	21.37	12.04	31.78
Panel B					
Posterior (Baseline)	11.85	5.01	6.91	3.90	8.94
Panel C					
Follow-up	15.16	7.45	9.54	6.68	16.64
Panel D					
Difference (A - C)	5.86*** (.795)	5.78*** (.810)	11.83*** (1.135)	5.35*** (.771)	15.13*** (1.308)
Panel E					
Difference (B - C)	3.32*** (.638)	2.46*** (.569)	2.51*** (.615)	2.69*** (.529)	7.40*** (.904)
<i>N</i>	359	354	354	347	347

In these regressions, we only look at individuals from the treatment group who also completed the follow up. The five outcome variables are people's beliefs about: the share of immigrants in the US, the share of illegal immigrants, the share of unemployed immigrants, the share of incarcerated immigrants, and the share of immigrants who cannot speak English. Specifically, for the main experiment, participants' beliefs prior to the treatment are displayed in Panel A, while their beliefs after the treatment are displayed in Panel B. For the follow-up, participants' beliefs are displayed in Panel C. In Panel D, we show the difference between people's beliefs before the treatment in the main experiment and people's beliefs in the follow-up. In Panel E, we show the difference between people's beliefs after the treatment in the main experiment and people's beliefs in the follow-up. Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Heterogeneous Effects: TNS Sample

	(1)	(2)	(3)	(4)	(5)
	Beliefs	Donation	Petition	Policy Preferences	Opinions
Panel A					
Treatment	0.270*** (0.040)	0.062 (0.068)	-0.076 (0.061)	0.049 (0.038)	0.080* (0.048)
Treatment × Republican	0.114 (0.071)	0.048 (0.121)	0.258** (0.107)	0.146** (0.067)	0.117 (0.085)
Republican	-0.156*** (0.053)	-0.212** (0.090)	-0.419*** (0.080)	-0.208*** (0.050)	-0.130** (0.063)
<i>N</i>	1193	1193	1193	1193	1193
Panel B					
Treatment	0.292*** (0.032)	0.064 (0.056)	-0.009 (0.050)	0.077*** (0.029)	0.098*** (0.037)
Treatment × Concerned about immigration	-0.005 (0.040)	-0.004 (0.071)	0.090 (0.063)	0.102*** (0.037)	0.065 (0.046)
Concerned about immigration	-0.334*** (0.041)	-0.219*** (0.073)	-0.186*** (0.065)	-0.493*** (0.038)	-0.592*** (0.047)
<i>N</i>	1193	1193	1193	1193	1193
Panel C					
Treatment	0.310*** (0.038)	0.077 (0.057)	-0.025 (0.053)	0.099** (0.039)	0.105** (0.051)
Treatment × Trust in statistics	-0.018 (0.035)	0.005 (0.053)	-0.081 (0.049)	-0.047 (0.036)	-0.088* (0.047)
Trust in statistics	0.110*** (0.024)	0.304*** (0.037)	0.322*** (0.034)	0.215*** (0.025)	0.063* (0.033)
<i>N</i>	1193	1193	1193	1193	1193
P-value (Tr + Tr×Rep)	0.000	0.269	0.039	0.000	0.005
P-value (Tr + Tr×Concerned)	0.000	0.278	0.053	0.000	0.013
P-value (Tr + Tr×Trust Stat)	0.000	0.382	0.132	0.001	0.880
Controls	Y	Y	Y	Y	Y

All of the outcomes are indices. The definition of the indices is in Appendix C. The outcomes from the petition question are self-reported. All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: Heterogeneous Effects: MTurk

	(1)	(2)	(3)	(4)	(5)
	Beliefs	Donation	Petition	Policy Preferences	Opinions
Panel A					
Treatment	0.312*** (0.049)	0.132 (0.092)	-0.065 (0.062)	0.065 (0.043)	0.072 (0.052)
Treatment × Republican	0.308*** (0.101)	0.302 (0.189)	0.225* (0.128)	0.210** (0.088)	0.122 (0.107)
Republican	-0.251*** (0.079)	-0.539*** (0.146)	-0.319*** (0.099)	-0.402*** (0.068)	-0.429*** (0.083)
<i>N</i>	800	800	800	800	800
Panel B					
treatment	0.375*** (0.043)	0.210** (0.081)	-0.010 (0.055)	0.110*** (0.036)	0.095** (0.045)
Treatment × Concerned about immigration	0.160** (0.079)	0.158 (0.150)	0.046 (0.101)	0.141** (0.067)	0.037 (0.082)
Concerned about immigration	-0.517*** (0.085)	-0.400** (0.161)	-0.233** (0.109)	-0.678*** (0.072)	-0.726*** (0.089)
<i>N</i>	800	800	800	800	800
Panel C					
Treatment	0.378*** (0.043)	0.196** (0.081)	-0.013 (0.055)	0.118*** (0.038)	0.104** (0.046)
Treatment × Trust in statistics	0.055 (0.044)	0.213*** (0.082)	-0.043 (0.055)	0.023 (0.039)	0.012 (0.047)
Trust in statistics	0.056* (0.031)	0.048 (0.058)	0.134*** (0.039)	0.069** (0.027)	0.107*** (0.033)
<i>N</i>	800	800	800	800	800
P-value (Tr + Tr×Rep)	0.000	0.005	0.122	0.000	0.021
P-value (Tr + Tr× Concerned)	0.000	0.024	0.696	0.000	0.148
P-value (Tr + Tr× Trust Stats)	0.000	0.000	0.4028	0.0153	0.101
Controls	Y	Y	Y	Y	Y

All of the outcomes are indices. The definition of the indices is in Appendix C. The outcomes from the petition question are self-reported. All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Heterogeneous Effects: Follow-up

	(1)	(2)	(3)
	Opinions 1	Policy Preferences	Opinions 2
Panel A			
Treatment	0.221*** (0.058)	0.067 (0.054)	0.066 (0.057)
Treatment × Republican	0.044 (0.118)	0.257** (0.111)	0.250** (0.116)
Republican	-0.327*** (0.089)	-0.461*** (0.084)	-0.544*** (0.088)
<i>N</i>	697	696	696
Panel B			
Treatment	0.221*** (0.050)	0.113** (0.046)	0.109** (0.047)
Treatment × Concerned about immigration	0.052 (0.091)	0.111 (0.084)	0.279*** (0.086)
Concerned about immigration	-0.497*** (0.099)	-0.700*** (0.091)	-0.841*** (0.094)
<i>N</i>	697	696	696
Panel C			
Treatment	-0.200 (0.191)	0.170 (0.182)	0.329* (0.189)
Treatment × Trust in statistics	0.139** (0.061)	-0.018 (0.058)	-0.073 (0.060)
Trust in statistics	0.035 (0.043)	0.093** (0.041)	0.152*** (0.043)
<i>N</i>	697	696	696
P-value (Tr + Tr×Rep)	0.010	0.001	0.002
P-value (Tr + Tr×Concerned)	0.008	0.006	0.000
P-value (Tr + Tr×Trust Stat)	.000	0.185	0.363
Controls	Y	Y	Y

All of the outcomes are indices. The definition of the indices is in Appendix C. All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Policy Preferences: Heterogeneity by Republican

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	There are not too many		Increase the number of		Decrease	Facilitate	Not Deport	Index 1	Index 2
	Legal Imm	Illegal Imm	Incoming Legal Imm	Green cards	Budget to deport	Legalization	Illegals	Policy Preference	
MTurk Sample									
Treatment	0.190*** (0.063)	0.250*** (0.059)	0.076 (0.068)	0.038 (0.067)	0.014 (0.068)	-0.025 (0.068)	-0.044 (0.066)	0.069 (0.043)	0.012 (0.047)
Treatment × Republican	0.237* (0.128)	0.056 (0.121)	0.316** (0.139)	0.268* (0.138)	0.153 (0.139)	0.171 (0.139)	0.248* (0.135)	0.207** (0.088)	0.231** (0.097)
Republican	-0.354** (0.138)	-0.481*** (0.130)	-0.345** (0.149)	-0.361** (0.148)	-0.547*** (0.149)	-0.716*** (0.149)	-0.904*** (0.144)	-0.535*** (0.094)	-0.574*** (0.104)
P-value (Tr + Tr×Rep)	0.000	0.004	0.001	0.011	0.173	0.233	0.085	0.000	0.004
N	800	800	800	800	800	800	800	800	800
TNS Sample									
Treatment	0.075 (0.056)	0.223*** (0.059)	0.041 (0.061)	-0.022 (0.062)	0.010 (0.057)	-0.033 (0.062)	0.074 (0.062)	0.049 (0.038)	0.014 (0.041)
Treatment × Republican	0.080 (0.100)	0.074 (0.105)	0.284*** (0.108)	0.236** (0.111)	0.161 (0.102)	0.137 (0.111)	0.043 (0.109)	0.146** (0.067)	0.172** (0.073)
Republican	-0.011 (0.074)	-0.195** (0.078)	-0.259*** (0.080)	-0.291*** (0.082)	-0.278*** (0.076)	-0.271*** (0.082)	-0.221*** (0.081)	-0.208*** (0.050)	-0.264*** (0.054)
P-value (Tr + Tr×Rep)	0.059	0.000	0.000	0.018	0.042	0.252	0.193	0.000	0.002
N	1193	1193	1193	1193	1193	1193	1193	1193	1193
Pooled Sample									
Treatment	0.127*** (0.042)	0.242*** (0.042)	0.038 (0.046)	-0.011 (0.046)	0.019 (0.044)	-0.035 (0.046)	0.028 (0.045)	0.055* (0.028)	0.007 (0.031)
Treatment × Republican	0.115 (0.078)	0.056 (0.079)	0.307*** (0.086)	0.258*** (0.087)	0.136* (0.082)	0.144* (0.087)	0.121 (0.085)	0.162*** (0.053)	0.193*** (0.059)
Republican	-0.113* (0.059)	-0.231*** (0.060)	-0.294*** (0.065)	-0.345*** (0.065)	-0.291*** (0.062)	-0.348*** (0.066)	-0.368*** (0.064)	-0.276*** (0.040)	-0.329*** (0.044)
P-value (Tr + Tr×Rep)	0	0	0.000	0.001	0.027	0.139	0.038	0.000	0.000
N	1993	1993	1993	1993	1993	1993	1993	1993	1993

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. Index 1 uses variables from columns (1) to (7). Index 2 uses variables from columns (3) to (7). We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Petition: Heterogeneity by Republican

	Intention to sign	Self-report: Sign	Index: Petition
MTurk Sample			
Treatment	-0.022 (0.072)	-0.100 (0.061)	-0.061 (0.062)
Treatment × Republican	0.336** (0.147)	0.104 (0.126)	0.220* (0.127)
Republican	-0.778*** (0.158)	-0.582*** (0.135)	-0.680*** (0.136)
P-value (Tr + Tr×Rep)	0.015	0.976	0.154
<i>N</i>	800	800	800
TNS Sample			
Treatment	-0.105* (0.064)	-0.046 (0.066)	-0.076 (0.061)
Treatment × Republican	0.270** (0.113)	0.245** (0.117)	0.258** (0.107)
Republican	-0.437*** (0.084)	-0.400*** (0.087)	-0.419*** (0.080)
P-value (Tr + Tr×Rep)	0.075	0.039	0.039
<i>N</i>	1193	1193	1193
Pooled Sample			
Treatment	-0.074 (0.048)	-0.074 (0.047)	-0.074* (0.044)
Treatment × Republican	0.283*** (0.090)	0.208** (0.087)	0.245*** (0.082)
Republican	-0.420*** (0.068)	-0.365*** (0.066)	-0.392*** (0.062)
P-value (Tr + Tr×Rep)	0.006	0.070	0.014
<i>N</i>	1993	1993	1993

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Additional results: Opinion on Immigrants (TNS)

	No positive effect of Removing all illegals	Immigrants produce	Legal Immigrants produce more advantages than	Illegal Immigrants produce disadvantages	Index Opinions	Donation
Treatment	0.090* (0.049)	0.139*** (0.048)	0.065 (0.049)	0.164*** (0.047)	0.115*** (0.040)	0.070 (0.056)
<i>N</i>	1193	1193	1193	1193	1193	1193

All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: Additional results: Policy Preferences (TNS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	There are not too many		Increase the number of		Decrease	Facilitate	Not Deport	Access to Social	Imm: high Contrib
	Legal Imm	Illegal Imm	Incoming Legal Imm	Green cards	Budget to deport	Legalization	Illegals	Services for Imm	to Public Goods
Panel A									
Treatment	0.102** (0.046)	0.240*** (0.049)	0.127** (0.050)	0.047 (0.052)	0.053 (0.048)	0.003 (0.051)	0.080 (0.051)	-0.016 (0.058)	0.183*** (0.049)
<i>N</i>	1193	1193	1193	1193	1193	1193	1193	1193	1193

	(1)	(2)	(3)	(4)
	Main Index	Index 2	Index 3	Index 4
Panel B				
Treatment	0.090*** (0.031)	0.062* (0.034)	0.091*** (0.030)	0.068** (0.032)
<i>N</i>	1193	1193	1193	1193

All outcome variables in Panels A and B are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. Index 1 uses variables from columns (1) to (7) from Panel A. Index 2 uses variables from columns (3) to (7). Index 3 uses variables from columns (1) to (9). Index 4 uses variables from columns (3) to (9). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Transatlantic Trends Survey: Worries about immigration

I am not worried about immigration						
	Legal	Illegal	Legal (US)	Illegal (US)	Within the EU	Outside the EU
Treatment	0.0025 (0.0333) [.894]	0.0389 (0.0328) [.548]	0.1721 (0.1101) [.419]	0.0298 (0.1247) [.894]	0.0709** (0.0294) [.107]	0.0241 (0.0295) [.704]
<i>N</i>	7457	7437	930	923	9367	9360
R^2	0.000	0.000	0.008	0.000	0.001	0.000

All outcome variables in Panels A and B are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. Robust standard errors are in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: Transatlantic Trends Survey: Perception of immigrants

	Legal Immigrants		Illegal Immigrants		Immigrants	
	No burden for social serv	not increase crime	no burden for social serv	not increase crime	do not take jobs	create jobs
Treatment	0.0375 (0.0468) [.264]	0.1051** (0.0461) [.062]*	0.0736 (0.0497) [.162]	0.1427*** (0.0493) [.025]**	0.0515 (0.0345) [.162]	0.0323 (0.0345) [.264]
<i>N</i>	3699	3669	3622	3569	7364	7145
<i>R</i> ²	0.000	0.003	0.001	0.005	0.001	0.000

All outcome variables in Panels A and B are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. Robust standard errors are in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A13: Transatlantic Trends Survey: Policy Preferences

	Immigrants can stay permanently	Immigrants can be legalized	More Refugees	Immigrants can be legalized: US
Treatment	0.0259 (0.0332) [.774]	-0.0314 (0.0331) [.774]	-0.0236 (0.0285) [.774]	-0.1173 (0.1358)
<i>N</i>	7416	7420	11234	690
<i>R</i> ²	0.000	0.000	0.000	0.003

All outcome variables in Panels A and B are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. Robust standard errors are in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A14: Randomization Check: Transatlantic Trend Survey

	Treatment	Control	P-value
Concerned about immigration	0.07	0.07	0.268
Male	0.45	0.46	0.151
Elementary school	0.11	0.11	0.566
Some secondary	0.16	0.17	0.035**
Secondary	0.29	0.29	0.598
College	0.28	0.28	0.705
Postgraduate	0.13	0.12	0.026**
Financials worse	0.45	0.46	0.548
Jobs available	0.92	0.93	0.115
Full-time employed	0.39	0.41	0.188
Part-time employed	0.15	0.14	0.474
Rural	0.74	0.76	0.144
Left-wing	0.30	0.31	0.298
Right-wing	0.41	0.41	0.363
Age	49.18	48.94	0.281
P-value (joint F-test)			.1391
Observations	9733	9675	19234

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A15: Sample Characteristics: TNS and MTurk

	TNS: Mean	MTurk: Mean
Income	62273.92	49100.00
Log Income	10.34	10.56
Age	40.54	34.82
Male	0.49	0.56
Household	2.93	3.58
Hispanic	0.04	0.04
Black	0.08	0.08
White	0.81	0.78
Christian	0.64	0.41
Full-time employed	0.52	0.57
Part-time employed	0.14	0.18
Unemployed	0.10	0.10
At least bachelor	0.48	0.47
Born in US	0.95	0.95
Worries about immigrants	2.79	2.80
Belief English: Prior	36.16	31.36
Belief Unemployed: Prior	23.28	20.16
Belief Share Immigrants: Prior	33.70	22.35
Belief Share Illegal Immigrants: Prior	24.42	13.74
Belief Crime: Prior	17.76	12.22
Democrat	0.45	0.58
Observations	1193	800

Table A16: Balance Table: TNS

	A: Treatment Group	B: Control Group	P-value (A-B)
Main Experiment TNS			
Log Income	10.33	10.35	0.860
Age	40.77	40.30	0.541
Male	0.49	0.49	0.978
Household Size	2.87	2.98	0.201
Hispanic	0.04	0.05	0.763
Black	0.07	0.08	0.435
White	0.83	0.79	0.096*
Christian	0.64	0.64	0.908
Full-time employed	0.52	0.52	0.928
Part-time employed	0.15	0.13	0.383
Unemployed	0.09	0.10	0.607
At least bachelor	0.49	0.48	0.748
Born US	0.95	0.94	0.781
Worry about immigration	2.77	2.81	0.469
Belief English: Prior	36.03	36.28	0.871
Belief Unemployed: Prior	23.59	22.97	0.649
Belief Share Immigrants: Prior	33.62	33.78	0.900
Belief Share Illegal Immigrants: Prior	24.47	24.38	0.943
Belief Crime: Prior	17.21	18.31	0.389
Democrat	0.45	0.45	0.938
Observations	598	595	
P-value (Joint F-Test)			0.8861

We present the balance test for our sample from TNS. In the joint F-test, we regress the treatment indicator on the complete set of covariates and then test whether the covariates are jointly different from zero. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A17: Balance Table: MTurk

	A: Treatment Group	B: Control Group	P-value (A-B)
Panel A: Main Experiment MTurk			
Log Income	10.56	10.56	0.879
Age	35.23	34.38	0.275
Male	0.59	0.53	0.110
Household Size	3.63	3.54	0.382
Hispanic	0.04	0.03	0.657
Black	0.06	0.09	0.103
White	0.79	0.77	0.554
Christian	0.43	0.40	0.405
Full-time Employed	0.58	0.57	0.634
Part-time Employed	0.18	0.18	0.981
Unemployed	0.08	0.13	0.015**
Number of HITS	22512	19488	0.241
At least bachelor degree	0.45	0.48	0.381
Born in the US	0.95	0.94	0.534
Worried about immigration	2.75	2.83	0.201
Belief Cannot Speak English: Prior	32.59	30.59	0.185
Belief Unemployed: Prior	22.20	18.23	0.003***
Belief Share immigrants: Prior	21.90	23.32	0.204
Belief Share illegal immigrants: Prior	13.80	13.78	0.986
Belief Crime: Prior	12.78	11.88	0.365
Democrat	0.57	0.58	0.639
P-value (Joint F-Test)			0.09*
Observations	417	395	812
Panel B: Follow-up Experiment			
Log Income	10.49	10.51	0.878
Age	35.48	34.80	0.436
Male	0.59	0.51	0.034**
Household size	3.51	3.51	0.948
Hispanic	0.04	0.03	0.606
Black	0.05	0.08	0.103
White	0.79	0.78	0.941
Christian	0.41	0.41	0.981
Full-time employed	0.58	0.57	0.848
Part-time employed	0.18	0.19	0.816
Unemployed	0.08	0.11	0.112
Number of Hits completed	21757	19451	0.388
At least bachelor	0.46	0.51	0.217
Born in the US	0.94	0.94	0.898
Worried about immigration	2.78	2.82	0.573
Belief English: Prior	31.92	29.75	0.181
Belief Unemployed: Prior	21.11	18.48	0.070*
Belief Share Immigrants: Prior	20.83	22.80	0.095*
Belief Share Illegal Immigrants: Prior	13.25	13.31	0.962
Belief Crime: Prior	12.06	11.54	0.606
Democrat	0.58	0.59	0.902
Observations	355	342	697
P-value (Joint F-Test)			0.23

In Panel A we present our balance test from our main MTurk experiment, while in Panel B we show the balance test for the sample of the follow-up experiment on MTurk. In the joint F-test, we regress the treatment indicator on the complete set of covariates and then test whether the covariates are jointly different from zero. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A18: Determinants of biases in beliefs: TNS sample

	(1)	(2)	(3)	(4)	(5)	(6)
	Size of Bias in Beliefs about immigrants					
	Crime	No English	Unemployed	Share Immigrants	Share Illegal Immigrants	Index
Share of Immigrants at respondent's zip code	0.160*** (0.056)	0.111 (0.068)	0.134** (0.061)	0.243*** (0.057)	0.261*** (0.057)	0.008*** (0.002)
State: share of Immigrants who do not speak English	-0.102 (0.235)	0.364 (0.283)	-0.153 (0.256)	0.037 (0.241)	0.150 (0.241)	0.002 (0.009)
State: share of Immigrants who are unemployed	1.719 (1.217)	-0.389 (1.467)	1.776 (1.323)	1.821 (1.247)	1.219 (1.247)	0.055 (0.044)
Fox News	2.911* (1.667)	4.501** (2.011)	2.860 (1.813)	1.472 (1.708)	1.912 (1.708)	0.116* (0.060)
Republican	0.899 (1.473)	3.219* (1.777)	1.848 (1.602)	0.778 (1.510)	0.083 (1.509)	0.057 (0.053)
Christian	2.825** (1.411)	2.905* (1.702)	1.639 (1.535)	3.999*** (1.446)	2.701* (1.446)	0.122** (0.051)
At least bachelor	-1.549 (1.389)	-4.623*** (1.675)	0.860 (1.510)	-4.203*** (1.423)	-5.538*** (1.423)	-0.130*** (0.050)
Log income	0.197 (0.301)	-0.036 (0.363)	0.384 (0.327)	0.145 (0.308)	-0.023 (0.308)	0.006 (0.011)
Age	-0.047 (0.352)	-0.198 (0.425)	-0.377 (0.383)	0.207 (0.361)	0.296 (0.361)	-0.001 (0.013)
Age Squared	-0.004 (0.004)	0.000 (0.005)	0.002 (0.005)	-0.007 (0.004)	-0.007* (0.004)	-0.000 (0.000)
Male	2.437* (1.323)	-2.610 (1.595)	1.043 (1.438)	-3.870*** (1.355)	-3.047** (1.355)	-0.051 (0.048)
Hispanic	-3.816 (6.765)	-0.245 (8.157)	-1.147 (7.355)	-3.468 (6.931)	0.063 (6.930)	-0.077 (0.245)
Asian	3.775 (6.801)	7.697 (8.201)	12.900* (7.395)	7.564 (6.968)	8.473 (6.967)	0.346 (0.246)
Black	2.998 (6.436)	-3.340 (7.761)	3.817 (6.997)	-0.273 (6.594)	8.946 (6.593)	0.112 (0.233)
White	0.486 (6.050)	0.925 (7.295)	0.995 (6.578)	0.166 (6.199)	3.469 (6.198)	0.053 (0.219)
Unemployed	-5.542** (2.239)	-5.982** (2.700)	-2.367 (2.435)	-2.229 (2.294)	-3.472 (2.294)	-0.168** (0.081)
Born U.S.	1.100 (3.328)	5.739 (4.013)	5.049 (3.619)	-7.045** (3.410)	1.791 (3.409)	0.050 (0.121)
<i>N</i>	1131	1131	1131	1131	1131	1131
<i>R</i> ²	0.073	0.038	0.048	0.097	0.087	0.083

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A19: Determinants of biases in beliefs: MTurk

	(1)	(2)	(3)	(4)	(5)	(6)
	Size of Biases in Beliefs about immigrants					
	Crime	No English	Unemployed	Share Immigrants	Share Illegal Immigrants	Index
Share of immigrants at respondent's zip code	-0.019 (0.047)	0.018 (0.074)	-0.083 (0.067)	0.123** (0.053)	0.049 (0.049)	0.001 (0.003)
State: share of Immigrants who do not speak English	-0.095 (0.179)	-0.248 (0.282)	-0.148 (0.256)	-0.159 (0.206)	0.198 (0.187)	-0.005 (0.010)
State: share of Immigrants who are unemployed	2.219** (0.950)	4.422*** (1.492)	4.181*** (1.355)	1.848* (1.078)	0.873 (0.994)	0.166*** (0.053)
Fox News	3.683** (1.539)	2.773 (2.409)	1.934 (2.192)	5.346*** (1.742)	4.954*** (1.603)	0.274*** (0.086)
Republican	1.155 (1.330)	3.496* (2.088)	5.584*** (1.897)	2.068 (1.507)	2.319* (1.391)	0.174** (0.075)
Christian	3.215*** (1.079)	3.853** (1.697)	3.189** (1.541)	4.662*** (1.222)	4.526*** (1.125)	0.265*** (0.060)
At least bachelor	-1.845* (1.025)	-1.256 (1.610)	-1.586 (1.461)	-3.822*** (1.158)	-3.654*** (1.068)	-0.171*** (0.057)
Log income	-1.247* (0.649)	0.201 (1.019)	-0.681 (0.932)	-1.663** (0.740)	-2.669*** (0.680)	-0.100*** (0.036)
Age	-0.669** (0.277)	-0.308 (0.436)	-0.301 (0.397)	-0.527* (0.314)	-0.468 (0.289)	-0.030* (0.016)
Age Squared	0.005 (0.003)	0.003 (0.005)	0.002 (0.005)	0.005 (0.004)	0.003 (0.003)	0.000 (0.000)
Male	-0.372 (1.000)	-1.459 (1.578)	0.006 (1.428)	-2.711** (1.137)	-2.860*** (1.047)	-0.104* (0.056)
Hispanic	-6.651** (3.027)	-7.033 (4.780)	-1.937 (4.387)	-3.121 (3.475)	3.658 (3.167)	-0.216 (0.170)
asian	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Black	-0.019 (2.424)	-1.412 (3.829)	0.591 (3.453)	-2.303 (2.754)	2.861 (2.527)	0.002 (0.136)
White	-3.480* (1.813)	-2.651 (2.872)	-3.184 (2.594)	-4.249** (2.067)	-0.645 (1.897)	-0.207** (0.102)
Unemployed	-1.619 (1.603)	-2.333 (2.537)	-0.308 (2.291)	0.888 (1.831)	0.758 (1.678)	-0.032 (0.090)
Born US	-4.441* (2.425)	0.613 (3.823)	-0.378 (3.489)	-7.857*** (2.788)	-9.935*** (2.537)	-0.383*** (0.136)
<i>N</i>	765	765	767	761	768	771
<i>R</i> ²	0.100	0.040	0.047	0.127	0.160	0.150

Standard errors in parentheses
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A20: Bias about share of immigrants: Transatlantic Trends

	(1)	(2)	(2)
	Size of Bias in Beliefs about share of immigrants		
High Education	-4.407*** (0.755)	-6.102*** (0.776)	-6.325** (2.487)
Right-wing	4.092*** (0.703)	2.604*** (0.693)	-0.944 (2.460)
Age	-0.062 (0.115)	-0.010 (0.112)	0.219 (0.404)
Age squared	0.000 (0.001)	-0.000 (0.001)	-0.002 (0.005)
Full-time employed	-2.023** (0.853)	-2.156*** (0.833)	4.978 (3.050)
Part-time employed	-1.361 (1.119)	-1.471 (1.099)	-1.971 (3.900)
Male	-8.712*** (0.697)	-8.648*** (0.676)	-8.581*** (2.475)
Immigrant	1.370 (2.415)	0.282 (2.341)	-2.153 (6.581)
Germany		-5.155*** (1.261)	
France		-1.863 (1.266)	
Spain		-6.176*** (1.305)	
UK		-0.252 (1.267)	
US		10.091*** (1.283)	
Canada		-0.096 (1.292)	
Sample	All Countries	All Countries	US only
Country fixed effects	N	Y	N
N	3014	3014	441
R^2	0.086	0.148	0.071

Standard errors in parentheses. Omitted country in column (2) is Italy. Columns (1) and (2) show the results from all countries. Column (3) presents results from the US sample. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A21: Stability of Treatment Effects over Time

	(1)	(2)	(3)
	Opinions 1	Policy Preferences	Opinions 2
A: Main Experiment			
Treatment	0.387*** (0.044)	0.123*** (0.038)	0.111** (0.047)
<i>N</i>	800	800	800
B: Follow-up experiment			
Treatment	0.246*** (0.051)	0.139*** (0.048)	0.136*** (0.051)
<i>N</i>	699	698	698
P-value (Equality of A and B)	0.001***	0.584	0.652
Controls	Y	Y	Y

The definition of the indices is in Appendix C. All outcome variables are normalized by the mean and the standard deviation of the variable for the control group (Kling et al., 2007). In other words, the coefficients represent the effect size in terms of standard deviations away from the mean. We include the same list of controls as in Table 3. Robust standard errors are displayed in parentheses, while the p-values adjusted for a false discovery rate of five percent are presented in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A22: Stability of Preferences over Time

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	There are not too many Legal Imm	Illegal Imm	Increase the number of Incoming Legal Imm	Green cards	Decrease Budget to deport	Facilitate Legalization	Not Deport Illegals	Index Policy Preference
Correlation	0.754	0.827	0.705	0.803	0.701	0.764	0.812	0.918
<i>N</i>	342	342	342	342	342	342	342	342

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Beliefs about immigrants' characteristics Crime	Unemployment	English	Index Belief	No positive effect of Removing all illegals	Immigrants produce more advantages	Index Opinions
Correlation	0.723	0.578	0.651	0.769	0.724	0.757	0.822
<i>N</i>	342	342	342	342	342	342	342

This table summarizes the temporal correlation of people's attitude towards immigrants, their opinions about immigrants as well as their policy preferences regarding immigration, between the main experiment and the follow-up. In other words, we correlate the responses from our main experiment and those from the follow-up experiment four weeks later. We only consider the individuals in the control group.

B Families of outcomes: Construction of indices

First, we group our outcome measures into different families of outcomes, and create an index for each family. We use the method described in Anderson (2008) to create the various indices.⁴⁷

We define the families of outcomes as follows:

- **Opinions about Immigrants 1:** We compute an index of the beliefs that people have regarding immigrants.
 - Immigrants are more likely to commit crimes than U.S. citizens. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - Immigrants are more likely to be unemployed than U.S. citizens. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - Immigrants generally learn English within a reasonable amount of time. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
- **Policy Preferences:** We compute an index of people’s policy preferences regarding immigration.
 - There are currently too many immigrants in the U.S.
 - There are currently too many illegal immigrants in the U.S. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - Do you think the number of legal immigrants coming to the United States each year should be increased, reduced or remain the same? [It should be increased a lot, It should be increased a little, It should remain as it is, it should be decreased a little, it should be decreased a lot.]
 - Do you think that the number of green cards available for immigrants coming to the United States each year should be increased, reduced or remain the same? [It should be increased a lot, It should be increased a little, It should remain as it is, it should be decreased a little, it should be decreased a lot.]

⁴⁷We recode the variables such that high values correspond to positive attitudes towards immigrants (this is true for all outcomes except for people’s willingness to donate money to a charity and their willingness to sign a positive petition). We normalize these variables, i.e. we subtract the mean of the control group and divide them by the standard deviation of the control group for each of the outcome variables. Then, we calculate the covariances between the variables part of the same family of outcomes and use the inverse of the covariance matrix in order to weight the outcomes. For more details see Anderson (2008).

- The government should devote a larger share of its budget to find illegal immigrants, and to deport them. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - Congress should pass a bill to give some illegal immigrants living in the U.S. a path to legal status. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - Which comes closer to your view about what government policy should be toward illegal immigrants currently residing in the United States? [Deport all illegal immigrants back to their home country; allow illegal immigrants to remain in the United States in order to work, but only for a limited amount of time; allow illegal immigrants to remain in the United States and become U.S. citizens, but only if they meet certain requirements over a period of time.]
- **Opinion on Immigrants 2:** We compute an index of people’s opinion on immigrants.
 - Suppose U.S. authorities were able to remove almost all illegal immigrants from the U.S. What effect do you think this would have on the U.S. economy? [Very positive effect, Somewhat positive effect, Neither positive nor negative effect, Somewhat negative effect, Very negative effect]
 - Over the last 10 years, immigrants have produced more disadvantages than advantages for the U.S. as a whole. [Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
 - **Petition:** We compute an index of people’s willingness to sign a petition:
 - **Intention to sign:** This variable takes value one for individuals saying that they want to sign the petition.
 - **Self-reported signing:** This variable takes value one for individuals saying that they did sign the petition.