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Economic well-being and anti-Semitic, xenophobic, and racist attitudes in Germany

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Abstract The fear and hatred of others who are different has economic consequences because such feelings are likely to translate into discrimination in labor, credit, housing, and other markets. The implications range from earnings inequality to intergenerational mobility. Using German data from 1996 and 2006, we analyze the determinants of racist and xenophobic feelings towards foreigners in general, and against specific groups such as Italians, Turks, and Asylum Seekers. We also analyze racist and anti-Semitic feelings towards German citizens who differ in ethnicity (Aussiedler from Eastern Europe) or in religion (German Jews). Individuals' perceived (or actual) economic well-being is negatively related to the strength of these feelings. Education, and having contact with foreigners mitigate racist, anti-Semitic and xenophobic feelings. People who live in states which had provided above-median support of the Nazi party in the 1928 elections have stronger anti-Semitic feelings today. The results are not gender-driven. They are not an artifact of economic conditions triggering feelings about job priority for German males, and they are not fully driven by fears about foreigners taking away jobs. The results of the paper are consistent with the model of Glaeser (Q J Econ 120(1):45–86, 2005) on hate, and with that of Akerlof and Kranton (Q J Econ 105(3):715–753, 2000; J Econ Perspect 19(1):9–32, 2005) on identity in the utility function.

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1 Introduction

Different societies around the world have different values. For example, attitudes towards the importance of the family, opinions on the extent to which children should respect their parents, and the significance of family ties vary substantially across countries. Such cultural differences have an influence on economic behavior. Alesina and Giuliano (2010) show that labor force participation of women, the propensity to live with parents, geographic mobility, and family size of immigrants in the Unites States are influenced by the strength of family ties in their country of origin, and that this influence persists even among the second generation of immigrants. Similarly, Fernández and Fogli (2009) show that work and fertility decisions of second-generation American women are influenced by their cultural attitudes, approximated by the past female labor force participation rate and the fertility rate of the woman's country of ancestry. Luttmer and Singhal (2011) report a strong positive relationship between immigrants' own preferences for income redistribution and the average preference for redistribution of the citizens of their country of birth. Mocan and Pogorelova (2015) show that culture of leisure in the country of origin has an impact of second-generation immigrants' labor supply.

A dimension of culture, which is widely employed in current research, is the extent to which one group of people trust or distrust others who are "different." Guiso et al. (2009) report the existence of substantial differences in the level of trust among the residents of various European countries. They show that cultural biases that determine the lack of bilateral trust between countries have a significant impact on the level of trade between countries, on portfolio investment and on foreign direct investment. Bottazzi et al. (2011) find that the extent of trust among different nations has an impact on investment decisions. Helliwell et al. (2014) find that social trust and social norms in the source country have a substantial impact on immigrants' level of trust in the destination country.

Attitudes of the members of a given society towards people who are different from them may be shaped by a variety of factors, including economic and military conflicts, interactions with other societies in the form of trade and travel, similarities in religion and language, as well as historical accidents (e.g. Alesina et al. 2013). Attitudes, such as trust, which are part of the fabric of culture, are assumed to be rather stable and not to change quickly. Guiso et al. (2006) and Luttmer and Singhal (2011) define culture as "those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation." Yet, beliefs and attitudes, even those that are deeply ingrained in human psyche, may be more malleable than presumed. For example, Mocan (2013) shows that the extent of vengeful feelings of individuals is impacted by economic and social circumstances of the country in which the live. Thus, it is possible that even very strong beliefs and

attitudes, such as those that are racist or xenophobic, may be influenced by economic circumstances.

Research that focuses on trust/mistrust as a dimension of culture measures trust placed in others with questions such as "I would like to ask you a question about how much trust you have in people from [country X]." In this paper we measure sentiments that are much stronger than trust/mistrust. Specifically, we analyze the determinants of Germans' xenophobic, anti-Semitic and racist feelings, measured by their reactions towards "others" who live in Germany. In this case "others" represent either Jewish people, ethnic Germans from Eastern Europe, or foreigners such as Italians and Turks who reside in Germany. We analyze responses to such statements as "Because of their behavior, Jews are not entirely innocent of their persecution," "Foreigners living in Germany should choose their spouses among people of their own nationality," "It would be unpleasant to have an Italian person as a neighbor." We use the answers to these and similar questions to investigate the extent to which these anti-Semitic, xenophobic or racist attitudes are impacted by personal characteristics and economic well-being of the respondents. The details of the questions are given in the data section.

Some related research exists that investigates the extent to which economic conditions alter individuals' support for extreme political views. For example, parents' unemployment status is shown to have an impact on their offspring's propensity to support extreme right-wing parties (Siedler 2011). On the other hand, evidence is mixed on the impact of aggregate economic conditions on hate crime. Hovland and Sears (1940) reported a negative association between lynchings in 14 southern states of the United States and several indicators of economic conditions, which is confirmed by Hepworth and West (1988), although Green, Glaser and Rich (1998) could not find a significant relationship between violence directed to minorities and economic conditions. Krueger and Pischke (1997) could not detect a relationship between unemployment, wages and anti-foreigner crime in Germany, while Falk et al. (2011) find that the occurrence of right-wing extremist crimes takes place more frequently when unemployment is high in Germany.

A related literature investigates the determinants of attitudes towards migration. Dustmann and Preston (2007) analyze the extent to which attitudes towards immigration are influenced by the labor market, welfare benefit spending, and cultural and racial prejudice in the U.K; and Card et al. (2012) conduct a similar analysis of preferences over immigration using the 2002 European Social Survey. Gang et al. (2013) use data from the 1988, 2003 and 2008 waves of the Eurobarometer survey and estimate regressions to explain the probability of having anti-immigration sentiments. They find that anti-immigration sentiment is negatively influenced by education, but that all of the difference in anti-immigration attitudes between 1988 and 2003 can be attributed to unexplained variation.[1] Fertig and Schmidt (2011) use data from the 1996 German General Social Survey and use 42 questions related to attitudes towards foreigners and religious minorities. They

[1] However, their explanatory variables include only age, gender, education, marital status and labor force status and the question asked in the 1988 that defined ant-immigrant attitude is completely different from those in the 2003 and 2008 surveys.

report the mean of the estimated coefficients of explanatory variables, averaged across regressions and conclude that more education has a statistically significant impact on having positive attitudes towards foreigners. Similarly, Facchini and Mayda (2009) find that high income people oppose (support) immigration if immigrants are unskilled (skilled) as immigrants are considered as a net burden (contributor) to the welfare state. Mayda (2006) reports that skilled individuals are more (less) likely to be pro-immigration if the relative skill composition of natives to immigrants is high (low).[2]

In this paper we investigate the attitudes of Germans towards foreigners, towards other Germans who differ in religion (German Jews), and in ethnicity (Aussiedler-Germans from Eastern Europe). As described in detail below, the specific questions we employ allow us to gauge the extent of racist, anti-Semitic, and xenophobic feelings. There might be some overlap in these measures, (e.g. anti-Semitism is also racism). Also, interpretations might differ regarding whether a particular question is more directly related to racism or xenophobia, but this is not an important issue because the results are extremely consistent regardless of the question analyzed.

As we explain in the data section, the questions we use *do not* refer to foreigners who reside illegally in Germany. Unlike some other countries, illegal immigration is not a wide-spread phenomenon in Germany. It is estimated that illegal foreigners constitute less than 0.5 % of the general population (Database on Irregular Immigration 2013). This is primarily because Germany does not share borders with countries that are vastly different economically. Residents of Germany who are not of German origin are typically former *Gastarbeiter* (guest workers) or the offspring of guest workers, who migrated to Germany legally under official arrangements of the German government and the governments of referral countries. Alternatively, they are citizens of European Union countries. Thus, both of these groups hold work and residency permits and qualify for almost all rights as native Germans, ranging from certain political rights to retirement benefits. Therefore, questions analyzed in the paper refer to groups of people who are in Germany legally, but whose cultural heritage is of another country, such as Italians or Turks (we also analyze attitudes towards Asylum Seekers, whose legal status is different from other foreigners.) Importantly, some of the questions refer to Germans (*non-foreigners*) who are either religious or ethnic minorities.

1.1 Theoretical underpinnings

Glaeser (2005) provides a theoretical framework to analyze the political economy of hate. In his model, the supply of hate (in a variety of forms such as anti-Semitism or hatred of Blacks and other minorities) is produced by politicians in the form of hate-creating stories. Hate is supplied against economically disadvantaged minorities by politicians with anti-distribution platforms and it is spread against rich minorities by pro-redistribution politicians. The willingness of individuals to accept these stories,

[2] Relatedly, Mayda and Rodrik (2005) analyze why some people favor protectionist trade policies while others are pro-trade. They find that pro-trade preferences are correlated with individuals' human capital and relative economic status.

propagated by politicians, as fact is the demand-side of the hatred. Costs of obtaining information about the hated group and the private benefit of that information will impact the demand. Two predictions emerge from this model. First, education should reduce hate and racism if it is easier for the more educated to obtain information and to distinguish between the correct and incorrect information about the hate-propagated groups. Second, having contact with the hated groups should reduce costs of acquiring information and therefore should result in a reduction in racist feelings. We are able to test both of these predictions.

Akerlof and Kranton (2000) introduce the notion of individual identity as a variable in determining individual behavior. They propose a variation to the neoclassical utility function which includes identity as a component. Identity (or self-image), consistent with social psychology, is defined as belonging to a social category such as race and gender. Everyone in the population is assigned to categories. These identity categories are associated with behavioral prescriptions describing the ideals for each category, ranging from appropriate behavior to physical appearance. An individual's identity depends on the level of consistency between the prescribed level for that category and the person's actions, and identity has a positive impact on utility. For example, consider two identity categories as "Native" and "Foreigner," where the former has higher status than the latter. These categories have prescriptions that include a variety of dimensions, including how to interact with the members of other categories. A prescription for the Native category could be an expectation to not intermingle with foreigners. If somebody who is in the Native category does not interact with foreigners, this constitutes a match between his attributes and the prescribed behavior for his category, and it would generate an increase in identity and therefore in utility. On the other hand, if the Native interacts with foreigners, this would produce a decline in identity and a decrease in utility. In this model individuals choose actions to maximize utility, and actions determine identities. Akerlof and Kranton (2000) use this model to gain insights into gender discrimination, social exclusion and poverty.

In a different version of the model, Akerlof and Kranton (2005) formulate a utility function which explicitly includes income in addition to the match quality between the person's identity and the prescribed level for that category. In this model, income and identity are substitutes, indicating that a higher level of income allows the individual to deviate from the prescribed level of behavior. That is, a loss in utility due to the decline in identity (because of the deviation from prescribed behavior) can be compensated by higher levels of income. This model provides a theoretical rationale of the relationship between higher economic well-being and lower levels of xenophobia and racism. That is, even if one aspect of the identity of being "native" is the rejection of "foreigners," the decline in identity and loss of utility generated by disregarding this particular prescription can be afforded when the individual's utility is increased due to higher economic well-being.[3]

Thus, the specific hypotheses we test are that an increase in education, more contact with foreigners, and an improvement in economic circumstances should be negatively related to the extent of xenophobic, racist and anti-Semitic feelings.

[3] Applications of this concept include Humlum et al. (2012) and Antecol and Cobb-Clark (2008).

1.2 Summary of the findings

We analyze German General Social Survey data. In addition to personal attributes such as age, gender, education, labor market activity and location of residence, the data set contains questions on the respondents' evaluation of their own economic situation, and how they rate the current economic conditions in Germany. We find that, xenophobic, anti-Semitic and racist feelings are tempered when people believe that their own economic situation is in good shape, and these feelings are magnified when people think that their personal economic situation is bad. The same relationship exists for beliefs about national economic conditions. These results suggest that economic well-being of individuals influences how they perceive others who are "different" from them. More specifically, the negative/intolerant/prejudiced feelings about minorities are mitigated if economic well-being is improved.

Consistent with the prediction of Glaeser (2005) we find that more educated Germans have weaker xenophobic, anti-Semitic or racist feelings. The same is true for those who have contact with foreigners in the workplace, or through family or friends. As noted by Glaeser (2005, p. 56), it is possible that the more educated may be better in hiding racist feelings. Similarly, caution should be exercised in the interpretation of the impact of contact with foreigners because interaction with foreigners may itself be determined by the extent of racist and xenophobic feelings of the person. That is, racists may avoid contacts with foreigners and minorities, while non-racists may choose to have interactions with them. However, we show that the impact of exposure to foreigners is not sensitive to inclusion/exclusion of self-employed people from the analysis, who can clearly pick-and-choose the individuals with whom they interact in the workplace.

Along the same lines of most recent research that has reported persistence of cultural traits, Voigtlaender and Voth (2012a) find that the extent of anti-Semitism 600 years ago, manifested by persecutions and executions of Jews during the plague-era, predicts the support of the Nazi Party in the 1928 elections in Germany. This suggests that anti-Semitic sentiments continued to exist in local areas for centuries. We use this idea and include in some of our specifications a measure of local support of the Nazi Party in 1928. We find that people who reside in states that have provided above-median support for the Nazi Party in 1928 are more anti-Semitic today in comparison to those who live elsewhere.[4] This provides evidence that local cultural traits in terms of anti-Semitism persisted over the last 80 years. This persistence result is consistent with that of Voigtlaender and Voth (2012b) who investigate the extent to which anti-Semitic attitudes today are impacted by support for anti-Semitic parties between 1890 and 1933 and how various types of de-Nazification policies implemented under different occupying forces after WWII impacted anti-Semitism in Germany.

We show that the results are not driven by men; that is, very similar results are obtained by analyzing samples of just men or women. Nonetheless, it could be the

[4] As detailed later, support of the Nazi Party in 1928 is not correlated with the level of development in those areas today; that is, areas that produced more votes for the anti-Semitic Nazi platform in 1928 are not systematically different from other areas today in terms of economic development or level of income.

case that the relationship between economic condition and racist, anti-Semitic and xenophobic feelings is a reflection of men's concern about economic conditions and their beliefs about "men having priority in the job market." If this is true, men's frustration about economic conditions would manifest itself in negative attitudes toward all others competing for jobs, including women. The survey includes questions gauging attitudes on women's involvement in the labor market and on their household responsibilities. These include agreements/disagreements with statements such as "A married woman should give up working if jobs are scarce and husband can provide for family," and "It is better if the husband works and wife stays at home tending to household and children." Analyzing men's responses to such statements, we find that economic conditions are not related to men's attitudes towards women's attachment to the labor market. This indicates that perceptions about economic well-being do not trigger across-the-board negative reactions stemming from job insecurity.

Racist, xenophobic and anti-Semitic attitudes towards "others" impact access to equal opportunity and they have economic implications. For example, such attitudes are likely to have discriminatory effects in access to education and housing. They also negatively impact the economic well-being of the discriminated person in a number of markets, ranging from the labor market to the credit market. Economic research has demonstrated substantial persistence in inter-generational transmission of income, wealth and human capital. To the extent that racist, xenophobic and anti-Semitic feelings result in discrimination, these feelings have also implications for future generations. Thus, legal protection of designated minorities in housing, labor and credit markets from arbitrary and capricious acts of landlords, employers and lenders could have both short-run and long-run implications in economic and social well-being. The results of this paper indicate that legal protection of minorities from these adverse effects and enforcement of laws designed for such protection are even more important during periods of economic uncertainty when the majority feels that its economic well-being is in jeopardy.

In Section 2 we present the data. Section 3 includes the empirical results, and Section 4 discusses the robustness. Section 5 is the conclusion.

2 Data

Data used in this study are taken from the German General Social Survey (ALLBUS), which consists of repeated cross sections that are representative of the resident adult population in Germany. The survey is administered every other year. We exclude non-German citizens from our sample. In addition, we only retain those individuals who were born in Germany and whose mother and father were also born in Germany.[5] Because parents' migration status is only available in 1996 and 2006,

[5] Although it is not expected for a Jewish person to have a distaste for other Jews, or an ethnic German (Aussiedler) to have a distaste for ethnic Germans, there is no reason to rule out the possibility that a Jewish person or an ethnic German may have a negative feelings for other minority groups. Therefore, the sample we use in the regressions include German citizens who are Jewish, and those who are ethnic minorities.

we utilize these particular waves. We make use of several questions regarding the attitudes of German citizens towards Jews and ethnic Germans from Eastern Europe, as well as towards foreigners who reside in Germany, such as those with Italian or Turkish heritage. Each survey year used in the analyses contains about 3000 observations.

The first variable in Table 1, *Foreigners Should Marry Their Own,* is based on the response to the statement "Foreigners living in Germany should choose their spouses among people of their own nationality." Potential answers range from 1: Strongly disagree, to 7: Strongly agree. "Foreigners Should Marry Their Own" takes the value of 1 if the respondent agreed or strongly agreed with this statement (options 5, 6 or 7). To indicate that somebody should not marry anyone outside their own nationality is an indication of racism. Thus, this variable is classified as an indicator of racist feelings. Table 1 shows that about 20 % of the sample thinks that foreigners should marry people of their own nationality. The variable titled *No Politics for Foreigners* takes the value of one if the respondent agrees or strongly agrees with the statement that "Foreigners living in Germany should be barred from any kind of political activity." While German law does not allow non-German citizens to vote in federal or state elections or to be elected for state or federal office, non-Germans who are citizens of the European Union countries (such as Italy, Greece, Bulgaria, Romania, Poland and Spain) have the right to vote in local elections (city and community elections) and they are eligible to run for office at the local level. Furthermore, any foreigner may be appointed to serve on local committees to represent the interests of a group. They may also participate in community initiatives, labor and trade unions, schools, etc.[6] Thus, the phrase "any kind of political activity" consist of more than just the right to vote or run for election. Political activity also includes actions such as participation in demonstrations, political action groups (Bürgerinitiativen) etc. Because the question is covering "any political activity", it will be understood to include all of these activities.[7] Thus, despite the fact that German law *allows for* political participation of foreigners at the local level, trying to prohibit a group of people from participating in *any kind of political activity* is an attempt to disfranchise that target group economically and socially.

Another indicator of racism is the agreement with the statement that *it is okay for a restaurant proprietor to refuse to serve foreigners*. Similarly, if the respondent indicated that *it is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth*, we classified this response as an indicator of racist feelings.

The respondents were also given the following statement: "Ethnic Germans from Eastern Europe (Aussiedler) *should have* the same rights as other Germans in every respect. This group of individuals are of German descent who have the right to return to Germany and claim German citizenship. Primarily, the term refers to German citizens (and their descendants) who remained in the former German

[6] (German Federal Ministry of the Interiors web site, accessed on Dec 28, 2013: http://www.bmi.bund.de/DE/Themen/Gesellschaft-Verfassung/Staatliche-Ordnung/Wahlrecht/Auslaenderwahlrecht/auslaenderwahlrecht_node.html).

[7] There is, in fact, a different question in ALLBUS that asks whether foreigners living in Germany should have the right to vote in municipal elections, which we did not use in the paper.

Table 1 Descriptive statistics of outcome variables

Variable	Details	Category	Mean	S.D.	N
Foreigners should marry their own	"Foreigners living in Germany should choose their spouses among people of their own nationality."	Racism	0.203	0.402	5210
No politics for foreigners	"Foreigners living in Germany should be barred from any kind of political activity"	Racism	0.319	0.466	5194
No equal rights for Aussiedler	"Ethnic Germans from Eastern Europe should not have the same rights as other Germans in every respect"	Racism	0.294	0.456	5164
Okay to discriminate in restaurants	"It is okay for a restaurant proprietor to refuse to serve foreigners"	Racism	0.113	0.316	5138
Okay to forbid teen a Turkish friend	"It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth"	Racism	0.341	0.474	5090
No equal rights for Jews	"Jewish people living in Germany should not have the same rights as other Germans in every respect."	Anti-Semitism	0.225	0.418	5013
Unpleasant neighbor—Jewish	"It would be unpleasant to have a Jewish person as a neighbor"	Anti-Semitism	0.121	0.327	5099
Unpleasant marriage—Jewish	"It would be unpleasant if a Jewish person married into my family"	Anti-Semitism	0.253	0.435	5069
Jews are guilty of their persecution	"Due to their behavior, Jews are not entirely innocent of their persecution"	Anti-Semitism	0.170	0.376	4890
Jews take advantage of history	"Many Jews try to profit today from the history of the Third Reich, and they try to make Germans pay for it"	Anti-Semitism	0.461	0.499	4971
Jews have too much influence	"Jews have too much influence in the world"	Anti-Semitism	0.262	0.440	4919
Unpleasant neighbor—Aussiedler	"It would be unpleasant to have an ethnic German from Eastern Europe as a neighbor"	Xenophobia	0.236	0.425	5185
Unpleasant neighbor—Turkish	"It would be unpleasant to have a Turkish person as a neighbor"	Xenophobia	0.397	0.489	5195
Unpleasant neighbor—Italian	"It would be unpleasant to have an Italian person as a neighbor"	Xenophobia	0.073	0.260	5191
Unpleasant neighbor—Asylum Seeker	"It would be unpleasant to have an Asylum seeker as a neighbor"	Xenophobia	0.493	0.500	5168
Unpleasant marriage—Aussiedler	"It would be unpleasant if an ethnic German from Eastern Europe married into my family"	Xenophobia	0.319	0.466	5164
Unpleasant marriage—Turkish	"It would be unpleasant if a Turkish person married into my family"	Xenophobia	0.549	0.498	5169

Table 1 continued

Variable	Details	Category	Mean	S.D.	N
Unpleasant marriage—Italian	"It would be unpleasant if an Italian person married into my family"	Xenophobia	0.172	0.377	5176
Unpleasant marriage—Asylum Seeker	"It would be unpleasant if an Asylum seeker married into my family"	Xenophobia	0.591	0.492	5152
Racism Index	Average of all dummy variables measuring racist attitudes	Racism	0.254	0.254	5229
Anti-Semitism Index	Average of all dummy variables measuring anti-Semitic attitudes	Anti-Semitism	0.250	0.269	5216
Xenophobia Index	Average of all dummy variables measuring xenophobic attitudes	Xenophobia	0.353	0.299	5214
Intense dislike of foreigners	Individual thinks that foreigners should choose to marry people of their own nationality and that any kind of political participation for foreigners should be prohibited		0.121	0.326	5183
Intense dislike of intermarriage	Individual thinks that foreigners should choose to marry people of their own nationality and that a Jew, Turk, Italian, Asylum Seeker, or Aussiedler marrying into their family would be unpleasant		0.051	0.220	5037

See the text for a detailed description of the variables and their measurement

territories east of the Oder-Neisse line after 1945, as well as refugees or expellees (and their descendants) of German ethnic origin who were admitted to the territories of the German Reich as defined by the boundaries existing in 1937.[8] This group includes individuals who may never have lived in Germany. Although some knowledge of the German language is formally required in order to obtain citizenship as an Aussiedler, many Aussiedler do not speak or write German well, and do not use German as their primary language spoken at home (Frick and Wagner 2001). Once again, the alternatives ranged from "strongly disagree" to "strongly agree" on a scale from 1 to 7. If the respondent disagreed with this statement (chose 1, 2 or 3), the variable *No Equal Rights for Aussiedler* takes the value of one. Twenty-nine percent of the sample thinks that these ethnic Germans should *not* have the same rights as other Germans.

The next group of variables listed in Table 1 measures feelings that can be described as anti-Semitism. The first question in this groups asks whether "*Jewish people living in Germany should have the same rights as other Germans in every respect*." Note that "*the Jewish people*" here does not refer to citizens of the state of Israel. Rather, they are Jewish citizens of Germany. To declare that Jewish people

[8] Sometimes a distinction is made between *Aussiedler* and *Spätaussiedler* ("Late Aussiedler"), depending on how soon after World War II the individuals came to present-day Germany. We make no such distinction and refer to all such individuals as "Aussiedler" or "ethnic Germans from Eastern Europe".

should not have the same rights as (non-Jewish) Germans is an indication of anti-Semitism. Table 1 shows that about 23 % of the respondents indicated that German Jews should *not* have the same rights. Other questions in this group are whether *it would be unpleasant to have a Jewish person as neighbor* (12 % of Germans believe so), and *it would be unpleasant if a Jewish person married into the family* (25 % agree).

In addition, each respondent was asked whether or not *because of their behavior, Jews are not entirely innocent of their persecution,* and whether *many Jews try to profit today from the history of the Third Reich, and they try to make Germans pay for it;* and whether *Jews have too much influence in the world*.

Table 1 also summarizes the variables that gauge the extent to which respondents would like to avoid having an ethnic German (Aussiedler), an Italian or a Turk, or an Asylum Seeker as a neighbor, and whether it would be unpleasant if such a person married into their family. Forty-nine percent of Germans think that it would be unpleasant to have an Asylum Seeker as a neighbor. About 40 % think the same for Turks, and 24 % think the same for ethnic Germans from Eastern Europe. Seven percent think that it would be unpleasant to have an Italian neighbor. These negative feelings are even stronger when it comes to the possibility of an Asylum Seeker, a Turk, an ethnic German, a Jewish person, or an Italian being married into the family of the respondent, but the pecking order remains the same.

The bottom section of Table 1 displays the descriptive statistics of the indices of racism, anti-Semitism and Xenophobia, which are the averages of the responses to each individual question in their respective categories. For example racism index is the average of the responses (0 or 1) to the five questions listed at the top of Table 1. We will use these indices as summary outcomes.

One may quibble over whether each particular question posed to the survey respondents is classified under the most appropriate category. For example, we classified the affirmative responses to the statement "it is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth" under the category of racism, while one can argue that it is merely xenophobia. Similarly, if one considers Jews as an ethnic group, rather than having a different religion than Christianity, then derogatory statements about Jews could be considered as racist, instead of anti-Semitic. While we agree that there are no hard-and-fast rules to classify the statements listed in Table 1, this is not an issue because we obtain the same, consistent results for each statement we analyze. In other words, we find the same pattern in the data when we analyze the statements that are clearly racist, clearly xenophobic, clearly anti-Semitic, as well as those that are somewhat in-between categories.

The survey includes questions that ask about perceptions regarding current economic conditions. The respondents were asked "How would you generally rate *your own economic situation*?" They answered on a five-point scale (Very good, good, neutral, bad, very bad). We combined "good" and "very good" under a dichotomous indicator titled "Good Personal Economic Conditions" and we similarly combined "bad" and "very bad" under "Bad Personal Economic Conditions." The respondents were also asked "How would you generally rate the *current economic situation in Germany*?" In the same manner we created

Table 2 Descriptive statistics of demographic variables and local area characteristics

Variable	Details	Mean	Std. Dev.	N
Age	Age of the respondent	47.81	16.85	5229
Married	Dummy variable (Married = 1)	0.616	0.486	5229
Female	Gender dummy variable. Female = 1	0.505	0.500	5229
Education	Highest level of schooling attained			
Minor	No formal education beyond basic secondary school	0.173	0.375	5229
Vocational	Completed apprenticeship	0.501	0.500	5229
Advanced technical	Degree from advance trade or technical school	0.178	0.382	5229
College degree	Individual has a degree from a research university or a university of applied science	0.148	0.355	5229
Religion				
Protestant		0.375	0.484	5229
Catholic		0.264	0.440	5229
No religion/other religion		0.361	0.478	5229
Working	Dummy variable (= 1 if currently working)	0.573	0.495	5229
Household income	Real net monthly household income (1000 s)	2.035	1.196	4106
Personal economic conditions	Answer to the question: "How would you generally rate your own current economic situation?"			
Good		0.451	0.498	5229
Neutral		0.400	0.489	5229
Bad		0.153	0.360	5229
National economic conditions	Answer to the question: "How would you generally rate the current economic situation in Germany?"			
Good		0.123	0.328	5213
Neutral		0.475	0.499	5213
Bad		0.402	0.490	5213
Contact with foreigners	Individual has personal contact with foreigners…			
At work		0.368	0.482	5105
In their own family		0.164	0.370	5213
City size	The size of the city where the respondent lives			
0–49,999		0.375	0.484	5229
50,000–99,999		0.090	0.287	5229
100,000–499,999		0.227	0.419	5229
500,000+		0.308	0.460	5229
Inner city	Dummy (= 1 if the respondent live in the inner city, = 0 if suburb)	0.370	0.483	5229
Type of worker	Worker classification of the individual			
Non-worker	The person is retired, homemaker, a student, etc.	0.470	0.499	5178
Self-employed farmer		0.008	0.086	5178

Table 2 continued

Variable	Details	Mean	Std. Dev.	N
Self-employed Professional		0.009	0.097	5178
Other self-employed		0.050	0.217	5178
Civil servant or military		0.034	0.182	5178
Employee		0.265	0.441	5178
Laborer		0.148	0.355	5178
In training		0.016	0.124	5178
State age group	Share of the state's population in the age group as a proportion of a state's total population			
0–6 years		5.216	1.088	5229
6–18		12.78	2.178	5229
18–25		8.111	0.624	5229
25–30		6.824	1.007	5229
30–50		30.33	0.983	5229
50–65		18.87	0.893	5229
65 plus		17.88	2.639	5229
Percent foreign	Percent of foreigners in state population	7.529	4.332	5229
Nazi State	State-level indicator for whether the Nazi party earned more than the national median percent of votes in the 1928 elections	0.513	0.500	5229
GDP per capita	State-level GDP per capita	23.76	5.835	5229

Respondents were asked to evaluate their personal economic condition and the national economic conditions using a five point scale. We have combined the categories "Good" and "Very Good", as well as "Bad" and "Very Bad". State level variables are taken from "Indikatoren und Karten zur Raum- und Stadtentwicklung (INKAR 2011)" from the Federal Institute for Research on Building, Urban Affairs, and Spatial Development

dichotomous variables "Good National Economic Condition" and "Bad National Economic Condition."

Table 2 shows that about 45 % of the respondents think that their personal economic conditions are good or very good, and 15 % think that their personal economic conditions are bad or very bad. The remainder (40 %) thinks that their personal economic condition is neutral. Regarding the economic conditions in Germany, about 48 % of the respondents think that it is neutral. While 12 % think that economic conditions of the country are good or very good, 40 % think Germany's economic conditions are bad or very bad. These variables that gauge sentiments of personal or national economic conditions move in tandem, but not perfectly so. For example, of those people who reported that their personal economic conditions were good or very good, only 20 % indicated that they felt that Germany's economic condition was good or very good.

The survey contains information on personal characteristics of the respondents, such as age, gender, education, and marital status. Survey administrators have merged information regarding the location of residence of the respondent to local area characteristics. This allows us to control for local area attributes in addition to the personal characteristics of the respondents. These characteristics include such variables as the city size and whether the respondent lives in the inner city. The data set also contains information on whether individuals have contact with foreigners at work or through family and friends. The survey question is: "Do you have personal contact with foreigners living in Germany, at your job [… in your immediate family?]" Thirty-seven percent of the people have contact with foreigners at work and 16 % have contact with foreigners through family.

Religious affiliation is measured by three mutually exclusive categories: *Protestant, Catholic, and No Religion/Other Religion*. About 38 % of the sample is Protestant, and 26 % are Catholic. Less than 2 % are adherents of other religions, and 34 % have declared having no religion.[9] Thus, we have merged these last two groups into *No Religion/Other Religion* category.

There are geographic patterns in religious denomination in Germany. While the South and West of the country are primarily Catholic, the North and central locations tend to be more heavily Protestant. Participation in religion was strongly discouraged in former East Germany and as a result, today most individuals in the eastern states of the country report not having a religion. For example, data from the 2011 German Census show that 62.9 % of individuals from Saarland (located in the West) are Catholic, while only 6.2 % of individuals from Schleswig–Holstein (the northernmost state) are Catholic. Schleswig–Holstein is 53.7 % Protestant. Mecklenburg-Vorpommern is a formerly East German state bordering Schleswig–Holstein, and in Mecklenburg-Vorpommern 79.1 % of individuals have no religion.[10]

In some specifications we include a variable that measures the extent of the support of the National Socialist German Workers' Party (NSDAP, or Hitler's Nazi Party) in the state during the May 1928 elections. While the NSDAP earned only a small share of the overall votes in 1928, we use this election year because the party was most Anti-Semitic at that time, and thereafter toned down the rhetoric in order to appeal to a broader base of voters (Voigtlaender and Voth 2012a). Data, which are taken from King et al. (2008), are at the voting district level; districts as defined in 1928. We match the voting districts from 1928 with the current state boundaries in Germany. We then sum across all voting districts within each current state the number of valid votes cast, as well as the number of votes earned by the Nazi Party. This allows us to calculate the percent of the votes earned by the Nazi Party in 1928 for regions as defined by today's state lines. We then create a state level dummy

[9] There are about 102,000 Jews in Germany, which is 0.13 % of the 80 million population (http://de.statista.com/statistik/daten/studie/1232/umfrage/anzahl-der-juden-in-deutschland-seit-dem-jahr-2003/).

[10] The reason for the geographic differences in religious denomination are largely rooted in history. After the Protestant Reformation in the 1500s, the rulers of the different territories of the Holy Roman Empire either chose to follow the Reformation or to remain Catholic. Areas where the rulers of that time chose to follow the Reformation are still largely protestant, and the predominantly Catholic areas today tended to have rulers that chose to remain Catholic.

variable that is equal to one if the state has a percentage of votes cast for the Nazi party in 1928 that is larger than the median, and is zero otherwise.

Each respondent lives in one of the 16 German states.[11] We control for per capita GNP of the state, percent foreigners in the state and the age distribution of state population. Excluding these state-level variables had no impact on other coefficients. Regressions also control for state fixed-effects, as well as year fixed-effects to account for the fact that we pool surveys from two waves. The specifications that include the *Nazi State in 1928* cannot include state fixed-effects because this variable does not change over time.

3 Empirical framework and the results

We estimate models of the following form.

$$R_{is}^{t} = \beta_0 + \beta_1 EconGood_{is}^{t} + \beta_2 EconBad_{is}^{t} + \mathbf{X}_{is}^{t}\Psi + \mathbf{K}_{s}^{t}\Omega + \mu_s + \pi_t + \varepsilon_{is,}^{t} \quad (1)$$

where R_{is}^{t} represents the extent of anti-Semitic, xenophobic and racist feelings of individual (i) who resides in state (s), who is surveyed in year (t). *EconGood* and *EconBad* are mutually exclusive dummy variables to indicate if the person thinks his/her personal economic conditions are good/very good, or bad/very bad, respectively. The left-out category is personal economic conditions being neutral. Alternatively, we estimate Eq. (1) by using sentiments about *National Economic Conditions,* rather than *Personal Economic Conditions*. In some specifications we also estimate models that include both personal and national economic conditions jointly. The vector **X** incudes personal attributes of the respondent such as age, education, marital status, labor force activity, city size, and whether he/she lives in the inner city. Vector **K** represents state attributes such as per capita income, percent foreigners in state population, and a set of six dummy variables to measure the share of state population in various age groups.[12] Models include state fixed-effects (μ_s), as well year dummies (π_t) to account for the fact that surveys are administered in different years.

Benchmark models do not include household income because potential endogeneity could be more severe for this variable. For example, household income could be impacted by reverse causality because finding and retaining employment might be difficulty for somebody with strong racist feelings. I this case, household income can be influenced by racist feelings. Nevertheless, in some models we also control for household income. City and state characteristics that vary over time are matched with the appropriate survey year. For example, those surveyed in 2006 are matched with city and state characteristics in 2006. We

[11] The states are Schleswig–Holstein, Hamburg, Niedersachsen, Bremen, Nordrhein-Westfalen, Hessen, Rheinland-Pfalz, Baden-Württemberg, Bayern, Saarland, Berlin, Brandenburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt, and Thüringen.

[12] Because each state contributes only two observations, there is not much within-state variation in the data, and dropping these variables had no impact on other coefficients.

estimate linear probability models and standard errors are clustered by age group-and-state of residence.

Table 3a display the results of the estimated models where the dependent variables are the three aggregate measures (the indices) of racism, ant-Semitism and xenophobia. Columns (1) and (4) of the table present the models where the dependent variable is the index of racism (the average response to questions measuring racism). The specification in column (1) is the benchmark model which does not include household income. We also estimate the model with the addition of household income, which is reported in column (4). Using the same model structure, models in columns (2) and (5) employ the index of anti-Semitism as the dependent variable, and those in columns (3) and (6) use the index of xenophobia.

The results show that if the respondent thinks that his/her personal economic conditions are good, the extent of racist, anti-Semitic and xenophobic feelings are lower. Likewise, if the respondent feels that his/her personal economic conditions are bad, then negative feelings, measured by these indices, are aggravated, although the relationship is not statistically significant in all specifications. Household income has a separate negative impact on racist, anti-Semitic and xenophobic feelings. For example, if household income goes up by 1000 euros per month, racism index goes down by 1 percentage points (or 4 %); but controlling for household income does not influence the coefficients of other variables. If one converts the magnitudes reported in Table 3a into elasticities, one finds that the elasticity of the racism index with respect to net household income is −0.08. The elasticity of racism with respect to feeling good (bad) about personal economic conditions is −0.05 (0.014). The elasticity of anti-Semitic feelings with respect to net household income is −0.07; and the same elasticity with respect to feeling good (bad) about personal economic conditions is −0.07 (0.015). Thus, the association between perceived economic well-being and these negative feelings is similar in magnitude to their association with actual economic well-being.

Table 1 also shows that being female and having more education have dampening effects on these feelings, and that education has a monotonic effect: those with a vocational education are less likely (in comparison to those with only the basic level of education) to have racist, anti-Semitic and xenophobic feelings. As the level of education rises, its positive effect gets bigger.[13]

Table 3b repeats the same exercise, but instead of using respondents' evaluation of their personal economics conditions, we use their assessment of national economic conditions. We obtain the same results: People's feelings about the strength of the national economic conditions are negatively related to the extent of their racist, anti-Semitic and xenophobic feelings. Similarly, the impact of education, gender and that of other co-variates are the same between Tables 3a and b.

In Table 4 we present the results where specific questions that gauge racism are analyzed.

[13] Dustmann, Fabbri and Preston (2011) also find that higher education is associated with lower prejudice.

Table 3 The impact of perceived (a) personal economic conditions, (b) national economic conditions on racist, anti-Semitic, and xenophobic attitudes

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index	(5) Xenophobia Index	(6) Anti-Semitism Index
(a)						
Good personal economic conditions	−0.0346***	−0.0392***	−0.0385***	−0.0296***	−0.0316***	−0.0377***
	(0.0081)	(0.0085)	(0.0081)	(0.0083)	(0.0101)	(0.0097)
Bad personal economic conditions	0.0379***	0.0056	0.0379***	0.0240*	0.0012	0.0244*
	(0.0124)	(0.0155)	(0.0134)	(0.0144)	(0.0162)	(0.0137)
Household income				−0.0100***	−0.0003	−0.0089*
				(0.0036)	(0.0051)	(0.0045)
Age	0.0041***	0.0032**	0.0065***	0.0043**	0.0028	0.0062***
	(0.0015)	(0.0015)	(0.0014)	(0.0016)	(0.0018)	(0.0017)
Age-squared	−0.0000	0.0000	−0.0000*	−0.0000	0.0000	−0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0132	0.0222**	0.0146*	0.0206**	0.0201*	0.0084
	(0.0092)	(0.0101)	(0.0085)	(0.0100)	(0.0117)	(0.0091)
Female	−0.0138*	−0.0278***	−0.0546***	−0.0072	−0.0320***	−0.0518***
	(0.0075)	(0.0080)	(0.0061)	(0.0076)	(0.0095)	(0.0076)
Catholic	0.0072	0.0147	0.0043	0.0074	0.0138	0.0048
	(0.0118)	(0.0140)	(0.0127)	(0.0143)	(0.0155)	(0.0152)
No religion/other religion	−0.0242	−0.0499	−0.0207	−0.0026	−0.0437	−0.0137
	(0.0308)	(0.0413)	(0.0364)	(0.0422)	(0.0508)	(0.0503)
Education: Vocational	−0.0532***	−0.0412***	−0.0193	−0.0530***	−0.0420***	−0.0240*
	(0.0127)	(0.0139)	(0.0128)	(0.0149)	(0.0142)	(0.0133)
Education: Adv. Technical	−0.0890***	−0.0760***	−0.0482***	−0.0910***	−0.0900***	−0.0572***
	(0.0175)	(0.0148)	(0.0140)	(0.0205)	(0.0154)	(0.0169)

Table 3 continued

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index	(5) Xenophobia Index	(6) Anti-Semitism Index
Education: College	−0.1438***	−0.1314***	−0.1245***	−0.1357***	−0.1365***	−0.1204***
	(0.0149)	(0.0191)	(0.0136)	(0.0172)	(0.0201)	(0.0169)
Currently Working	−0.0116	0.0112	0.0051	−0.0141	0.0134	0.0164
	(0.0101)	(0.0109)	(0.0112)	(0.0123)	(0.0124)	(0.0125)
City size: 50,000–99,999	−0.0455***	−0.0195	−0.0236	−0.0618***	−0.0329	−0.0254
	(0.0143)	(0.0182)	(0.0148)	(0.0177)	(0.0224)	(0.0165)
City size: 100,000–499,999	−0.0285**	−0.0263*	−0.0323**	−0.0348**	−0.0334**	−0.0382**
	(0.0129)	(0.0137)	(0.0139)	(0.0137)	(0.0161)	(0.0166)
City size: 500,000+	−0.0365***	−0.0231*	−0.0169	−0.0390***	−0.0338**	−0.0245
	(0.0114)	(0.0136)	(0.0180)	(0.0130)	(0.0140)	(0.0209)
Inner city	−0.0104	−0.0082	−0.0211	−0.0020	−0.0023	−0.0186
	(0.0119)	(0.0149)	(0.0143)	(0.0149)	(0.0177)	(0.0157)
Observations	5229	5214	5216	4,06	4099	4101
adj. *R*2	0.122	0.075	0.122	0.122	0.079	0.133
(b)						
Good national economic conditions	−0.0120	−0.0391***	0.0013	−0.0085	−0.0334**	0.0090
	(0.0124)	(0.0139)	(0.0114)	(0.0110)	(0.0142)	(0.0129)
Bad national economic conditions	0.0536***	0.0493***	0.0509***	0.0562***	0.0442***	0.0480***
	(0.0065)	(0.0087)	(0.0088)	(0.0077)	(0.0094)	(0.0099)
Household income				−0.0127***	−0.0020	−0.0136***
				(0.0034)	(0.0047)	(0.0042)
Age	0.0048***	0.0037**	0.0074***	0.0046***	0.0029	0.0067***
	(0.0014)	(0.0015)	(0.0014)	(0.0016)	(0.0017)	(0.0017)
Age-squared	−0.0000	−0.0000	−0.0000**	−0.0000	0.0000	−0.0000

Table 3 continued

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index	(5) Xenophobia Index	(6) Anti-Semitism Index
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0065	0.0178*	0.0067	0.0178*	0.0187	0.0056
	(0.0083)	(0.0095)	(0.0083)	(0.0100)	(0.0115)	(0.0091)
Female	−0.0159**	−0.0303***	−0.0568***	−0.0093	−0.0343***	−0.0534***
	(0.0078)	(0.0082)	(0.0064)	(0.0076)	(0.0095)	(0.0078)
Catholic	0.0078	0.0172	0.0041	0.0084	0.0161	0.0058
	(0.0120)	(0.0140)	(0.0131)	(0.0141)	(0.0154)	(0.0155)
No religion/other religion	−0.0236	−0.0511	−0.0202	−0.0006	−0.0428	−0.0115
	(0.0313)	(0.0415)	(0.0363)	(0.0420)	(0.0495)	(0.0500)
Education: Vocational	−0.0566***	−0.0435***	−0.0243*	−0.0536***	−0.0434***	−0.0269**
	(0.0126)	(0.0140)	(0.0126)	(0.0145)	(0.0140)	(0.0129)
Education: Adv. Technical	−0.0962***	−0.0827***	−0.0572***	−0.0919***	−0.0926***	−0.0610***
	(0.0175)	(0.0154)	(0.0146)	(0.0198)	(0.0154)	(0.0169)
Education: College	−0.1487***	−0.1319***	−0.1340***	−0.1325***	−0.1333***	−0.1230***
	(0.0144)	(0.0193)	(0.0143)	(0.0163)	(0.0202)	(0.0167)
Currently working	−0.0168*	0.0088	−0.0002	−0.0168	0.0123	0.0141
	(0.0095)	(0.0108)	(0.0110)	(0.0118)	(0.0121)	(0.0120)
City size: 50,000–99,999	−0.0459***	−0.0168	−0.0230	−0.0614***	−0.0301	−0.0236
	(0.0146)	(0.0190)	(0.0149)	(0.0179)	(0.0229)	(0.0162)
City size: 100,000–499,999	−0.0253**	−0.0210	−0.0264*	−0.0306**	−0.0295*	−0.0331*
	(0.0124)	(0.0129)	(0.0141)	(0.0138)	(0.0159)	(0.0168)
City size: 500,000+	−0.0355***	−0.0200	−0.0149	−0.0370***	−0.0316**	−0.0221
	(0.0114)	(0.0136)	(0.0179)	(0.0133)	(0.0141)	(0.0209)

Table 3 continued

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index	(5) Xenophobia Index	(6) Anti-Semitism Index
Inner city	−0.0112	−0.0091	−0.0234	−0.0027	−0.0026	−0.0206
	(0.0119)	(0.0148)	(0.0146)	(0.0150)	(0.0178)	(0.0161)
Observations	5220	5205	5208	4103	4096	4098
adj. $R2$	0.125	0.081	0.127	0.129	0.085	0.134

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 4 The impact of perceived *personal economic conditions* on racist attitudes

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
Good Personal Economic Conditions	−0.0610***	−0.0381***	−0.0431***	−0.0155	−0.0126
	(0.0146)	(0.0106)	(0.0157)	(0.0103)	(0.0147)
Bad Personal Economic Conditions	0.0376**	0.0211	0.0627**	0.0321**	0.0313
	(0.0150)	(0.0132)	(0.0289)	(0.0142)	(0.0206)
Age	0.0033	0.0040*	0.0039	0.0020	0.0069***
	(0.0027)	(0.0022)	(0.0027)	(0.0023)	(0.0025)
Age-squared	0.0000	0.0000	−0.0000	−0.0000	−0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0329**	0.0002	0.0085	0.0058	0.0187
	(0.0162)	(0.0145)	(0.0169)	(0.0101)	(0.0164)
Female	−0.0139	−0.0047	0.0018	−0.0230**	−0.0278**
	(0.0153)	(0.0100)	(0.0131)	(0.0100)	(0.0123)
Catholic	−0.0046	0.0178	−0.0123	0.0093	0.0208
	(0.0201)	(0.0131)	(0.0157)	(0.0129)	(0.0251)
No religion/other religion	−0.0139	−0.0132	−0.1228**	0.0485	−0.0381
	(0.0745)	(0.0403)	(0.0609)	(0.0534)	(0.0758)
Education: Vocational	−0.0102	−0.1173***	−0.0206	−0.0459**	−0.0630***
	(0.0204)	(0.0185)	(0.0262)	(0.0181)	(0.0217)
Education: Adv. Technical	−0.0778***	−0.1691***	−0.0179	−0.0701***	−0.1022***
	(0.0293)	(0.0212)	(0.0292)	(0.0237)	(0.0251)
Education: College	−0.1819***	−0.2143***	−0.1044***	−0.0701***	−0.1350***
	(0.0229)	(0.0197)	(0.0255)	(0.0229)	(0.0216)
Currently working	−0.0169	−0.0169	0.0104	−0.0267**	−0.0068
	(0.0145)	(0.0135)	(0.0180)	(0.0129)	(0.0134)
City size: 50,000–99,999	−0.0278	−0.0048	−0.0574*	−0.0620***	−0.0765**
	(0.0287)	(0.0235)	(0.0328)	(0.0176)	(0.0328)
City size: 100,000–499,999	−0.0313	−0.0398**	0.0196	−0.0269*	−0.0634**
	(0.0242)	(0.0173)	(0.0307)	(0.0155)	(0.0243)
City size: 500,000+	−0.0115	−0.0412**	−0.0067	−0.0322*	−0.0971***
	(0.0246)	(0.0180)	(0.0258)	(0.0178)	(0.0264)
Inner city	−0.0046	−0.0151	−0.0211	−0.0091	−0.0033
	(0.0218)	(0.0177)	(0.0227)	(0.0117)	(0.0204)

Table 4 continued

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
Observations	5194	5210	5164	5138	5090
Adj. R^2	0.065	0.119	0.023	0.037	0.068

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

The dependent variable in column (1) takes the value of one if the respondent indicated that *foreigners should be barred from any political activity.* The first two explanatory variables in Table 4 show that, all else the same, people are about 6 percentage points less likely to agree with this statement if they believe that their personal economic conditions are good. On the other hand, if they think that their personal economic conditions are bad, they are about 4 percentage points more likely to agree with the statement. Column (2) shows that individuals are about 4 percentage points less likely to agree with the racist statement that *foreigner should choose their spouses among people of their own nationality* if they feel that their personal economic conditions are good.

In column (3) we present the results of model where the dependent variable is a dichotomous indicator of whether the respondents agreed with the statement that *ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans in every respect.* Once again, people who believe that their personal economic conditions are in good shape are less likely to agree with this statement, and those with bad personal economic conditions are more likely to agree. In column (4) we observe the same regularity regarding another racist statement. In this case the dependent variable takes the value of one if the respondent agreed with the statement that *it is okay for a restaurant proprietor to refuse to serve foreigners.* Finally, column (5) shows that people's feelings about their personal economic circumstances are related to their tendency to approve parents who forbid their daughter to be friends with a Turkish youth, although the coefficients are not estimated with precision in this specification.

Table 5 presents the results where we analyze the determinants of a set of xenophobic attitudes. The questions are whether the respondent feels that it would be unpleasant to have an ethnic German (or a Turk, Italian or an Asylum Seeker) as a neighbor, and whether it would be unpleasant if such as person were married into the family of the respondent. The results are consistent with those reported in earlier tables. If the respondents think that their personal economic conditions are good, this reduces the extent of xenophobic feelings.

Table 5 The impact of perceived *personal economic conditions* on xenophobic attitudes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	An Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	An Asylum seeker
Good Personal Economic Conditions	−0.0631***	−0.0496***	−0.0166**	−0.0370**	−0.0483***	−0.0308**	−0.0343***	−0.0286**
	(0.0151)	(0.0138)	(0.0082)	(0.0169)	(0.0143)	(0.0154)	(0.0094)	(0.0134)
Bad Personal Economic Conditions	−0.0136	0.0120	0.0002	−0.0007	0.0299	−0.0032	0.0374**	−0.0075
	(0.0213)	(0.0235)	(0.0125)	(0.0222)	(0.0218)	(0.0213)	(0.0178)	(0.0235)
Age	0.0030	−0.0020	0.0027*	−0.0003	0.0076***	0.0050*	0.0035*	0.0033
	(0.0023)	(0.0025)	(0.0014)	(0.0026)	(0.0025)	(0.0028)	(0.0019)	(0.0028)
Age-squared	−0.0000	0.0001**	−0.0000	0.0000	−0.0000*	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	−0.0202	0.0159	−0.0081	0.0425**	0.0179	0.0515***	0.0189	0.0631***
	(0.0125)	(0.0184)	(0.0078)	(0.0182)	(0.0159)	(0.0154)	(0.0122)	(0.0156)
Female	−0.0267**	−0.0230	−0.0195***	−0.0269**	−0.0249*	−0.0300**	−0.0442***	−0.0285*
	(0.0106)	(0.0142)	(0.0071)	(0.0128)	(0.0145)	(0.0132)	(0.0096)	(0.0148)
Catholic	−0.0082	0.0313	0.0129	0.0199	−0.0010	0.0258	0.0257	0.0143
	(0.0165)	(0.0246)	(0.0097)	(0.0220)	(0.0189)	(0.0218)	(0.0159)	(0.0211)
No religion/other religion	−0.0491	−0.0128	−0.0189	0.0140	−0.1557***	−0.0880	−0.0201	−0.0775
	(0.0503)	(0.0651)	(0.0271)	(0.0850)	(0.0580)	(0.0719)	(0.0518)	(0.0781)
Education: Vocational	−0.0220	−0.0543**	−0.0382***	−0.0440*	−0.0152	−0.0546**	−0.0638***	−0.0407*
	(0.0180)	(0.0240)	(0.0126)	(0.0250)	(0.0232)	(0.0214)	(0.0194)	(0.0226)
Education: Adv. Technical	−0.0555**	−0.0947***	−0.0511***	−0.0594*	−0.0687***	−0.1061***	−0.1064***	−0.0658**
	(0.0216)	(0.0277)	(0.0129)	(0.0333)	(0.0244)	(0.0257)	(0.0206)	(0.0297)
Education: College	−0.0656***	−0.1571***	−0.0600***	−0.1512***	−0.1360***	−0.1806***	−0.1417***	−0.1616***
	(0.0244)	(0.0311)	(0.0141)	(0.0348)	(0.0285)	(0.0288)	(0.0238)	(0.0271)

Table 5 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	An Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	An Asylum seeker
Currently Working	0.0127	−0.0064	−0.0054	0.0342*	0.0093	0.0180	−0.0045	0.0338*
	(0.0176)	(0.0169)	(0.0088)	(0.0176)	(0.0154)	(0.0179)	(0.0106)	(0.0174)
City size: 50,000–99,999	−0.0333	−0.0117	−0.0190	−0.0322	−0.0291	−0.0058	−0.0060	−0.0143
	(0.0259)	(0.0333)	(0.0144)	(0.0304)	(0.0347)	(0.0257)	(0.0181)	(0.0307)
City size: 100,000–499,999	0.0036	−0.0733***	−0.0238**	−0.0409	0.0032	−0.0539**	−0.0061	−0.0286
	(0.0236)	(0.0255)	(0.0100)	(0.0250)	(0.0281)	(0.0223)	(0.0157)	(0.0234)
City size: 500,000+	−0.0038	−0.0579***	−0.0042	−0.0068	−0.0239	−0.0515**	−0.0234	−0.0098
	(0.0224)	(0.0219)	(0.0105)	(0.0239)	(0.0251)	(0.0202)	(0.0175)	(0.0210)
Inner city	0.0003	0.0177	−0.0001	−0.0262	−0.0138	−0.0007	−0.0160	−0.0262
	(0.0215)	(0.0200)	(0.0073)	(0.0266)	(0.0227)	(0.0230)	(0.0124)	(0.0283)
Observations	5185	5195	5191	5168	5164	5169	5176	5152
Adj. R^2	0.031	0.052	0.025	0.026	0.043	0.081	0.083	0.056

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 6 presents the results of models where we analyze the determinants of anti-Semitism. As is the case regarding the questions on racism, the six variables analyzed in Table 6 are the components that are included in the anti-Semitism index reported in Table 3a, b. The same regularity emerges in all models. The proclivity for anti-Semitism goes down if the respondent's personal economic conditions are good, and the opposite is true if the respondent's economic conditions are bad. This is true regardless of the question posed to the survey respondent. Using the coefficients across the models and using the baseline means of the dependent variables, we find that personal economic conditions being good reduces these racist feelings by 8–30 %, and bad personal economic conditions enhances the racists feelings by 14–24 %.

The estimated coefficients of other explanatory variables are consistent across models. Educated people are less racist, less anti-Semitic and less xenophobic. The same is true for females. Age has a positive impact on the negative feelings analyzed in the paper. To investigate the impact of age further, we re-estimated a more flexible form by including age dummies for 10-year age intervals. The results, shown in Appendix Table 15, reveal that age has a monotonic impact on racist, ant-Semitic and xenophobic attitudes, where these feelings are stronger for older people.[14] Given that we use data from 1996 and 2006, those who are 65 and older have experienced the Nazi Germany and the World War II. The point estimates are larger for this group, which is consistent with the results of Voigtlaender and Voth (2012b), who report that cohorts that grew up under the Nazi regime are more anti-Semitic today. It is also interesting to note, however, that the age effect exists also among the younger cohorts: those who are 25–34 are more racist in comparison to those who are 18–24 (the left-out category in regressions of Appendix Table 15).

We estimated the same models as in Tables 4, 5, 6, but replaced the variables that measure how the respondents feel about their personal economic circumstances with the variables that gauge how they feel about the current economic situation in Germany. The results, reported in Appendix Tables 16, 17, 18, are very similar to those reported so far. The belief that current economic conditions in Germany are good (bad) has a diminishing (enhancing) effect on racist, xenophobic and anti-Semitic feelings. The impact is stronger, both in magnitude and statistical significance, when the person believes that the German economy is doing badly.[15]

3.1 Contact with foreigners and the impact of the 1928 Nazi vote

In this sub-section we report the results of the models that include indicators of contact with foreigners. As predicted by the model of Glaeser (2005) having contact with minorities should provide information about them and should alleviate xenophobic and racist feelings. It is also possible that racist and xenophobic people avoid contact with minorities. We address this potential reverse causality in a number of ways as explained in the Robustness section below.

[14] In the interest of space, we only report the models with indices as dependent variables.

[15] The models that include perceptions on both personal economic well-being and national economic conditions provided very similar results although in some cases the precision of the estimated coefficients were reduced. These results are reported in Appendix Table 19.

Table 6 The impact of perceived *personal economic conditions* on anti-Semitic attitudes

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
Good Personal Economic Conditions	−0.0253*	−0.0378***	−0.0427***	−0.0595***	−0.0362***	−0.0254**
	(0.0133)	(0.0133)	(0.0117)	(0.0134)	(0.0089)	(0.0126)
Bad Personal Economic Conditions	0.0349*	0.0652***	0.0222	0.0567**	0.0270*	0.0244
	(0.0180)	(0.0186)	(0.0175)	(0.0231)	(0.0160)	(0.0210)
Age	0.0072***	0.0076**	0.0104***	0.0027	0.0018	0.0095***
	(0.0022)	(0.0030)	(0.0024)	(0.0024)	(0.0016)	(0.0023)
Age-squared	−0.0000	−0.0000	−0.0000	−0.0000	−0.0000	−0.0001**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0135	0.0433***	0.0016	0.0129	0.0014	0.0134
	(0.0122)	(0.0151)	(0.0154)	(0.0146)	(0.0131)	(0.0140)
Female	−0.0341***	−0.0709***	−0.1190***	−0.0351***	−0.0290***	−0.0372***
	(0.0127)	(0.0136)	(0.0125)	(0.0114)	(0.0086)	(0.0098)
Catholic	−0.0013	0.0033	−0.0151	0.0019	−0.0003	0.0154
	(0.0185)	(0.0202)	(0.0174)	(0.0171)	(0.0149)	(0.0257)
No religion/other religion	0.0883	−0.0022	−0.0253	−0.0445	−0.0445	−0.0230
	(0.0651)	(0.0706)	(0.0651)	(0.0588)	(0.0385)	(0.0649)
Education: Vocational	−0.0254	0.0238	0.0158	−0.0392**	−0.0319**	−0.0775***
	(0.0159)	(0.0233)	(0.0206)	(0.0179)	(0.0157)	(0.0176)

Table 6 continued

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
Education: Adv. Technical	−0.0374*	−0.0133	−0.0050	−0.0634***	−0.0527***	−0.1360***
	(0.0197)	(0.0268)	(0.0257)	(0.0213)	(0.0190)	(0.0242)
Education: College	−0.1094***	−0.1717***	−0.0970***	−0.1301***	−0.0947***	−0.1771***
	(0.0200)	(0.0248)	(0.0238)	(0.0220)	(0.0171)	(0.0221)
Currently working	0.0112	0.0271	−0.0268*	0.0196	−0.0115	0.0128
	(0.0111)	(0.0190)	(0.0157)	(0.0169)	(0.0112)	(0.0169)
City size: 50,000–99,999	−0.0298	−0.0217	0.0077	−0.0533**	−0.0078	−0.0211
	(0.0221)	(0.0344)	(0.0224)	(0.0257)	(0.0184)	(0.0210)
City size: 100,000–499,999	−0.0447**	−0.0617***	−0.0436**	−0.0167	−0.0224	−0.0156
	(0.0188)	(0.0196)	(0.0217)	(0.0274)	(0.0151)	(0.0216)
City size: 500,000+	−0.0491**	−0.0287	0.0300	−0.0219	−0.0083	−0.0422**
	(0.0242)	(0.0303)	(0.0295)	(0.0255)	(0.0167)	(0.0194)
Inner city	−0.0021	0.0002	−0.0435**	−0.0415*	−0.0139	−0.0316
	(0.0181)	(0.0270)	(0.0175)	(0.0237)	(0.0171)	(0.0199)
Observations	4890	4971	4919	5013	5099	5069
Adj. R^2	0.065	0.077	0.131	0.042	0.027	0.064

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

The results for dependent variables related to racism are reported in Table 7. The top panel of Table 7 displays the main results reported in Table 4 for comparison. For brevity, we only show the coefficients of *Good Personal Economic Conditions* and *Bad Personal Economic Conditions.* Panel B of Table 7 displays the results of the regressions which also include the variables that measures contact with foreigners at work and in the family. Specifically, these dummy variables take the value of one if the respondent answered in the affirmative to the following two questions: "Do you have personal contact with foreigners living in Germany at your job? [… in your family?]" There are three key observations. First, the variable *Foreign Contact at Family* is negative and highly significant in each model, suggesting that those who have contacts with foreigners in family have less racist tendencies. Second, the coefficient of *Foreign Contact at Work* is also negative and different from zero in most models, indicating that having contact with foreigners at work has an additional negative impact on racist feelings. Third, inclusion of the contact variable has no meaningful impact on the magnitude of the coefficients of the personal economic conditions.

It may easier to avoid contact with family members who are foreigners, but it may be more difficult to avoid contact with foreigners in the place of work. That is, the extent of contact with foreigners at work may not be at full discretion of the individual. (In the robustness section we make use of the information on the self-employed). However, dropping the "contact with foreigners in family" variable from the models had no impact on the results reported in Table 7.

Table 8 displays the results of the same exercise, but here the dependent variables are related to xenophobia. The same results are obtained in these models as those reported in Table 7: having contact with foreigners at work and at the family are negatively correlated with people's xenophobic feelings and the impact of personal economic conditions is not influenced by controlling for these variables.[16]

In Table 9 we report the results of the regressions where variables gauging anti-Semitism are analyzed. In addition to variables measuring whether the respondent has personal contact with foreigners living in Germany through his/her own family or job, we also control for the variable *Nazi State in 1928.* This is a dichotomous indicator that takes the value of one if the Nazi party has received more than the median vote in respondent's state in 1928. Regressions behind Panel B of Table 9 include every variable that is included in all previous regressions with the exception of state fixed effects. The reason for this is the fact that the variable *Nazi State in 1928* does not vary within states. A comparison of panels A and B of Table 9 shows that adding these variables has no impact on the coefficients of economic condition variables, and that the estimated coefficients of *Foreign Contact* are always negative

[16] It is interesting to note that the coefficient of "*Percent Foreign*" is consistently positive and it is statistically significant in most models (nor reported in tables to conserve space), indicating the positive association between the proportion of foreigners in a state and the extent of negative feelings. Nevertheless, as shown in Tables 7, 8, 9, holding constant percent foreigners in the state, personal contact with foreigners reduces these negative feelings.

Table 7 The impact of perceived personal economic conditions on racism—models with contact variables

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
Panel A					
Good Personal Economic Conditions	−0.0610***	−0.0381***	−0.0431***	−0.0155	−0.0126
	(0.0146)	(0.0106)	(0.0157)	(0.0103)	(0.0147)
Bad Personal Economic Conditions	0.0376**	0.0211	0.0627**	0.0321**	0.0313
	(0.0150)	(0.0132)	(0.0289)	(0.0142)	(0.0206)
Observations	5194	5210	5164	5138	5090
Adj. R^2	0.065	0.119	0.023	0.037	0.068
Panel B					
Good Personal Economic Conditions	−0.0607***	−0.0381***	−0.0421***	−0.0139	−0.0146
	(0.0154)	(0.0109)	(0.0159)	(0.0105)	(0.0150)
Bad Personal Economic Conditions	0.0371**	0.0237*	0.0655**	0.0353**	0.0328
	(0.0163)	(0.0131)	(0.0294)	(0.0147)	(0.0218)
Contact with foreigners at work	−0.0569***	−0.0332**	−0.0181	−0.0192*	−0.0170
	(0.0144)	(0.0148)	(0.0134)	(0.0098)	(0.0154)
Contact with foreigners in the family	−0.0502**	−0.0388***	−0.0823***	−0.0308***	−0.0692***
	(0.0214)	(0.0130)	(0.0158)	(0.0109)	(0.0171)
Observations	5070	5085	5044	5014	4967
Adj. R^2	0.068	0.123	0.028	0.042	0.075

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Panel A is the same specification as presented in Table 4. All regressions in Panels A and B use sampling weights, and also include the same control variables as specifications presented in Table 4

and highly significant suggesting that contact with foreigners through family or immediate relatives mitigates ant-Semitic feelings.

Those who live in states which provided above-median support for the Nazi Party in the 1928 elections are about 7 percentage points more likely to reveal that *Jewish people living in Germany should not have the same rights as Germans.* They are also 9 percentage points more likely to state that Jews are not entirely innocent of their persecution, and 10 percentage points more likely to indicate that many Jews try to profit today from the history of the Third Reich, and they try to make Germans

Table 8 The impact of perceived personal economic conditions on xenophobia—models with contact variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker
Panel A								
Good Personal Economic Conditions	−0.0631***	−0.0496***	−0.0166**	−0.0370**	−0.0483***	−0.0308**	−0.0343***	−0.0286**
	(0.0151)	(0.0138)	(0.0082)	(0.0169)	(0.0143)	(0.0154)	(0.0094)	(0.0134)
Bad Personal Economic Conditions	−0.0136	0.0120	0.0002	−0.0007	0.0299	−0.0032	0.0374**	−0.0075
	(0.0213)	(0.0235)	(0.0125)	(0.0222)	(0.0218)	(0.0213)	(0.0178)	(0.0235)
Observations	5185	5195	5191	5168	5164	5169	5176	5152
Adj. R^2	0.031	0.052	0.025	0.026	0.043	0.081	0.083	0.056
Panel B								
Good Personal Economic Conditions	−0.0646***	−0.0544***	−0.0150*	−0.0431**	−0.0521***	−0.0347**	−0.0368***	−0.0336**
	(0.0152)	(0.0143)	(0.0078)	(0.0171)	(0.0145)	(0.0163)	(0.0101)	(0.0139)
Bad Personal Economic Conditions	−0.0165	0.0077	0.0016	−0.0084	0.0296	−0.0070	0.0385**	−0.0109
	(0.0220)	(0.0247)	(0.0132)	(0.0225)	(0.0227)	(0.0223)	(0.0185)	(0.0247)
Contact with foreigners at work	−0.0253*	−0.0441***	−0.0217***	−0.0527***	−0.0236	−0.0578***	−0.0228**	−0.0401***
	(0.0139)	(0.0157)	(0.0066)	(0.0185)	(0.0158)	(0.0143)	(0.0109)	(0.0133)
Contact with foreigners in the family	−0.0482***	−0.0848***	−0.0116*	−0.0788***	−0.1214***	−0.1238***	−0.0596***	−0.1282***
	(0.0112)	(0.0218)	(0.0065)	(0.0183)	(0.0146)	(0.0186)	(0.0129)	(0.0190)
Observations	5059	5069	5065	5044	5038	5044	5050	5027
Adj. R^2	0.034	0.060	0.027	0.032	0.054	0.092	0.089	0.068

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Panel A is the same specification as presented in Table 5. All regressions in Panels A and B use sampling weights, and also include the same control variables as specifications presented in Table 5

Table 9 The impact of perceived personal economic conditions on anti-Semitism—models with contact variables and Nazi States in 1928

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
Panel A						
Good Personal Economic Conditions	−0.0253*	−0.0378***	−0.0427***	−0.0595***	−0.0362***	−0.0254**
	(0.0133)	(0.0133)	(0.0117)	(0.0134)	(0.0089)	(0.0126)
Bad Personal Economic Conditions	0.0349*	0.0652***	0.0222	0.0567**	0.0270*	0.0244
	(0.0180)	(0.0186)	(0.0175)	(0.0231)	(0.0160)	(0.0210)
Observations	4890	4971	4919	5013	5099	5069
Adj. R^2	0.065	0.077	0.131	0.042	0.027	0.064
Panel B						
Good Personal Economic Conditions	−0.0223	−0.0352**	−0.0370***	−0.0555***	−0.0357***	−0.0232*
	(0.0136)	(0.0134)	(0.0120)	(0.0141)	(0.0088)	(0.0128)
Bad Personal Economic Conditions	0.0306	0.0674***	0.0223	0.0535**	0.0264	0.0218
	(0.0188)	(0.0202)	(0.0186)	(0.0232)	(0.0162)	(0.0206)
Contact with foreigners at work	−0.0266**	−0.0278	−0.0287**	−0.0215*	−0.0214**	−0.0551***
	(0.0130)	(0.0196)	(0.0140)	(0.0128)	(0.0106)	(0.0129)
Contact with foreigners in the family	0.0095	−0.0027	−0.0209	−0.0571***	−0.0433***	−0.0594***
	(0.0164)	(0.0207)	(0.0240)	(0.0168)	(0.0114)	(0.0161)
Nazi State in 1928	0.0907***	0.1003***	0.1145***	0.0665***	0.0298**	0.0202
	(0.0231)	(0.0333)	(0.0268)	(0.0210)	(0.0138)	(0.0292)
Observations	4783	4860	4811	4903	4978	4948
Adj. R^2	0.056	0.066	0.118	0.038	0.031	0.063

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Panel A is the same specification as presented in Table 6. All regressions in panels A and B use sampling weights, and also include the same control variables as specifications presented in Table 6. Panel B does not include state dummies because the variable *Nazi State in 1928* does not vary over time within the states

pay for it. All else the same, people who live in states that provided above-median support for the Nazi Party are 3 percentage points more likely to indicate that it would be unpleasant to have a Jewish neighbor and they are 11 percentage points more likely to agree with the statement that Jews have too much influence in the world.

This result is in line of that reported by Voigtlaender and Voth (2012b). They show that historical voting patterns for anti-Semitic parties between 1890 and 1933 are strong predictors of anti-Jewish attitudes in Germany today.[17] The states where the Nazi Party received above-median votes in the 1928 elections are Schleswig–Holstein, Hamburg, Niedersachsen, Hessen, Rheinland-Pfalz, Bayern, Sachsen, and Thüringen. These states are located all throughout Germany. For example, Schleswig–Holstein is in the North, bordering Denmark, whereas Bayern is in the South, bordering Austria and the Czech Republic. Thüringen is in the middle of Germany with no borders to other countries. There is also significant variation in their population size, ranging from small states such as Hamburg and Thüringen with about 2 million residents in 2010 to Bayern with about 13 million people and Niedersachsen with 8 million residents. More importantly, there is no correlation between the current level of development in a state and voting outcomes in 1928. The correlation coefficient of a dummy variable indicating a higher than national median vote for the Nazi party in 1928 and state-level GDP per capita in 2009 is 0.15. Thus, it is unlikely that the *Nazi State in 1928* variable is capturing an economic aspect of the states.

4 Extensions and robustness

4.1 Intense dislike of "others"

So far we have investigated the determinants of attitudes targeted towards specific groups, such as Jewish people or ethnic Germans as well as attitudes towards minorities as a group. In this section we identify individuals who have strong negative feelings about foreigners, minorities, and those of other races and Jews, and investigate if economic well-being has an impact on racist attitudes among this group of people.

We create two new variables. *Intense Dislike of Foreigners* is a dichotomous variable that takes the value of one if the respondent indicated that "Foreigners living in Germany should select their spouses from people of their own nationality," *and* if they *also agreed* with the statement that "Foreigners living in Germany should be barred from any kind of political activity." As Table 1 shows, 20 % of the sample agreed with the former statement and 32 % agreed with the latter. The mean of *Intense Dislike of Foreigners* is 0.12, meaning that 12 % of the respondents agreed with *both* of these statements.

[17] They also show that anti-Semitism is stronger among the cohort that grew up under the Nazi regime and that different zones of Germany, occupied by different countries after the WW II, exhibit different patterns of anti-Semitism.

Table 10 Intense dislike of others as an outcome

	(1) Intense dislike of foreigners	(2) Intense dislike of intermarriage
Panel A		
Good Personal Economic Conditions	−0.0369***	−0.0154***
	(0.0090)	(0.0058)
Bad Personal Economic Conditions	0.0200	0.0296**
	(0.0131)	(0.0115)
Observations	5183	5037
Adj. R^2	0.077	0.051
Panel B		
Good Personal Economic Conditions	−0.0353***	−0.0161***
	(0.0092)	(0.0058)
Bad Personal Economic Conditions	0.0235*	0.0313**
	(0.0129)	(0.0121)
Foreign contact at work	−0.0263**	−0.0090
	(0.0120)	(0.0054)
Foreign contact in family	−0.0381***	−0.0236***
	(0.0113)	(0.0064)
Observations	5061	4921
Adj. R^2	0.080	0.052

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include all control variables presented in Tables 4, 5, 6, controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies. *Intense Dislike of Foreigners* is a dummy variable that is equal to one if the respondent thinks that foreigners should choose to marry people of their own nationality and that any kind of political participation for foreigners should be prohibited. *Intense Dislike of Intermarriage* is a dummy variable that is equal to one if the respondent thinks that foreigners should choose to marry people of their own nationality and that a Jew, Turk, Italian, Asylum Seeker, or Aussiedler marrying into their family would be unpleasant

Intense Dislike of Intermarriage takes the value of one if the individual believes that "Foreigners living in Germany should select their spouses from people of their own nationality," and in addition, he/she feels that it would be unpleasant if either a Jewish person, or a Turk, an Italian or an ethnic German, or an Asylum Seeker married into their family. Only 5 % of the sample feels this strongly negative about intermarriage.

Table 10 reports the summary results of the regressions using strong negative feelings as outcomes. Once again, we observe that racist attitudes are subdued when the person thinks his/her personal economic conditions are good, and they are intensified when personal economic conditions are bad. The impact of having contact with foreigners is significant even in this sample of those who have strong negative feelings.

4.2 The impact of sector of work and self-employment

The models estimated so far include a variable that measures whether the person is working in the labor market. We also estimate models that introduce detailed job classification for those who work. Specifically, in the data set each individual is classified into a job category such as self-employed farmer, self-employed professional, other self-employed, civil servant or member of the military, laborer, employee (non-laborer), and trainee. As Table 2 shows 57 % of the sample is working in the labor market (non-workers include students, homemakers, retired people as well as those who are otherwise not in the labor force). Table 2 also shows that we have information on sector of work for 53 % of the sample, indicating that some workers have not provided information about their type of work.

Table 11 displays the result of the models that include the variables on sector of work. To conserve space we report the models where the indices of racism, xenophobia and anti-Semitism are used as the dependent variables. The regression results that use the specific questions are consistent with those reported in Table 11, which are reported in Appendix Tables 20, 21, 22. These are the same models as in benchmark models of Tables 4, 5, 6, but the variable *Currently Working* is replaced by variables identifying employment category. The results show that laborers, self-employed farmers and employees have stronger xenophobic, anti-Semitics and racist feelings in comparison to those who are in other occupation and those who are not in the labor force. Note that these results emerge despite the fact that the models control for the impact of education. Other results, including the impact of economic well-being, are consistent with those reported earlier. Some coefficients are not reported in Table 11, and they are consistent with previous results as well. For example, as in all previous models, men have consistently stronger racist attitudes. The specifications that include the *Nazi State in 1928* variable show that this variable is significant in explaining anti-Semitic feelings as reported in earlier regressions. We also ran these models by excluding non-workers. In these models we used the "Employee" category as the left-out comparison group. We found the same results: Self-employed farmers and laborers have stronger racist feelings than employees, and civil servants and self-employed professionals have weaker racist feelings.

It is possible that those with stronger negative feelings towards "others" decide to become self-employed to avoid contact with foreigners and with those of other ethnic or religious backgrounds. Indeed, 46 % of self-employed have contact with foreigners at work, while 54 % of workers who are not self-employed have contact with foreigners. This difference is statistically significant. The rate of *Foreign Contact in Family* is not statistically significantly different between the groups (22 % for self-employed and 19 % for non-self-employed). In order to test whether the results are driven by the self-employed, we dropped all self-employed individuals and re-estimated the models. The summary of the results, obtained from this sample of non-self-employed workers are reported in Table 12. The results are very similar to those reported earlier, including the coefficients of "*Foreign Contact*" at work and in family, indicating that the results are not sensitive to the exclusion of the self-employed from the analysis.

Table 11 The impact of perceived personal economic conditions on racism, xenophobia, and anti-Semitism: detailed employment classifications

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index
Good Personal Economic Conditions	−0.0315***	−0.0418***	−0.0321***
	(0.0084)	(0.0090)	(0.0085)
Bad Personal Economic Conditions	0.0395***	0.0022	0.0341**
	(0.0124)	(0.0161)	(0.0140)
Self-employed	0.0944**	0.1459***	0.2190***
Farmer	(0.0419)	(0.0452)	(0.0530)
Self-employed	−0.0058	0.0265	−0.0004
Professional	(0.0315)	(0.0377)	(0.0291)
Other	0.0102	0.0226	0.0627***
Self-employed	(0.0203)	(0.0242)	(0.0215)
Civil servant or military	−0.0276	0.0388	−0.0088
	(0.0197)	(0.0255)	(0.0180)
Employee	0.0244*	0.0486***	0.0411**
	(0.0129)	(0.0174)	(0.0164)
Laborer	0.0655***	0.0580***	0.0652***
	(0.0195)	(0.0212)	(0.0183)
In training	0.0147	0.0602	0.0054
	(0.0424)	(0.0403)	(0.0354)
Foreign contact at work	−0.0296***	−0.0358***	−0.0286***
	(0.0085)	(0.0084)	(0.0075)
Foreign contact in family	−0.0519***	−0.0809***	−0.0258**
	(0.0108)	(0.0100)	(0.0106)
Nazi State in 1928			0.0727***
			(0.0187)
Observations	5050	5036	5038
Adj. R^2	0.140	0.093	0.125

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include all control variables that were used in the specifications presented in Tables 4, 5, 6, controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as year dummies. Specifications in columns 1 and 2 also include state dummies

4.3 Are the results gender-specific?

To investigate if these results are driven my males or females, we re-estimated the entire set of regressions using only males or only females. Appendix Table 23 displays the descriptive statistics of the dependent variables by gender. The mean values of the variables are very similar between sexes. Appendix Table 24 displays the results estimated separately in male- and female samples. There is remarkable similarity in the results. The point estimates are similar in both samples. For both

Table 12 The impact of perceived personal economic conditions on racism, xenophobia, and anti-Semitism: excluding self-employed

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index
Good Personal Economic Conditions	−0.0353***	−0.0432***	−0.0355***
	(0.0084)	(0.0098)	(0.0085)
Bad Personal Economic Conditions	0.0421***	0.0038	0.0336**
	(0.0127)	(0.0160)	(0.0142)
Foreign contact at work	−0.0278***	−0.0307***	−0.0254***
	(0.0087)	(0.0083)	(0.0075)
Foreign contact in family	−0.0550***	−0.0839***	−0.0249**
	(0.0119)	(0.0110)	(0.0118)
Nazi State in 1928			0.0676***
			(0.0199)
Observations	4709	4696	4698
Adj. R^2	0.139	0.090	0.115

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include all control variables that were used in the specifications presented in Tables 4, 5, 6, controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as year dummies. Specifications in columns 1 and 2 also include state dummies

males and females, good economic conditions have a dampening effect on racist, anti-Semitic and xenophobic feelings and bad economic conditions strengthen these feelings.

4.4 Are the results driven by males' frustration about "lack of job priority for German men"?

Although Appendix Table 24 shows that the results are not driven by gender differences, it could be the case that in case of men, the relationship between economic conditions and racist, anti-Semitic and xenophobic feeling could be a reflection of men's concern about economic conditions and their perceptions of "men's priority in the job market." More specifically, assume that German men get upset about not having sufficient job opportunities for them during economically difficult times and they blame "others" for such lack of opportunity. Under this scenario, this frustration would manifest itself in having negative attitudes towards "all others," including women.

To test this hypothesis we use five questions from the survey that gauge attitudes toward women's employment in the labor market and responsibilities at home. The descriptions of these variables are provided below. The survey asks the respondents whether they strongly disagree, disagree, agree, or strongly agree with each of these statements. We coded each variable as one if the respondent agreed or strongly agreed with the statement. In this analysis we use only men and the mean value of

men's agreement with each statement is provided following the variable description below.

"It is more important for a woman to help husband's career than have a career herself" (mean = 0.29), "An infant will certainly suffer if the mother is working in the market" (mean = 0.69), "It is better if a husband works and the wife stays at home tending to household and children" (mean = 0.43), "It is not good for a child if the mother is working in the market instead of just concentrating on the household" (mean = 0.39),[18] "A married woman should give up working if jobs are scarce and husband can provide for family" (mean = 0.42).

We ran the models using men only, replacing the variables measuring racism, anti-Semitism and xenophobia with the variables that gauge attitudes towards women's work. The results, displayed in Table 13, show that economic conditions have no impact on men's attitudes toward women's attachment to the labor market or on women's responsibilities at home. This indicates that men's perceptions of economic well-being do not trigger across-the-board reactions toward all others (in this case, women) who may be competing with men for jobs. Rather, economic well-being alters racist, anti-Semitic and xenophobic feelings.

The number of observations in Table 13 is small because the variables measuring attitudes towards women and information about migration background of the respondent are only jointly available in the 1996 survey. If we extend the sample to include all German citizens, without excluding those whose parents were not born in Germany, then we are able to make use of the survey years 1996, 2000, and 2012 in all regressions related to attitudes towards women. The results are presented in Table 14, and they corroborate the finding that economic conditions have no impact on men's attitudes towards women.

It can be argued that the reason for no relationship between men's economic conditions and their perceptions about men's priority in the job market could be because the sample includes married men, and these men might be more sympathetic to women's rights. When we excluded married men from the sample and estimated the regressions reported in Tables 13 or 14 using only unmarried men (never-married, divorced, widowed), we obtained very similar results.

4.5 Are the results due to directly "being upset about job scarcity because of foreigners"?

When economic well-being or the perception of economic well-being declines, individuals could be hostile towards foreigners on the grounds that foreigners are taking away jobs from natives. If this job market-related sentiment is strong enough, it could trigger racist and xenophobic feelings. Under this scenario, racist feelings are a by-product of fears about job loss because of foreigners, and not a direct consequence of economic well-being.

[18] This question was asked in converse as "It is actually good for a child if the mother is working in the market instead of just concentrating on the household." For consistency with other questions, we reversed the question and the answers.

Table 13 The impact of perceived personal economic conditions on opinions about women's equality (male-only sample)

	(1) More important for a woman to help husband's career, than have a career herself	(2) An infant will certainly suffer if the mother is working in the market	(3) Better if husband works and wife stays home tending to household and children	(4) It is not good for a child if the mother is working in market instead of concentrating on household	(5) A married woman should give up working if jobs are scarce and husband can provide for family
Good Personal Economic Conditions	−0.0315	−0.0086	−0.0144	0.0275	−0.0170
	(0.0284)	(0.0298)	(0.0307)	(0.0307)	(0.0305)
Bad Personal Economic Conditions	−0.0363	−0.0449	0.0313	−0.0116	0.0465
	(0.0422)	(0.0391)	(0.0516)	(0.0436)	(0.0585)
Foreign contact at work	0.0082	0.0056	0.0138**	−0.0029	0.0032
	(0.0062)	(0.0048)	(0.0063)	(0.0048)	(0.0058)
Foreign contact in family	0.0000	−0.0000	−0.0000	0.0000	0.0001
	(0.0001)	(0.0000)	(0.0001)	(0.0001)	(0.0001)
Age	0.0063	0.0528*	0.0140	0.0199	−0.0066
	(0.0314)	(0.0310)	(0.0344)	(0.0274)	(0.0320)
Age-squared	0.0313	0.0000	0.0391	0.0415	0.0657**
	(0.0360)	(0.0361)	(0.0489)	(0.0366)	(0.0286)
Married	0.0978	0.0183	−0.0721	0.1983**	0.1534
	(0.1214)	(0.0998)	(0.1466)	(0.0890)	(0.1260)
Catholic	−0.0570	0.0017	−0.0121	−0.0267	−0.0838
	(0.0496)	(0.0332)	(0.0337)	(0.0424)	(0.0510)
No religion/other religion	−0.0540	−0.0204	−0.0458	−0.0470	−0.1229**
	(0.0505)	(0.0466)	(0.0439)	(0.0421)	(0.0587)
Education: Vocational	−0.1735***	−0.0848*	−0.2178***	−0.0964*	−0.2499***
	(0.0624)	(0.0452)	(0.0605)	(0.0557)	(0.0596)

Table 13 continued

	(1) More important for a woman to help husband's career, than have a career herself	(2) An infant will certainly suffer if the mother is working in the market	(3) Better if husband works and wife stays home tending to household and children	(4) It is not good for a child if the mother is working in market instead of concentrating on household	(5) A married woman should give up working if jobs are scarce and husband can provide for family
Education: Adv. Technical	−0.0630	−0.0197	−0.0155	0.0147	0.0330
	(0.0399)	(0.0351)	(0.0400)	(0.0329)	(0.0404)
Education: College	0.0684	−0.0270	0.0339	−0.0208	−0.0121
	(0.0519)	(0.0691)	(0.0695)	(0.0673)	(0.0599)
Currently working	−0.0034	0.0315	−0.0138	0.0352	−0.1242***
	(0.0436)	(0.0406)	(0.0454)	(0.0519)	(0.0354)
City size: 50,000–99,999	−0.0368	0.0146	−0.0207	−0.0347	−0.1265***
	(0.0336)	(0.0348)	(0.0477)	(0.0475)	(0.0390)
City size: 100,000–499,999	−0.0793**	0.0097	−0.0547	0.0132	0.0514
	(0.0352)	(0.0371)	(0.0455)	(0.0539)	(0.0381)
City size: 500,000+	−0.0207	−0.0308	−0.0372*	−0.0414	−0.0257
	(0.0249)	(0.0217)	(0.0207)	(0.0316)	(0.0260)
Inner city	−0.0353	−0.0449	−0.0591	−0.0703*	−0.0454
	(0.0336)	(0.0396)	(0.0380)	(0.0415)	(0.0352)
Observations	1260	1296	1286	1259	1282
Adj. R^2	0.168	0.115	0.205	0.103	0.129

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 14 The impact of perceived personal economic conditions on opinions about women's equality (male-only)—extended sample

	(1) More important for a woman to help husband's career, than have a career herself	(2) An infant will certainly suffer if the mother is working in the market	(3) Better if husband works and wife stays home tending to household and children	(4) It is not good for a child if the mother is working in market instead of concentrating on household	(5) A married woman should give up working if jobs are scarce and husband can provide for family
Good Personal Economic Conditions	−0.0237	−0.0178	−0.0041	0.0107	−0.0238
	(0.0177)	(0.0154)	(0.0165)	(0.0217)	(0.0164)
Bad Personal Economic Conditions	−0.0084	−0.0191	0.0223	0.0110	0.0455
	(0.0288)	(0.0287)	(0.0291)	(0.0342)	(0.0353)
Foreign contact at work	0.0072**	0.0028	0.0086**	−0.0002	0.0053
	(0.0029)	(0.0036)	(0.0036)	(0.0039)	(0.0034)
Foreign contact in family	0.0000	0.0000	−0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Age	−0.0022	0.0478**	0.0073	0.0108	−0.0456**
	(0.0194)	(0.0206)	(0.0255)	(0.0236)	(0.0204)
Age-squared	0.0111	0.0176	0.0106	0.0367	0.0437*
	(0.0227)	(0.0268)	(0.0263)	(0.0240)	(0.0231)
Married	0.1617*	−0.0142	−0.0091	0.1680**	0.1513*
	(0.0847)	(0.0757)	(0.0916)	(0.0769)	(0.0822)
Catholic	−0.0143	−0.0012	0.0000	−0.0261	−0.0419
	(0.0249)	(0.0280)	(0.0297)	(0.0274)	(0.0279)
No religion/other religion	−0.0457*	−0.0213	−0.0752**	−0.0343	−0.0981***
	(0.0271)	(0.0339)	(0.0321)	(0.0296)	(0.0339)
Education: Vocational	−0.1513***	−0.0890**	−0.2000***	−0.1251***	−0.2116***
	(0.0328)	(0.0368)	(0.0425)	(0.0349)	(0.0365)
Education: Adv. Technical	−0.0632**	−0.0085	−0.0410**	0.0236	−0.0213
	(0.0240)	(0.0187)	(0.0190)	(0.0211)	(0.0225)
Education: College	−0.0536	0.0115	0.0145	−0.0435	0.0103
	(0.0338)	(0.0348)	(0.0266)	(0.0347)	(0.0334)
Currently working	−0.0329	0.0140	−0.0074	0.0057	−0.0472**
	(0.0297)	(0.0259)	(0.0213)	(0.0255)	(0.0227)
City size: 50,000–99,999	−0.0336	0.0309	0.0001	−0.0252	−0.0504*
	(0.0229)	(0.0222)	(0.0228)	(0.0269)	(0.0279)
City size: 100,000–499,999	−0.0189	−0.0060	−0.0355	0.0096	−0.0032
	(0.0252)	(0.0245)	(0.0230)	(0.0248)	(0.0281)
City size: 500,000+	−0.0086	−0.0284**	−0.0120	−0.0323	−0.0385**
	(0.0190)	(0.0140)	(0.0202)	(0.0226)	(0.0171)
Inner city	−0.0007	−0.0297	−0.0210	−0.0433	−0.0215
	(0.0225)	(0.0184)	(0.0230)	(0.0286)	(0.0179)

Table 14 continued

	(1) More important for a woman to help husband's career, than have a career herself	(2) An infant will certainly suffer if the mother is working in the market	(3) Better if husband works and wife stays home tending to household and children	(4) It is not good for a child if the mother is working in market instead of concentrating on household	(5) A married woman should give up working if jobs are scarce and husband can provide for family
Observations	3087	3155	3157	3083	3130
Adj. R^2	0.141	0.151	0.192	0.110	0.143

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include state dummies and year dummies

Note that this conjecture pertains to natives being fearful about the scarcity of jobs, and therefore reacting negatively towards foreigners in a variety of ways, ranging from revealing displeasure to having them as neighbors to trying to prevent them from marrying anyone other than their own nationality. Because German Jews and German ethnic minorities (Aussiedler) are not foreigners, job and wage-related fear should not trigger racism or anti-Semitism against these groups. If it does, his could be an indication of behavior along the lines suggested by Loewenstein (2000). For example, Card and Dahl (2011) and Rees and Schnepel (2009) show that an unexpected loss of a football game triggers violence by men against women, suggesting the importance of reference points in behavior (DellaVigna 2009).

To investigate this hypothesis, we utilized a question in the German Social Survey that was used to ask the respondents the extent to which they agreed/disagreed with the statement that "When jobs get scarce, foreigners living in Germany should be sent home." About 28 % of the sample agreed or strongly agreed with this statement, and for this group the variable *Kick Out Foreigners when Jobs are Scarce* takes the value of one. Regression results that include this additional variable are presented in Appendix Table 25. These results are the counterpart to the results presented in Table 3a. Appendix Table 25 shows that the coefficient of *Kick out Foreigners when Jobs are Scarce* is always positive and different from zero. Having this variable in the regression reduces the impact of economic conditions on racist, anti-Semitic and xenophobic feelings, but it does not eliminate it. In some cases the reduction of the coefficient is sizable. For example, the coefficient of *Good Personal Economic Conditions* in the model reported in column (1) of Table 3a—where the dependent variable is the index measuring racist attitudes is −0.0344, and it is −0.0224 when the model includes the variable *Kick out Foreigners when Jobs are Scarce* (in column (1) of Appendix Table 25). This suggests that part, but not all, of the impact of economic well-being on racist attitudes is driven by concerns about competition with foreigners for jobs. It is interesting to note that the impact of economic well-being gets smaller also in regressions about xenophobic attitudes and anti-Semitic attitudes (columns 2 and 3), although the decline in magnitude is not as significant as in column (1). This

suggests that fears about job security trigger anti-Semitic and racist reactions, much like an unexpected loss of a football match triggers violence against women (Card and Dahl 2011). Nevertheless, controlling for the sentiment about sending foreigners off when jobs are scarce does not eliminate the impact of economic well-being on xenophobic, anti-Semitic and racist attitudes.

5 Conclusion and discussion

Recent research in economics has demonstrated that cultural attributes of individuals have significant impact on their economic behavior. While culture consists of many dimensions, certain attributes of a society, such as people's beliefs about the importance of the family, and whether people of a given country trust or distrust people from other countries have been used as indicators of culture (Alesina and Giuliano 2010; Bottazzi et al. 2011; Helliwell et al. 2014). Cultural traits of countries, such as distrust of others, are believed to be very stable; i.e. they change very slowly from generation to generation. This implies that culture has persistent, long-lasting impacts on behavior. On the other hand, economic conditions of individuals are shown to have an impact even on strong feelings, such as vengeance (Mocan 2013).

In this paper we use data from Germany collected in 1996 and 2006, to investigate the extent to which attitudes of Germans towards foreigners, Jews and ethnic Germans are related to personal characteristics of the respondents as well as the extent to which they believe that their personal economic circumstances or the economic conditions in Germany are good or bad.

The questions posed to Germans in the data set gauge the extent of anti-Semitic, xenophobic and racist feelings. They range from statements about foreigners such as "Foreigners should not be allowed to marry anyone other than their own nationality," to statements about a specific group such as "Jews in Germany should not have the same rights as other Germans," or "It would be unpleasant to have a Turkish person as a neighbor." Note that "foreigners" does not refer to illegal immigrants because illegal immigration is practically non-existent in Germany. Instead, foreigners in the survey questions refer to non-Germans who are legal residents of Germany (such as guest workers or citizens of other EU countries). Similarly, "Jews" does not refer to citizens of Israel, but it refers to Jewish German citizens.

We analyze Germans with no immigration background (those who were born in Germany and whose parents were also born in Germany). A variety of empirical specifications yield very consistent results. Confirming the theoretical predictions of Glaeser (2005), education weakens anti-Semitic, xenophobic and racist feelings, and higher levels of education are associated with monotonically lower level of negative feelings. Those who have contact with foreigners at work or through family have weaker racist feelings. These results are not driven by selection into self-employment and the results hold among strong racists as well as those who have weaker racist

Voigtlaender and Voth (2012a) find that the extent of anti-Semitism 600 years ago, measured by persecutions and executions of Jews during the plague-era, predicts the extent of support of the Nazi Party in the 1928 elections in Germany. This suggests that anti-Semitic sentiments continued to exist in local areas for centuries. We extend on this idea and include in our specifications a measure of local support for the Nazi Party in 1928. Economic conditions of the German states today are not correlated with whether they were more supportive of the Nazi Party in the 1928 elections. We find that people who currently reside in states that have provided above-median support for the Nazi Party in 1928 are more anti-Semitic today in comparison to those who live elsewhere. This provides evidence that local cultural traits in terms of anti-Semitism persisted over the last 80 years.[19]

Importantly, we find that people's perceptions of their economic circumstances are related to their anti-Semitic, xenophobic and racist feelings. The data set contains questions on the respondents' evaluation of their own economic situation, and how they rate the current economic conditions in Germany. We find that, xenophobic, anti-Semitic and racist feelings are mitigated when people believe that their own economic situation is in good shape, and these feelings are magnified when people think that their personal economic situation is bad. The results are the same regardless of whether we use individuals' assessment of their personal economic well-being or the economic well-being of Germany. The results are similarly robust to using these measures jointly and also adding household income to the models. Household income has a separate negative association with racist, anti-Semitic and xenophobic feelings. Calculating the relationships in elasticity form reveals that the association between perceived economic well-being and these negative feelings is similar in magnitude to their association with actual economic well-being.

We show that very similar results are obtained when men and women are analyzed separately. It could still be the case that the relationship between economic conditions and racist, anti-Semitic and xenophobic feelings is a reflection of men's frustration about the job market in general, which then produces negative reactions against anyone who would compete for jobs, including women. We analyze men's responses to statements such as "A married woman should give up working if jobs are scarce and husband can provide for family," and "It is better if the husband works and wife stays at home tending to household and children," and find that economic conditions are not related to men's attitudes towards women's attachment to the labor market. This indicates that perceptions about economic well-being do not trigger across-the-board negative reactions stemming from job insecurity.

These results suggest that economic well-being of individuals influence how they perceive others who are "different" from them. More specifically, the negative/intolerant/prejudiced feelings about minorities are mitigated if economic well-being is improved. These findings are consistent with the model proposed by Akerlof and Kranton (2000, 2005) that underline the importance of identity in economic behavior and suggest that income (economic well-being) and identity are substitutes.

[19] This point is also made by Voigtlaender and Voth (2012b).

The results are important for a number of reasons. For example, the rise in international labor mobility and migration over the last two decades has made domestic populations more heterogeneous in many countries, and changed the landscape of labor markets. This phenomenon created debates ranging from job displacement of natives of the country by foreigners, to whether or not the inflow of the immigrants has an impact on economic productivity in the receiving country. A parallel debate centers around the extent to which immigrants adopt the mainstream lifestyle of the country to which they migrated, and economic and social problems that may have been generated by the presence of immigrants. A few recent and prominent examples include the debate on a law banning veils and other face coverings in public places (mostly applicable for Muslim immigrants) in France, the debate on the relationship between illegal immigration and crime in the United States.

Nevertheless, the trend of the change in the demographic composition of many developed countries, and the associated repercussions are expected to continue.[20] For example, the U.K. and eight other European Union countries have lifted restrictions in 2014 for Bulgarians and Romanians to work and reside in their countries. But, the expectation of Bulgarians and Romanians to move to the U.K. has created political turmoil that included comments of Prime Minister David Cameron against the predicted jump in migration on the one hand, and the warnings of the EU officials against "knee-jerk xenophobia" on the other hand (The Guardian; March 30, 2013); and the EU Commission President Jose Manuel Barroso warned EU countries against nationalism, xenophobia and racism (Reuters, October 30, 2013).[21] In February 2014 a referendum in Switzerland supported a quota on immigration, spearheaded by the right-wing Swiss People's party (SVP), prompting a reaction from the EU leaders, including German Chancellor Angela Merkel (Reuters, February 18, 2014).

Attitudes towards "others" have economic implications. For example, racist and xenophobic attitudes are likely to have discriminatory effects in a number of markets including the labor market, housing market and the money market with consequences on wage disparities, credit constraints and economic mobility. Such attitudes would also yield to under-utilization of resources and loss of productivity. An example is provided by Freeman and Huang (2014) who show that homophily in

[20] It is predicted that 55 % of the U.S. population will consist of African-Americans and those with Hispanic or Asian descent (U.S. Census Bureau). Populations of the EU countries are becoming more heterogeneous as well. A visible example of the inflow of foreigners and increased prevalence of second-generation immigrants in Europe can be seen in the soccer industry. In 1990, the prominent German soccer team Bayern Munich had three players on its 22-player roster who were not German (13.6 % of the roster). In 2013, almost half of the Bayern roster (46 %) consisted of foreign players. The same is true for any other soccer team in Europe. For example, the share of foreign players rose from 19 % in 1990 to 33 % in 2013 for the prominent Spanish soccer team Barcelona. The picture is even more striking regarding the national soccer teams. A player must have citizenship of that country to be eligible to play on the national team. In 1990, the French national soccer team had two black French players (14 % of 25 players). In 2013 the same team includes 9 black players (41 % of 22 players). German national soccer team had no player who was not of German descent in 1990. The team has 8 players in 2013 that have a migration background.

[21] Interestingly, research exists to show that life satisfaction of natives is higher in locations with higher concentration of immigrants (Akay et al. 2014).

research collaborations generates weaker scientific contributions. Similarly, Hong and Page (2004) show theoretically that a team of randomly selected agents from a diverse population outperforms a homogenous team of high ability agents. The intuition is that within-group diversity in perspective and problem solving becomes more important than average group ability. Lazear (1999) discusses that a multi-cultural team in a corporate environment, which combines workers of different cultures and exploits worker complementarities, could have a positive impact on productivity although costly communication can pose a constraint. On the other hand, ethno-linguistic fragmentation of a population can generate challenges regarding governance, especially if the institutions are weak. A more detailed discussion of costs and benefits of diversity is provided by Alesina and La Ferrara (2005).

Although the magnitude of the relationship between perceived economic conditions and racist attitudes becomes smaller in some cases when we control for the sentiment that foreigners should be sent home when jobs get scarce, it does not vanish. This indicates that job-related fears are not the only or even the principal source of the racist and xenophobic attitudes. Furthermore, controlling for the foreigner-induced job-related fears reduces the influence of economic well-being on anti-Semitic and racist feelings towards Jews and German ethnic minorities (Aussiedler), both of whom are German citizens. This provides some support for the potential importance of reference points in behavior, similar to that of Card and Dahl (2011) who report that an unexpected loss of a football game triggers violence against women.

In summary, our results show that xenophobic and racist reactions against "others" from foreign countries and cultures are alleviated when people feel more secure about their economic conditions and that, more generally and more importantly, the actual and perceived economic circumstances of people are related to feelings as strong as anti-Semitism and racism. These results suggest that civil liberties and equal rights of ethnic and religious minorities in various markets, ranging from housing to the labor market, might be especially in jeopardy during those periods where the majority feels that its economic well-being is uncertain. Thus, legal protection and the enforcement of such protective laws are particularly important during such periods.

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Appendix

See Tables 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25.

Table 15 The impact of perceived personal economic conditions on racism, xenophobia, and anti-Semitism: *models with age group dummies*

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index
Good Personal Economic Conditions	−0.0335***	−0.0402***	−0.0391***
	(0.0080)	(0.0084)	(0.0080)
Bad Personal Economic Conditions	0.0379***	0.0070	0.0398***
	(0.0123)	(0.0155)	(0.0133)
Age: 25–34	0.0727***	0.0171	0.0483***
	(0.0145)	(0.0262)	(0.0119)
Age: 35–44	0.0959***	0.0339	0.0766***
	(0.0176)	(0.0208)	(0.0125)
Age: 45–54	0.1098***	0.0650***	0.1117***
	(0.0175)	(0.0223)	(0.0142)
Age: 55–64	0.1580***	0.1278***	0.1760***
	(0.0183)	(0.0226)	(0.0143)
Age: 65–74	0.1814***	0.1538***	0.2131***
	(0.0195)	(0.0233)	(0.0167)
Age: 75+	0.2479***	0.1577***	0.1973***
	(0.0215)	(0.0287)	(0.0223)
Observations	5229	5214	5216
adj. R^2	0.123	0.075	0.127

Standard errors clustered at the Agegroup-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All specifications also include controls for the individual's age, gender, marital status, education, city size, and whether the individual lives in the inner city. The omitted age category is 18–24 year olds. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state fixed effects and year dummies

Table 16 The impact of perceived *National Economic Conditions* on racist attitudes

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
Good National Economic Conditions	−0.0092	−0.0326*	−0.0272	0.0114	−0.0018
	(0.0264)	(0.0174)	(0.0238)	(0.0153)	(0.0235)
Bad National Economic Conditions	0.0800***	0.0464***	0.0773***	0.0197**	0.0431**
	(0.0142)	(0.0099)	(0.0148)	(0.0082)	(0.0164)
Age	0.0043*	0.0047**	0.0048*	0.0023	0.0076***

Table 16 continued

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
	(0.0025)	(0.0021)	(0.0026)	(0.0022)	(0.0025)
Age-squared	−0.0000	0.0000	−0.0000	−0.0000	−0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0242	−0.0052	−0.0014	0.0017	0.0141
	(0.0150)	(0.0140)	(0.0168)	(0.0093)	(0.0156)
Female	−0.0167	−0.0078	−0.0015	−0.0233**	−0.0294**
	(0.0156)	(0.0103)	(0.0130)	(0.0102)	(0.0130)
Catholic	−0.0039	0.0193	−0.0115	0.0082	0.0221
	(0.0200)	(0.0130)	(0.0163)	(0.0131)	(0.0247)
No religion/other religion	−0.0150	−0.0135	−0.1203*	0.0509	−0.0356
	(0.0768)	(0.0404)	(0.0615)	(0.0529)	(0.0756)
Education: Vocational	−0.0149	−0.1187***	−0.0278	−0.0480***	−0.0645***
	(0.0208)	(0.0184)	(0.0251)	(0.0175)	(0.0216)
Education: Adv. Technical	−0.0875***	−0.1743***	−0.0293	−0.0757***	−0.1056***
	(0.0292)	(0.0213)	(0.0271)	(0.0226)	(0.0246)
Education: College	−0.1901***	−0.2158***	−0.1116***	−0.0770***	−0.1344***
	(0.0230)	(0.0192)	(0.0242)	(0.0222)	(0.0202)
Currently Working	−0.0232*	−0.0212	0.0018	−0.0289**	−0.0114
	(0.0139)	(0.0132)	(0.0173)	(0.0122)	(0.0133)
City size: 50,000–99,999	−0.0264	−0.0043	−0.0535	−0.0672***	−0.0777**
	(0.0288)	(0.0236)	(0.0325)	(0.0171)	(0.0333)
City size: 100,000–499,999	−0.0261	−0.0368**	0.0240	−0.0264*	−0.0620**
	(0.0229)	(0.0176)	(0.0303)	(0.0153)	(0.0237)
City size: 500,000+	−0.0104	−0.0399**	−0.0048	−0.0325*	−0.0974***
	(0.0243)	(0.0181)	(0.0262)	(0.0176)	(0.0260)
Inner city	−0.0057	−0.0150	−0.0213	−0.0102	−0.0042
	(0.0217)	(0.0178)	(0.0229)	(0.0117)	(0.0201)
Observations	5186	5201	5157	5130	5082
Adj. R^2	0.067	0.120	0.026	0.036	0.070

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 17 The impact of perceived *National Economic Conditions* on xenophobic attitudes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker
Good National Economic Conditions	−0.0215	−0.0427	−0.0034	−0.0652***	−0.0312	−0.0579***	−0.0272*	−0.0750***
	(0.0182)	(0.0273)	(0.0120)	(0.0236)	(0.0213)	(0.0199)	(0.0139)	(0.0239)
Bad National Economic Conditions	0.0596***	0.0523***	0.0194***	0.0721***	0.0587***	0.0577***	0.0336***	0.0406***
	(0.0120)	(0.0146)	(0.0070)	(0.0164)	(0.0126)	(0.0155)	(0.0096)	(0.0152)
Age	0.0036*	−0.0011	0.0025*	0.0000	0.0087***	0.0054*	0.0044**	0.0037
	(0.0021)	(0.0025)	(0.0015)	(0.0025)	(0.0025)	(0.0029)	(0.0017)	(0.0029)
Age-squared	−0.0000	0.0000*	−0.0000	0.0000	−0.0001**	0.0000	−0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	−0.0244*	0.0088	−0.0091	0.0387**	0.0106	0.0486***	0.0119	0.0603***
	(0.0126)	(0.0175)	(0.0074)	(0.0182)	(0.0153)	(0.0148)	(0.0114)	(0.0150)
Female	−0.0295***	−0.0261*	−0.0197***	−0.0305**	−0.0288**	−0.0329**	−0.0464***	−0.0317**
	(0.0110)	(0.0143)	(0.0074)	(0.0128)	(0.0145)	(0.0133)	(0.0100)	(0.0145)
Catholic	−0.0061	0.0333	0.0135	0.0232	0.0012	0.0288	0.0277*	0.0176
	(0.0171)	(0.0247)	(0.0097)	(0.0216)	(0.0186)	(0.0217)	(0.0159)	(0.0207)
No religion/other religion	−0.0509	−0.0140	−0.0191	0.0117	−0.1561***	−0.0895	−0.0200	−0.0797
	(0.0503)	(0.0652)	(0.0269)	(0.0844)	(0.0589)	(0.0731)	(0.0520)	(0.0788)
Education: Vocational	−0.0244	−0.0570**	−0.0394***	−0.0448*	−0.0190	−0.0567***	−0.0686***	−0.0422*
	(0.0182)	(0.0239)	(0.0129)	(0.0243)	(0.0238)	(0.0214)	(0.0195)	(0.0220)
Education: Adv. Technical	−0.0621***	−0.1031***	−0.0533***	−0.0636*	−0.0785***	−0.1119***	−0.1157***	−0.0718**
	(0.0213)	(0.0278)	(0.0136)	(0.0323)	(0.0261)	(0.0256)	(0.0212)	(0.0292)
Education: College	−0.0693***	−0.1605***	−0.0613***	−0.1423***	−0.1421***	−0.1749***	−0.1505***	−0.1559***
	(0.0251)	(0.0314)	(0.0145)	(0.0347)	(0.0291)	(0.0287)	(0.0244)	(0.0270)

Table 17 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker
Currently working	0.0111	−0.0097	−0.0049	0.0321*	0.0028	0.0171	−0.0104	0.0324*
	(0.0175)	(0.0170)	(0.0087)	(0.0181)	(0.0143)	(0.0182)	(0.0101)	(0.0178)
City size: 50,000–99,999	−0.0323	−0.0094	−0.0193	−0.0286	−0.0271	−0.0020	−0.0047	−0.0116
	(0.0261)	(0.0342)	(0.0143)	(0.0314)	(0.0353)	(0.0268)	(0.0188)	(0.0319)
City size: 100,000–499,999	0.0116	−0.0661**	−0.0226**	−0.0332	0.0083	−0.0476**	−0.0039	−0.0233
	(0.0225)	(0.0253)	(0.0102)	(0.0241)	(0.0263)	(0.0219)	(0.0158)	(0.0230)
City size: 500,000+	−0.0013	−0.0548**	−0.0039	−0.0011	−0.0218	−0.0468**	−0.0231	−0.0057
	(0.0224)	(0.0218)	(0.0106)	(0.0242)	(0.0248)	(0.0209)	(0.0174)	(0.0213)
Inner city	−0.0010	0.0167	−0.0001	−0.0274	−0.0148	−0.0022	−0.0164	−0.0269
	(0.0216)	(0.0197)	(0.0073)	(0.0260)	(0.0226)	(0.0228)	(0.0128)	(0.0279)
Observations	5178	5188	5183	5161	5157	5162	5167	5145
Adj. R^2	0.032	0.053	0.025	0.033	0.044	0.086	0.082	0.061

Table 18 The impact of perceived *National Economic Conditions* on anti-Semitic attitudes

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
Good National Economic Conditions	−0.0041	−0.0128	−0.0034	0.0242	0.0017	0.0019
	(0.0150)	(0.0201)	(0.0201)	(0.0202)	(0.0167)	(0.0191)
Bad National Economic Conditions	0.0420***	0.0608***	0.0331**	0.0708***	0.0463***	0.0480***
	(0.0124)	(0.0147)	(0.0153)	(0.0110)	(0.0103)	(0.0156)
Age	0.0078***	0.0081***	0.0113***	0.0038	0.0024	0.0099***
	(0.0023)	(0.0029)	(0.0024)	(0.0023)	(0.0017)	(0.0023)
Age-squared	−0.0000	−0.0000	−0.0000*	−0.0000	−0.0000	−0.0001**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0088	0.0353**	−0.0046	0.0002	−0.0048	0.0078
	(0.0115)	(0.0143)	(0.0150)	(0.0142)	(0.0128)	(0.0130)
Female	−0.0367***	−0.0744***	−0.1213***	−0.0361***	−0.0311***	−0.0379***
	(0.0128)	(0.0135)	(0.0125)	(0.0115)	(0.0089)	(0.0101)
Catholic	−0.0007	0.0029	−0.0144	0.0015	−0.0000	0.0160
	(0.0185)	(0.0203)	(0.0178)	(0.0179)	(0.0152)	(0.0256)
No religion/other religion	0.0911	−0.0017	−0.0238	−0.0398	−0.0437	−0.0222
	(0.0645)	(0.0694)	(0.0638)	(0.0586)	(0.0399)	(0.0653)
Education: Vocational	−0.0270*	0.0176	0.0132	−0.0471***	−0.0356**	−0.0806***
	(0.0161)	(0.0233)	(0.0206)	(0.0174)	(0.0154)	(0.0177)
Education: Adv. Technical	−0.0408**	−0.0249	−0.0114	−0.0769***	−0.0592***	−0.1405***
	(0.0199)	(0.0276)	(0.0264)	(0.0209)	(0.0189)	(0.0247)
Education: College	−0.1130***	−0.1821***	−0.1063***	−0.1473***	−0.1020***	−0.1801***

Table 18 continued

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
	(0.0203)	(0.0267)	(0.0243)	(0.0228)	(0.0170)	(0.0236)
Currently working	0.0061	0.0219	−0.0311**	0.0124	−0.0150	0.0097
	(0.0112)	(0.0182)	(0.0153)	(0.0170)	(0.0112)	(0.0166)
City size: 50,000–99,999	−0.0315	−0.0246	0.0067	−0.0527**	−0.0071	−0.0198
	(0.0222)	(0.0339)	(0.0221)	(0.0255)	(0.0186)	(0.0214)
City size: 100,000–499,999	−0.0407**	−0.0583***	−0.0391*	−0.0136	−0.0172	−0.0111
	(0.0190)	(0.0199)	(0.0220)	(0.0278)	(0.0157)	(0.0216)
City size: 500,000+	−0.0473*	−0.0255	0.0306	−0.0238	−0.0061	−0.0398**
	(0.0239)	(0.0302)	(0.0294)	(0.0258)	(0.0166)	(0.0192)
Inner city	−0.0046	−0.0006	−0.0451**	−0.0412*	−0.0151	−0.0334
	(0.0181)	(0.0272)	(0.0177)	(0.0245)	(0.0174)	(0.0201)
Observations	4884	4966	4913	5006	5091	5062
Adj. R^2	0.066	0.077	0.130	0.039	0.027	0.066

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 19 The impact of perceive personal economic conditions and national economic conditions on racist, anti-Semitic, and xenophobia attitudes

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index
Good Personal Economic Conditions	−0.0236***	−0.0239***	−0.0307***
	(0.0086)	(0.0085)	(0.0084)
Bad Personal Economic Conditions	0.0278**	−0.0046	0.0303**
	(0.0130)	(0.0156)	(0.0140)
Good National Economic Conditions	−0.0062	−0.0342**	0.0088
	(0.0124)	(0.0134)	(0.0113)
Bad National Economic Conditions	0.0438***	0.0447***	0.0389***
	(0.0068)	(0.0094)	(0.0093)
Age	0.0040***	0.0033**	0.0065***
	(0.0014)	(0.0015)	(0.0014)
Age-squared	−0.0000	−0.0000	−0.0000*
	(0.0000)	(0.0000)	(0.0000)
Married	0.0123	0.0204**	0.0134
	(0.0088)	(0.0097)	(0.0084)
Female	−0.0147*	−0.0303***	−0.0552***
	(0.0076)	(0.0081)	(0.0062)
Catholic	0.0085	0.0173	0.0050
	(0.0116)	(0.0138)	(0.0128)
No religion/other religion	−0.0240	−0.0510	−0.0203
	(0.0317)	(0.0419)	(0.0367)
Education: Vocational	−0.0532***	−0.0422***	−0.0204
	(0.0126)	(0.0138)	(0.0127)
Education: Adv. Technical	−0.0885***	−0.0778***	−0.0479***
	(0.0174)	(0.0148)	(0.0141)
Education: College	−0.1384***	−0.1259***	−0.1215***
	(0.0147)	(0.0191)	(0.0137)
Currently working	−0.0127	0.0090	0.0045
	(0.0098)	(0.0106)	(0.0108)
City size: 50,000–99,999	−0.0458***	−0.0155	−0.0226
	(0.0146)	(0.0190)	(0.0151)
City size:	−0.0269**	−0.0229*	−0.0288**
100,000–499,999	(0.0126)	(0.0132)	(0.0141)
City size: 500,000+	−0.0350***	−0.0193	−0.0142
	(0.0116)	(0.0137)	(0.0180)
Inner city	−0.0109	−0.0089	−0.0228
	(0.0120)	(0.0148)	(0.0146)
Observations	5213	5198	5201
Adj. R^2	0.129	0.082	0.131

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

Table 20 The impact of perceived personal economic conditions on racism: detailed employment classifications

	(1) Foreigners should be barred from any political activity	(2) Foreigners should marry only people of their own nationality	(3) Ethnic Germans from Eastern Europe living in Germany should not have the same rights as other Germans	(4) It is okay for a restaurant proprietor to refuse to serve foreigners	(5) It is okay for parents to forbid their 17-year old daughter to be friends with a Turkish youth
Good Personal Economic Conditions	−0.0525***	−0.0364***	−0.0371**	−0.0143	−0.0138
	(0.0152)	(0.0110)	(0.0162)	(0.0106)	(0.0146)
Bad Personal Economic Conditions	0.0373**	0.0228*	0.0651**	0.0357**	0.0311
	(0.0166)	(0.0133)	(0.0292)	(0.0149)	(0.0217)
Self-employed farmer	0.2317**	0.0574	0.0882	−0.0116	0.1006
	(0.1038)	(0.0826)	(0.0918)	(0.0471)	(0.0952)
Self-employed professional	0.0144	−0.0218	−0.0232	0.0600	−0.0663
	(0.0656)	(0.0373)	(0.0770)	(0.0471)	(0.0546)
Other self-employed	0.0505	−0.0224	0.0119	−0.0048	0.0097
	(0.0409)	(0.0280)	(0.0493)	(0.0272)	(0.0335)
Civil servant or military	−0.0412	−0.0404	−0.0362	−0.0090	−0.0254
	(0.0372)	(0.0287)	(0.0453)	(0.0202)	(0.0473)
Employee	0.0634*	0.0070	0.0218	0.0059	0.0160
	(0.0343)	(0.0271)	(0.0377)	(0.0196)	(0.0264)
Laborer	0.1396***	0.0494	0.0366	0.0425*	0.0532**
	(0.0389)	(0.0315)	(0.0414)	(0.0219)	(0.0251)
In training	0.1167	−0.0460	−0.0498	−0.0078	0.0469
	(0.0815)	(0.0455)	(0.0727)	(0.0317)	(0.0661)
Foreign contact at work	−0.0561***	−0.0363**	−0.0196	−0.0206**	−0.0165
	(0.0140)	(0.0149)	(0.0132)	(0.0102)	(0.0162)
Foreign contact in family	−0.0500**	−0.0391***	−0.0794***	−0.0284**	−0.0640***
	(0.0215)	(0.0127)	(0.0162)	(0.0111)	(0.0167)
Observations	5020	5034	4993	4971	4924
Adj. R^2	0.073	0.125	0.028	0.043	0.077

Standard errors clustered at the Agegroup-State level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All specifications also include controls for the individual's age, gender, marital status, education, city size, and whether the individual lives in the inner city. The omitted age category is 18-24 year olds. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state fixed effects and year dummies

Table 21 The impact of perceived personal economic conditions on xenophobia: detailed employment classifications

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker
Good Personal Economic Conditions	−0.0636***	−0.0548***	−0.0156*	−0.0457***	−0.0496***	−0.0352**	−0.0358***	−0.0302**
	(0.0151)	(0.0148)	(0.0079)	(0.0169)	(0.0148)	(0.0162)	(0.0104)	(0.0141)
Bad Personal Economic Conditions	−0.0156	0.0083	−0.0001	−0.0065	0.0288	−0.0096	0.0353*	−0.0136
	(0.0219)	(0.0240)	(0.0133)	(0.0221)	(0.0225)	(0.0222)	(0.0179)	(0.0248)
Self-employed farmer	0.0325	0.1475*	0.0574	0.1643*	0.1121	0.1741**	0.2144***	0.2567***
	(0.0870)	(0.0805)	(0.0547)	(0.0852)	(0.0957)	(0.0726)	(0.0804)	(0.0619)
Self-employed professional	0.0156	0.0085	0.0295	−0.0301	0.0817	0.0298	0.0112	0.0937
	(0.0631)	(0.0669)	(0.0371)	(0.0636)	(0.0721)	(0.0821)	(0.0542)	(0.0769)
Other self-employed	0.0044	0.0211	−0.0119	0.0672	0.0260	−0.0111	−0.0016	0.0771*
	(0.0397)	(0.0549)	(0.0209)	(0.0467)	(0.0412)	(0.0420)	(0.0255)	(0.0407)
Civil servant or military	−0.0011	0.0346	−0.0073	0.0560	0.0520	0.0761	0.0170	0.0925*
	(0.0421)	(0.0477)	(0.0233)	(0.0450)	(0.0452)	(0.0569)	(0.0259)	(0.0483)
Employee	0.0319	0.0936**	−0.0101	0.1366***	0.0312	0.0331	−0.0040	0.0721**
	(0.0330)	(0.0383)	(0.0154)	(0.0351)	(0.0324)	(0.0351)	(0.0188)	(0.0306)
Laborer	0.0004	0.0783*	−0.0139	0.0999**	0.0513	0.0760**	0.0163	0.1501***
	(0.0311)	(0.0417)	(0.0160)	(0.0433)	(0.0347)	(0.0348)	(0.0229)	(0.0399)
In training	−0.0468	0.1077*	−0.0141	0.0957	0.1186**	0.1280*	0.0257	0.1000
	(0.0526)	(0.0592)	(0.0249)	(0.0833)	(0.0460)	(0.0646)	(0.0568)	(0.0712)
Foreign contact at work	−0.0246*	−0.0447***	−0.0206***	−0.0567***	−0.0232	−0.0583***	−0.0205*	−0.0422***
	(0.0142)	(0.0156)	(0.0063)	(0.0187)	(0.0160)	(0.0135)	(0.0111)	(0.0139)
Foreign contact in family	−0.0485***	−0.0848***	−0.0119*	−0.0773***	−0.1200***	−0.1232***	−0.0588***	−0.1278***
	(0.0110)	(0.0213)	(0.0065)	(0.0180)	(0.0153)	(0.0185)	(0.0131)	(0.0189)

Table 21 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	It would be unpleasant to have neighbor who is				It would be unpleasant if a … person married into the family			
	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker	Ethnic German from Eastern Europe	Turkish	Italian	an Asylum Seeker
Observations	5008	5018	5014	4993	4988	4993	4999	4976
Adj. R^2	0.034	0.062	0.026	0.036	0.054	0.096	0.092	0.073

Table 22 The impact of perceived personal economic conditions on anti-Semitism: detailed employment classifications

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
Good Personal Economic Conditions	−0.0192	−0.0286**	−0.0302**	−0.0542***	−0.0339***	−0.0180
	(0.0136)	(0.0132)	(0.0124)	(0.0137)	(0.0090)	(0.0128)
Bad Personal Economic Conditions	0.0285	0.0668***	0.0232	0.0504**	0.0246	0.0167
	(0.0190)	(0.0206)	(0.0189)	(0.0237)	(0.0170)	(0.0200)
Self-employed farmer	0.1388	0.1515**	0.2000**	0.1908*	0.1527**	0.4076***
	(0.1084)	(0.0669)	(0.0847)	(0.0981)	(0.0638)	(0.0821)
Self-employed professional	0.0324	−0.0119	0.0312	−0.0360	0.0007	−0.0545
	(0.0460)	(0.0963)	(0.0501)	(0.0611)	(0.0177)	(0.0453)
Other self-employed	0.0593*	0.1067**	0.1293***	0.0071	0.0204	0.0351
	(0.0333)	(0.0474)	(0.0436)	(0.0380)	(0.0192)	(0.0376)
Civil servant or military	−0.0203	−0.0450	0.0231	−0.0121	0.0159	−0.0051
	(0.0288)	(0.0449)	(0.0438)	(0.0346)	(0.0222)	(0.0353)
Employee	0.0201	0.0231	0.0721**	0.0279	0.0578***	0.0217
	(0.0240)	(0.0340)	(0.0355)	(0.0283)	(0.0169)	(0.0303)
Laborer	0.0307	0.0902**	0.1028**	0.0302	0.0697***	0.0481

Table 22 continued

	(1) Due to their behavior, Jews are not entirely innocent of their persecution	(2) Many Jews try to profit today from the history of the Third Reich	(3) Jews have too much influence in the world	(4) Jewish people living in Germany should not have the same rights as other Germans	(5) It would be unpleasant to have neighbor who is	(6) It would be unpleasant if Jewish person married into the family
	(0.0304)	(0.0408)	(0.0402)	(0.0306)	(0.0204)	(0.0307)
In training	−0.0080	−0.0730	0.0485	−0.0508	0.0763**	0.0190
	(0.0387)	(0.0696)	(0.0516)	(0.0583)	(0.0333)	(0.0513)
Foreign contact at work	−0.0248*	−0.0325	−0.0305**	−0.0226*	−0.0222**	−0.0525***
	(0.0127)	(0.0206)	(0.0145)	(0.0125)	(0.0104)	(0.0127)
Foreign contact in family	0.0106	−0.0032	−0.0224	−0.0553***	−0.0422***	−0.0569***
	(0.0163)	(0.0209)	(0.0241)	(0.0172)	(0.0114)	(0.0168)
Nazi State in 1928	0.0891***	0.1032***	0.1165***	0.0639***	0.0297**	0.0199
	(0.0232)	(0.0336)	(0.0274)	(0.0206)	(0.0138)	(0.0294)
Observations	4738	4814	4768	4855	4927	4897
Adj. R^2	0.056	0.070	0.121	0.040	0.033	0.070

Standard errors clustered at the Agegroup-State level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All specifications also include controls for the individual's age, gender, marital status, education, city size, and whether the individual lives in the inner city. The omitted age category is 18-24 year olds. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well year dummies

Table 23 Descriptive statistics by gender

Variable	Females			Males		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Foreigners should marry their own	0.220	0.414	2631	0.185	0.388	2579
No politics for foreigners	0.325	0.469	2616	0.312	0.464	2578
No equal rights for Aussiedler	0.300	0.458	2604	0.288	0.453	2560
Okay to discriminate in restaurants	0.111	0.314	2592	0.115	0.319	2546
Okay to forbid teen a Turkish friend	0.340	0.474	2567	0.341	0.474	2523
No equal rights for Jews	0.216	0.412	2522	0.234	0.423	2491
Unpleasant neighbor—Jewish	0.117	0.321	2565	0.126	0.332	2534
Unpleasant marriage—Jewish	0.247	0.431	2556	0.259	0.438	2513
Jews are guilty of their persecution	0.161	0.368	2454	0.179	0.383	2436
Jews take advantage of history	0.431	0.495	2478	0.490	0.500	2493
Jews have too much influence	0.215	0.411	2442	0.308	0.462	2477
Unpleasant neighbor—Aussiedler	0.228	0.420	2613	0.244	0.430	2572
Unpleasant neighbor—Turkish	0.402	0.490	2619	0.392	0.488	2576
Unpleasant neighbor—Italian	0.069	0.254	2622	0.077	0.266	2569
Unpleasant neighbor—Asylum Seeker	0.488	0.500	2604	0.499	0.500	2564
Unpleasant marriage—Aussiedler	0.317	0.465	2610	0.321	0.467	2554
Unpleasant marriage—Turkish	0.552	0.497	2614	0.546	0.498	2555
Unpleasant marriage—Italian	0.162	0.368	2619	0.181	0.385	2557
Unpleasant marriage—Asylum Seeker	0.588	0.492	2607	0.594	0.491	2545

Table 24 Gender specific estimation results

	(1) Racism Index Females only	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index Males only	(5) Xenophobia Index	(6) Anti-Semitism Index
Good Personal Economic Conditions	−0.0303***	−0.0234**	−0.0310***	−0.0389***	−0.0536***	−0.0444***
	(0.0105)	(0.0110)	(0.0110)	(0.0108)	(0.0146)	(0.0131)
Bad Personal Economic Conditions	0.0336**	0.0176	0.0319**	0.0448**	−0.0046	0.0451**
	(0.0144)	(0.0184)	(0.0160)	(0.0174)	(0.0255)	(0.0205)
Age	0.0059***	0.0057***	0.0074***	0.0015	−0.0003	0.0053**
	(0.0019)	(0.0021)	(0.0015)	(0.0017)	(0.0023)	(0.0022)
Age-squared	−0.0000	−0.0000	−0.0000**	0.0000	0.0000	−0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Married	0.0161	0.0217*	0.0119	0.0118	0.0219	0.0121
	(0.0099)	(0.0118)	(0.0111)	(0.0136)	(0.0182)	(0.0138)
Catholic	0.0018	0.0299	−0.0025	0.0108	−0.0015	0.0127
	(0.0126)	(0.0186)	(0.0152)	(0.0161)	(0.0184)	(0.0153)
No religion/other religion	−0.0505	0.0378	0.0215	−0.0074	−0.0972**	−0.0505
	(0.0511)	(0.0628)	(0.0654)	(0.0424)	(0.0462)	(0.0399)
Education: Vocational	−0.0783***	−0.0361**	−0.0372**	−0.0098	−0.0347	0.0006
	(0.0137)	(0.0171)	(0.0171)	(0.0191)	(0.0225)	(0.0167)
Education: Adv. Technical	−0.1200***	−0.0949***	−0.0867***	−0.0384	−0.0468*	−0.0136
	(0.0179)	(0.0176)	(0.0196)	(0.0231)	(0.0250)	(0.0215)
Education: College	−0.1551***	−0.1430***	−0.1309***	−0.1096***	−0.1098***	−0.1136***
	(0.0198)	(0.0250)	(0.0180)	(0.0197)	(0.0264)	(0.0208)
Currently working	−0.0124	−0.0040	0.0043	−0.0115	0.0270	0.0077
	(0.0120)	(0.0131)	(0.0136)	(0.0129)	(0.0173)	(0.0159)

Table 24 continued

	(1) Racism Index Females only	(2) Xenophobia Index	(3) Anti-Semitism Index	(4) Racism Index Males only	(5) Xenophobia Index	(6) Anti-Semitism Index
City size: 50,000–99,999	−0.0627***	−0.0230	−0.0142	−0.0289	−0.0141	−0.0312
	(0.0169)	(0.0223)	(0.0162)	(0.0244)	(0.0260)	(0.0242)
City size: 100,000–499,999	−0.0399**	−0.0329*	−0.0153	−0.0176	−0.0156	−0.0505**
	(0.0155)	(0.0167)	(0.0164)	(0.0167)	(0.0180)	(0.0202)
City size: 500,000+	−0.0440***	−0.0324**	0.0086	−0.0254	−0.0105	−0.0393**
	(0.0138)	(0.0150)	(0.0227)	(0.0174)	(0.0214)	(0.0191)
Inner city	−0.0040	−0.0043	−0.0253	−0.0185	−0.0128	−0.0151
	(0.0153)	(0.0191)	(0.0158)	(0.0153)	(0.0189)	(0.0167)
Observations	2641	2634	2631	2588	2580	2585
Adj. R^2	0.147	0.096	0.108	0.099	0.056	0.136

Table 25 The impact of perceived personal economic conditions on racism, xenophobia, and anti-Semitism—control for *kick out foreigners when jobs get scarce*

	(1) Racism Index	(2) Xenophobia Index	(3) Anti-Semitism Index
Good Personal Economic Conditions	−0.0225***	−0.0291***	−0.0287***
	(0.0077)	(0.0081)	(0.0077)
Bad Personal Economic Conditions	0.0262**	−0.0009	0.0337**
	(0.0118)	(0.0149)	(0.0131)
Kick Out	0.1932***	0.1512***	0.1267***
	(0.0091)	(0.0131)	(0.0096)
Age	0.0039***	0.0031**	0.0069***
	(0.0013)	(0.0014)	(0.0014)
Age-squared	−0.0000	−0.0000	−0.0000**
	(0.0000)	(0.0000)	(0.0000)
Married	0.0083	0.0178*	0.0106
	(0.0082)	(0.0098)	(0.0079)
Female	−0.0153**	−0.0282***	−0.0552***
	(0.0076)	(0.0082)	(0.0066)
Catholic	0.0022	0.0107	0.0008
	(0.0112)	(0.0141)	(0.0127)
No religion/other religion	−0.0159	−0.0436	−0.0143
	(0.0280)	(0.0393)	(0.0360)
Education: Vocational	−0.0385***	−0.0317**	−0.0118
	(0.0112)	(0.0137)	(0.0122)
Education: Adv. Technical	−0.0601***	−0.0550***	−0.0321**
	(0.0150)	(0.0142)	(0.0134)
Education: College	−0.1014***	−0.0998***	−0.1002***
	(0.0128)	(0.0192)	(0.0125)
Currently working	−0.0103	0.0135	0.0074
	(0.0089)	(0.0105)	(0.0108)
City size: 50,000–99,999	−0.0465***	−0.0205	−0.0247
	(0.0146)	(0.0181)	(0.0149)
City size: 100,000–499,999	−0.0199	−0.0197	−0.0267*
	(0.0128)	(0.0136)	(0.0140)
City size: 500,000+	−0.0280**	−0.0180	−0.0134
	(0.0109)	(0.0139)	(0.0181)
Inner city	−0.0069	−0.0052	−0.0185
	(0.0121)	(0.0147)	(0.0144)
Observations	5203	5187	5188
Adj. R^2	0.229	0.122	0.166

Standard errors clustered at the age group-state level in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions use sampling weights, and also include controls for the percent of foreigners in the respondent's state of residence, the age structure of the state population, per capita state level GDP, as well as state dummies and year dummies

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