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DISCUSSION PAPER SERIES

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ABSTRACT

The Perceived Impact of Immigration on Native Workers' Labour Market Outcomes

A sizeable literature analyses how immigration affects attitudes towards migrants and discusses differences between socio-economic groups and their potential correlation with perceived concerns about labour market competition. Against the background of the large-scale influx of refugees into Germany between 2015 and 2016, this paper uses data from a unique and representative survey of the German population to assess whether respondents express fears of job loss due to immigration. We focus on the importance of perceptions of migrants' ability to do one's job in relation to these fears. Moreover, we compare concerns about refugees with those about EU migrants and propose several hypotheses. Our findings indicate that: (i) Respondents are more likely to view EU migrants as potential competitors in the labour market. (ii) Workers in blue-collar occupations and without tertiary education are more likely to view migrants as potential competitors on the labour market. (iii) The perception of potential competition from migrants strongly predicts fear of job loss. Once we control for this perception, occupation and skill levels are no longer significantly related to the probability of reporting fear of job loss. Moreover, there are no longer significant differences between the two migrant groups. (iv) Anti-migrant sentiments are also associated with concerns about job loss.

JEL Classification: F22, J61, D84

Keywords: refugees, EU migration, immigration, labour market, perceptions, competition, job loss, Germany

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1 Introduction

The refugee wave in 2015-16 has put deep strains on the fabric of many European societies. Germany received the largest number of refugees, roughly 1.2 million. This led to substantial tensions in German society, with anti-immigrant movements gaining unprecedented support. At the same time, and much less noticed, the number of foreign workers in Germany, especially from other EU countries, also rose sharply.

In this study, we investigate labour market participants' attitudes towards both types of immigration, from the EU and through the right of asylum. Using a representative sample of the German population collected in 2018, we first analyse the extent to which labour market participants believe that these foreigners can do their jobs. Second, we assess the extent to which fears of job loss can be related to concerns about effective labour market competition from migrants. In a sense, workers' perceptions of labour market competition can be viewed as mediating the relationship between occupation, education, migrant origin, and fear of losing one's job to migrants.

Our analysis can be linked to several strands of literature. The strand most relevant to this paper is mainly concerned with the analysis of individual perceptions or subjective economic indicators. It examines the role of perceived labour market competition for attitudes towards immigration. Scheve and Slaughter (2001) analyse three years of individual-level data for the US. They conclude that low-skilled workers are relatively more anti-immigration than high-skilled workers. This finding is consistent with the view that concerns about labour market competition affect attitudes towards immigration if migrants are more likely to seek jobs occupied by low-skilled workers. In contrast, O'Connell (2011) finds no evidence that high-skilled natives react negatively to immigration of high-skilled workers. This could be because the former are protected from competition from the latter by labour market institutions.

Ortega and Polavieja (2012) employ the European Social Survey to estimate instrumental variable models that allow for heterogeneity at the individual, regional, and country levels. They find that natives who are hostile to immigration tend to work in low-immigration occupations. In contrast, high-skilled workers with more than 12 years of schooling have more pro-immigration attitudes. Workers in jobs with a high proportion of manual labour (communication-oriented work) tend to be relatively more (less) anti-immigration. They conclude that attitudes towards immigration are strongly affected by the specific type of qualification of workers. Using data from Austria, Halla et al. (2017) find that concerns about adverse labour market outcomes can also lead to increased vote shares for far-right parties. Based on county-level data from Germany, Tomberg et al. (2021) also report a positive relationship between the inflow of asylum seekers and far-right vote shares.

In contrast, Hainmueller and Hiscox (2007) analyse data from the 2003 European Social Survey and conclude that the relationship between a person's skill level and her attitude towards migration is not driven by fears of labour market competition. Similarly, Hainmueller et al. (2015) study a survey of US employees. They conclude that fear of labour market competition has no noteworthy effects on attitudes towards immigration. Haaland and Roth (2020) use a survey-based information experiment in a representative sample of the US population to investigate the causal impact of providing evidence showing that immigration does not have a negative impact on the labour market. Respondents who receive this information are significantly more supportive of immigration than those who do not. Likewise, Dylong and Uebelmesser (2024) find that the provision of information can counter concerns about labour market competition from migration.

We contribute to this strand of the literature by evaluating the extent to which the native population in Germany is concerned about job loss due to immigration, and how this concern varies with

observable worker characteristics, such as skill or occupational group. In contrast to the extant literature, however, we relate these concerns not only to differences in observable characteristics, but also explicitly ask survey participants about whether they believe that natives can do their job. Perceived substitutability arguably provides a more direct way of eliciting the relevance of perceived labour market competition for concerns about the adverse impact of immigration on one's own labour market prospects than observable characteristics that provide broad measures of jobs for which migrants may be more likely to compete, such as a person's skill level or occupation.

Regarding natives' perceptions of the impact of migrants on the labour market in general, Dempster and Hargrave (2017) provide a summary of many perspectives on public attitudes towards refugees and migrants. Foroutan (2013) and Gerhsitz et al. (2017) discuss the situation in Germany, with the former focusing on Muslim integration and the latter on the hike in refugee inflows in 2015 and 2016. However, the specific views of workers have not yet received sufficient attention. Of particular interest in this context is the question of whether anti-immigration attitudes are driven by egotropic or sociotropic considerations. The egotropic view, which is widely adopted in economic analysis in the form of a 'pocket-book' perspective, is based on the idea that economic strain, and in particular unemployment, causes anti-migration attitudes. For Germany, Betz (1990) and Scheepers et al. (1990) provide some evidence in support of this view. The opposite is argued by proponents of the sociotropic view. Here, ideological political views are responsible for anti-migration attitudes. For example, Hainmueller and Hiscox (2010) claim that labour market aspects do not have a strong influence on attitudes towards migration.

The second strand refers to the sizeable literature on the effects of immigrants on natives' labour market outcomes, such as wage levels or employment shares. Following Card's (1990) seminal paper on the effects of the Mariel boatlift, subsequent studies have sought to identify the effects of other large-scale and unexpected inflows of migrants (see, for example, Friedberg (2001) and Glitz (2012) for migration from the former Soviet Union to Israel and Germany, respectively). This literature has produced conflicting evidence concerning the impact of migration on natives' labour market outcomes. While Friedberg's (2001) instrumental variable estimates provide no evidence for adverse effects on natives, Glitz (2012) finds evidence for displacement among natives, but no effect on wages. By contrast, Dustmann et al. (2017) find that a sudden increase in cross-border commuting from the Czech Republic to Germany led to lower wages among younger workers and a decline in employment for older workers.

Proxying for the skill level of workers by their occupation, Orrenius and Zavodny (2007) study US survey data and report that an increase in the share of foreign-born workers has a significantly negative influence on the wages of natives in blue-collar occupations, but not on the wages of white-collar workers in skilled occupations. Further evidence of heterogeneous effects of immigration is provided by Dustmann et al. (2013), who show that negative wage effects are restricted to natives up to the 20th percentile of the wage distribution. This coincides with the position that immigrants tend to occupy in the wage distribution, suggesting that labour market competition due to immigration predominantly affects workers at the lower end of the wage distribution. Borjas and Monras (2016) analyse four different waves of refugee migration and find that, in general, immigration has an adverse impact on those natives who compete with immigrants for similar jobs. Our paper contributes to this literature by examining whether individuals with different characteristics differ in the extent to which they view immigration as a potential threat to their labour market prospects and relates this to the extent to which these individuals regard migrants as potential labour market competitors.

Within this strand of literature, our paper is also related to an emerging literature that analyses the effects of the 2015-16 refugee migration wave. For Germany, Berbée et al. (2022) show that exposure

to refugee migration at the local level raised employment in non-tradable sectors in the short-run due to an expansion in local demand caused by the arrival of refugees. Tumen (2016) provides evidence for the effects of Syrian refugee migration on the labour, goods and housing market in Turkey. Recent evidence for the German housing market by Unal et al. (2024) suggests that immigration flows increase price inflation for flats and rents, especially at the lower end of the market, whereas refugee flows have no significant impact.

The third strand of literature concerns the labour market integration of different types of refugees in Germany and in other countries. Using household panel data, the Institute for Employment Research (IAB) estimates that around ten years after their arrival, 70% of the migrants are employed and after 10 years in employment, their median income reaches about 90% of the median earnings of the German population (Brücker 2018). There is also evidence that refugees arriving in Germany enter the labour market later than other migrants (Salikutluk et al. 2016). Possible reasons include legal restrictions on access to the labour market after arrival, refugees' lower qualification levels, and their tendency to use informal job search methods. Regarding the match between educational level and job qualification, it is found that about a quarter to a third of migrants and refugees work below their formal educational level, compared to about 20% of native German workers. Finally, refugees earn less than other migrants. Likewise, Brell et al. (2020) report that refugees tend to have less favourable employment trajectories than other migrant groups, especially in terms of employment rates. Results by Fasani et al. (2022) indicate that refugees take longer to find a job than comparable migrants and, when employed, tend to work in lower-quality occupations. We relate to this literature by comparing natives' perceptions of two different groups of immigrants: EU migrants and refugees.

In contrast to most of the existing literature our investigation of the specific perspective of German labour market participants on the impact of migrants and refugees on their jobs takes a different approach: We focus on how immigration is perceived by the labour market participants themselves. In other words, rather than taking the objective perspective of an external observer, we investigate the degree to which the persons concerned feel threatened by EU and refugee migration. Specifically, we ask to what extent labour market participants in Germany believe that these foreigners will be able to perform their jobs and to what extent they fear losing their jobs or expect greater difficulties in finding new ones. Our empirical analysis of the answers to these questions is guided by a number of hypotheses, with a focus on egotropic aspects.

The remainder of the paper is structured as follows. The next section develops our hypotheses, Section 3 discusses our data and empirical methodology and Section 4 presents the results. Section 5 concludes.

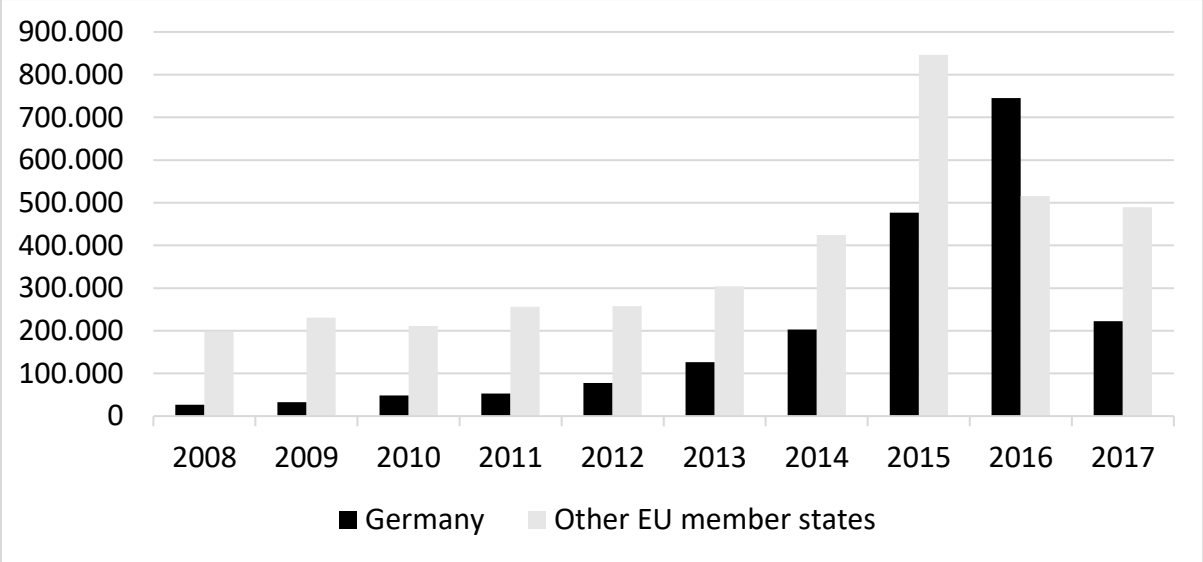
2 Context and developing hypotheses

2.1 The immigration situation in Germany

We examine the case of Germany, where the issue of immigration became particularly salient in the years preceding our survey. The two most important types of immigration flows are due to refugees and EU workers, the latter being able to enter Germany relatively easily within the Common Market. With regard to the first group the number of asylum applications in EU countries jumped to 2.5 million in 2015 and 2016 (see Figure 1). Almost half of these applications, that is, 1.2 million, were filed in Germany. In fact, Germany received more asylum-seekers in 2016 than all other EU Member States combined. The IAB-BAMF-SOEP survey (Brücker et al., 2022), which contains information on refugees who have arrived in Germany since January 2013, has been used to analyse the labour market integration of refugees. Based on this survey, Brücker et al. (2020) estimate that the share of refugees

who are working increases steadily with the time elapsed since arrival: two years after arrival, about 17% of refugees are estimated to be working, a figure that rises to 35% after three years. Compared to the German population, refugees are more frequently employed in unskilled jobs (by 2018, comprising 44% compared to 13% for Germans). However, the employment of refugees is not limited to unskilled jobs, as about 52% are employed in skilled jobs (compared to 60% for Germans). By contrast, the share of refugees working in jobs consisting of specialist and highly complex tasks is relatively modest (2% and 3%, respectively, compared to 14% for both categories amongst Germans). Refugees are frequently employed in production and manufacturing-related occupations (32%), transport, logistics, safety and security occupations (26%), and commercial services (17%).

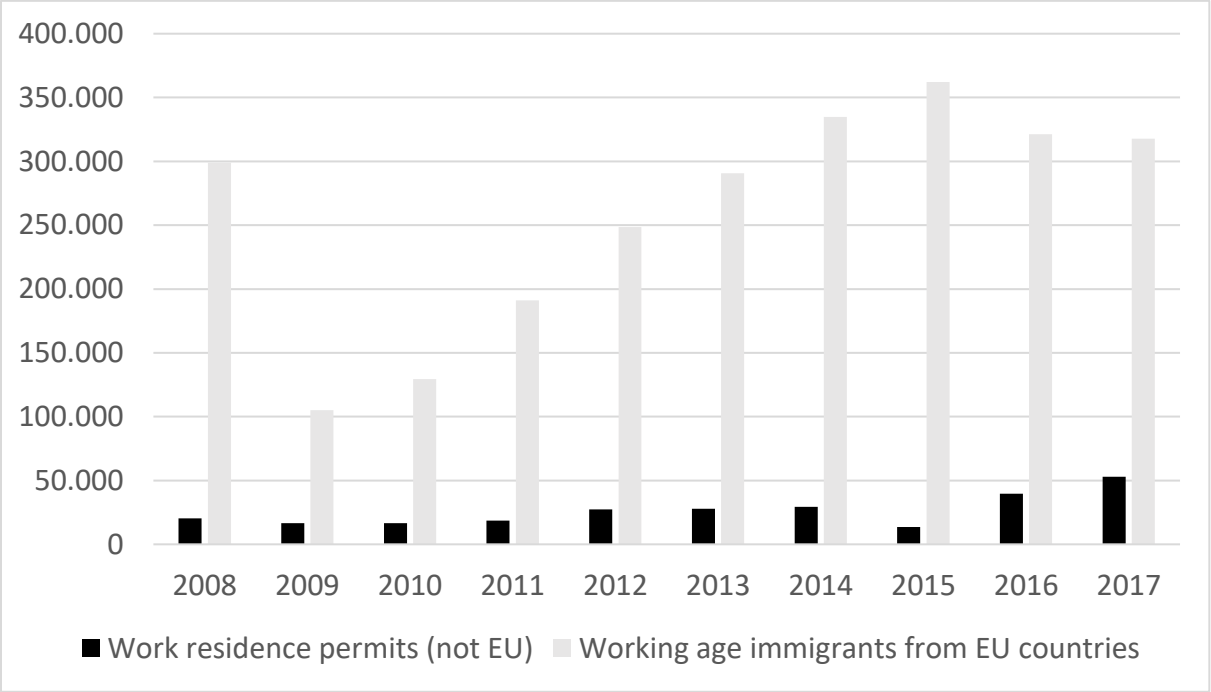
Figure 1: Number of asylum applications per year in Germany and the EU



Notes: The figure shows the annual number of asylum applications in Germany (black columns) and other EU member states (grey columns) from 2008 to 2017. Source: Federal Office for Migration and Refugees (*Bundesamt für Migration und Flüchtlinge*) and Eurostat.

At the same time, there has been a steady inflow of EU workers (see Figure 2). Since 2014, the number of migrant workers from the EU has exceeded 300,000 per year, many of them from Eastern Europe, while those from outside the EU have generally remained below 50,000.

Figure 2: Number of workers entering Germany from inside and outside the EU per year



Notes: The figure shows the annual number of work residence permits granted to non-EU national in Germany (black column), as well as the annual number of working age (20-64) immigrants from EU to countries to Germany (grey column) from 2008 to 2017. Source: Eurostat.

In 2018, the number of registered foreign workers of EU origin in Germany was around 1.5 million. Most EU workers come from a relatively small number of countries: there are 400,000 Poles and 350,000 Romanians and more than 600,000 workers from Greece, Italy, Portugal, and Spain (https://www.dw.com/en/eastern-europeans-filling-hundreds-of-thousands-of-new-german-jobs/a-45790776).

Considering these two types of immigration flows, we examine German labour market participants' beliefs about whether immigrants would be able to do their jobs. We then turn to an evaluation of the extent to which they express concerns about job loss as a result of immigration. Our main objective is to assess whether perceived labour market substitutability is related to concerns about job loss. To test this and other relationships, we formulate several empirical hypotheses. Our survey design implies that the results of those hypotheses that pertain to the difference in labour market participants' perceptions between EU migrants and asylum-related immigration can be interpreted as causal. This is because our survey design randomly assigns respondents to two groups, one of which is asked about EU migrants and the other one about asylum-related immigration. The socio-demographic structure of these two groups is nearly identical (see Hayo et al. 2018). The other hypotheses we consider are tested in the form of multivariate correlations linking socio-demographic, economic, and attitudinal variables to our questions of interest.

2.2 Hypotheses for 'Can migrants do your job?'

Our first hypothesis is that German labour market participants believe refugee migrants are less likely to be able to do their jobs than EU migrants (H1.1). There are two reasons for this hypothesis. First, migration from EU countries is more likely to be aimed at labour market integration than refugee migration, which is often the result of (unexpected) displacement. Second, there is existing evidence of less favourable labour market trajectories for refugees compared to non-refugee migrants after arrival in the host country (e.g., Brell et al. 2020, Fasani et al. 2022). These findings suggest that refugees are less able to compete with natives. Based on contact theory (Allport 1954), we also expect

that those respondents who report having had previous experiences with migrants are more likely to believe they can perform their jobs, especially if their experiences have been positive (H1.2). Finally, we expect that beliefs about potential competition in the labour market are related to observable characteristics that can be seen as proxies for the types of jobs in which natives are employed. Specifically, we hypothesise that blue-collar workers are more likely to regard migrants as being able to do their jobs (H1.3) and tertiary-educated workers are less likely to do so (H1.4). These hypotheses build on existing evidence that attitudes towards migration are influenced by labour market competition (Scheve and Slaughter 2001) and that adverse effects on the labour market prospects of natives have been found at the lower end of the wage distribution (Dustmann et al. 2013).[1]Table 1 summarises these hypotheses.

Table 1: List of hypotheses for 'Can migrants do your job?'

Hypothesis		Expected sign
H1.1	Refugee migrants compared to EU migrants	-
H1.2	Labour market participants with positive migrant-related work experiences	+
H1.3	Blue-collar worker	+
H1.4	Tertiary education	-

Notes: The table shows the expected sign of the average marginal effect on the probability of stating that migrants can do one's job.

2.3 Hypotheses for 'Afraid of job loss because of migration?'

Regarding fear of job loss, our first hypothesis is that participants who believe migrants can do their jobs are more likely to be concerned about the potential adverse effects of migration on their labour market prospects (H2.1). This hypothesis is based on the assumption that survey participants attribute job loss to competition from migrant workers, which requires natives to think that foreign workers are capable of doing their jobs.[2]

Our second hypothesis is that participants are less likely to express concern about job loss due to refugee migration than due to migration from other EU countries (H2.2). However, if fears of job loss are primarily driven by perceived competition in the labour market, there may be no difference between the two groups once perceptions of migrants' ability to do one's job are controlled for.

We also expect blue-collar workers to be more likely (H2.3) and tertiary-educated workers to be less likely (H2.4) to express concerns about job loss. These hypotheses are based on evidence suggesting that migrants are more likely to compete for jobs in certain occupations or with certain skill requirements. However, if fears of job loss stem from perceptions of potential substitutability, then being a blue-collar worker or being tertiary-educated might not affect the likelihood of reporting fears of job loss when beliefs about migrants' ability to perform one's job are taken into account in the empirical analysis. Therefore, workers' perceptions of labour market competition can be seen as

[1] Hypotheses H1.3 and H1.4 are not intended to be general statements about migration, but depend crucially on the composition of migrants in terms of educational qualifications, experience, language skills, etc. It is therefore conceivable that, under different circumstances, white-collar workers would be more likely to believe that their jobs could be done by migrants.

[2] However, in our view, reporting to believe that migrants are able to do one's job is, not a sufficient condition for being concerned about job loss. For example, in times of high labour demand, the arrival of migrant workers may have no impact on incumbent workers.

mediating the relationship between occupation, education, migrant origin, and fear of losing one's job to migrants. These hypotheses are summarised in Table 2.

Table 2: List of hypotheses for 'Afraid of job loss because of migration?'

Hypothesis		Expected sign
H2.1	Migrants believed to be able to do perform one's job	+
H2.2	Refugee migrants compared to EU migrants	- (or 0)
H2.3	Blue-collar workers	+ (or 0)
H2.4	Tertiary education	- (or 0)

Notes: The table shows the expected sign of the average marginal effect on the probability of stating to be afraid of job loss because of migration.

3 Data and empirical strategy

3.1 The survey

The paper uses data from an omnibus survey, which was designed by the authors and conducted in the first quarter of 2018 by the *Gesellschaft für Konsumforschung (GfK)*, which is the largest private company in Germany specialising in public opinion surveys. The survey contains information on 2,015 individuals and is representative of the German population aged 14 and over. More information on the structure and content of the survey can be found in the corresponding documentation paper (Hayo et al., 2018).

The survey covers a wide range of socio-demographic and labour market characteristics as well as political preferences and personal attitudes. More importantly for this analysis, it provides information on how survey respondents view a range of migration-related issues, in particular, (A) whether they believe that migrants can do their job and (B) whether they are concerned about potential job loss as a result of immigration:

A) Can migrants perform your job

*(1) Group 1: Imagine that more people start looking for work in your home region. Assume that these are immigrants from the **European Union**. When you think about your own job, do you believe that it could be done by these immigrants?*

*(2) Group 2: Imagine that due to the influx of **refugees**, more people start looking for work in your home region. When you think about your own job, do you believe that it could be done by refugees?*

B) Afraid of job loss because of migration

*(1) Group 1: Imagine that more people start looking for work in your home region. Assume that these are immigrants from the **European Union**. Under these circumstances, would you be afraid that you might lose your job or that it might become more difficult for you to find a new job?*

*(2) Group 2: Imagine that due to the influx of **refugees**, more people start looking for work in your home region. Under these circumstances, would you be afraid that you might lose your job or that it might become more difficult for you to find a new job?*

A special feature of these two questions is that respondents are randomly assigned to one of two groups. The first group is asked about migrants from other European countries, while the second group is asked about refugee migrants. This distinction allows us to assess whether perceptions differ systematically between these two groups of migrants. In particular, the answers to the questions about

European migrants serve as an interesting benchmark against which to compare the responses to the questions about refugees. Table A1 in the Appendix shows that both groups are very similar in terms of most of the characteristics included in the survey.

3.2 Sample and variables

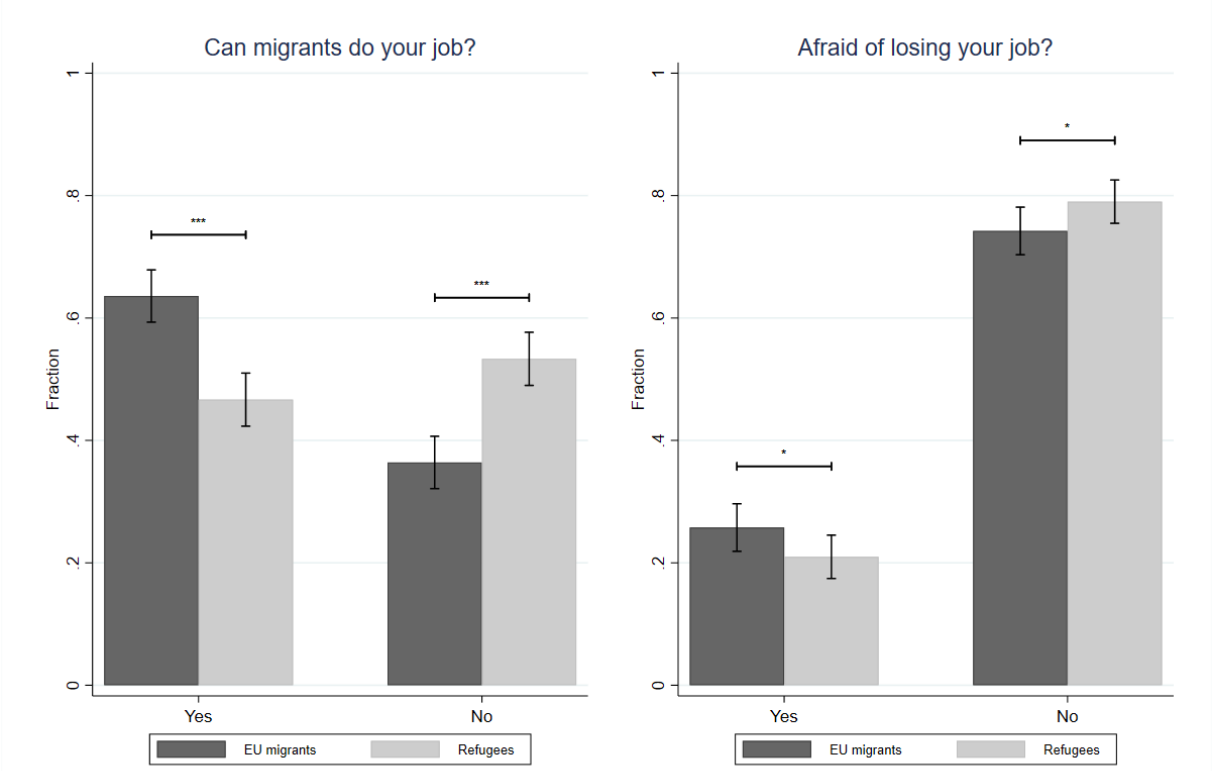
For the empirical analysis, we restrict the sample to labour market participants. This means that we retain only individuals aged between 16 and 65 years who report being either employed, unemployed or engaged in an apprenticeship at the time of the interview. Moreover, we drop all respondents who answer 'don't know' to either of the two main questions – perceived ability of migrants to do one's job and fear of losing one's job. After taking into account missing values, the sample consists of 999 observations.[3] In line with standard practice, we indicate statistical significance in graphs and tables at the 10%, 5%, and 1% levels. However, to ensure the statistical robustness of our findings, we focus in the final analysis on results that are significant at the 5% level or lower.

The left panel of Figure 3 shows that the respondents' perceptions of migrants' ability to perform their job are not the same for EU migrants and refugees. While a majority of 60% of respondents consider EU migrants to be potential substitutes in the labour market, only 40% of respondents consider refugees to be potential substitutes.[4] This difference is economically large and statistically significant. The finding that refugee migrants are, on average, less frequently considered capable of doing one's job provides descriptive evidence for hypothesis H1.1. One possible explanation for this difference is that people perceive refugees to be less skilled than EU migrants (possibly, because their main reason for migrating is not economic and they come from poorer countries) and are therefore less likely to see them as potential labour substitutes.

[3] The reduction in sample size results mainly from two factors: the imposition of an age restriction (-485 observations) and the focus on labour market participants (-313). Additionally, 137 observations are lost due to missing values (or 'don't know') in the two main variables of interest, while 81 observations are lost because of missing values in the control variables. Additional analysis reveals that 11% of the survey participants in the relevant sample either fail to answer or respond with 'don't know' to the survey's two main items ('Can migrants do your job?' and 'Afraid of losing your job because of migrants?'). These respondents differ from those who provide answers to these questions. First, they more often report having had experiences with migrant co-workers that are worse than those with native co-workers. They are also less likely to expect that the integration of migrants will work out and more likely to answer 'don't know'. Second, these respondents are less likely to report being white-collar workers and working full-time. Conversely, they more frequently state being unemployed or without occupation and working part-time. They also report being dissatisfied with their economic situation more frequently and have a higher value of the anti-asylum variable. By contrast, we find no differences in terms of gender composition or residence with respect to East/West Germany or within/outside cities. Results from a detailed comparison of this group with our analysis group are available on request.

[4] The survey allows respondents to choose from a more nuanced set of response categories, which we group together into two categories. The full distribution is shown in Figures A1 and A2 in the Appendix.

Figure 3: Responses to 'Can migrants do your job?' and `Afraid of job loss because of migration?'



Notes: Vertical lines represent the 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two immigrant groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

While a considerable share of respondents believe that migrants could potentially replace them in the labour market, they are much less likely to report being worried about a negative impact on their own employment prospects (as shown in the right-hand panel of Figure 3). Just over 20% of respondents say they are worried about losing their job, with the share slightly higher for EU migrants than for refugees. In contrast to their assessment of migrants' ability to do their job, there does not seem to be much difference between the two groups of migrants when it comes to believing that migrants could have a negative impact on their job situation. The descriptive analysis therefore provides only limited evidence for hypothesis H2.2. One reason for this finding may be that people with concerns about job loss due to immigration work in jobs with low barriers to entry, which could be done equally well by members of both immigrant groups. In the following, we examine in more detail which factors influence the likelihood of viewing migrants as substitutes and worrying about job loss.

Table A1 sets out the means and standard deviations of the variables used in the empirical analysis. The values are shown for the full sample and separately for the two sub-groups, which were asked about EU migrants and refugees, respectively. The last column contains the difference in means between the two groups and its standard error. The first rows refer to the results for the questions on potential substitutability and fear of job loss, which are shown graphically in Figure 3; the rest of the table refers to various control variables.

How people assess the ability of migrants to do their jobs may depend on whether they have had previous experience with migrant colleagues. We enquired about whether they had such experience

and, if so, what it was like (see Hayo et al. 2018).[5] About half of the respondents said they had no such experience. Among the other half, 19% of respondents rated working with migrants as at least as good as working with natives, whereas 28% reported that their experience was worse. To separate specific assessments about migrants from a more general view of the impact of the large-scale migration of refugees that took place in 2015 and 2016, we asked respondents about their expectations regarding the widespread integration of refugees into the German labour market (see Hayo et al. 2018).[6] We find that around 60% of respondents do not expect integration to go well, and only approximately a third believe that it will.

To assess whether people who are employed in jobs that are more easily accessible to migrants are more likely to perceive them as potential substitutes and whether this perception is associated with a higher likelihood of worrying about job loss, we utilise the various labour market-related variables in the survey. First, we include information on a person's occupation. Almost two-thirds of respondents are white-collar workers or civil servants, whereas 19% are blue-collar workers, 11% are self-employed, and 7% have no occupation (mainly because they do housework or are in education) or are unemployed. We also control for whether a person has completed tertiary education, which is the case for approximately 11% of respondents. As the occupational and sectoral structure varies across regions, we also take into account whether a person lives in East or West Germany and whether he or she lives in a city (population size > 100,000). Moreover, we control for whether a person is a trade union member. Membership could affect workers' perceptions of migration as members might believe that the typical union objective of securing employment for its members makes them less likely to lose their jobs because of migration.

We also include basic socio-demographic variables in our model. We control for the respondent's gender, as men and women tend to work in different types of occupations that vary in their accessibility to migrants. Consequently, men and women may differ in how they view migrants as potential competitors in the labour market or in their concerns about job loss due to migration. Moreover, we account for differences in the age of the respondents. Age is typically positively related to a person's work experience. Workers with more firm-specific, occupation-specific or general experience are less likely to be easily replaced by migrant workers. Thus, older workers may be less inclined to believe that migrants can do their jobs or to be worried about losing their jobs.

Beliefs about migrants may also vary systematically with a person's economic background. Specifically, concerns about the impact of migrants on one's own labour market prospects may be influenced by one's own economic situation. Individuals who are more satisfied with their economic situation tend to have more demanding and higher-paid jobs (e.g., Clark, 2005; Layard and De Neve, 2023), which immigrants, and particularly asylum seekers, may find difficult to fill. To control for this, we include a measure of how satisfied a person is with her or his economic situation as well as whether she or he owns property. Furthermore, we use information on spending patterns to distinguish between people who finance their spending mainly from their own resources or by borrowing. Finally, attitudes towards migrants may also be influenced by various personal characteristics. Most importantly, we want to account for the possibility that people with anti-immigrant attitudes may have different perceptions of the ability of migrants to succeed in the German labour market. Employing factor analysis, we construct a measure of the extent to which a person holds anti-asylum attitudes. We call

[5] The original question is: 'Tell us about your work experience with immigrated workers. Comparing these with German workers, would you say that teamwork is a) Much better, b) Slightly better, c) Equally good, d) Slightly worse, e) Much worse, f) So far, I have had no work experience with migrated workers, g) Don't know'.

[6] The original question is: 'What are your expectations regarding a widespread integration of refugees into the German labour market? This integration will a) Work out well, b) Roughly work out, c) Not really work out, d) Not work at all, e) Don't know'.

this factor 'Against asylum' and it is based on five items reflecting respondents' attitudes towards the right to asylum in Germany, their feelings about the number of immigrants, and their political orientation (see Table A2 in the Appendix). We can clearly identify a factor with absolute loadings on the individual items of 0.4 or more. Thus, 'Against asylum' is based on people who reject the right to asylum, are concerned about the influx of refugees, and vote for the anti-immigration party *Alternative für Deutschland* (AfD).[7] We standardise this variable so that it has a mean of zero and a standard deviation of one.

In our analysis, we also control for the influence of time preferences and impatience. Dohm et al. (2016) report a robust positive relationship between patience and human capital across individuals. Moreover, Falk et al. (2018) show that impatience is correlated with important economic and labour market characteristics, particularly with regard to accumulating financial and human capital, running one's own business, and planning to start one. In the survey, we conduct two 'experiments' to elicit the respondents' time preferences. First, they are asked to choose between a safe payoff of €1,000 paid immediately and a higher payoff of €X paid in six months. Second, they are asked to choose between a safe payoff of €1,000 paid in six months and a higher payoff of €Y paid in 12 months. Respondents' choices of X and Y can then be used to calculate indicators of time preference and hyperbolic discounting (see Angeletos et al., 2001). We also include a measure of risk aversion, which is a continuous variable that varies between -1 (maximum risk aversion) and +1 (maximum risk propensity) based on a comparison between a safe payout and an uncertain lottery win to elicit information about people's risk aversion. Further details on all variables can be found in the survey documentation paper (Hayo et al., 2018).

Table A1 shows that the two sub-groups – respondents asked about EU migrants and respondents asked about refugees – are balanced overall in terms of the control variables. In most cases, the differences in the means between the two groups are small and statistically insignificant. The different assessments of potential substitutability by EU migrants and refugees, as shown in the left panel of Figure 3, are therefore unlikely to reflect differences in observable characteristics. As the assignment to the two groups was random it should, in principle, be orthogonal to the characteristics of the respondents. However, this condition can be violated in finite samples and, indeed, in some cases we find significant differences between the groups. Survey participants who are asked about refugees are more likely to report having had worse experiences with migrant workers than with native workers, are less likely to have tertiary education and report to be dissatisfied with their economic situation. In order to be able to compare responses on attitudes towards migrants between the two groups, it is therefore advisable to control for these characteristics in the empirical analysis. In addition, inclusion of control variables reduces the idiosyncratic error in our regressions, which improves estimation efficiency.

3.3 Conditional distributions

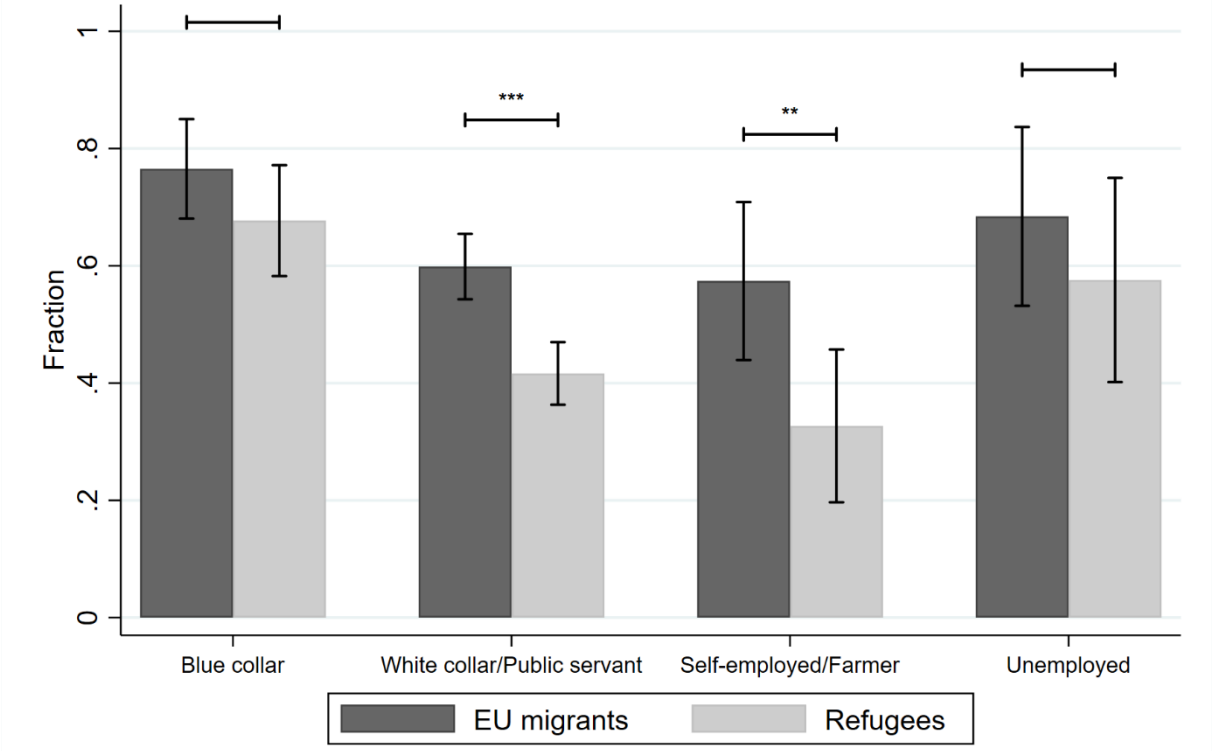
We continue our analysis by assessing whether attitudes towards migrants depend on various observable worker characteristics. Based on the corresponding fraction of respondents for each group, Figure 4 provides a first assessment of whether the belief that migrants are potential substitutes in one's job differs between occupational groups. First, we find differences across occupations in the extent to which migrants are seen as potential substitutes. Regardless of the type of migrant, blue-collar workers and the unemployed are on average more likely to believe that migrants could do their job than white-collar workers or the self-employed. This result is consistent with hypothesis H1.3. Second, the differential assessment of the extent to which EU migrants and refugees are seen as

[7] For a more in-depth analysis of attitudes towards asylum seekers in Germany based on our survey, see Hayo and Neumeier (2023).

potential labour substitutes varies by occupation. The share of white-collar workers and the self-employed who think that EU migrants could do their job is about 20 percentage points (pp) higher than for refugees. The difference is less pronounced and statistically insignificant amongst manual workers and the unemployed. One possible explanation for why members of different occupational groups differ in their assessment of their potential substitutability is that some occupations are generally more accessible to migrants than others, for example because of lower educational or skill requirements.

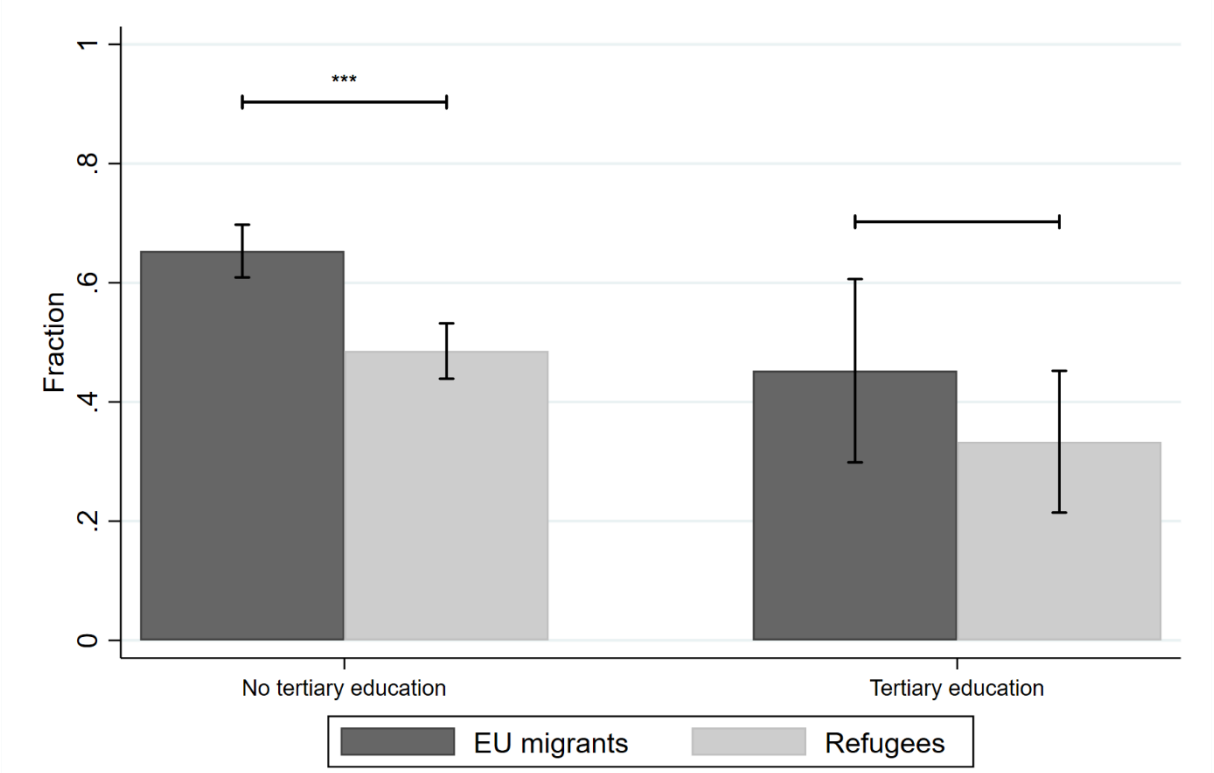
Similarly, Figure 5 shows the proportion of respondents who believe that migrants would be capable of doing their job, categorised by level of education. In line with hypothesis H1.4, respondents with tertiary education are less likely to respond that they expect migrants – both EU nationals and refugees – to be able to do their job. Moreover, we discover that respondents without tertiary education are significantly more likely to perceive EU migrants as potential competitors in the labour market compared to refugees. We find a similar result in the case of tertiary educated respondents, but the difference is not statistically significant.

Figure 4: Responses of survey participants to 'Can migrants do your job?' – by occupational groups



Notes: The bars refer to the proportion of respondents who believe that migrants can do their job. Vertical lines represent the 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two immigrant groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

Figure 5: Responses of survey participants to 'Can migrants do your job?' – by level of education



Notes: The bars refer to the proportion of respondents who believe that migrants can do their job. Vertical lines represent the 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two immigrant groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

Based on hypothesis H2.1, we then examine whether the belief that migrants are potential labour market substitutes is associated with a higher likelihood of worrying about job loss. Figure 6 shows the corresponding fractions for the two groups of respondents who believe that migrants could do their job and those who do not. Respondents who regard migrants as substitutes are approximately 15 and 20 pp more likely to worry about job loss in the case of EU migrants and refugees, respectively. These results suggest that concerns about immigration leading to job loss are, at least partly, channelled through the belief that migration leads to increased competition in the labour market.

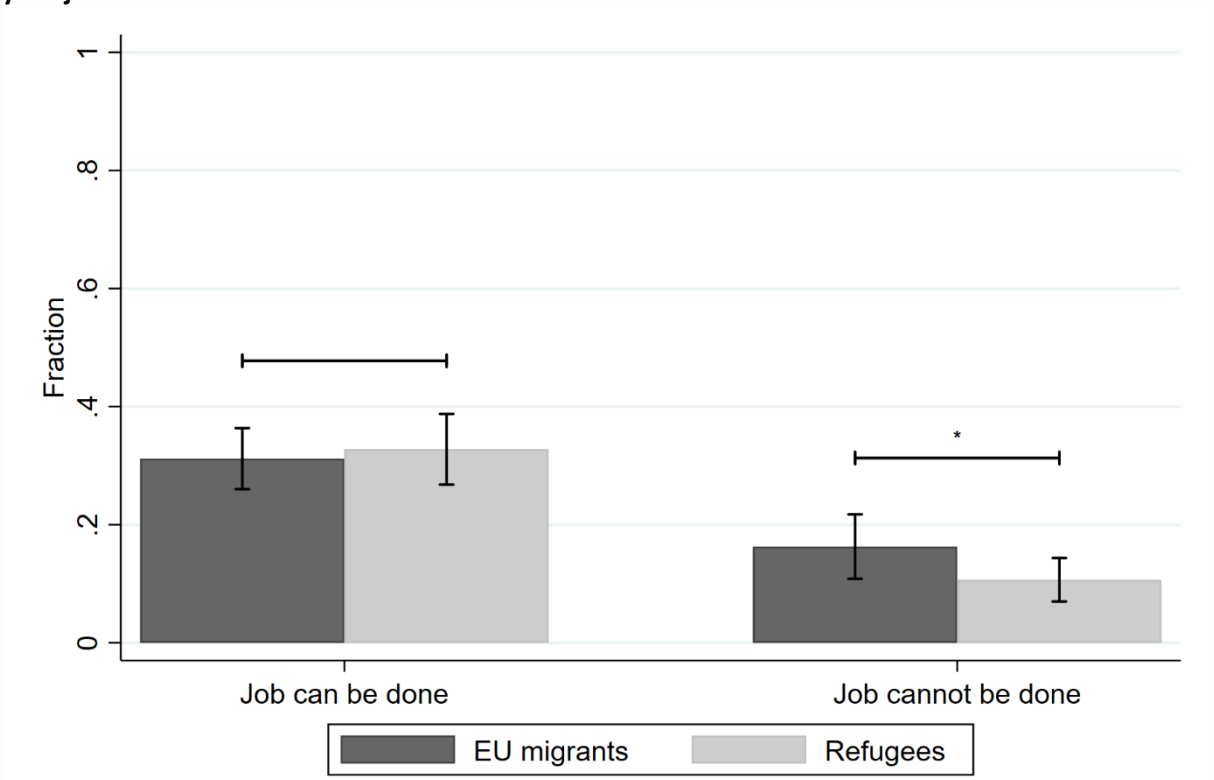
3.4 Empirical model

While Figures 4, 5, and 6 provide evidence based on bivariate relationships, we want to assess whether the association between various personal and job-related characteristics and the belief that immigrants are potential substitutes as well as between this belief and concerns about job loss also holds in a multivariate setting. For this purpose, we estimate the following logit model:

$$Pr(y_i^m|\boldsymbol{x_i^m}) = e^{x_i^{m\prime}\boldsymbol{\beta^m}} \Big/ \left(1 + e^{x_i^{m\prime}\boldsymbol{\beta^m}}\right) \quad (1)$$

The left-hand side of Equation 1 refers to the conditional probability that individual *i,* when asked about migration group *m* (EU migrants or refugees), believes that migrants could do her or his job or is concerned about losing her or his job. The vector of control variables $\boldsymbol{x_i^m}$ includes the broad range of additional variables listed in Table A1. To assess whether the difference in the estimated coefficients between the two groups of survey participants is statistically significant, we interact each control variable with an indicator of whether a person was asked about refugee migrants.

Figure 6: Responses to `Afraid of job loss because of migration?' – by response to 'Can migrants do your job?'



Notes: The bars refer to the proportion of respondents who believe that migrants can do their job. Vertical lines represent the 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two immigrant groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

4 Results

Table 3 provides the average marginal effects from estimating Equation 1 for the question of whether respondents think that migrants would, in principle, be able to do their job.[8] The average marginal effects in the first column are evaluated for individuals who were asked about EU migrants, whereas the second column contains the results for the case of refugee migrants.[9] In interpreting our regression models in Tables 3 and 5, we focus on the estimated marginal effects that are individually significant. We also conducted tests of joint statistical significance in the logit models for all those variables for which the average marginal effect was not individually significant. In each case, the null hypothesis of joint statistical insignificance could not be rejected at conventional levels of significance.

The first row shows the estimated difference in the probability of believing that refugee migrants could do one's job relative to EU migrants. Conditional on the control variables, we find that respondents are about 12 pp less likely to state that their job could be done by refugee migrants than by EU migrants. This difference is statistically significant at the 1% level. Although smaller in magnitude than the unconditional difference that is shown in Figure 3, we still find support for hypothesis H1.1 that

[8] We report the average marginal effects from an ordered logit model that contains all four possible answer categories in Tables A3 and A4.

[9] In most cases, the difference in the estimated marginal effects between respondents who were asked about EU migrants and about refugee migrants is not statistically significant. In light of the relatively small sample size, we believe that it is nevertheless interesting to report these differences. Results are available upon request.

survey respondents are less likely to view refugee migrants as labour market competitors compared to EU migrants once the influence of control variables is taken into account.

We also find that when controlling for covariates, the results presented in Section 2.3 remain largely unchanged: beliefs about potential substitutability differ between occupational groups. Specifically, blue-collar workers are more likely than white-collar workers to believe that immigrants can do their job, ceteris paribus, which supports hypothesis H1.3. The corresponding difference is 13 pp for EU migrants and 23 pp for refugees. This finding is consistent with the view that (i) blue-collar jobs have lower entry barriers for migrants and (ii) it is relatively more difficult for refugees to enter white-collar jobs than for EU migrants.[10] Similarly, in line with hypothesis H1.4, the results related to a person's level of qualification provide further evidence that people are more likely to expect migrants to work in jobs requiring lower levels of qualification. Compared to all other qualification groups, respondents with a tertiary education are 19 (12) pp more likely to say that EU migrants (refugees) could potentially do their job.

Having worked together with foreigners also influences the probability of perceiving migrants as potential substitutes in the labour market. Ceteris paribus, respondents who rate their cooperation with foreign co-workers as at least as good as with natives are more likely than other respondents to say that migrants can do their job. Compared to interviewees with no experience of working with foreign colleagues, the probability is 9 pp higher for EU migrants and 14 pp higher for refugees (although this difference is only statistically significant for refugee migrants). In contrast, the difference is smaller and statistically insignificant for respondents who report that their experience with foreign colleagues is worse than with natives. We therefore find partial support for hypothesis H1.2 in the sense that having had contact with foreign workers does not necessarily make people more likely to believe that they are capable of doing their job, but rather only if the experience has been positive. Moreover, people who expect the labour market integration of the refugees who arrived in Germany in the years 2015 and 2016 to be successful are also more likely to perceive migrants as potential substitutes than respondents who do not expect integration to be successful.

Full-time workers are less likely than part-time workers to see migrants as potential substitutes, although the difference is statistically significant only for EU migrants, which may reflect the fact that full-time workers are, on average, employed in higher-quality jobs that are less accessible for migrants. By contrast, we do not find that union members differ from non-union members in their assessment of migrants' ability to perform their jobs. Finally, people living in cities are more likely to state that migrants could do their job. In urban areas, the labour-market presence of foreigners is clearly more prevalent than in rural areas.[11] Exposure to such a social environment may make respondents more inclined to believe that foreigners are capable of doing their jobs.

Regarding the respondents' economic situation, the point estimates suggest that more favourable conditions are associated with a lower probability of believing that migrants can do their job. This finding is consistent with the view outlined in Section 3.2 that better economic conditions may be indicative of being employed in a more demanding job, which might be more difficult for migrants to enter. However, these effects are statistically insignificant in most cases, which may reflect the fact that controlling for a worker's broad occupation and skill level is already sufficient to account for differences in job types.

[10] Note that the substantial difference in the size of the estimated average marginal effects of being a blue-collar worker between survey participants asked about EU migrants and those asked about refugee migrants is estimated imprecisely, i.e. it is not statistically different.

Turning to personal characteristics and preferences, we find no significant difference between men and women in their assessment of migrants' ability to do their job. While men and women, on average, work in different types of jobs, which may also differ in terms of their accessibility to migrant workers, the lack of a difference could be due to the fact that we control for various job characteristics. Our results do suggest that, ceteris paribus, older workers are less likely to believe that migrants can do their job, which is consistent with the fact that older workers tend to have more work experience. Moreover, we find that xenophobic tendencies also affect people's assessment of possible substitutability. A one standard deviation increase in our anti-asylum indicator is associated with a 6 pp reduction in the probability of considering EU migrants as potential substitutes. For refugees, however, the corresponding effect is not statistically significant. The results also show that respondents who are characterised by short-term impatience (hyperbolic discounting) are significantly more likely to answer that EU migrants can do their job, whereas we observe no such relationship in the case of refugees. This could be interpreted as suggesting that respondents with lower human capital and less entrepreneurial spirit are more likely to agree that EU migrants can replace them in the labour market. However, due to the larger skills gap of refugees, they may not think that they can be replaced as easily. Higher levels of risk aversion are associated with a higher probability of viewing migrants as potential substitutes in the labour market, although this relationship is only significant for refugees.

Table 3: Dependent variable: Can migrants in principle do your job? (average marginal effects)

VARIABLES	**EU MIGRANTS**	**REFUGEES**
MIGRANT GROUP INDICATOR		
Participant asked about refugee migrants (base category: EU migrants)	-0.12***	
	(0.03)	
ATTITUDES TOWARDS MIGRANTS AND MIGRATION		
Experience with immigrant workers (base category: No experience)		
Better or equally good	0.09	0.14**
	(0.06)	(0.06)
Worse	-0.01	-0.02
	(0.05)	(0.05)
Don't know	-0.08	-0.01
	(0.11)	(0.11)
Will the labour market integration of refugees be successful? (base category: Will not work out)		
Will work out	0.23***	0.26***
	(0.05)	(0.05)
Don't know	0.27***	0.25***
	(0.08)	(0.09)
SOCIO-DEMOGRAPHIC		
Sex (base category: male)		
Female	-0.06	0.01
	(0.04)	(0.05)
Age	-0.00*	-0.00**
	(0.00)	(0.00)
LABOUR MARKET		
Occupation (base category: white-collar / public servant)		
Blue-collar	0.13**	0.23***
	(0.05)	(0.05)
Self-employed (including farmers)	0.04	-0.07

	(0.07)	(0.07)
No occupation / unemployed	-0.12	0.01
	(0.09)	(0.10)
Education (base category: less than tertiary education)		
Tertiary education	-0.19**	-0.12*
	(0.08)	(0.06)
Full-time-status (base category: part-time)		
Full-time	-0.15***	-0.04
	(0.05)	(0.06)
Union membership (base category: no member)		
Member	0.04	-0.00
	(0.06)	(0.07)
ECONOMIC CONDITIONS		
Satisfaction with own economic situation (base category: neutral)		
Satisfied	-0.08*	-0.09*
	(0.05)	(0.05)
Not satisfied	-0.02	-0.02
	(0.06)	(0.07)
Housing property (base category: does not own property)		
Owns property	-0.06	-0.03
	(0.05)	(0.05)
How are expenses financed? (base category: through own funds)		
Through borrowing	0.04	-0.04
	(0.05)	(0.05)
Don't know	-0.09	-0.06
	(0.07)	(0.06)
PERSONAL TRAITS (standardised)		
Against asylum	-0.05**	-0.01
	(0.02)	(0.02)
Time preference	0.02	-0.02
	(0.02)	(0.02)
Hyperbolic discounting	0.08***	0.02
	(0.03)	(0.02)
Degree of risk aversion	0.05	0.06**
	(0.03)	(0.03)
RESIDENCE		
Residence (base category: lives in West Germany)		
East Germany	-0.04	0.05
	(0.04)	(0.04)
City (base category: does not live in city)		
Lives in city	0.02	0.12**
	(0.05)	(0.05)
OBSERVATIONS	999	

Notes: The table shows average marginal effects. Robust standard errors are used. */**/*** indicate statistical significance at the 0.1/0.05/0.01 level.

Table 4 summarises our results. It lists the hypotheses pertaining to 'Can migrants do your job?' and shows whether our empirical analysis provides any support at least at the 5% level of significance. We find that all of the hypotheses are supported by our analysis, although H1.2 is only supported if workers' experiences with foreigners have been positive.

Table 4: Summary of Hypothesis Test Outcomes for 'Can migrants do your job?'

Hypothesis		Expected sign	Estimated sign
H1.1	Refugee migrants compared to EU migrants	-	-
H1.2	Labour market participants with positive migrant-related work experiences	+	+ (if the experience has been positive, 0 otherwise)
H1.3	Blue-collar worker	+	+
H1.4	Tertiary education	-	-

To assess whether and to what extent beliefs about potential substitutability are also reflected in concerns about job loss, we estimate Equation 1 for the question of whether people fear losing their job. Information on beliefs about potential substitutability is included as an additional control variable. The results are presented in Table 5.

Table 5: Dependent variable: Afraid of job loss because of migration (average marginal effects)

VARIABLES	EU MIGRANTS	REFUGEES
MIGRANT GROUP INDICATOR		
Participant asked about refugee migrants (base category: EU migrants)	-0.02	
	(0.02)	
ATTITUDES TOWARDS MIGRANTS AND MIGRATION		
Can migrants do your job? (base category: no)		
Yes	0.15***	0.20***
	(0.04)	(0.04)
Experience with immigrant workers (base category: No experience)		
Better or equally good	0.14***	0.09*
	(0.05)	(0.05)
Worse	0.06	0.07
	(0.04)	(0.04)
Don't know	0.01	0.09
	(0.08)	(0.10)
Will the labour market integration of refugees be successful? (base category: Will not work out)		
Will work out	-0.08*	0.00
	(0.04)	(0.04)
Don't know	0.05	0.05
	(0.09)	(0.08)
SOCIO-DEMOGRAPHIC		
Sex (base category: male)		
Female	-0.03	0.05
	(0.04)	(0.04)
Age	0.00*	0.00*
	(0.00)	(0.00)
LABOUR MARKET		
Occupation (base category: white-collar / public servant)		
Blue-collar	0.03	0.09*
	(0.05)	(0.05)

Self-employed (including farmers)	-0.05	-0.03
	(0.06)	(0.06)
No occupation / unemployed	0.05	0.10
	(0.08)	(0.09)
Education (base category: less than tertiary education)		
Tertiary education	-0.00	-0.04
	(0.08)	(0.06)
Full-time-status (base category: part-time)		
Full-time	-0.05	0.00
	(0.05)	(0.05)
Union membership (base category: no member)		
Member	-0.02	0.02
	(0.05)	(0.06)
ECONOMIC CONDITIONS		
Satisfaction with own economic situation (base category: neutral)		
Satisfied	-0.17***	-0.06
	(0.04)	(0.04)
Not satisfied	0.10*	0.06
	(0.06)	(0.06)
Housing property (base category: does not own property)		
Owns property	-0.08**	-0.00
	(0.04)	(0.04)
How are expenses financed? (base category: through own funds)		
Through borrowing	-0.01	0.09*
	(0.04)	(0.05)
Don't know	-0.03	0.04
	(0.06)	(0.05)
PERSONAL TRAITS (standardised)		
Against asylum	0.07***	0.08***
	(0.02)	(0.02)
Time preference	-0.01	-0.01
	(0.02)	(0.02)
Hyperbolic discounting	0.00	0.00
	(0.02)	(0.02)
Degree of risk aversion	-0.03	0.01
	(0.03)	(0.03)
RESIDENCE		
Residence (base category: lives in West Germany)		
East Germany	-0.01	-0.04
	(0.04)	(0.04)
City (base category: does not live in city)		
Lives in city	-0.11***	0.05
	(0.04)	(0.05)
OBSERVATIONS	999	

Notes: The table shows average marginal effects. Robust standard errors are used. */**/*** indicate statistical significance at the 0.1/0.05/0.01 level.

As shown in Figure 3, the differences in perceptions of EU migration and refugee migration were not particularly large in an unconditional comparison. After including our control variables, we find no evidence of a statistically or economically significant difference between the two types of migrant groups. Thus, our results provide no support for the expected negative effect of hypothesis H2.2, i.e., that survey participants who were asked about refugee migrants are less likely to report migration-

related fears of job loss than respondents who were asked about EU migrants. The absence of a sizeable and statistically significant effect is consistent with the view that whether a person is concerned about job loss because of migration is closely related to whether that person perceives migrants as potential labour market substitutes. Controlling for differences in perceptions of labour market competition between the two groups of migrants removes an important reason for possible differences in the probability of reporting fears of job loss.

As hypothesised (H2.1), the fear of losing one's job due to migration is significantly related to the belief that migrants are potential substitutes in the labour market. This is supported by the finding that, ceteris paribus, respondents who report that EU migrants (refugees) could potentially perform their job are 15 (20) pp more likely to be concerned about losing their job as a result of migration. Other labour market-related variables, such as the level of qualification or occupation, that influence the belief in the ability of migrants to perform one's job do not have a direct impact on the probability of worrying about job loss. We therefore find no evidence of a direct effect of a person's occupation or skill level on fears of job loss and thus no support for hypotheses H2.3 and H2.4. One interpretation of this finding is that worries about job loss are only indirectly affected by observable characteristics, such as skills or occupation, insofar as these characteristics influence perceptions of migrants' ability to perform one's job.[12]

Conversely, experience with foreign workers also directly influences concerns about job loss, even after accounting for a person's belief in migrants' job capabilities. Respondents who rate their experiences with foreign colleagues as at least as good as those with natives are more likely to be concerned about job loss. A possible explanation for this finding is that these people base their expectations about migrants' ability to compete for jobs on their personal experiences with foreign colleagues. Those anticipating successful labour market integration of refugees are less concerned about job loss due to migration from other EU countries (with a small and statistically insignificant effect observed for refugees). People who expect successful labour market integration of refugees also appear to believe that it will not lead to increased competition for jobs, and amongst EU migrants we even observe a decrease in fear of job loss. This can be interpreted in three different ways: First, they expect labour market complementarity rather than substitutability. Second, the successful integration of migrants into the labour market may indicate that they are taking up vacancies that could not be filled by native workers. This increase in the total number of jobs in the economy is seen as beneficial for all workers. Third, it may simply reflect a kind of general optimism about the labour market.

The results also indicate that people in better economic circumstances are less likely to be concerned about migration-induced job loss. Satisfaction with one's economic situation is associated with a lower probability of reporting fears of job displacement due to migration of EU citizens. This relationship may reflect the fact that, on average, these people are employed in relatively complex jobs that are more difficult for migrants to access, possibly due to a lack of relevant qualifications. For EU migrants, we find no statistically significant relationship between financing consumption through borrowing and concerns about job loss. For refugees, we observe a positive and statistically significant effect at the 10% level.

Finally, our results show that anti-immigration attitudes are associated with a higher likelihood of worrying about job loss. Interestingly, the effect is statistically indistinguishable between EU migrants and refugees. A one standard deviation rise in the 'Against asylum' indicator increases the probability of reporting concerns about job loss by 7 pp and 8 pp for EU migrants and refugees, respectively. A

[12] When estimating a model without controlling for whether a person believes that migrants could do her or his job, we find that working in a blue-collar job is associated with a statistically significant increase in the probability of being concerned about job loss for both groups of migrants. Detailed results are available on request.

possible explanation for this relationship is that people with anti-immigrant views believe that immigration has a negative impact on society, which in turn also leads to unfavourable labour market outcomes.

In Table 6, we set out the outcome of our hypothesis tests regarding the fear of losing one's job. Here, the hypotheses are not quite as straightforward and in the case of H2.2 to H2.4 we allowed for competing outcomes. We discover that those labour market participants who think that migrants can do their job are more likely to be afraid of job loss, which supports hypothesis H2.1. In the case of the other hypotheses, the alternative of no effect is supported.

Table 6: Summary of Hypothesis Test Outcomes for 'Afraid of job loss because of migration?'

Hypothesis		**Expected sign**	**Estimated sign**
H2.1	Migrants believed to be able to do perform one's job	+	+
H2.2	Refugee migrants compared to EU migrants	- (or 0)	0
H2.3	Blue-collar workers	+ (or 0)	0
H2.4	Tertiary education	- (or 0)	0

5 Conclusion

Given the economic and political importance of immigration for Germany, we examine how labour market participants perceive the consequences of migration from other EU countries and through the right of asylum. To this end, we employ two questions from a representative population survey conducted in Germany in 2018. The first question asks whether respondents believe that migrants can do their jobs, whereas the second question enquires whether they are concerned about job loss because of migration. Since respondents are randomly assigned to questions about either EU migrants or refugee migrants, differences in perceptions between these groups can be interpreted causally.

In contrast to most of the existing literature, which emphasises the role of observable characteristics, we focus on how immigration is perceived by the labour market participants themselves. In particular, we are able to assess how concerns about job loss are related to perceptions of migrants' ability to do their job, rather than having to rely on proxies, such as a person's skills or education level.

In this context, it is important to emphasise that our analysis and the EU/refugee immigration treatments are based on the assumption that an individual's belief about job loss due to migration is influenced by his or her belief about the ability of migrants to do his or her job – regardless of whether this belief is objectively justified or not. Since we do not know exactly how people came to hold these beliefs, we cannot rule out the possibility of irrational behaviour. However, our results suggest that subjective beliefs do seem to reflect, at least in part, real-world facts. For instance, blue-collar workers are significantly more likely to believe that migrants could do their jobs than white-collar workers, and respondents with higher levels of formal education perceive less competition from refugee migrants than from EU migrants. Thus, respondents' beliefs about the two types of immigration flows appear to be based on objective facts, and in this sense, our treatments can also be interpreted as being based on factual information about the respective characteristics of EU and refugee immigration.

Our main findings are that, ceteris paribus, survey participants are less likely to believe that refugee migrants are able to do their jobs than EU migrants. Consistent with findings in the extant literature,

we also show that blue-collar workers and those without tertiary education are more likely to state that they perceive migrants as being able to perform their job. Regarding our second survey question, we find that believing that migrants are able to do one's job is a strong predictor of also reporting fears of job loss, whereas the impacts of occupation or skill are statistically insignificant or only marginally significant. Conditional on perceptions of migrants' ability to do one's job, the probability of reporting fears of job loss does not differ between those respondents who were asked about EU migrants and those asked about refugee migration. We interpret this finding as evidence that natives' concerns about adverse labour market effects in the form of job loss are strongly related to whether natives see migrants as potential competitors in the labour market.

Our results are potentially relevant to attitudes towards migration in general, for example, in the form of support for anti-immigration parties, as well as to the successful integration of migrant workers, as both are influenced by how natives perceive migrants to affect their own labour market prospects. Moreover, the extant literature has shown that providing information about the beneficial effects of migration can help reduce concerns about labour market competition. Against this background, our findings suggest that attitudes towards migration and the integration of migrant workers could benefit from the development of a narrative about the positive consequences of immigration. If natives are less likely to view migrants as competitors in the labour market, our results suggest that this should translate into a lower probability of worrying about job loss, which, in turn, should contribute towards reducing negative attitudes towards migration.

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Appendix

Table A1: Descriptive statistics

VARIABLES	TOTAL	EU MIGRANTS	REFUGEES	DIFFERENCE
ATTITUDES TOWARDS MIGRANTS AND MIGRATION				
Can migrants do your job?				
Yes	0.55	0.64	0.47	-0.17***
	(0.50)	(0.48)	(0.50)	(0.03)
No	0.45	0.36	0.53	0.17***
	(0.450)	(0.48)	(0.50)	(0.03)
Afraid of losing job?				
Yes	0.23	0.26	0.21	-0.05*
	(0.42)	(0.44)	(0.41)	(0.03)

No	0.77	0.74	0.79	0.05*
	(0.42)	(0.44)	(0.41)	(0.03)
Experience with immigrant workers				
Better or equally good	0.19	0.22	0.16	-0.06**
	(0.39)	(0.41)	(0.37)	(0.03)
Worse	0.28	0.24	0.31	0.07**
	(0.45)	(0.43)	(0.46)	(0.03)
No experience	0.50	0.50	0.50	-0.0
	(0.50)	(0.50)	(0.50)	(0.03)
Don't know	0.04	0.05	0.03	-0.01
	(0.19)	(0.21)	(0.17)	(0.01)
Will the labour market integration of refugees be successful?				
Will work out	0.35	0.37	0.33	-0.04
	(0.48)	(0.48)	(0.47)	(0.03)
Will not work out	0.60	0.58	0.61	0.03
	(0.49)	(0.49)	(0.49)	(0.03)
Don't know	0.05	0.05	0.06	0.01
	(0.23)	(0.22)	(0.23)	(0.01)
SOCIO-DEMOGRAPHIC				
Sex				
Male	0.50	0.50	0.49	-0.01
	(0.50)	(0.50)	(0.50)	(0.03)
Female	0.51	0.50	0.51	0.01
	(0.50)	(0.50)	(0.50)	(0.03)
Age	44.35	43.75	44.93	1.19
	(12.50)	(13.00)	(11.98)	(0.79)
LABOUR MARKET				
Occupation				
Blue-collar	0.19	0.20	0.19	-0.01
	(0.40)	(0.40)	(0.39)	(0.03)
White-collar / public servant	0.63	0.61	0.65	0.03
	(0.48)	(0.49)	(0.48)	(0.03)
Self-employed (including farmers)	0.11	0.11	0.10	-0.01
	(0.31)	(0.31)	(0.30)	(0.02)
No occupation / unemployed	0.07	0.08	0.07	-0.01
	(0.26)	(0.27)	(0.25)	(0.02)
Education				
Less than tertiary education	0.90	0.91	0.88	-0.04*
	(0.31)	(0.28)	(0.33)	(0.02)
Tertiary education	0.11	0.09	0.12	0.04*
	(0.31)	(0.28)	(0.33)	(0.02)
Full-time-status				
Part-time	0.27	0.28	0.26	-0.02
	(0.44)	(0.45)	(0.44)	(0.03)
Full-time	0.73	0.72	0.75	0.02
	(0.44)	(0.45)	(0.44)	(0.03)
Union membership				
Not a union member	0.90	0.89	0.91	0.02
	(0.30)	(0.32)	(0.29)	(0.02)

Union member	0.10	0.11	0.09	-0.02
	(0.30)	(0.32)	(0.29)	(0.02)
ECONOMIC CONDITIONS				
Satisfaction with own economic situation				
Satisfied	0.47	0.44	0.50	0.05*
	(0.50)	(0.50)	(0.50)	(0.03)
Neutral	0.36	0.36	0.37	0.00
	(0.48)	(0.48)	(0.48)	(0.03)
Not satisfied	0.17	0.19	0.14	-0.06**
	(0.37)	(0.40)	(0.35)	(0.02)
Housing property				
Does not own property	0.54	0.56	0.51	-0.05*
	(0.50)	(0.50)	(0.50)	(0.03)
Owns property	0.46	0.44	0.49	0.05*
	(0.50)	(0.50)	(0.50)	(0.03)
How are expenses financed?				
Through own funds	0.61	0.64	0.58	-0.05*
	(0.49)	(0.48)	(0.49)	(0.03)
Through borrowing	0.27	0.27	0.26	-0.01
	(0.44)	(0.44)	(0.44)	(0.03)
Don’t know	0.12	0.09	0.15	0.06***
	(0.33)	(0.29)	(0.36)	(0.02)
PERSONAL TRAITS (standardised)				
Against asylum	0.00	-0.04	0.04	0.08
	(1.00)	(1.02)	(0.98)	(0.06)
Time preference	0.00	0.00	-0.00	-0.01
	(1.00)	(1.00)	(1.00)	(0.06)
Hyperbolic discounting	0.00	0.01	-0.01	-0.03
	(1.00)	(1.02)	(0.98)	(0.06)
Degree of risk aversion	0.13	0.13	0.14	0.01
	(0.68)	(0.69)	(0.67)	(0.04)
RESIDENCE				
Residence				
Lives in West Germany	0.61	0.60	0.62	0.03
	(0.49)	(0.49)	(0.49)	(0.03)
Lives in East Germany	0.39	0.41	0.38	-0.03
	(0.49)	(0.49)	(0.49)	(0.03)
City				
Lives in city	0.27	0.28	0.26	-0.03
	(0.44)	(0.45)	(0.44)	(0.03)
Does not live in city	0.73	0.72	0.75	0.03
	(0.44)	(0.45)	(0.44)	(0.03)
OBSERVATIONS	999	489	510	

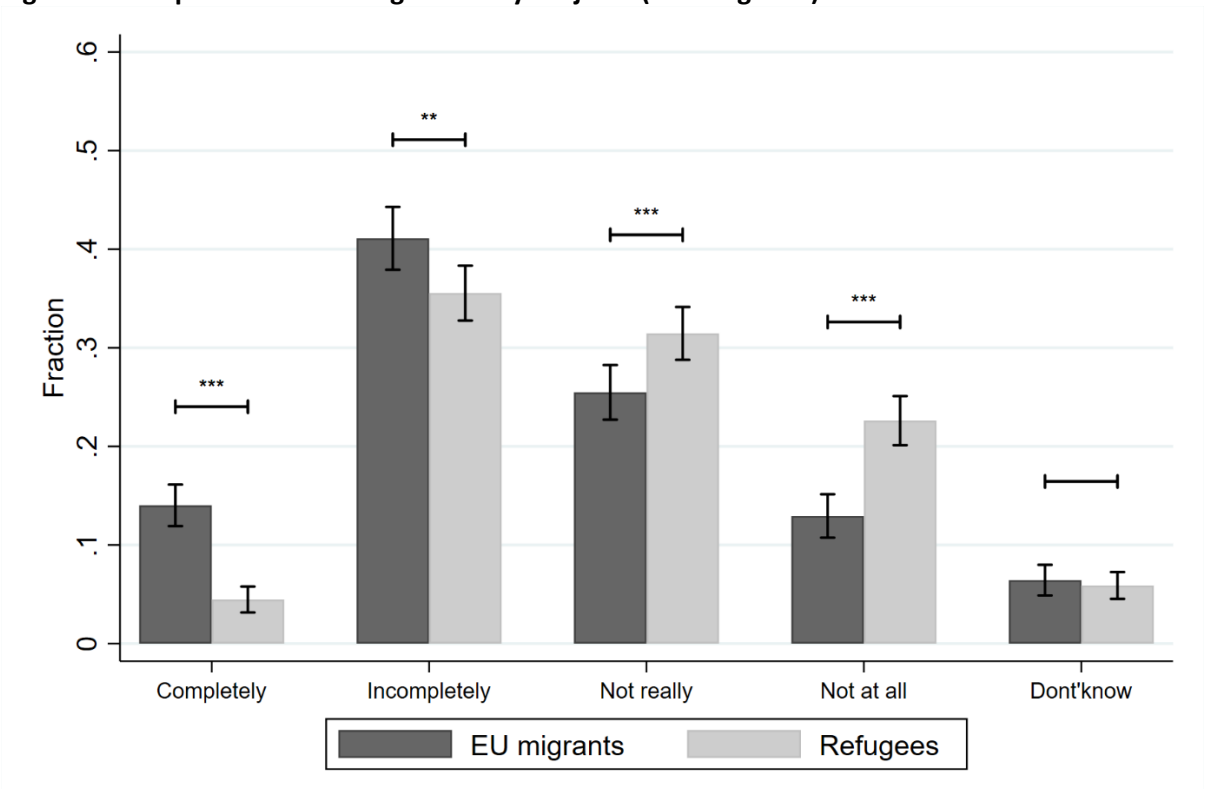
Notes: The first three columns contain means and standard deviations (in parentheses). The last column shows the difference between the group-specific mean values and the corresponding standard error. */**/*** indicate statistical significance at the 10%/5%/1% level.

Table A2: Constructing an indicator for 'Against asylum' using factor analysis

	Factor loading	Communality
The right of asylum ought to be maintained as a basic right (yes: 1, no: 0)	-0.43	0.18
The right of asylum should no longer be maintained as a basic right (yes: 1, no: 0)	0.45	0.20
From which number of approved asylum applications per year onwards would you feel notably uncomfortable living in Germany?		
< 50,000 (yes: 1, no: 0)	0.53	0.28
> 500,000 (yes: 1, no: 0)	-0.45	0.20
Which party would you vote for if federal elections were held this Sunday? (AfD: 1, otherwise: 0)	0.40	0.16

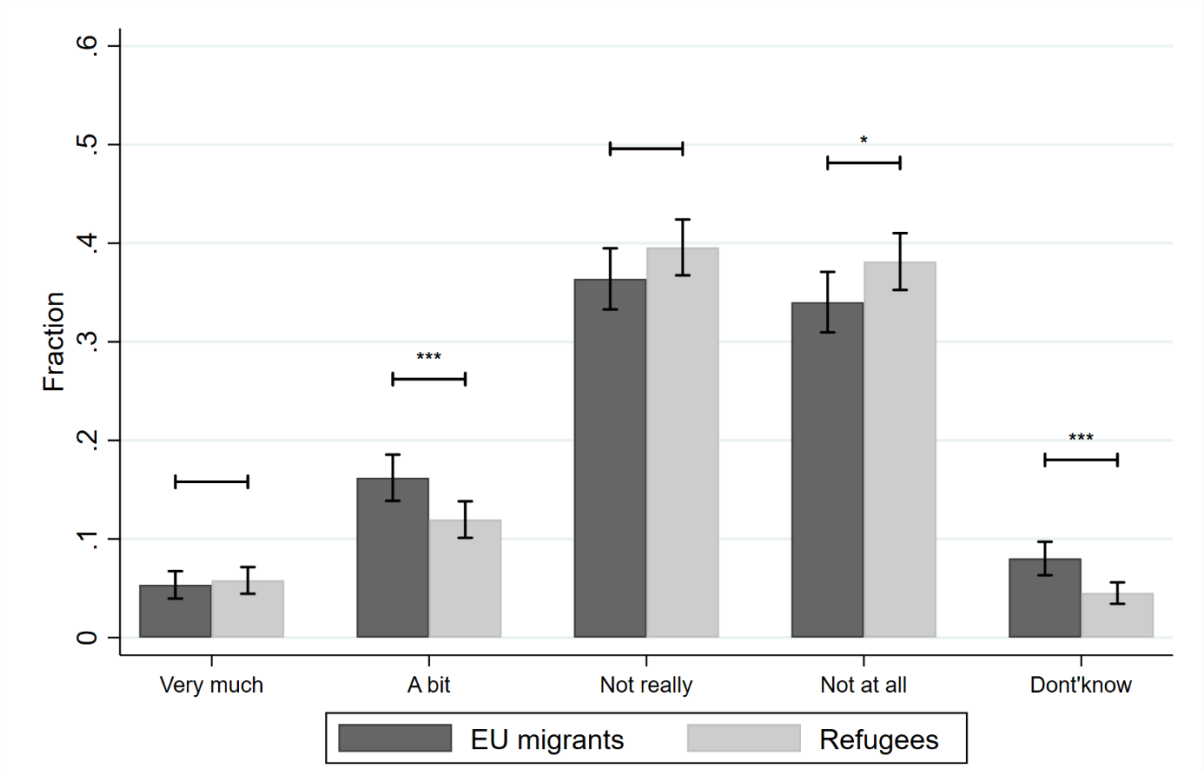
Notes: Number of observations: 2,015. The Kaiser-Meyer-Olkin measure of sampling adequacy is 0.6, indicating that the condition for conducting a factor analysis is met and we can reject the LR test of independence against the saturated model at all reasonable levels of significance (Chi2(10) = 957). The first two eigenvalues are 1.0 and 0.2, respectively. Our choice of one factor is based on the eigenvalue criterion and a large difference from the next factor, which is consistent with the Scree plot criterion. The factor explains 21% of the variation in the five items, reflecting the relatively low communalities. The factor 'Against asylum' is computed using regression scoring.

Figure A1: Responses to 'Can migrants do your job?' (all categories)



Notes: Vertical lines represent 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

Figure A2: Responses to `Afraid of job loss because of migration?' (all categories)



Notes: Vertical lines represent 95% confidence interval of the estimated shares. Horizontal lines show whether there is a statistically significant difference between the estimated shares of the two groups. */**/*** indicate statistical significance at the 10%/5%/1% level.

Table A3: Average marginal effects (full model)

DEPENDENT VARIABLE	CAN MIGRANTS PERFORM ONE'S JOB		AFRAID OF JOB LOSS BECAUSE OF MIGRATION	
VARIABLES	EU MIGRANTS	REFUGEES	EU MIGRANTS	REFUGEES
ATTITUDES TOWARDS MIGRANTS AND MIGRATION				
Can migrants do your job? (base category: no)				
Yes	-	-	0.15***	0.20***
			(0.04)	(0.04)
Experience with immigrant workers (base category: No experience)				
Better or equally good	0.09	0.14**	0.15***	0.09*
	(0.06)	(0.06)	(0.06)	(0.05)
Worse	-0.01	-0.02	0.07	0.07
	(0.05)	(0.05)	(0.04)	(0.04)
Don't know	-0.08	-0.01	0.01	0.08
	(0.11)	(0.11)	(0.08)	(0.10)
Will the labour market integration of refugees be successful? (base category: Will not work out)				
Will work out	0.22***	0.27***	-0.09*	0.00
	(0.05)	(0.05)	(0.04)	(0.04)
Don't know	0.26***	0.25***	0.06	0.05
	(0.08)	(0.09)	(0.09)	(0.08)
SOCIO-DEMOGRAPHIC				
Sex (base category: male)				
Female	-0.06	0.01	-0.03	0.05
	(0.04)	(0.05)	(0.04)	(0.04)
Age	-0.00*	-0.00**	0.00*	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
LABOUR MARKET				
Occupation (base category: white-collar / public servant)				
Blue-collar	0.13**	0.23***	0.03	0.09*
	(0.05)	(0.06)	(0.05)	(0.05)

Self-employed (including farmers)	0.04	-0.07	-0.05	-0.03
	(0.07)	(0.07)	(0.06)	(0.05)
No occupation / unemployed	-0.12	0.01	0.05	0.10
	(0.09)	(0.10)	(0.09)	(0.09)
Education (base category: less than tertiary education)				
Tertiary education	-0.19**	-0.12*	-0.00	-0.03
	(0.08)	(0.06)	(0.08)	(0.06)
Full-time-status (base category: part-time)				
Full-time	-0.15***	-0.04	-0.05	0.00
	(0.05)	(0.06)	(0.05)	(0.05)
Union membership (base category: no member)				
Member	0.04	-0.00	-0.02	0.02
	(0.06)	(0.07)	(0.05)	(0.05)
ECONOMIC CONDITIONS				
Satisfaction with own economic situation (base category: neutral)				
Satisfied	-0.08*	-0.09*	-0.17***	-0.05
	(0.05)	(0.05)	(0.04)	(0.04)
Not satisfied	-0.02	-0.02	0.10*	0.05
	(0.06)	(0.07)	(0.06)	(0.06)
Housing property (base category: does not own property)				
Owns property	-0.06	-0.03	-0.08**	-0.00
	(0.05)	(0.05)	(0.04)	(0.04)
How are expenses financed? (base category: through own funds)				
Through borrowing	0.03	-0.04	-0.01	0.08*
	(0.05)	(0.05)	(0.04)	(0.04)
Don't know	-0.09	-0.06	-0.03	0.04
	(0.07)	(0.06)	(0.07)	(0.05)
PERSONAL TRAITS (standardised)				
Against asylum	-0.05**	-0.01	0.07***	0.08***
	(0.02)	(0.02)	(0.02)	(0.02)
Time preference	0.02	-0.02	-0.01	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Hyperbolic discounting	0.08***	0.02	0.00	0.00
	(0.03)	(0.02)	(0.02)	(0.02)
Degree of risk aversion	0.05	0.07**	-0.03	0.01
	(0.03)	(0.03)	(0.03)	(0.03)
RESIDENCE				
Residence (base category: lives in West Germany)				
East Germany	-0.04	0.05	-0.01	-0.04
	(0.04)	(0.04)	(0.04)	(0.03)
City (base category: does not live in city)				
Lives in city	0.02	0.12**	-0.11***	0.05
	(0.05)	(0.05)	(0.04)	(0.04)
OBSERVATIONS	489	510	489	510

Notes: The table shows average marginal effects. Robust standard errors are used. */**/*** indicate statistical significance at the 10%/5%/1% level.

Table A4: Can migrants do your job: average marginal effects (ordered logit)

DEPENDENT VARIABLE	**No, not at all**		**No, incompletely**		**Yes, but not completely**		**Yes, completely**	
VARIABLES	**EU**	**REF**	**EU**	**REF**	**EU**	**REF**	**EU**	**REF**
ATTITUDES TOWARDS MIGRANTS AND MIGRATION								
Can migrants do your job? (base category: no)								
Yes	-	-	-	-	-	-	-	-
Experience with immigrant workers (base category: No experience)								
Better or equally good	-0.05**	-0.08***	-0.06**	-0.05**	0.05**	0.08***	0.07**	0.05**
	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)

Worse	0.00	0.01	0.00	0.00	-0.00	-0.01	-0.00	-0.00
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)
Don't know	0.07	-0.02	0.04	-0.01	-0.07	0.02	-0.04	0.01
	(0.10)	(0.07)	(0.04)	(0.03)	(0.10)	(0.07)	(0.05)	(0.03)
Will the labour market integration of refugees be successful? (base category: Will not work out)								
Will work out	-0.09***	-0.15***	-0.10***	-0.08***	0.10***	0.16***	0.10***	0.07***
	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)
Don't know	-0.14***	-0.20***	-0.20***	-0.14**	0.07	0.20***	0.26***	0.14**
	(0.02)	(0.04)	(0.04)	(0.05)	(0.05)	(0.03)	(0.10)	(0.07)
SOCIO-DEMOGRAPHIC								
Sex (base category: male)								
Female	0.01	0.01	0.01	0.00	-0.01	-0.00	-0.01	-0.00
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)
Age	0.00	0.00*	0.00	0.00	-0.00	-0.00*	-0.00	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
LABOUR MARKET								
Occupation (base category: white-collar / public servant)								
Blue-collar	-0.06***	-0.12***	-0.07***	-0.08***	0.05***	0.12***	0.08**	0.09***
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)
Self-employed (including farmers)	-0.00	0.09	-0.00	0.01***	0.00	-0.08*	0.00	-0.03**
	(0.04)	(0.06)	(0.03)	(0.01)	(0.03)	(0.05)	(0.03)	(0.01)
No occupation / unemployed	-0.01	0.04	-0.01	0.01	0.01	-0.04	0.01	-0.01
	(0.05)	(0.07)	(0.05)	(0.01)	(0.05)	(0.06)	(0.05)	(0.02)
Education (base category: less than tertiary education)								
Tertiary education	0.10**	0.12**	0.06***	0.02***	-0.10**	-0.10**	-0.07***	-0.04***
	(0.04)	(0.05)	(0.02)	(0.01)	(0.04)	(0.04)	(0.02)	(0.01)
Full-time-status (base category: part-time)								
Full-time	0.06***	0.05*	0.06**	0.02	-0.05***	-0.05*	-0.07**	-0.03
	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)
Union membership (base category: no member)								
Member	-0.01	0.01	-0.01	0.00	0.01	-0.01	0.01	-0.00
	(0.03)	(0.04)	(0.03)	(0.01)	(0.03)	(0.04)	(0.03)	(0.02)
ECONOMIC CONDITIONS								
Satisfaction with own economic situation (base category: neutral)								
Satisfied	0.02	0.06**	0.02	0.02*	-0.02	-0.05*	-0.02	-0.02*
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)
Not satisfied	0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00
	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)
Housing property (base category: does not own property)								
Owns property	0.03	0.06**	0.03	0.02**	-0.03	-0.06**	-0.03	-0.03**
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)
How are expenses financed? (base category: through own funds)								
Through borrowing	-0.03	0.02	-0.03	0.01	0.03	-0.01	0.03	-0.01
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)
Don't know	-0.01	0.03	-0.01	0.01	0.01	-0.03	0.01	-0.01
	(0.03)	(0.04)	(0.03)	(0.01)	(0.03)	(0.04)	(0.03)	(0.02)
PERSONAL TRAITS (standardised)								
Against asylum	0.02**	0.03*	0.02**	0.01*	-0.02**	-0.02*	-0.02**	-0.01*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Time preference	-0.01	0.03*	-0.01	0.01*	0.01	-0.02*	0.01	-0.01*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Hyperbolic discounting	-0.04***	-0.01	-0.03***	-0.00	0.03***	0.01	0.03***	0.00

	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Degree of risk aversion	-0.03	-0.05**	-0.02	-0.02**	0.02	0.04**	0.02	0.02**
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)
RESIDENCE								
Residence (base category: lives in West Germany)								
East Germany	0.01	-0.03	0.01	-0.01	-0.01	0.02	-0.01	0.01
	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)
City (base category: does not live in city)								
Lives in city	-0.01	-0.08***	-0.01	-0.03**	0.01	0.07***	0.01	0.04**
	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)
OBSERVATIONS	999							

Notes: The table shows average marginal effects based on the estimation of an ordered logit model where the dependent variable is an indicator that takes on separate values for the four possible answer categories. All control variables in this model are interacted with an indicator for the group of respondents that were asked about refugee migrants. Robust standard errors are used. */**/*** indicate statistical significance at the 10%/5%/1% level.

Table A5: Afraid of job loss because of migration: average marginal effects (ordered logit)

DEPENDENT VARIABLE	**No, not at all**		**No, not really**		**Yes, a bit**		**Yes, very much**	
VARIABLES	**EU**	**REF**	**EU**	**REF**	**EU**	**REF**	**EU**	**REF**
ATTITUDES TOWARDS MIGRANTS AND MIGRATION								
Can migrants do your job? (base category: No, not at all)								
No, incompletely	-0.21***	-0.28***	0.09**	0.16***	0.09***	0.09***	0.03***	0.03***
	(0.08)	(0.06)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)	(0.01)
Yes, but not completely	-0.31***	-0.47***	0.11***	0.20***	0.14***	0.19***	0.06***	0.07***
	(0.07)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)	(0.01)
Yes, completely	-0.25***	-0.45***	0.10**	0.20***	0.11***	0.18***	0.04**	0.07*
	(0.09)	(0.10)	(0.04)	(0.04)	(0.04)	(0.06)	(0.02)	(0.03)
Experience with immigrant workers (base category: No experience)								
Better or equally good	-0.11**	-0.14***	0.02**	0.03**	0.06**	0.07***	0.04**	0.04**
	(0.05)	(0.05)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	(0.01)
Worse	-0.06	-0.12***	0.01	0.03**	0.03	0.07***	0.02	0.03***
	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Don't know	-0.00	-0.22***	0.00	0.01	0.00	0.13***	0.00	0.08*
	(0.10)	(0.07)	(0.03)	(0.02)	(0.05)	(0.05)	(0.02)	(0.04)
Will the labour market integration of refugees be successful? (base category: Will not work out)								
Will work out	0.08**	0.04	-0.02*	-0.01	-0.04**	-0.02	-0.02**	-0.01
	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Don't know	-0.16**	-0.06	-0.02	0.00	0.10**	0.04	0.08	0.02
	(0.07)	(0.06)	(0.03)	(0.00)	(0.04)	(0.03)	(0.05)	(0.02)
SOCIO-DEMOGRAPHIC								
Sex (base category: male)								
Female	-0.01	-0.05	0.00	0.01	0.01	0.03	0.00	0.01
	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Age	-0.00	-0.00**	0.00	0.00*	0.00	0.00**	0.00	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
LABOUR MARKET								
Occupation (base category: white-collar / public servant)								
Blue-collar	-0.07	-0.09**	0.01*	0.01	0.04	0.06**	0.02	0.03**
	(0.05)	(0.04)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	(0.01)
Self-employed (including farmers)	0.20***	0.08	-0.08**	-0.03	-0.08***	-0.04	-0.03***	-0.02
	(0.07)	(0.07)	(0.04)	(0.03)	(0.03)	(0.03)	(0.01)	(0.01)
No occupation / unemployed	-0.13	-0.04	0.01	0.01	0.08	0.02	0.05	0.01
	(0.08)	(0.08)	(0.01)	(0.01)	(0.05)	(0.05)	(0.04)	(0.02)

Education (base category: less than tertiary education)								
Tertiary education	-0.05	0.05	0.01	-0.01	0.03	-0.03	0.02	-0.01
	(0.06)	(0.07)	(0.01)	(0.02)	(0.03)	(0.03)	(0.02)	(0.01)
Full-time-status (base category: part-time)								
Full-time	0.04	0.06	-0.01	-0.01	-0.02	-0.04	-0.01	-0.02
	(0.05)	(0.04)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	(0.01)
Union membership (base category: no member)								
Member	0.03	-0.06	-0.01	0.01*	-0.01	0.03	-0.01	0.02
	(0.06)	(0.05)	(0.01)	(0.00)	(0.03)	(0.03)	(0.01)	(0.02)
ECONOMIC CONDITIONS								
Satisfaction with own economic situation (base category: neutral)								
Satisfied	0.22***	0.06	-0.06***	-0.01	-0.11***	-0.03	-0.05***	-0.02*
	(0.04)	(0.04)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Not satisfied	-0.03	-0.03	-0.00	0.00	0.02	0.02	0.01	0.01
	(0.05)	(0.06)	(0.01)	(0.00)	(0.03)	(0.03)	(0.02)	(0.02)
Housing property (base category: does not own property)								
Owns property	0.08*	0.03	-0.02*	-0.01	-0.04**	-0.02	-0.02**	-0.01
	(0.04)	(0.03)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
How are expenses financed? (base category: through own funds)								
Through borrowing	-0.01	-0.08**	0.00	0.01*	0.00	0.05**	0.00	0.02**
	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Don't know	0.01	-0.07*	-0.00	0.01*	-0.00	0.04	-0.00	0.02
	(0.07)	(0.04)	(0.01)	(0.01)	(0.03)	(0.02)	(0.02)	(0.01)
PERSONAL TRAITS (standardised)								
Against asylum	-0.08***	-0.06***	0.02***	0.01**	0.04***	0.03***	0.02***	0.02**
	(0.02)	(0.02)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Time preference	0.00	0.02	-0.00	-0.00	-0.00	-0.01	-0.00	-0.01
	(0.02)	(0.02)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Hyperbolic discounting	-0.01	-0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.02)	(0.02)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
Degree of risk aversion	-0.00	-0.02	0.00	0.00	0.00	0.01	0.00	0.01
	(0.03)	(0.02)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
RESIDENCE								
Residence (base category: lives in West Germany)								
East Germany	0.02	0.02	-0.00	-0.00	-0.01	-0.01	-0.01	-0.00
	(0.04)	(0.03)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
City (base category: does not live in city)								
Lives in city	0.02	-0.03	-0.00	0.00	-0.01	0.02	-0.01	0.01
	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
OBSERVATIONS	999							

Notes: The table shows average marginal effects based on the estimation of an ordered logit model where the dependent variable is an indicator that takes on separate values for the four possible answer categories. All control variables in this model are interacted with an indicator for the group of respondents that were asked about refugee migrants. Robust standard errors are used. */**/*** indicate statistical significance at the 10%/5%/1% level.