

Integrating refugees through active labour market policy: A comparative survey experiment

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Abstract

In the wake of the recent increase in the inflows of refugees to Europe, governments have made considerable investments in public policies aimed at facilitating the labour market integration of refugees. Despite these efforts, the labour market participation of refugees remains low. This situation raises the question of whether employers actually appreciate these public policies and whether refugees' participation in specific active labour market policies (ALMPs), such as work practice or wage subsidies, increases their likelihood of being hired. In this paper, we take a novel approach and combine employers' evaluations of specific ALMPs with their attitudes towards refugees. We argue that these labour market policies can only be successful when employers hold positive attitudes towards refugees in the first place. We investigate this question by means of a factorial survey experiment with employers in Austria, Germany and Sweden. Our results show that, indeed, employers' evaluations of fictional refugee candidates who participated in ALMPs are influenced by their attitudes towards this group. Participation in these policy measures is regarded positively only by those employers who already hold positive attitudes towards refugees.

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Introduction

Employers have always played a key role in the integration of immigrants into a host country's labour market, whether by trying to influence legislation (see Donnelly et al.; Afonso et al., in this issue) and the implementation of policies (Burroni and Scalise; Morgan, in this issue) or by exerting their influence as gatekeepers to employment (e.g., Auer et al., 2019). In any case, the preferences and behaviour of employers towards immigrants matter for immigrants' successful labour market integration. This important role of employers also applies to the recent challenge that governments across Europe have been facing, namely, the significantly increased inflow of refugees. The integration of these individuals requires adaptations of existing social and labour market policies, as well as the cooperation of employers (and cooperation includes having positive attitudes towards refugees). Ultimately, it is employers who decide whom to hire and thus who receives an opportunity for successful social and economic integration.

In the past, the introduction of active labour market policies (ALMPs) has been the strategy of choice of many governments seeking to integrate vulnerable individuals, including immigrants, into the labour market. ALMPs reconcile demands for investment in labour market integration without expanding passive transfers to groups that are generally perceived as less deserving, particularly immigrant and refugee jobseekers (van Oorschot, 2006; Bonoli, 2013). To successfully integrate refugees into the labour market, countries with strong ALMP systems have granted refugees access to existing ALMPs and developed new types of measures. This approach has been heavily used in Germany, Sweden, and Austria, which, among the EU-28 countries, received the most refugees during the 2015 influx (Martin et al., 2016). All three countries have invested considerable additional resources in the labour market integration of refugees, ranging from a mandatory integration course to providing skills certification through vocational training or qualification recognition (Konle-Seidl et al., 2018). These efforts suggest that refugees are seen as a valuable source of labour, similar to other types of immigrants.

In this contribution, we focus on employers' role as gatekeepers. Specifically, we analyse employers' evaluations of ALMPs and their attitudes towards refugees (see also Morgan in this Issue) when hiring to determine whether, and under what conditions, ALMPs actually help refugees obtain jobs. We complement the other contributions in this issue, which investigate how social partners influence the formulation and implementation of immigration and welfare policies and focus on the evaluation stage, i.e., the last step in the policy cycle (see Knotz et al. in this issue).

The research question is investigated by means of a factorial survey experiment conducted among employers in Austria, Germany and Sweden. In the experiment, employers were asked to evaluate fictitious candidates for low-skilled positions; we varied several characteristics of the candidates' profiles, such as their language skills, their occupation in the country of origin, and their participation in measures of ALMPs.

The findings show that a refugee's participation in such measures is seen as an asset on their CV, thereby increasing their overall rating as a candidate. However, the results also show that participation in these measures can lead to a positive effect only when employers hold positive attitudes towards refugees to begin with. Accordingly, we conclude that positive attitudes of the resident population – and of employers in particular – could be an important pre-condition for the success of other policies targeting refugees. Our contribution shows that the behaviour of employers as well as their interests and attitudes have important consequences for policy outcomes. When implementing social policy measures, it is therefore important to focus not only on the role played by the state and social partners in implementing the policy but also on how the policy affects the actual behaviour of relevant actors and the attitudes of these actors, which are likely to be influenced by public policy debate, as shown by Donnelley et al. (in this issue).

Case Selection

We examine employers' attitudes towards refugees and their evaluation of ALMPs in Austria, Germany, and Sweden. These countries were chosen because they received a substantial number of refugees during the

period between 2014 and 2017. In fact, compared to the EU-28 average, these three countries received the highest number of refugees in terms of per capita intake (see Figure A1 in appendix), and their governments have made active efforts to integrate this vulnerable group into the labour market (Konle-Seidl and Boltis, 2016). Moreover, studying different countries allows us to maximize the contextual variance and ensure that our findings are generalizable beyond a single case.

This recently arrived refugee population is similar in the three countries. In 2018, Syrian refugees represented the majority in all three countries, followed by refugees from Iraq and Afghanistan. Most of the refugees are young, 40% to 50% are between 18 and 34 years old, and roughly two thirds are male (Martin et al. 2016; Konle-Seidl, 2017). The formal educational background of refugees is often unclear and varies by nationality. However, selective data show that almost 80% do not have any vocational training (Brücker et al., 2015).

Given their low levels of formal education, integrating refugees often requires an investment in their human capital. All three countries have spent substantial resources (between 56 million in Sweden and 250 in Germany and Austria each) to provide measures that should facilitate the integration of refugees. These efforts include mandatory integration measures, in which language courses and courses on civic orientation are combined, and investments in certificate recognition efforts (Konle-Seidl, 2017). However, beyond integration courses, more specialized labour market trainings are needed; therefore, in terms of ALMPs, recognized refugees usually have access to the same measures as nationals (Konle-Seidl, 2017). In all three countries, there is a comprehensive system of ALMPs to reintegrate unemployed jobseekers into the labour market (Bonoli, 2013); such a system is a necessary condition for testing the influence of ALMP on employers' hiring behaviour towards refugees. Therefore, we analyse the influence of three main types of measures that primarily target jobseekers who are especially distant from the labour market (as is often the case for refugees) and that are present in all three countries. Moreover, we ensure that the economic context at the time of the refugee influx was positive in order to allow a real chance for labour market

integration. In detail, unemployment was moderate, amounting to 4.6% in Germany, 5.7% in Austria and 7.4% in Sweden, and all countries had positive GDP development despite the crisis (Eurostat 2019b).

However, there are also important national differences. The countries belong to different welfare state systems, namely, conservative (Germany and Austria) and Nordic (Esping-Andersen, 1990), and they differ with regard to specific policy interventions. Germany, for instance, has made available additional resources such as special placement assistance, practical job training and skill assessments. In addition, the employment agencies' staff received specific training in how to deal with asylum seekers (Martin et al. 2016). Austria has bundled existing integration measures into a package that includes – in addition to language courses – work preparation measures, diploma/certificate recognition and nonprofit community work. In fact, in Germany and Austria, skilled certification is an important requirement for accessing the labour market, which might hamper the successful labour market integration of refugees in these countries. Sweden has introduced skill assessments and early interventions, such as fast tracks to speed up refugees' integration into the labour market (Konle-Seidl, 2018). These three countries also differ in their migration histories. In contrast to Austria and Germany, which are traditionally dominated by labour migration, humanitarian migration has accounted for the largest flow of migrants in Sweden for many years (Bevelander, 2011). In light of these differences and the still rather scarce research on the labour market integration of refugees (see Konle-Seidl, 2017: 44), it is difficult to develop theoretically sound hypotheses about country differences. Therefore, our strategy is to analyse similarities in countries that have received large shares of refugees and devote considerable efforts to labour market integration, even though we expect some context-dependencies in employers' hiring preferences regarding refugees.

Theory

So far, most research has focused on individual characteristics of refugees or on institutional mechanisms for explaining their labour market success (Auer, 2018; Bevelander, 2011; Bakker et al., 2017; Delaporte and Piracha, 2018; Hainmueller et al., 2016; Verwiebe et al., 2019). Although many countries have

implemented ALMPs and other measures to increase refugee labour market participation, we know little about the efficacy of these policies (for laudable exceptions, see Lunborg and Skedinger, 2016). In particular, we have limited knowledge about whether employers consider ALMP participation as an asset for this group of applicants. This gap is surprising because employers are the gatekeepers to employment, and both their perceptions of specific groups and country policies are likely to influence refugees' labour market integration success (Autor DATE1) and thus the policies' efficacy (Liechti et al., 2018).

That employers' attitudes towards a particular group influence their hiring behaviour has been shown in studies of Blacks in the US (Pager and Karafin, 2009), the long-term unemployed in Europe (Bonoli, 2014) and low-skilled jobseekers in Sweden and Switzerland (Autor DATE2). Therefore, the extent to which a given policy influences employers' hiring behaviour is likely to depend on their general attitudes towards the group in question. We assume that this is particularly the case for refugees because their right to stay in a host society is controversially debated, and anti-immigration parties have gained popularity in all three countries (Konle-Seidel, 2017). Therefore, it can be expected that attitudes held by individual employers influence their hiring behaviour toward refugees. Accordingly, in this paper, we investigate not only the effect of ALMPs on employers' hiring behaviour towards refugees but also the extent to which the evaluation of this measure depends on employers' attitudes towards refugees.

Because refugees are often low qualified (Bücker et al., 2015), and even those who acquired higher formal qualifications in their countries of origin often take up low-skilled employment due to a lack of certificate recognition and other problems, we focus on those ALMPs that target low-skilled occupations. Studies show that even if they are overqualified, refugees are willing to take jobs below their formal educational qualifications (Colic-Peisker and Tilbury, 2006). Consequently, a majority of refugees will find work in low-skilled sectors – if not permanently, then at least as a stepping-stone, similar to other vulnerable populations (e.g., Mosthaf et al. 2014). In all three countries, recognized refugees have access to the same programmes

as native or migrant jobseekers; thus, we focus on those ALMPs that are available to all jobseekers because these policies address the needs of the labour market more directly (Konle-Seidl, 2017).

Active labour market policies and labour market integration of refugees

ALMPs can take different forms, namely, training or acquiring work experience in a specific occupation (i.e., skill development) and allocating monetary incentives to employers who hire refugees (Eichhorst et al., 2008). Employers should appreciate measures that target skill development because they provide refugees with working experience in the relevant firm, thus increasing their human capital. However, participating in such programmes can also act as a positive signal of certain skills and qualities as well as trainability (Liechti et al. 2017; van Belle et al., 2019). In fact, Liechti et al. (2017) show that participation in different ALMP programmes is considered to be a positive signal for those jobseekers who are most distant from the labour market and thus are considered least employable, which is likely to be the case for refugees

Under these circumstances, ALMPs providing necessary work experience might be especially important. We therefore test the effect of a measure allowing refugees to acquire work experience in the relevant task. Such measures can be organized either by the public employment office or by private employers. We expect both measures to be evaluated positively by employers but that internships in the private sector might be appreciated more because they signal that the candidate has already successfully passed an employers' screening procedure.

Another measure often assigned to hard-to-place jobseekers is wage subsidies, which should have a straightforward positive effect because they reduce wage costs for an employer (Butschek and Walter, 2014). The results from qualitative interviews in Sweden and Switzerland show that employers who are offered such incentives are more willing to give a chance to a candidate they would otherwise consider as too risky to hire (Autor DATE2).

Furthermore, studies have shown that social capital is pivotal for employment outcomes (Granovetter 1995; Fernandez et al. 2000). However, refugees often do not possess beneficial social contacts in regard to labour market participation. Therefore, to reduce this deficit, refugees themselves could take a proactive approach and show their willingness to integrate into a host society by choosing to do voluntary work for a local organization. Employers should appreciate this activity as a signal of attempting to assimilate to society, of being motivated to work, and as a way of acquiring skills. Verwiebe et al. (2018) have shown that personal agency and a proactive approach to seeking employment are the most promising way for refugees to obtain employment in Austria. Engaging in volunteer work is not a direct policy measure but rather can be seen as advice a caseworker could give to refugees at the public employment office.

Employers' attitudes and their effect on policy efficacy

At least since Putnam (1993), it is well known that value systems and culture play an important role in determining policy outcomes (Alesina and Giuliano, 2015; Bednar and Page, 2018). Similarly, research on voting behaviour and policy preferences has clearly demonstrated that support for a specific policy or voting for a specific candidate are influenced by underlying values or attitudes (Lau and Heldman, 2009; Rauwald and Moor, 2002).

Labour market integration of refugees has been highly debated and controversially discussed in the public sphere for several years now. Anti-immigration parties have gained popularity in all three countries, and anti-migration sentiments are on the rise (Konle-Seidel, 2017; see Inglehart and Norris, 2016). In such an adverse context, it can be expected that attitudes towards refugees also have an impact on the effectiveness of policies. In our case, the success of ALMPs depends on the behaviour of employers. Accordingly, it is plausible that employers' values and attitudes may either undermine or help the efficacy of a policy (see Bednar and Page, 2018). In general, we expect that ALMP participation should positively influence employers' evaluation of refugee candidates. However, we expect that the success of ALMPs depends on employers' attitudes towards refugees and that for ALMPs to have a positive effect, employers

must hold positive attitudes towards refugees. If this is not the case, these policy measures are unlikely to have a positive effect on employers' hiring behaviour.

Employers' attitudes towards refugees might differ from the attitudes of the general population, as refugees provide a valuable source of (cheap) labour (see Menz in this Issue). Therefore, what should matter for employers' hiring behaviour towards refugees is their attitude towards refugees' employability and suitability for the host country's labour market and possibly their anticipation of the reactions of customers and employees (Baert and de Pauw, 2014).

Surprisingly, researchers have not yet investigated the extent to which the success of ALMPs is influenced by the attitudes of those who are mainly confronted with these policies—employers. In fact, Autor (DATE2) show that employers tend to consider ALMP participation as a positive signal only when they attribute the agency for programme participation to the unemployed person, i.e., they believed that the unemployed person asked to participate in the programme. Similarly, we argue that for ALMPs to be successful, employers must perceive refugees as a valuable and suitable labour force.

Methods

Research design

Generally, it is difficult to observe the hiring behaviour of employers. To overcome this problem and as suggested in the literature, we rely on a factorial survey (FS) experiment (Di Stasio and Gërkhani, 2015). In FS experiments, respondents are asked to evaluate descriptions of hypothetical situations (vignettes), which consist of different dimensions that can take on different values, and the values are varied randomly (Auspurg and Hinz, 2015). The advantage of an FS experiment is that it reduces the risk of endogeneity, allows testing the influence of several dimensions, delivers a more valid measurement of attitudes and is less biased by social desirability than item-based techniques (Auspurg et al., 2014). FS are becoming increasingly popular for examining employers' hiring behaviour because they are more cost effective and

ethically less problematic than correspondence testing (for instance, Damelang and Abraham, 2016; Di Stasio and Gërkhani, 2015, Liechti et al., 2017; Liechti, 2019). Although these designs do not capture real behaviour but rather a hiring intent, studies have shown a high correlation between stated and real behaviour (Hainmüller et al., 2015). Moreover, the fact that vignette studies reach similar conclusions as correspondence studies, i.e., studies in which fake CVs are sent to real job openings (Zschirnt and Ruedin, 2015), show the high validity of the design. In contrast to correspondence studies, vignette studies can also capture informal recruitment practices, which are common in low-skilled occupations. Moreover, unlike in correspondence studies, FS enable the collection of additional information about the respondent, which is, in our case, essential because we want to test the influence of employers' attitudes on their evaluation of public policy measures.

The experiment

The experiment consisted of a number of vignettes presenting descriptions that approximate schematic CVs of fictional job applicants. These vignettes were submitted to a sample of employers via an online survey. We included two different jobs at the low-skilled level, ¹ one in administration and one as janitor or caretaker with basic duties (cleaning and maintaining outside areas). We focus on these jobs because refugees, even highly qualified ones, are mostly forced into this low-skilled segment of the labour market (Bloch, 2008). Specifically, we asked respondents to imagine that their company wanted to recruit a refugee for an open position in the specific occupations and asked them to evaluate a set of four vignettes for each job (8 vignettes in total). Employers were asked to indicate on a 10-point Likert scale from 1 to 10 (not at all likely – very likely) how likely they were to invite the candidate for a job interview. We only included profiles of refugees because they represent a very specific population that is difficult to compare to other jobseekers.

¹ See supplementary material Tables S1a-S1b for the job descriptions.

The candidates' descriptions varied randomly on eight different dimensions, namely, gender, age, nationality, marital status, year of arrival (2015/2018), language proficiency, profession in the country of origin and ALMP participation (see table A1 in the appendix). We focus on refugees stemming from Syria and Afghanistan, as these represent the largest asylum seeker groups in 2015 in all three countries. Moreover, we include Turkish asylum seekers to test whether employers differentiate among individuals according to perceived cultural distance.² In fact, previous research suggests that in the Western labour market, employers hire new staff according to an ethnic ranking, whereby applicants who are perceived closer to the in-group in terms of language, culture or religion are preferred over candidates with a background that is perceived to be more "distant" (e.g., Auer et al. 2019). The main variable of interest, however, is the ALMP measure,³ which was manipulated in the following way (see table A2 in the appendix for the exact wording):

- Participation in an integration course [reference category in the analysis]
- Work practice as an intern for a private employer in the domain of the job description
- Work practice by attending a practical workshop organized by the jobcentre
- Wage subsidy of 40% of the salary for 6 months paid by the jobcentre
- Volunteer work for the Red Cross

We have chosen a basic integration course as the reference category because in all countries, refugees are required to complete this basic course, where they learn the language and are familiarized with the customs of the country (Konle-Seidl, 2017). Because we are focusing on low-skilled occupations, the other programmes consist of practical training in an occupation, and the payment of wage subsidies as an intensive investment in human capital is not necessary for this type of occupation. Moreover, to avoid the

² See Table S2 in the supplementary material for asylum seekers' origin.

³ See supplementary material Figure S1 for an example of a vignette.

assumption that those participating in practical training have been in the country for a longer period, we specified their year of arrival (either 2015 or 2018).

From the whole vignette universe of 8,100 possible combinations, we draw a d-efficient sub-sample of 220 vignettes per job that minimizes the correlation between the different dimensions in the vignette universe (Auspurg and Hinz, 2015)⁴. The 220 vignettes were divided into 55 blocks of 4 vignettes each that were randomly distributed to respondents. We chose to have 4 vignettes per block because this resulted in eight vignettes per respondent (four for each job), and this is the number of vignettes respondents are usually able to evaluate without fatigue effects (Auspurg and Hinz, 2015).

Before introducing the vignettes, employers were provided with background information about the hiring situation; in particular, we mentioned that all candidates were admitted refugees with permission to work. Moreover, employers were provided a description of the two jobs. For the position of administrative assistance, the tasks include distributing internal mail, sorting office material, and copying documents; and for the caretaker or janitor position, the activities include cleaning offices and taking care of the outside area. Within each job, the order of the vignettes was randomized. In addition to the experimental manipulation, the survey included questions about the characteristics of the firm as well as about the socioeconomic characteristics of the respondent. Moreover, we asked questions about attitudes towards refugees.

Analysis of employers' attitudes

To analyse employers' attitudes towards refugees, we use those items in our questionnaire that ask about refugees' potential contributions or aptitude to work in the host society. Specifically, respondents were asked to indicate how much they agree (not at all-do not agree-fully agree) with the following statements:

⁴ A d-efficient design maximizes the orthogonality of the profiles, thereby maximizing the statistical power one can obtain from a given number of observations (Auspurg and Hinz, 2015). Drawing a deficient sample (in contrast to a random sample) allows us to specify which effects can be estimated (we specified all main effects and all two-way interactions). Our vignette sample has a d-efficiency of 90.1.

i) *Asylum seekers are willing to accept work that natives refuse*, ii) *asylum seekers will resolve the lack of qualified workers* and iii) *asylum seekers are underqualified*.

Because we are interested in general attitudes towards refugees, we combine these three survey questions for further analysis. The combination of these three indicators was performed by means of principal component factor analysis (PCA) to retain as many of the characteristics of the original variables as possible while reducing them into one factor. The PCA results in one strong factor that has an eigenvalue higher than one and factor loadings higher than 0.5.⁵ These are considered minimal requirements for a good factor (Jolliffe 2002: 1).⁶ We use multi-item measures for attitudes, as the survey methodology literature recommends using this approach rather than single-item measurements because the former are more reliable (Moore et al. 2002). In the regression models, we use the predicted factor scores as the operationalization of employers' attitudes and interact them with their evaluation of different ALMPs.

Data

The data were collected with an incentivized online panel run by an international market research firm (Qualtrics®) in February 2019. Weinberg et al. (2014) show that the results of factorial vignette experiments with crowd-sourced and population-based samples are comparable. However, to ensure that we obtain information from qualified employers, we specify a selection criterion, namely, that the respondent was involved in hiring processes during the 12 months before the survey. We also introduce quotas to ensure a diverse sample. Respondents were recruited according to age (50% had to be older than 35), gender (50% female), and firm size (60% from firms up to 250 employees). We obtained 368 respondents from Germany, 228 for Austria and 363 for Sweden. These respondents rated a total of ~3,800 vignettes per job, which amounts to a total of ~ 7,600 vignettes. When compared to the German establishment panel (IAB, 2019),

⁵ See Table A3 in the appendix for the results of the PCA.

⁶ Replication was performed with factor scores derived from exploratory factor analysis and the results remain stable. In addition, country-specific factors were calculated and the results remain the same.

our sample (see table S6 in the supplementary material) of employers is representative with regard to sector and location (urban vs rural). Larger firms are overrepresented; however, as these firms are also employing more people, their hiring procedures are relevant to a large share of jobseekers.

Analysis

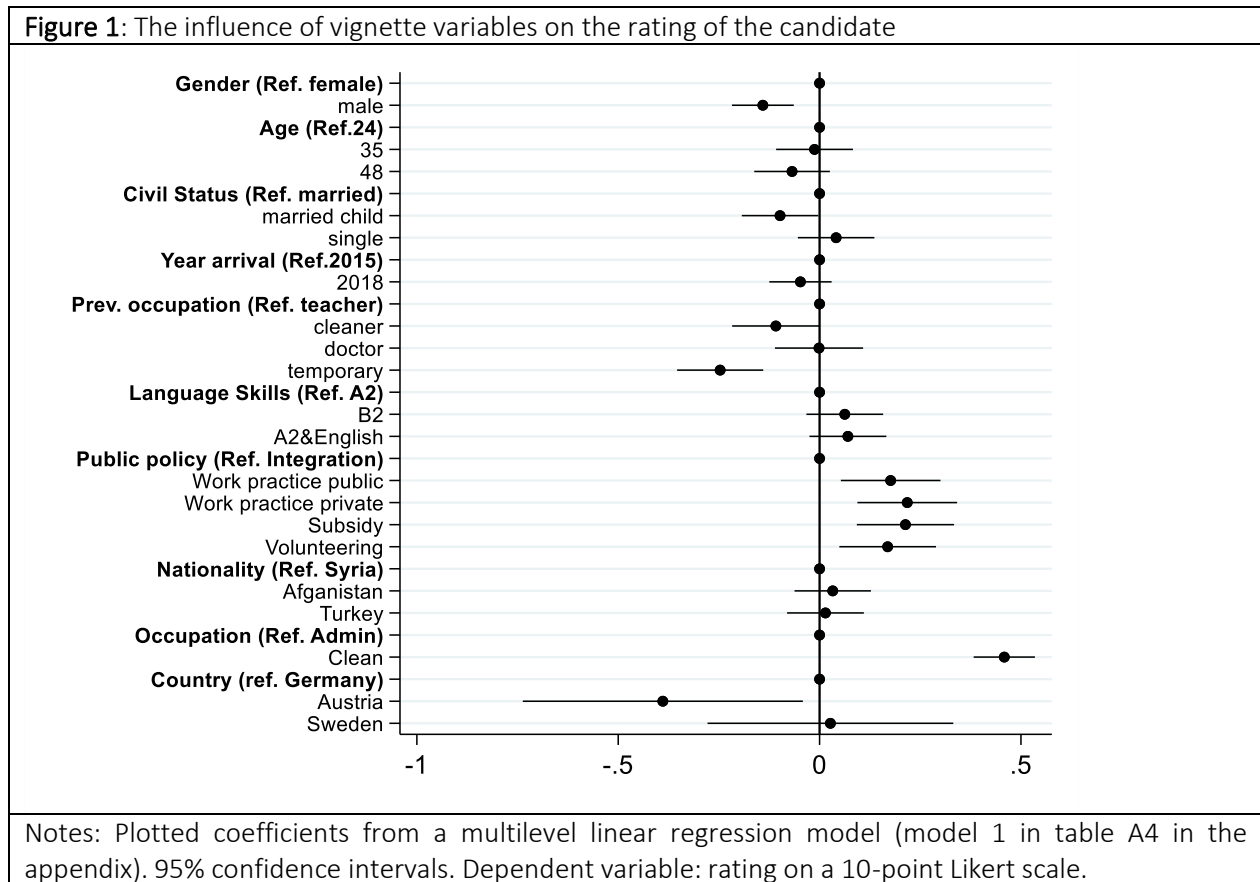
Due to the nested data structure (vignettes are embedded in respondents), we estimate multilevel models and control for country and jobs (Auspurg and Hinz, 2015). To test the hypothesis about how attitudes shape employers' evaluation of ALMPs, we estimate a cross-level interaction effect between respondents' attitudes and the vignette variables concerning ALMPs. Moreover, as a robustness test, we estimate fixed effects models for the models without cross-level interaction effects, and the results remain the same.

Results

Looking at the vignette variables (Figure 2), we see that among the socio-economic variables, the rating of the candidates is primarily influenced by gender. Male candidates received significantly lower ratings than female applicants did. This might be explained by the negative stereotypes that are associated especially with male asylum seekers and have been portrayed in different European newspapers (Georgiou and Zaborowski, 2017). Age did not significantly influence the ratings. Having to provide for a child significantly decreases the rating of an applicant. Employers may fear decreased flexibility (e.g., regarding working times) or distractions related to parallel care duties (see, e.g., Oesch et al., 2017).

The country of origin does not play a significant role in employers' evaluation of the candidates. This can be explained by the fact that all candidates were described as humanitarian refugees who had fled their countries due to the political situation, and thus there is probably no difference in the deservingness perceptions of the applicant profiles (Bansak et al., 2016). An alternative explanation is that in all countries, the majority of the population is of Muslim faith, and accordingly, employers perceive these nationalities similarly in terms of cultural distance. Finally, it is important to note that all candidates were explicitly

mentioned as having a working permit in the host country; accordingly, there are no differences regarding bureaucratic hurdles.



In terms of immigration history, the results show that the year of arrival, 2018 or 2015, does not differ significantly. Having good proficiency in the host country's language (level B2) or compensating for a low level of proficiency with a good level of English has no significant effects.⁷ Unsurprisingly, previous professional experience is relevant. Overall, individuals who worked as cleaners and, in particular,

⁷ More in-depth analyses (not shown) reveal that the level of local language (B2) is positive and significant for the administrative job but not for the caretaker position. This is plausible given that interactions with staff and customers are more likely in an administrative than in a caretaker position.

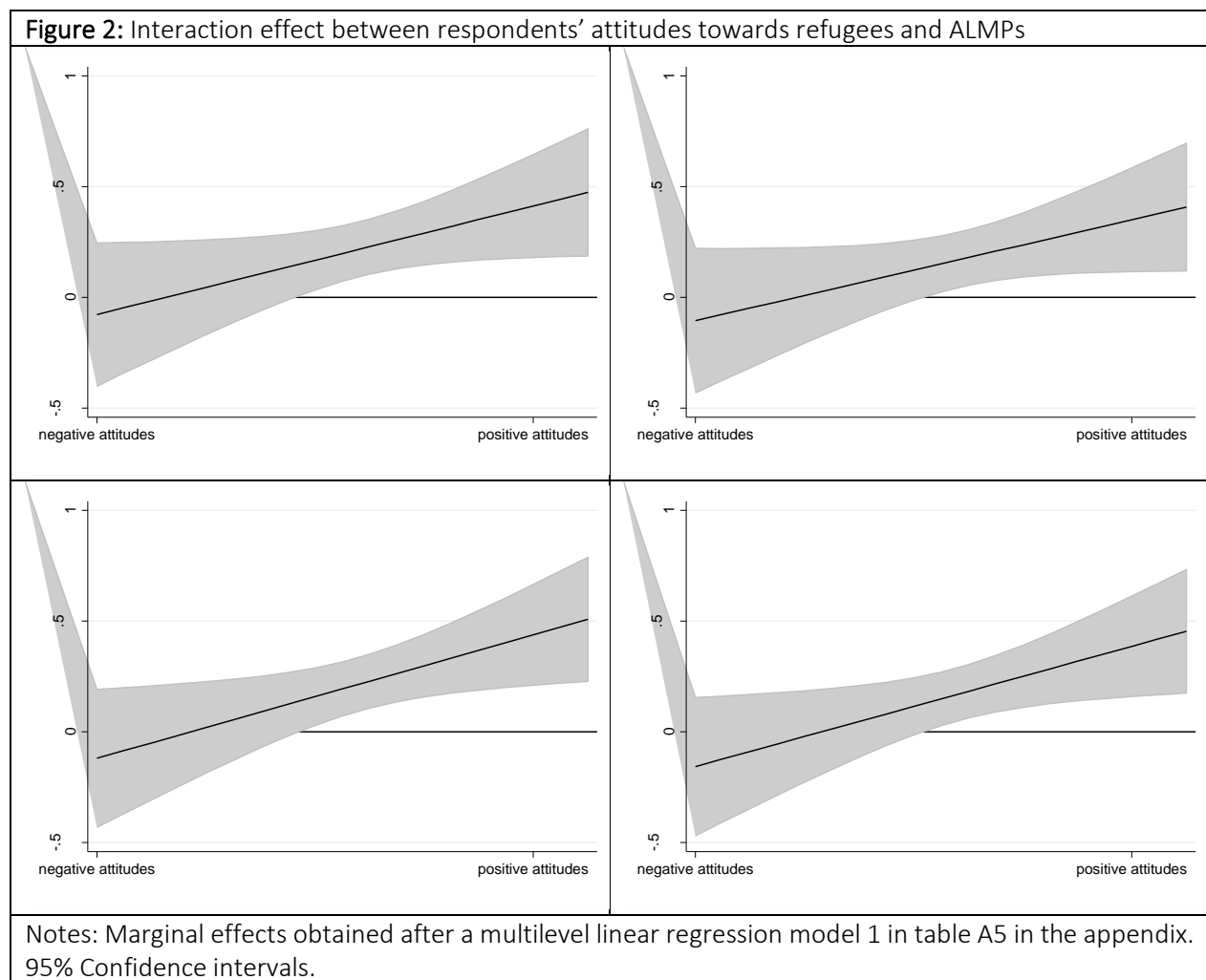
individuals who held temporary jobs in their native country are rated lower than doctors or teachers.⁸ Finally, employers give higher ratings to the vignettes for caretaker job applicants, which presumably has to do with the higher perceived skill level required for a job as administrative assistant. Regarding country differences, Austrian employers are most sceptical and assign to the applicants ratings that are more negative than those assigned by employers in the other two countries.

Finally, when looking at our main variable of interest, the ALMP dimension, participation in labour market policy measures has a positive influence on employers' evaluation of candidates. Overall, all measures – having practical training, being eligible for a wage subsidy and doing volunteer work – are valued significantly positively by employers when compared to candidates that have followed only a basic integration course. This mirrors evidence from Germany, where Kosyakova and Sirries (2017) found that refugees taking part in integration measures were more likely to get a job. Separate analyses for each country (table A4, Model 2-4 in the appendix) show that employers in all countries appreciate at least one ALMP measure when evaluating the profiles of refugee applicants. Employers in Sweden are very positive towards different ALMP measures; employers in Germany are more favourable to private work practice schemes and volunteer work; while Austrian employers valued wage subsidies the most. However, because we only include three countries and the number of respondents in each country is low, we are not able to further investigate these country differences, which could arise due to differences in labour market structure or the appreciation of ALMP participation.

In the next step, we test whether and how employers' attitudes towards refugees shape their evaluation of ALMPs. Additional analyses (not shown) reveal that, in general, attitudes towards refugees do not differ among the three countries and are not influenced by hiring-related variables, such as hiring experience and

⁸ Again, in more in-depth analyses (not shown), this effect differs for the two positions. For the job as caretaker, having experience as a cleaner is considered a positive asset. While for the position as administrative assistant, having worked as a cleaner or in temporary jobs is evaluated as a significant negative signal.

the precise occupation of the respondent, or whether the company has ever hired refugees. The main model (see table A5) for all countries shows that the interaction between attitudes and integration measures is positive and significant. In fact, in order for ALMP measures to exert a positive effect on employers' hiring behaviour, we expected that employers need to hold a positive attitude towards this specific group of applicants, as otherwise employers would avoid hiring them altogether.



The results (figure 2) corroborate the expectations and show that employers' evaluation of refugees' participation in labour market measures depends on their attitudes towards refugees' qualifications and potential contribution to the host countries' economies. Those holding negative attitudes towards refugees and who thus believe that refugees are unqualified or unwilling to work do not appreciate such measures, meaning that none of the measures significantly influences the respondent's rating. Conversely, employers holding a positive attitude towards refugees and who thus believe that refugees are qualified and able to contribute to the host country's labour market also consider participation in ALMPs and assets. In these instances, participation in ALMPs significantly improves the ratings of applicants.

Again, how attitudes towards refugees shape employers' evaluation of ALMPs is context-dependent; the effect of attitudes is strongest in Sweden and weakest in Germany, where the interaction effects do not reach statistical significance.⁹

As robustness checks, we have tested other interaction effects of employers' characteristics and their evaluations of policy measures, such as whether the firm is a private firm, whether it is located in an urban or rural area, and its size; however, none of these interactions are significant or influence the main interaction between attitudes and ALMP evaluation (results available on request).

Conclusion

Although labour market integration of refugees is a pivotal issue in many European countries, we know little about employers' preferences towards this group of jobseekers and how labour market policy interventions can affect the employment prospects of this population. In this study, we analyse employers' hiring

⁹ Note that due to the small sample size, not all interaction terms are significant. However, all point estimates are positive and thus in line with the expectations.

preferences regarding refugees with a work permit and ask whether employers perceive typical ALMPs as an asset in Sweden, Germany and Austria.

Moreover, following previous research, we investigate how employers' attitudes towards refugees influence their perception of the utility of ALMPs. Our results show that generally, those employers who have positive attitudes towards refugees, that is, consider them to be adequately qualified for the labour market, also appreciate policy interventions that aim to support refugees' labour market integration. Conversely, those employers who already hold a negative attitude towards refugees and believe that they are underqualified also do not appreciate ALMPs as useful interventions.

The results clearly show that it is not solely the type of policy welfare states implement that determines their efficacy; rather, the public debate and the attitudinal climate in a country can substantially affect the effectiveness of ALMPs that aim at integrating refugees into the labour market. Particularly, in times of polarizing immigration debates and the strengthening of populist right parties (Inglehart and Norris 2019), governments should be particularly attentive to how this adverse climate affects their efforts to integrate refugees into the labour market and society.

In particular, strategies to include sceptical employers in the refugee integration process should be developed. Similarly, measures that reduce inequality in a society, thereby reducing the possible grievances of natives and long-term immigrant residents, might be a helpful tool to address this perceived competition for scarce (welfare state) resources (see Knotz et al. in this Issue).

This study is not without weaknesses; in particular, the population of employers is difficult to reach and therefore not entirely representative of the population, even though, because we are interested in the effect of an experimentally varied dimension, this is less of an issue here than in other studies (see Damelang and Abraham, 2016). Moreover, our study covers only a limited number of countries, which are characterized by comparatively positive economic conditions. Thus, it would be important to study

refugees' labour market integration in countries where the government invests fewer resources in ALMPs and where the economic and labour market conditions are much more difficult.

Furthermore, this study tests the first step of refugees' labour market integration process; avenues for further research include analysing social mobility dynamics and professional development over time and in different contexts. It would also be interesting to analyse how refugees are evaluated compared to natives and long-term resident immigrants when they apply for jobs. Because refugees are expected to stay in a country for some time, they are likely to compete with native or migrant jobseekers. In this situation, they might be exposed to substantial discriminatory behaviour from employers.

Finally, regarding the role of employers in the welfare-migration nexus, it would be important to analyse what types of steps employers' organizations take regarding the integration of refugees and how they react to their members' discriminatory behaviour. What is certain is that integration questions will remain highly salient on the welfare state reform agendas of European countries in the coming decades.

Literature

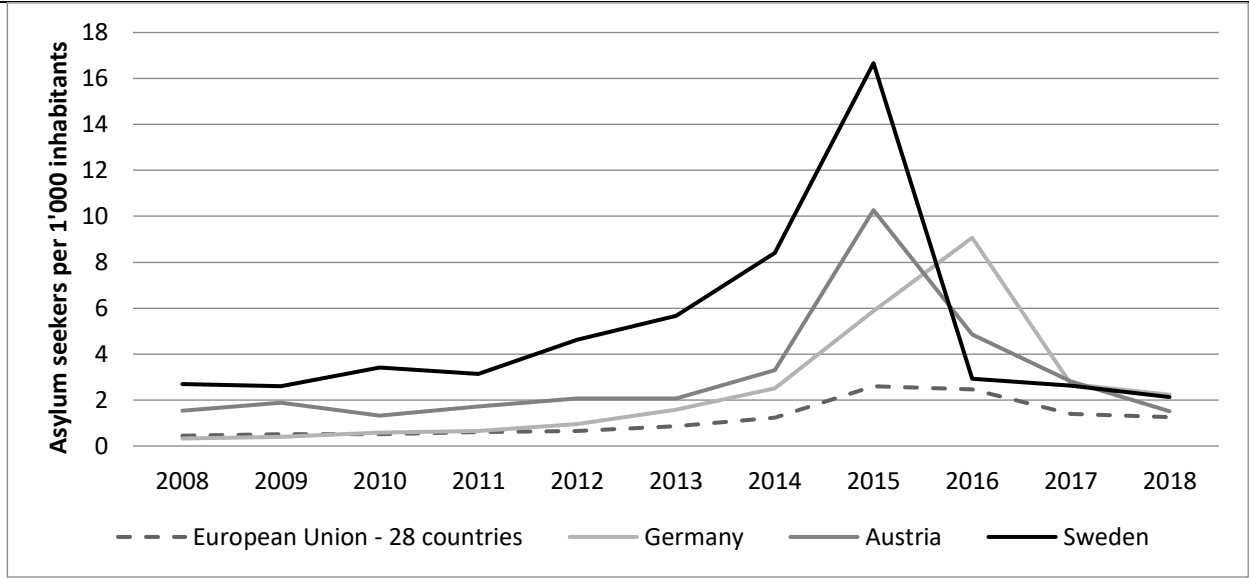
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Appendix

Figure A1: Number of asylum seekers (2008 -2018)



Source: Eurostat (2019a)

Table A1: Vignette Dimensions

Dimension	Level
1 Gender	Male Female
2 Refugee from	Syria Afghanistan Turkey
3 Year of arrival in host country	2015 2018
4 Age	24 years 37 years 48 years
5 Family status	Married, no children Married, one child of 5 years of age Single
6 Language	Local language A2 Local language B2 local language A2 + English B1
7 Training in home country	Elementary school teacher Medical doctor Administrative assistant Cleaner Different temporary jobs
8 ALMP	Basic integration course 1-month work practice organized by the jobcentre 1-month work practice in a private firm Wage subsidy 40% for six months Volunteering work twice a week for a local

Table A2: Operationalization of ALMP measures

Level	Manipulation
Integration course	Is currently following an integration course, where refugees are made familiar with the customs and habits of living in the country.
Practical training within private firm	Is working for a month as intern for a private employer in the domain of cleaning/office administration.
Practical training organized by the jobcentre	Is working in a practical workshop in the domain of cleaning/office administration, an integration measure that is organized by the local Jobcentre.
Wage subsidy	In case of employment, 40% of the salary will be paid by the jobcentre for a period of 6 months.
Volunteering activity	Is doing community work twice a week in the framework of a voluntary project of the Red Cross in an elderly home.

Table A3: Principal Component Analysis of employers’ attitudes towards refugees

Questionnaire items	Factor loadings	Uniqueness
Asylum seekers are willing to accept work that natives refuse	0.766	0.412
Asylum seekers will resolve the lack of qualified workers	0.831	0.310
Asylum seekers are underqualified	-0.648	0.580
Eigenvalue	1.698	
N	7672	

Table A4: Effects of vignette variables on respondent's rating of candidates

	All countries Model 1		Germany Model 2		Austria Model 3		Sweden Model 4	
Female								
Male	-0.138***	(0.040)	-0.098	(0.065)	-0.155°	(0.090)	-0.159**	(0.058)
24 years								
35 years	-0.008	(0.049)	-0.004	(0.081)	-0.120	(0.111)	0.073	(0.072)
48 years	-0.069	(0.048)	-0.009	(0.080)	-0.247*	(0.109)	0.001	(0.071)
Married								
Married+child	-0.096°	(0.049)	-0.101	(0.080)	-0.077	(0.111)	-0.102	(0.072)
Single	0.044	(0.049)	0.072	(0.081)	0.175	(0.111)	-0.071	(0.072)
Arrival 2015								
Arrival 2018	-0.048	(0.040)	-0.045	(0.066)	-0.110	(0.090)	-0.024	(0.059)
Teacher								
Cleaner	-0.103°	(0.056)	0.004	(0.092)	-0.240°	(0.127)	-0.129	(0.082)
Doctor	0.003	(0.056)	0.063	(0.093)	-0.122	(0.127)	-0.000	(0.083)
Temporary jobs	-0.246***	(0.055)	-0.235**	(0.091)	-0.347**	(0.125)	-0.205*	(0.081)
Lang. A2								
Lang. B2	0.062	(0.049)	0.134°	(0.081)	0.190°	(0.112)	-0.101	(0.072)
Lang. A2+English	0.070	(0.049)	0.001	(0.081)	0.219*	(0.111)	0.047	(0.072)
Integration course								
PES work practice	0.181**	(0.064)	0.119	(0.106)	0.148	(0.145)	0.261**	(0.093)
Private work practice	0.215***	(0.064)	0.175°	(0.106)	0.123	(0.142)	0.323***	(0.094)
Subsidy	0.212***	(0.062)	0.143	(0.103)	0.232°	(0.138)	0.275**	(0.092)
volunteering	0.167**	(0.062)	0.236*	(0.102)	0.148	(0.140)	0.109	(0.091)
Syria								
Afghanistan	0.033	(0.049)	-0.028	(0.081)	0.128	(0.110)	0.009	(0.072)
Turkey	0.018	(0.049)	-0.052	(0.081)	-0.015	(0.111)	0.100	(0.072)
Germany								
Austria	-0.389*	(0.177)						
Sweden	0.026	(0.156)						
Constant	6.376***	(0.137)	6.343***	(0.174)	6.070***	(0.234)	6.397***	(0.161)
N vignettes	7634		2928		1814		2892	
N respondents	959		368		228		363	
Variance vignettes	4.067	(0.202)	3.977	(0.321)	4.157	(0.0431)	4.102	(0.326)
Variance respondents	2.873	(0.050)	2.979	(0.083)	3.496	(0.124)	2.332	(0.0656)
Aic	32307.458		12509.478		8016.613		11736.584	
Bic	32460.146		12629.120		8126.679		11855.978	
LI	-		-6234.739		-3988.307		-5848.292	
	16131.729							

Multilevel linear regression, dependent variable Rating on a 10-point Likert Scale.

Standard errors in parentheses

° p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table A5: The effect of employers' attitudes on integration measures

	All countries Model 1		Germany Model 2		Austria Model 3		Sweden Model 4	
Integration course								
PES work practice	0.179**	(0.064)	0.114	(0.106)	0.149	(0.144)	0.261**	(0.093)
Private work practice	0.214***	(0.064)	0.173	(0.106)	0.123	(0.142)	0.325***	(0.094)
Subsidy	0.213***	(0.062)	0.145	(0.103)	0.232°	(0.138)	0.280**	(0.092)
Volunteering	0.167**	(0.062)	0.237*	(0.102)	0.151	(0.139)	0.112	(0.091)
Attitudes refugees	0.734***	(0.074)	1.119***	(0.157)	0.907***	(0.220)	0.914***	(0.159)
Integration*attitudes								
PES*attitudes	0.108°	(0.063)	0.099	(0.140)	0.288	(0.200)	0.123	(0.125)
Private*attitudes	0.124°	(0.064)	0.166	(0.141)	0.045	(0.197)	0.217°	(0.127)
Subsidy*attitudes	0.139*	(0.062)	0.105	(0.137)	0.259	(0.190)	0.232°	(0.124)
Volunteering*attitudes	0.139*	(0.062)	0.057	(0.135)	0.334°	(0.194)	0.236°	(0.125)
Germany								
Austria	-0.394*	(0.163)						
Sweden	0.051	(0.143)						
Constant	6.368***	(0.129)	6.325***	(0.167)	6.062***	(0.228)	6.412***	(0.155)
Variance vignettes	3.400	(0.172)	3.157	(0.261)	3.537	(0.372)	3.471	(0.280)
Variance respondent	2.870	(0.050)	2.977	(0.083)	3.486	(0.124)	2.327	(0.065)
N vignettes	7634		2928		1814		2892	
N respondents	959		368		228		363	
Aic	32145.766		12440.196		7989.308		11685.928	
Bic	32333.156		12589.747		8126.891		11835.170	
LI	-16045.883		-6195.098		-3969.654		-5817.964	

Notes: Multilevel models with cross-class interaction, other vignette dimensions not shown (see complete model in the supplementary material Table S4)

° p<0.1, * p<0.05, ** p<0.01, *** p<0.001, standard errors in parentheses

Supplementary Material: Integrating refugees through active labour market policy: A comparative survey experiment

Experimental protocol

Table S1a: Job description administrative assistant

Rating of candidates

Imagine that in your company, you have an open position for an unskilled worker in the area of administration and you are involved in the recruitment process.

The tasks are the following:

- Internal mailing
- Put away office material
- Copying and arrange documents

All candidates are recognized refugees and have the permission to work.

Please indicate how likely you are to invited to following candidates for a job interview (1_very unlikely, 10 very likely).

Table S1b: Job description caretaker

Rating of candidates

Imagine that in your company, you have an open position for an unskilled worker in the area of cleaning and maintenance and you are involved in the recruitment process.

The tasks are the following:

- Cleaning the office space
- Taking care of the outside space and the green area

All candidates are recognized refugees and have the permission to work.

Please indicate how likely you are to invited to following candidates for a job interview (1_very unlikely, 10 very likely).

Figure S1: Vignette example translation in English

Applicant Administration

- Ms Bakhtari fled Syria because of political prosecution and has been living in Germany since beginning of 2015 and is looking for a job.
- She is 24 years old, married and has one child of five years of age.
- She speaks German at level A2 and English at level B2 and worked as a medical doctor in her country of origin.
- Ms Bakhtari is doing community work twice a week in the framework of a voluntary project of the Red Cross in an elderly home.
-

Please indicate how likely it is that you would invite the candidate for a job interview. (1=very unlikely, 10=very likely).

	1	2	3	4	5	6	7	8	9	10
Invite for interview	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Note: The vignette for the position as caretaker are the same, only the job description changes.

Table S2: Citizenships of first-time non-EU asylum applicants (2015)

Citizenship	Germany	Austria	Sweden
Syria	158655	24720	50890
Albania	53805	135	2565
Kosovo	33425	1605	1560
Afghanistan	31380	24840	41190
Iraq	29785	13225	20190
Iran	5395	3380	4270
Pakistan	8200	2890	515
Stateless	3885	2000	7445
Eritrea	10875	85	6515
Turkey	1500	190	220
Total	441900	85520	156195

Note: in grey are the five main citizenships of non-EU asylum applicants per country

Robustness

Table S3a: Correlations for vignette dimensions both jobs

Administrative assistant	Age	Gender	Nationality	Public policy	Language	Occupation	Year arrival	Children
Vignette dimensions								
Age	1.00							
Gender	-0.01	1.00						
Nationality	-0.01	0.00	1.00					
Public policy	0.02	-0.00	-0.01	1.00				
Language	0.01	-0.00	0.00	0.02	1.00			
Occupation	-0.00	-0.03	-0.00	0.01	0.00	1.00		
Year arrival	-0.01	0.02	0.00	0.00	-0.01	0.01	1.00	
Children	0.01	-0.00	0.01	0.02	-0.01	0.02	-0.00	1.00

Table S3b: Correlations for vignette dimensions administrative assistant

Administrative assistant	Age	Gender	Nationality	Public policy	Language	Occupation	Year arrival	Children
Vignette dimensions								
Age	1.00							
Gender	-0.02	1.00						
Nationality	-0.00	0.01	1.00					
Public policy	0.02	-0.00	-0.01	1.00				
Language	0.01	0.01	-0.00	0.02	1.00			
Occupation	-0.01	-0.03	-0.01	0.01	0.01	1.00		
Year arrival	-0.01	0.02	-0.00	0.01	-0.01	-0.00	1.00	
Children	0.01	-0.01	0.00	0.01	-0.01	0.02	0.00	1.00

Table S3c: Correlations for vignette dimensions caretaker

Cleaner	Age	Gender	Nationality	Public policy	Language	Occupation	Year arrival	Children
Vignette dimensions								
Age	1.00							
Gender	-0.00	1.00						
Nationality	-0.02	-0.00	1.00					
Public policy	0.02	0.00	-0.00	1.00				
Language	0.01	-0.01	0.01	0.02	1.00			
Occupation	-0.00	-0.03	-0.00	0.01	0.00	1.00		
Year arrival	-0.01	0.02	0.00	-0.01	-0.01	0.01	1.00	
Children	0.01	0.01	0.02	0.02	-0.01	0.02	-0.01	1.00

Figure S2: Distribution of attitudes towards refugees

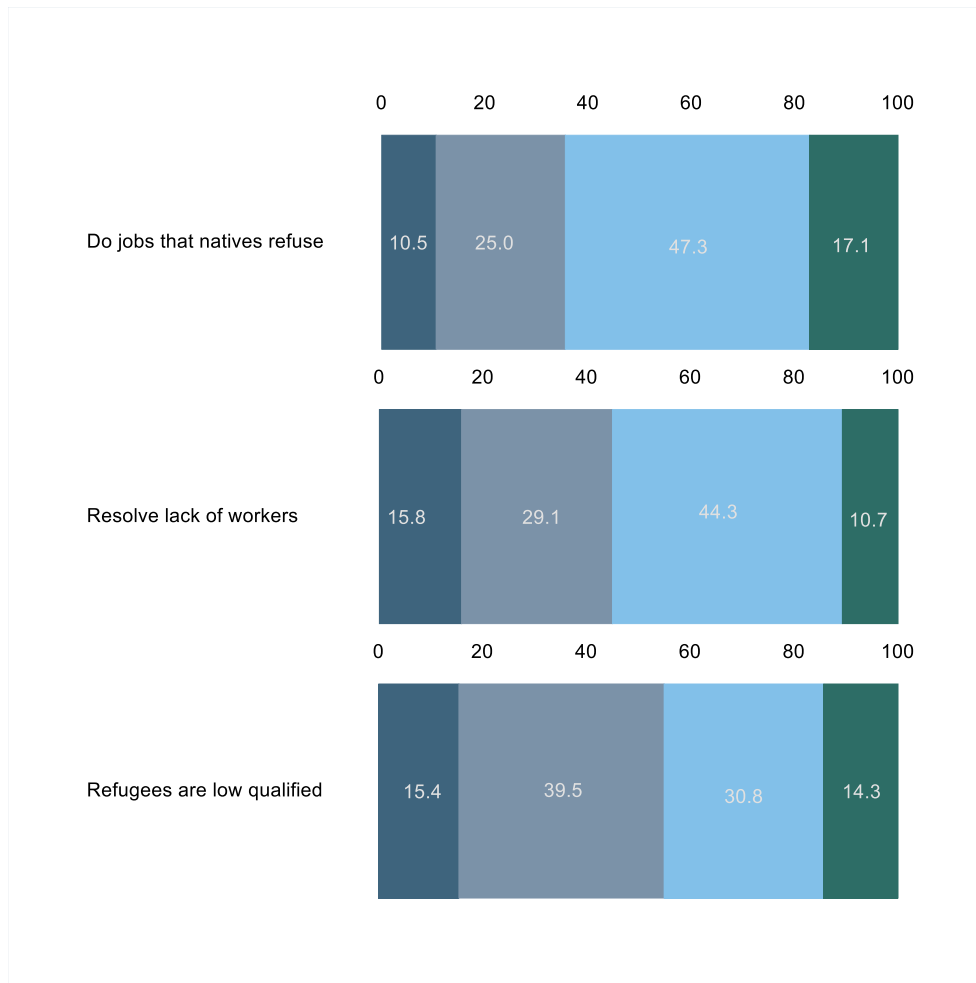


Figure S3: Scree plot of eigenvalues after PCA

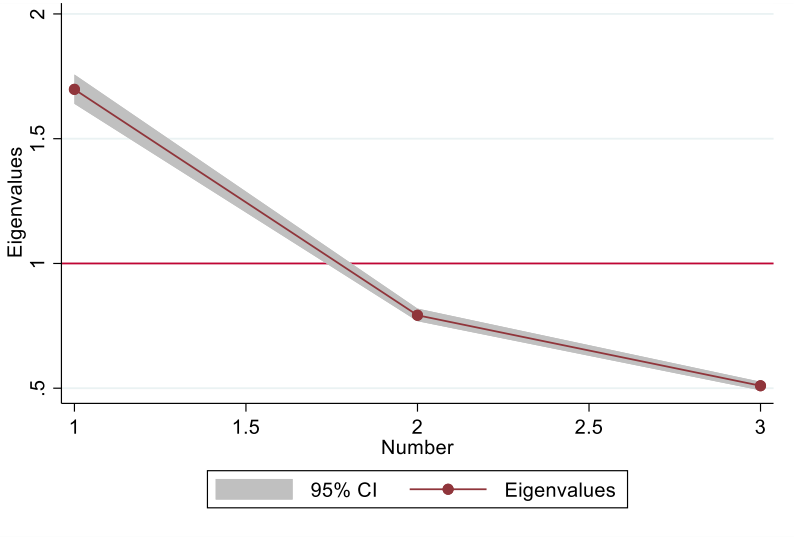


Table S4: The effect of employers' attitudes on integration measures (full model)

	All countries Model 1		Germany Model 2		Austria Model 3		Sweden Model 4	
Female								
Male	-0.139***	(0.040)	-0.096	(0.065)	-0.150°	(0.090)	-0.162**	(0.058)
24 years								
35 years	-0.006	(0.049)	-0.008	(0.081)	-0.123	(0.111)	0.080	(0.072)
48 years	-0.073	(0.048)	-0.018	(0.080)	-0.248*	(0.109)	0.001	(0.071)
Married								
Married + child	-0.092°	(0.049)	-0.097	(0.081)	-0.080	(0.110)	-0.097	(0.072)
Single	0.044	(0.049)	0.078	(0.081)	0.174	(0.111)	-0.074	(0.072)
Arrival 2015								
Arrival 2018	-0.049	(0.040)	-0.048	(0.066)	-0.107	(0.090)	-0.019	(0.059)
Teacher								
Cleaner	-0.100°	(0.056)	0.008	(0.092)	-0.219°	(0.127)	-0.134	(0.082)
Doctor	0.002	(0.056)	0.060	(0.093)	-0.124	(0.127)	-0.002	(0.083)
Temporary jobs	-0.244***	(0.055)	-0.234**	(0.091)	-0.338**	(0.125)	-0.208*	(0.081)
Lang. A2								
Lang. B2	0.060	(0.049)	0.130	(0.081)	0.186°	(0.112)	-0.101	(0.072)
Lang. A2 & English	0.069	(0.049)	0.002	(0.081)	0.211°	(0.111)	0.048	(0.072)
Syria								
Afghanistan	0.034	(0.049)	-0.027	(0.081)	0.135	(0.110)	0.007	(0.072)
Turkey	0.018	(0.049)	-0.051	(0.081)	-0.008	(0.111)	0.095	(0.072)
Integration course								
PES work practice	0.179**	(0.064)	0.114	(0.106)	0.149	(0.144)	0.261**	(0.093)
Private work practice	0.214***	(0.064)	0.173	(0.106)	0.123	(0.142)	0.325***	(0.094)
Subsidy	0.213***	(0.062)	0.145	(0.103)	0.232°	(0.138)	0.280**	(0.092)
Volunteering	0.167**	(0.062)	0.237*	(0.102)	0.151	(0.139)	0.112	(0.091)
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Subsidy*attitudes	0.139*	(0.062)	0.105	(0.137)	0.259	(0.190)	0.232°	(0.124)
Volunteering*attitudes	0.139*	(0.062)	0.057	(0.135)	0.334°	(0.194)	0.236°	(0.125)
Germany								
Austria	-0.394*	(0.163)						
Sweden	0.051	(0.143)						
Constant	6.368***	(0.129)	6.325***	(0.167)	6.062***	(0.228)	6.412***	(0.155)
Variance vignettes	3.400	(0.172)	3.157	(0.261)	3.537	(0.372)	3.471	(0.280)
Variance respondent	2.870	(0.050)	2.977	(0.083)	3.486	(0.124)	2.327	(0.065)
N vignettes	7634		2928		1814		2892	
N respondents	959		368		228		363	
aic	32145.766		12440.196		7989.308		11685.928	
bic	32333.156		12589.747		8126.891		11835.170	
ll	-16045.883		-6195.098		-3969.654		-5817.964	

Notes: Multilevel models with cross-class interaction, complete model.

° p<0.1, * p<0.05, ** p<0.01, *** p<0.001, standard errors in parentheses.

Table S4 continued: The effect of employers' attitudes on integration measures (full model)

	Model 1		Model 2		Model 3	
Vignette characteristics						
Female						
Male	-0.142***	(0.039)	-0.142***	(0.039)	-0.142***	(0.039)
24 years						
35 years	-0.011	(0.049)	-0.011	(0.049)	-0.011	(0.049)
48 years	-0.073	(0.048)	-0.074	(0.048)	-0.074	(0.048)
Married						
Married + child	-0.094°	(0.048)	-0.095°	(0.048)	-0.095*	(0.048)
Single	0.041	(0.048)	0.042	(0.048)	0.041	(0.048)
Arrival 2015						
Arrival 2018	-0.050	(0.039)	-0.050	(0.039)	-0.050	(0.039)
Teacher						
Cleaner	-0.106°	(0.055)	-0.106°	(0.055)	-0.106°	(0.055)
Doctor	-0.002	(0.056)	-0.002	(0.056)	-0.001	(0.056)
Temporary jobs	-0.245***	(0.055)	-0.245***	(0.055)	-0.245***	(0.055)
Lang. A2						
Lang. B2	0.061	(0.049)	0.061	(0.049)	0.060	(0.049)
Lang. A2 + English	0.070	(0.049)	0.069	(0.049)	0.069	(0.049)
Syria						
Afghanistan	0.034	(0.048)	0.035	(0.048)	0.035	(0.048)
Turkey	0.015	(0.049)	0.016	(0.049)	0.017	(0.049)
Integration course						
PES work practice	0.174**	(0.063)	0.174**	(0.063)	0.174**	(0.063)
Private work practice	0.216***	(0.063)	0.217***	(0.063)	0.216***	(0.063)
Subsidy	0.214***	(0.062)	0.215***	(0.062)	0.213***	(0.062)
Volunteering	0.168**	(0.061)	0.170**	(0.061)	0.169**	(0.061)
Attitudes refugees	0.719***	(0.073)	0.698***	(0.074)	0.649***	(0.074)
Integration course * attitudes						
PES work practice * attitudes	0.106°	(0.063)	0.107°	(0.063)	0.107°	(0.063)
Private work practice * attitudes	0.122°	(0.063)	0.123°	(0.063)	0.122°	(0.063)
Subsidy * attitudes	0.139*	(0.061)	0.139*	(0.061)	0.139*	(0.061)
Volunteering * attitudes	0.136*	(0.061)	0.135*	(0.061)	0.136*	(0.061)
Admin						
Clean	0.458***	(0.039)	0.458***	(0.039)	0.458***	(0.039)
Germany						
Austria	-0.544**	(0.191)	-0.334*	(0.161)	-0.516**	(0.188)
Sweden	0.076	(0.145)	0.054	(0.143)	0.111	(0.149)
Respondent and firm characteristics						
Female						
Male	-0.437***	(0.125)			-0.459***	(0.124)
Respondent Age	-0.097°	(0.054)			-0.124*	(0.057)
No completed education						
Compulsory education	-2.747***	(0.628)			-2.253***	(0.645)
Vocational training	-2.845***	(0.523)			-2.280***	(0.557)
Secondary education	-2.660***	(0.525)			-2.069***	(0.564)
Tertiary education	-2.925***	(0.513)			-2.338***	(0.554)
Other education	-4.872***	(0.868)			-4.518***	(0.884)

Native					
EU/EFTA nationality	0.132	(0.202)		0.135	(0.198)
Non-EU/EFTA nationality	0.056	(0.529)		-0.147	(0.520)
Firm size (ref. 1-9)					
Firm size 10-49	-0.395°	(0.221)		-0.434*	(0.218)
Firm size 50-249	-0.210	(0.216)		-0.328	(0.216)
Firm size 250-499	-0.388	(0.254)		-0.639*	(0.258)
Firm size 500+	-0.080	(0.218)		-0.317	(0.224)
HR-responsible					
Leader HR	-0.035	(0.197)		-0.011	(0.194)
Director	-0.193	(0.241)		-0.148	(0.238)
Line manager	-0.215	(0.193)		-0.114	(0.191)
Other position	0.111	(0.187)		0.206	(0.187)
Private organization					
Public organization	0.227	(0.176)		0.221	(0.174)
Public administration	0.066	(0.213)		0.055	(0.210)
Para-public organization	0.131	(0.304)		0.025	(0.299)
Non-profit organization	0.315	(0.332)		0.377	(0.328)
Other organization	0.015	(0.534)		0.007	(0.526)
Firm location (ref. city centre)					
Suburb	-0.200	(0.164)		-0.191	(0.162)
Middle-sized town	-0.029	(0.166)		0.015	(0.164)
Rural area	-0.092	(0.207)		-0.036	(0.203)
Other	-0.019	(0.259)		0.035	(0.255)
Recruitment experience					
Years of hiring experience			0.004	(0.005)	0.007 (0.006)
Difficulties recruiting (ref. very difficult)					
Difficult			-0.790***	(0.195)	-0.517** (0.196)
Easy			-0.594**	(0.203)	-0.334 (0.205)
very easy			-0.225	(0.327)	-0.032 (0.326)
No refugees in firm					
Between 1-5 refugees work in firm			0.252	(0.167)	0.218 (0.167)
More than 5 refugee works in firm			0.755***	(0.200)	0.650** (0.210)
I don't know if refugees work in firm			0.205	(0.222)	0.163 (0.227)
Never involved in recruitment of refugees					
Yes, once involved			0.120	(0.171)	0.093 (0.168)
Yes, involved several times			0.173	(0.195)	0.424* (0.193)
Political attitudes					
Pol. Position (left-right)					-0.035 (0.029)
Constant	10.561***	(0.822)	6.384***	(0.234)	10.544*** (0.855)
Variance vignettes	3.056	(0.157)	3.192	(0.162)	2.913 (0.150)
Variance respondent	2.870	(0.050)	2.870	(0.050)	2.870 (0.050)
N vignettes	7634		7634		7634
N respondents	959		959		959
aic	31978.212		31981.431		31957.334

bic	32352.992	32238.225	32401.518
ll	-15935.106	-15953.716	-15914.667

Standard errors in parentheses
° p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table S5: Multilevel estimation with subsamples according to respondent attitude

	Negative attitudes Model 1		Positive attitudes Model 2	
Female				
Male	-0.139*	(0.061)	-0.143**	(0.051)
24 years				
35 years	0.041	(0.076)	-0.050	(0.063)
48 years	-0.038	(0.075)	-0.092	(0.062)
Married				
Married + child	-0.094	(0.076)	-0.099	(0.063)
Single	0.045	(0.076)	0.040	(0.063)
Arrival 2015				
Arrival 2018	-0.073	(0.062)	-0.031	(0.051)
Syria				
Afghanistan	0.061	(0.076)	0.013	(0.063)
Turkey	0.139°	(0.076)	-0.070	(0.063)
Teacher				
Cleaner	-0.075	(0.087)	-0.133°	(0.072)
Doctor	-0.054	(0.088)	0.030	(0.072)
Temporary jobs	-0.224**	(0.085)	-0.262***	(0.071)
Lang. A2				
Lang. B2	0.009	(0.076)	0.100	(0.063)
Lang. A2 + English	0.084	(0.076)	0.063	(0.063)
Integration course				
PES work practice	0.088	(0.100)	0.233**	(0.081)
Private work practice	0.106	(0.100)	0.291***	(0.082)
Subsidy	0.142	(0.096)	0.264**	(0.081)
Voluntary	0.136	(0.096)	0.191*	(0.080)
Admin. assistant				
Caretaker	0.498***	(0.061)	0.433***	(0.050)
Germany				
Austria	-0.311	(0.298)	-0.468*	(0.204)
Sweden	0.007	(0.259)	0.039	(0.180)
Constant	5.460***	(0.224)	6.638***	(0.166)
Var vignette	4.698	(0.361)	3.122	(0.207)
Var respondent	2.871	(0.078)	2.865	(0.064)
N vignettes	3120		4514	
N respondents	392		567	
aic	13225.254		18894.341	
bic	13364.302		19041.884	
ll	-6589.627		-9424.170	

Standard errors in parentheses

° p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table S6: Respondents' sample

Variable	
Size	
1-9 employees	11.78
10-49 employees	21.27
50-249 employees ¹	26.69
250-499 employees	12.62
More than 500 employees	27.63
Sector	
Agriculture	2.29
Mining/Energy/Waste	2.92
Production	10.68
Construction	5.94
Wholesale	10.01
Transport	3.44
Information	7.61
Hospitality	4.8
Finance	3.65
Education	5.32
Health and social services	12.30
Other services	5.53
Public administration	3.96
Urban	
Urban	36.91
Suburban	22.52
Middle town	21.38
Rural	12.20