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## **The impact of welfare benefits on natives' and immigrants' attitudes towards immigration**

**Background Paper for "Migration in an ageing Europe:  
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**Working Paper no 82**

**Authors: Peter Huber, Doris Oberdabernig (WIFO)**

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## ***The impact of welfare benefits on natives' and immigrants' attitudes towards immigration***

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# The impact of welfare benefits on natives' and immigrants' attitudes towards immigration

Peter Huber\* and Doris A. Oberdabernig<sup>†‡</sup>

## Abstract

We investigate whether the dependence of immigrants on welfare benefits leads to opposition to further immigration by natives and immigrants in a pooled cross-section of 21 European countries for the 2004–2010 period. Explicitly controlling for the dependence of immigrants and natives on benefits we find that higher benefit take-up rates among immigrants than among natives lead to less favourable attitudes of natives towards immigration. Interestingly, we do not find similar stylised facts for immigrants' attitudes towards immigration.

**Keywords:** immigration, welfare state, migration attitudes

**JEL-Codes:** F22, J15, H53, I38,

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# 1 Introduction

Economists mostly see international migration as a gainful process for both immigrants and their host societies. As immigrants move from countries with low returns on their specific human capital to countries where these returns are higher, host societies experience an increase in productive resources. In consequence natives' average income rises (Borjas, 1999). Despite this, most host countries observe substantial resistance to further immigration. For instance Bridges and Mateut (2014) report that on average around 47% of the population in European countries are in favour of restricting immigration. Moreover, many immigrant-receiving countries face problems with ethnic conflicts and/or discrimination against immigrants. These anti-migration sentiments have high economic costs, impede the integration of immigrants into host societies and act as a disincentive to otherwise efficiency-enhancing immigration. As a consequence, maintaining sound ethnic relationships and limiting anti-immigration attitudes are central goals of immigration policy in many immigrant-receiving countries.

It is, however, still unclear what factors drive such anti-migration attitudes. Scholars have focused on natives' concerns about cultural alienation, loss of national identity, threats to security, and economic impacts of immigration as potential explanations (see Card *et al.*, 2005, 2012; Mayda, 2006; Hainmueller and Hiscox, 2007; O'Rourke and Sinnott, 2006, for discussions). In particular, the economics literature has identified two channels through which immigration may contribute to anti-immigration attitudes. The first, commonly referred to as the labour market channel, arises if increased immigration leads to more intensive labour market competition. In this case native workers who are substitutes to immigrants should oppose immigration as they would fear lower wages and higher unemployment. Native workers that are complements to immigrants, by contrast, should endorse immigration because it leads to higher income and/or lower unemployment for them. The second channel, referred to as the social security channel, arises if immigrants disproportionately benefit from national social security systems. In this case, depending on whether immigrants' additional social security claims are likely to be financed by savings in social security payments to residents or through higher taxes, either the net recipients (i.e. low-income natives) or contributors to social security systems (i.e. high-income natives) should be opposed to immigration. If immigrants, by contrast, are net contributors to the social

security system, depending on whether the additional revenues are used to reduce taxes or to increase welfare benefits, net contributors or recipients should favour immigration.

This study focuses on the social security channel as a potential reason for anti-immigrant attitudes in European countries. It contributes to the existing literature in two ways. First, while previous literature (e.g. Mayda, 2006; Facchini and Mayda, 2009; Gang *et al.*, 2013; Hainmueller and Hiscox, 2010; Scheve and Slaughter, 2001), due to data limitations, has often been forced to use proxy measures of welfare benefits received by immigrants, we use direct measures of this variable for 21 European countries to test for the importance of this channel in shaping attitudes towards immigration. This allows us to identify the impact of immigrants' welfare dependence on natives' immigration attitudes in a more direct way than in previous studies. It also allows us to analyse the impact of different aspects of a country's social security system on attitudes towards immigration in more detail than has been possible up to now. Second, to the best of our knowledge, this contribution is the first to consider not only the impact of these economic mechanisms on natives' attitudes, but also to consider immigrants' attitudes towards immigration.

We find that after controlling for non-economic factors as well as the usual variables capturing the labour market channel, higher take-up rates of both contributory and non-contributory welfare benefits among immigrants than among natives lead to less favourable attitudes of natives towards immigration. This result is robust to accounting for the potential endogeneity of benefit receipt as well as across a number of specifications. We find only weak evidence that natives with a high income and who are highly educated are significantly more strongly opposed to immigration than natives with a low income and who are less well educated, in countries in which benefit systems are more generous to immigrants than natives. Evidence that older natives are more strongly opposed to immigration in these countries is only slightly more robust. Interestingly, we do not find similar stylised facts for immigrants' attitudes towards immigration.

The next section of the paper provides an overview of the literature from which we derive our central hypotheses. Section 3 presents the empirical framework of this contribution. Section 4 discusses data, and section 5 presents results. Section 6 concludes.

## 2 Previous literature

While empirical studies on drivers of individual attitudes towards immigration (Card *et al.*, 2005; Mayda, 2006; Hainmueller and Hiscox, 2007; O'Rourke and Sinnott, 2006) provide almost unanimous evidence on the importance of non-economic concerns in shaping attitudes towards immigration there has so far been no consensus on the direction and importance of the impact of economic concerns on these attitudes. A recent quantification of non-economic determinants relative to economic ones by Card *et al.* (2012) concludes that non-economic concerns are about two to five times more important in influencing natives' attitudes towards immigrants than economic ones. Other authors (e.g. Mayda, 2006; Facchini and Mayda, 2009; Scheve and Slaughter, 2001), by contrast, argue that economic concerns are of primary importance for understanding attitudes towards immigration.

### 2.1 The labour market channel

From an empirical as well as from a theoretical point of view the impact of the labour market channel is not clear cut. Most studies (e.g. Facchini and Mayda, 2012; Hainmueller and Hiscox, 2007; Mayda, 2006; Scheve and Slaughter, 2001) investigating the labour market channel assume immigration preferences to be directly influenced by immigration-induced changes in wages or in unemployment as predicted by a closed economy labour market model. According to this model, immigration benefits the native population as a whole, but these benefits are unevenly distributed. As a consequence, the impact of immigration on native workers depends on whether immigrants are substitutes or complements to them and on the speed of adjustment of relative factor supplies to relative factor price changes. Under the assumptions that skilled and unskilled labour are complements and that the supply of neither of them reacts very elastically to relative factor prices, immigration of unskilled workers reduces wages (or increases unemployment) of low-skilled natives, while it increases wages (or reduces unemployment) of the high-skilled and vice versa (Borjas, 1999; Cahuc and Zylberberg, 2004). Thus, self-interested unskilled workers should oppose immigration of low-skilled workers, as they would fear lower wages and higher unemployment, while skilled native workers should endorse immigration of low-skilled workers, because it leads to higher income and/or lower unemployment for them. In the case of immig-

ration of high-skilled workers, by contrast, the opposite should apply.

Empirical studies analyzing the relationship between the natives' skill levels and their attitudes towards immigration usually depart from this model (see Hanson *et al.* 2007, Kessler 2001, and Scheve and Slaughter 2001 for the US, and Facchini and Mayda 2009, Mayda 2006, and O'Rourke and Sinnott 2006 for cross-country studies). Such studies have often found that more highly educated natives are more likely to have pro-immigration attitudes. This is interpreted as evidence favouring this model under the assumption of immigration of unskilled labour. Furthermore—in accordance with the labour market model—other cross-country studies point to stronger pro-immigration attitudes of highly educated natives in richer (skill abundant) destination countries, whereas in poorer countries (with lower average skill levels) more educated natives are sometimes found to be more strongly opposed to immigration than less educated natives (e.g. Dustmann and Preston, 2007). Facchini and Mayda (2008, 2009) find that highly educated natives have less favourable attitudes towards immigration in countries that receive more skilled immigrants. In addition, reinforcing the labour market channel, Kessler (2001), Scheve and Slaughter (2001), Mayda (2006), and O'Rourke and Sinnott (2006) find that the significant effect of skill disappears if the sample is restricted to individuals that are out of the labour force.

Other authors, by contrast, find that highly educated individuals are more likely to favour immigration irrespective of the relative education level of immigrants (Dustmann and Preston, 2007; Hainmueller and Hiscox, 2007, 2010) and the labour market position of natives (Gang *et al.*, 2013; Hainmueller and Hiscox, 2007), which contradicts the predictions of the labour market model. Other theoretical approaches also arrive at rather different predictions on the labour market effects of immigration under certain assumptions<sup>1</sup> and a sizable empirical literature on the labour market effects of immigration finds only small labour market effects of both skilled and unskilled migration (see Longhi *et al.*, 2005, for a meta-study). This has led some authors to

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<sup>1</sup>Open-economy Heckscher-Ohlin models predict that as long as the factor price insensitivity theorem holds (i.e. individual economies have no influence on prices, there are more traded goods than factors of production and immigration is sufficiently small) immigration will only lead to a reallocation of production factors across sectors and will not affect relative wages (Leamer and Levinsohn, 1995). Similarly, in Ricardo-Viner specific-factor models, the closed-economy labour market model results only hold if all goods are traded, whereas with non-traded goods effects become ambiguous (see Hainmueller and Hiscox, 2007). In models allowing for economies of scale in production (e.g. Brezis and Krugman, 1996), immigration may even lead to higher real wages of similarly skilled natives.



give a different interpretation to the robust correlation of natives' education levels to immigration attitudes. Gang *et al.* (2013) and Hainmueller and Hiscox (2007) attribute the more favourable attitudes of highly educated natives towards immigration to a general education-induced reduction of prejudice rather than to labour market effects and Hainmueller and Hiscox (2007, 2010) suggest that this effect indicates that high-skilled individuals support further immigration due to a greater openness to cultural diversity and less racist sentiment.

## 2.2 The welfare channel

Less educated workers, however, are also more likely to have a low income and thus to be recipients of welfare benefits than highly educated ones. Immigration of low-skilled labour may, therefore, also lead to additional demands on national welfare systems. If these are adjusted for by increased taxation, the progressivity of the tax system will cause self-interested natives with higher incomes to be more strongly affected. They should hence oppose (favour) immigration whenever immigrants are more (fewer) likely to depend on transfers from the welfare state. If, by contrast, additional benefits are adjusted by lower transfers to natives, natives with lower incomes are more strongly affected. These natives should therefore oppose (favour) immigration whenever more (less) immigrants receive benefits (Dustmann and Preston, 2007; Facchini and Mayda, 2008, 2009, 2012).

Hanson *et al.* (2007), Hainmueller and Hiscox (2010), Facchini and Mayda (2008, 2009, 2012), Dustmann and Preston (2007), and Mayda (2006) test the implications of this hypothesis under the assumption that immigrants are net recipients of benefits of the welfare state. Most of these studies confirm that upper income groups place greater importance on higher skill levels of immigrants and *ceteris paribus* are more likely to be opposed to further immigration, in regions where welfare benefits are relatively generous (Hanson *et al.*, 2007). Hainmueller and Hiscox (2010), however, report that in US states with high fiscal exposure, natives with low incomes are most opposed to low-skilled immigrants, with this opposition decreasing with increasing income. Thus, the results of Hainmueller and Hiscox (2010) point to benefit level side adjustments, where natives on low income fear the erosion of welfare benefits due to additional demands for welfare benefits by low-skilled immigrants.

O'Rourke and Sinnott (2006) test welfare state effects by assuming that immigration leads to a decrease in pension payments. In accordance with this assumption they find older individuals to be more likely to oppose immigration but are aware that this may be driven by cultural considerations captured by the age variable. Calahorrano (2013) uses panel data for Germany in order to isolate age effects from birth cohort effects and finds that older cohorts are more concerned about immigration.

A drawback of these studies (in particular those focusing on international comparisons) is that a lack of data on actual welfare benefit receipts of immigrants means that they have to depart from the assumption that immigrants receive more welfare benefits than natives. The extent to which immigrants are dependent on benefits, however, is not only influenced by their income, but is also a result of a number of institutional factors. These depend on entitlements and rules on eligibility for welfare benefits. In addition, much of the literature studying the impact of immigration on the state budget often finds immigrants' welfare utilization is below that of natives (see Castronova *et al.* 2001 for a survey and Pellizzari 2013; Barrett and Maître 2013; Huber and Oberdabernig 2014 for recent results). As a consequence it is not entirely clear whether it is the perception of the effects of immigration on natives' welfare benefits or rather the actual situation regarding immigrants' receipt of welfare benefits driving the result (see Bean *et al.*, 1997; Card *et al.*, 2005, 2012; Dustmann and Preston, 2001, 2007; Gang *et al.*, 2013; Hanson *et al.*, 2007; Scheve and Slaughter, 2001).

Interestingly only a few contributions consider the impact of economic factors on attitudes towards different groups of immigrants. Bridges and Mateut (2014), however, have recently presented evidence that the arrival of immigrants of the same race or ethnicity as natives causes stronger concerns over labour market competition among natives than the inflow of immigrants of a different race or ethnicity. This can be attributed to people of the same race or ethnicity being closer labour market substitutes due to their similarity in terms of human capital. Similar arguments could also apply to immigrants' attitudes towards immigration, as similarly educated immigrants are likely to be even closer substitutes to the immigrant stock than to natives. This also acquires empirical support as a number of studies (summarised in Longhi *et al.*, 2005) find that established immigrants belong to the groups most strongly affected by additional labour immigration. Such differences may also apply to the welfare channel. For instance in the case

of tax adjustment to cover additional benefit claims of immigrants, immigrants should be less concerned about the benefit channel than natives if they belong to the low-income groups of their respective host countries (as is the case in most European countries). Conversely, they should be more concerned if they belong to the high-income groups that are net contributors. Alternatively, if preferences for redistribution are also influenced by ethnic considerations such that members of an ethnic group have a preference for within-group redistribution, but dislike redistribution between groups, immigrants should be less concerned about the welfare channel than natives, as well.

Previous literature, thus suggests two hypotheses on the economic determinants of natives' and immigrants' attitudes towards immigration. The first states that both immigrants and natives should be more strongly opposed to immigration in countries in which the welfare system is more generous to immigrants relative to natives, with this effect potentially being weaker among immigrants than natives. The second maintains that highly educated natives and immigrants should have more favourable attitudes towards immigration in countries in which more low-skilled immigrants enter the labour market, while less educated natives and immigrants should be particularly opposed to further immigration in such countries. These effects should potentially be stronger among immigrants than among natives.

### 3 Hypotheses and method

These hypotheses can be tested by estimating (separately for natives and immigrants) regressions of the form:

$$\begin{aligned}
 A_{ijt}^* = & \alpha + \underbrace{\beta_1(skill_{ijt}) + \beta_2(rskill_{jt}) + \beta_3(skill_{ijt}) * (rskill_{jt})}_{\text{labour market channel}} \\
 & + \underbrace{\gamma_1(benefit_{jt})}_{\text{welfare channel}} + \underbrace{\delta_1(X_{ijt}) + \delta_2(Z_{jt})}_{\text{non-economic}} + c_j + \tau_t + \epsilon_{ijt}
 \end{aligned} \tag{1}$$

where  $A_{ijt}^*$  is a variable measuring the attitudes of individual  $i$  in country or region  $j$  at time  $t$ ,  $skill_{ijt}$  measures the individual's educational attainment,  $rskill_{jt}$  the average skill level of immigrants relative to natives and  $benefit_{jt}$  the difference in benefit take-up rates between

immigrants and natives.  $X_{ijt}$  and  $Z_{jt}$  are vectors of individual level and region specific controls, while  $c_j$  and  $\tau_t$  are country and time fixed effects, respectively. The parameters  $\beta_1$ ,  $\beta_2$ ,  $\delta_1$  and  $\delta_2$  in this regression measure any impact of education, the average skill level of immigrants and individual specific variables (such as political attitudes and values but also age, gender and others) as well as regional characteristics on attitudes towards immigration, respectively. The parameters  $\beta_3$  and  $\gamma_1$  are the central parameters of interest. A statistically significant negative parameter estimate of  $\beta_3$  would imply that highly skilled individuals are more strongly opposed to similarly skilled immigrants. This would be consistent with the labour market channel. A significantly negative estimate of  $\gamma_1$  would imply that individuals are more strongly opposed to immigration in countries in which immigrants receive benefits more often than natives and would thus be consistent with benefits affecting attitudes towards immigration.

This specification can be extended to test the hypothesis that opposition to immigration should be stronger among certain groups (such as high-income or highly educated groups or the elderly) that expect to be particularly strongly affected by the additional tax burden or reduced benefit levels resulting from increased welfare demands of immigrants. This can be achieved by adding interaction terms of the variable measuring difference in benefit take-up rates between immigrants and natives ( $benefit_{jt}$ ) with age, income and education. In this extension a statistically significant negative coefficient of these interaction terms would indicate that the group being considered is more strongly opposed to immigration because they fear either a higher tax burden or lower benefits resulting from immigration. Furthermore, by disaggregating benefits, the specification can be extended to test whether receipts of different benefit types (such as contributory and non-contributory benefits, or unemployment, old age related and other benefits) differ in their effect on immigration attitudes. This could be expected if certain benefits (e.g. contributory benefits) are—at least partially—self-financed by the social security contributions of immigrants, while others (e.g. non-contributory benefits) are mostly tax financed, or if certain benefits receive greater attention in public debates on immigration than others.

There are, however, a number of issues that have to be addressed when interpreting the results of equation (1) causally. The most important is the potential endogeneity of the relative benefit receipt of immigrants. This arises because in countries in which natives are more strongly opposed to immigration, the native population may also be more prone to discriminate against

immigrants in terms of welfare benefits by creating heavier administrative burdens for them or simply harassing them if they apply for welfare benefits. Such reverse causality would lead to immigrants located in regions with a more anti-migrant population receiving less benefits relative to natives, and would thus bias our results towards zero (potentially making them insignificant).

To identify the impact of benefit receipt (respectively receipt of contributory or non-contributory benefits) on natives' and immigrants' attitudes towards immigration we therefore use an instrumental variables approach. We use two types of instruments to ensure that we are able to test for their validity. The first is the share of natives receiving benefits. This is a proxy measure for the generosity of a country's welfare system. Since more generous welfare systems are also more likely to cover a larger proportion of the low-income group in a country—among which immigrants are overrepresented in most countries—this measure should be positively correlated to the difference in the share of immigrants and natives receiving benefits. It should, however, be uncorrelated to attitudes towards immigration, as any discriminatory practices impinging on the welfare benefits received by immigrants are unlikely to also be applied to natives.<sup>2</sup>

The second type of instrument is the explained part of a country- and time-specific Oaxaca-Blinder decomposition of welfare benefit receipt for immigrants and natives.<sup>3</sup> As argued by Schneeweis (2011) in a different context, this measures that part of the differences in the probability of benefit receipt between immigrants and natives that is due to differences in characteristics (which in our case are education, house ownership, marital status, whether there are children in the household, household size, age and its square and income and its square as well as a gender dummy in the case of contributory benefits). This variable should thus be uncorrelated to natives' and immigrants' attitudes towards immigration as it is corrected for discrimination between these two groups. It should, however, be positively correlated to the share of immigrants receiving benefits relative to natives if at least part of the difference in benefit receipt between the two groups can be attributed to differences in characteristics between them.<sup>4</sup>

A second issue is that both natives' and immigrants' choices of region of residence may be endogenous. For instance natives with particularly negative attitudes towards (low-skilled)

<sup>2</sup>The correlation between immigration attitudes and natives' welfare take-up rate in our sample is 0.0223.

<sup>3</sup>Details of this decomposition and the results are provided in the annex to the paper.

<sup>4</sup>In specifications including interaction terms of differences in benefit take-up with income, education and age, we add the interaction of these variables with the explained difference of Oaxaca-Blinder decompositions to the list of instruments.

immigrants may choose to move to regions in which fewer (low-skilled) immigrants live, and immigrants with a high probability of receiving benefits may, all else being equal, prefer to live in regions in which residents' attitudes towards immigration are more favourable. With the data at our disposal, we have no way to fully account for the resulting bias. Dustmann and Preston (2007), however, argue that for European data this bias can be reduced by including independent variables at the national level on account of the low mobility across European countries. Thus we follow this strategy and include only differences in benefits at the national level between immigrants and natives. Although this is only a partial remedy for the problem, we also know that if either of these mechanisms apply, the coefficient estimate for the impact on welfare use on attitudes towards immigration will be biased towards zero. Any significantly negative effects in our estimates thus will represent an upper bound estimate of the true causal parameter.

## 4 Data

We use the European Social Survey (ESS) as the primary data source for both the dependent variable and for individual level information on the socioeconomic background of respondents and their attitudes towards other social and political issues. This data has previously been used by Card *et al.* (2012), Facchini and Mayda (2009, 2012) and Hainmueller and Hiscox (2007) to analyse natives' attitudes towards immigration. It is based on representative random probability sampling covering all persons aged 15 years and over, residing in private households, regardless of their nationality, citizenship, language or legal status and covers most EU and some non-EU countries. This data has been collected on a biannual basis starting in 2002 (ESS, 2012). Appended to this data is information on the regional (NUTS 2 level) age structure of the migrant population as well as the average educational attainment levels of immigrants and natives, taken from the European Labor Force Survey (ELFS), to account for regional differences in demographic characteristics and with national data from the EU-Statistics on Income and Living Conditions (EU-SILC), to calculate the welfare utilization of immigrants and natives. Combining these different data sources, we obtain consistent data on an unbalanced panel of a total of 21 countries for the years 2004, 2006, 2008, and 2010.

## 4.1 Definition of variables

Our dependent variable is taken from the response to a question in the ESS which asks respondents “to what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?”, to which respondents could answer by choosing one of four categories (“allow many”, “allow some”, “allow a few” and “allow none”).<sup>5</sup> From this question we derive two dependent variables to estimate equation (1), which will be analysed in parallel below. The first is a pro-immigration dummy variable that equals one if the answer to that question is “allow many” or “allow some”, while the other categories are coded as zero. This variable is used in probit regressions. The second indicator is a categorical variable that takes the value of four if the response is “allow many”, three if it is “allow some”, two if it is “allow a few” and one if it is “allow none”. This indicator is used to estimate ordered probit models of equation (1).<sup>6</sup>

As independent variables for our analysis, aside from the regional variables defined above, we use individual-level information from the ESS questions on age, gender, marital status, area of residence, economic activity, religious affiliation, children, parents’ immigration background, satisfaction with life and the state of the economy, political affiliation with the right, and values like the importance a respondent attaches to treating all persons equally, understanding different opinions, safe surroundings and to following family or religious traditions, to control for the socioeconomic background of the respondent and to capture non-economic determinants of attitudes to immigration. All these variables are included because they have been found to be relevant in a large number of studies. They are described in more detail in the appendix.

For our variables of interest we follow Mayda (2006) and measure the relative skill level of immigrants by the “migrant native skill ratio”. This is given as the proportion of skilled (ISCED 3 or higher) to unskilled (ISCED 2 or lower) immigrants divided by the proportion of skilled to unskilled natives and is interacted with the respondent’s education level (namely, completed education at the level of ISCED 2, 3, 4, and 5 or higher) in order to test for labour market effects.

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<sup>5</sup>The ESS includes two further questions on immigration preferences distinguishing between immigrant groups based on their race and the relative income level of their country of origin. We give preference to this question to abstract from non-economic drivers of immigration preferences, such as racist sentiments. We, however, use the response to some alternative questions in robustness checks below.

<sup>6</sup>Refusal to answer, no answer, and the answer “Don’t know” were coded as missing values. We checked that Heckman selection models do not indicate selection bias when omitting these values. The results are available from the authors upon request.

For investigating the impact of the welfare dependence of immigrants on natives' and immigrants' attitudes towards immigration we construct differences in benefit take-up rates between immigrants and natives from the EU-SILC database. These are measured as the proportion of immigrants that receive welfare benefits minus the proportion of natives that receive benefits for each country and time period for which data is available. Furthermore, when distinguishing between contributory and non-contributory welfare benefits we form equivalent indicators.<sup>7</sup> A positive value of these variables indicates a heavier reliance on the welfare system among immigrants than among natives, while a negative one suggests that immigrants' dependence on welfare is lower than that of natives.

## 4.2 Descriptive statistics

Table 1 presents descriptive statistics of all variables for the sample of 43 290 natives and 3 574 immigrants for which we have a full set of observations. These data suggest that immigrants have slightly more favourable attitudes towards immigration than natives. That many (some) immigrants should be allowed to live in the respective destination country was stated by almost 26% (49%) of the immigrants, but only 21% (47%) of the natives in our sample. 24% of the natives (20% of the immigrants) favoured allowing only a few and 8% of the natives (but only 5% of the immigrants) favoured allowing no immigrants. This suggests somewhat more pro-immigration attitudes in our sample than reported by Bridges and Mateut (2014). This is because our sample excludes some countries with a small share of supporters of immigration that are included by Bridges and Mateut (2014) (such as Finland and Greece) and excludes a number of countries with strong pro-immigration attitudes (such as Bulgaria and Iceland).

{Table 1: Around here}

In terms of demographic characteristics and labour market status our sample represents the structure of the countries and time periods analysed rather well. The average age of respondents is 48 years for both immigrants and natives, with almost 48% of both immigrants and natives being males. Natives less often have children (39% vs. 46%), are religious (55% vs. 58%), and live in urban regions (62% vs. 78%) than immigrants. They are, however, more often single (28% vs.

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<sup>7</sup>Contributory benefits include unemployment benefits, old-age benefits, survivors' pensions, sickness benefits, and disability benefits, while non-contributory benefits are housing, family and children-related allowances, and payments to those at risk of social exclusion.



20%) and are underrepresented both among the very highly educated with a highest completed education level of at least ISCED 5 (26% vs. 34%), and the very poorly educated whose highest completed education level is below ISCED 2 (9% vs. 12%). Furthermore, natives are employed (about 53% of the respondents) and unemployed (21% vs 22%) about as often as immigrants, but are in education more and out of the labour force less often, while differences between natives and immigrants in the share of pensioners and of persons engaged in other economic activities are minimal.

On average, natives as well as immigrants are also rather satisfied with their life (reaching 7 points on a 10-point scale), but—reflecting the adverse economic conditions in recent years—rather dissatisfied with the economic conditions in the country of residence as well as slightly in favour of redistribution. At the same time both groups on average scored between 4 and 5 (on a 6-point scale) in terms of the importance given to treating all persons equally, understanding different opinions, safe surroundings and to following family or religious traditions. Immigrants, however, were located on average slightly more to the left and natives slightly more to the right of the political spectrum. Finally, our central variables of interest indicate that on average immigrants are more likely to receive benefits than natives, with this difference being larger for contributory benefits than for non-contributory benefits.

## 5 Results

Table 2 presents the marginal effects of the baseline probit estimates for equation (1) applying design and population weights and clustered standard errors at the NUTS2 level for three subgroups of the population. In the first (left hand) panel, we focus on all natives, while in the second (middle) panel only economically active (i.e. employed and unemployed) natives are included. In the third (right hand) panel only immigrants are considered. For each of these groups, two variants of results are reported. In columns labeled (1) differences in total benefit take-up rate between natives and immigrants are the central variable of interest. In columns labeled (2) differences in benefit take-up rates between natives and immigrants are disaggregated into contributory and non-contributory benefits. Furthermore, in columns labeled “probit” we present results where we have not instrumented the difference in benefit take-up rates between natives

and immigrants, while in columns labeled “iv-probit” we present results after instrumenting.

The coefficients for the control variables, which we do not report in table 2, but in table A5 in the annex, all have the expected sign when statistically significant. They indicate that natives’ values and labour market positions are the most important non-economic determinants of their attitudes towards immigration, while household structure and the age and education structure of immigration to a region are less important. Natives who attach a higher importance to treating all persons equally and to understanding different opinions are more likely to be in favour of immigration, while natives who put a stronger emphasis on the importance of safe surroundings and on following religious or family traditions have less favourable attitudes towards immigration. Furthermore, natives that are more satisfied with their lives and the economic situation in their country as well as natives who have at least one immigrant parent, are religious, in education or live in urban areas are more likely to favour immigration. By contrast, individuals with stronger political affiliation to the right and who are out of the labour force or retired are significantly more likely to oppose immigration. Gender, age, marital status, and the presence of children in a household are uncorrelated to immigration attitudes. Similarly, the average age of immigrants and the proportion of skilled immigrants in a region are insignificant.

When the sample is restricted to economically active natives, the only differences are that the indicator for religious persons turns insignificant, while age has a weakly significant favourable influence on the attitudes towards immigration. When we focus on the immigrant sample (i.e. persons born outside their current country of residence) slightly more changes occur. In contrast to results for natives, immigrants with more traditional values, assigning a higher importance to understanding others’ opinions, are located further to the right of the political spectrum do not differ significantly from others in their attitudes towards immigration. The same applies to religious and retired immigrants as well as immigrants who are out of the labour force or who have at least one foreign born parent. By contrast, immigrants with a stronger preference for redistribution are significantly more strongly opposed to immigration, while not married immigrants are more in favour of immigration. Also in countries in which the proportion of skilled immigrants is higher, immigrants are significantly more likely to favour immigration.

With respect to the labour market channel, both instrumented and uninstrumented results for all sub-groups indicate that more highly educated natives as well as highly educated immigrants

are significantly more likely to favour immigration, but that the immigrant to native skill ratio is not significantly correlated to the attitudes towards immigration of either natives or immigrants.<sup>8</sup> Natives with an education level of ISCED 3 or higher show a statistically significant tendency to favour immigration—relative to natives with an educational attainment of less than ISCED 2—while the same applies for immigrants with an educational attainment of ISCED 5 or higher. The interactions of immigrants’ relative skill levels with individual education levels, however, are insignificant for all groups. Our findings are thus in line with those of Gang *et al.* (2013) and Hainmueller and Hiscox (2007), but contradict the labour market channel hypothesis. They imply that more highly educated natives and immigrants have stronger pro-immigration attitudes irrespective of the skill structure of immigrants to their region.

{Table 2: Around here}

The results also provide strong evidence of a negative impact of differences in benefit take-up rates between immigrants and natives on natives’ attitudes towards immigration. In countries in which the relative welfare benefit receipt of immigrants is higher than it is for natives, both economically active and other natives are more likely to be opposed to immigration than in countries in which this difference is smaller. For instrumented equations, F-tests for the explanatory power of the instruments and Hansen J-statistics suggest a high quality of the instruments. The size of marginal effects (as expected) increases after instrumentation, without affecting the sign and significance of any of the other variables in the regressions. The exogeneity of the instrumented variable, however, usually cannot be rejected. While the results of uninstrumented regression are unbiased only if there is indeed no endogeneity, instrumented results are always consistent for the cost of losing efficiency. This leads us to give preference to instrumented specifications while also reporting uninstrumented results.

According to the results of these instrumented equations, natives (depending on whether one focuses on the economically active or the overall population) have a 2.5 to 2.8 percentage point higher probability of being opposed to immigration in countries in which the difference in benefit take-up rates between immigrants and natives is 1 percentage point higher than its mean. The

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<sup>8</sup>All results presented in this paper are based on the sample excluding the Mazowieckie region in Poland, which was dropped on account of the especially high skill ratio of immigrants to natives (with a mean of 12.4 as compared to a mean skill ratio of 1.2 for the sample excluding the Mazowieckie region). Including the Mazowieckie region in the sample leads to a significantly negative coefficient (at the 5% significance level) of the interaction term of the skill ratio and the indicator variable for the education level of ISCED 4.

instrumented ordered probit results reported in table A1 in the appendix support this finding and suggest that in countries with large differences in benefit take-up rates between immigrants and natives the probability of natives stating that much more immigration should be allowed reduces most sharply (by -1.5 percentage points for a 1 percentage point increase in differences in benefit take-up rates between immigrants and natives), while the probability of natives stating that only a few immigrants should be allowed increases most strongly (by 1.4 percentage points for a 1 percentage point increase in differences in benefit take-up rates between immigrants and natives).

Coming back to table 2, the results reported in columns labeled (2), in which differences in benefit take-up rates between immigrants and natives are analysed separately for contributory and non-contributory benefits, suggest that there is no statistically significant difference between these effects. Increases in the difference in benefit take-up rates for contributory benefits between immigrants and natives therefore increase the likelihood of being opposed to immigration by about the same amount as increases in non-contributory benefits. Results on the effect of difference in benefit receipt for immigrants, by contrast, remain insignificant throughout.

## 5.1 Interaction effects

In table 3, we further analyse the impact of the benefit channel on immigration attitudes by considering potential interaction effects of differences in benefit take-up between immigrants and natives with the income level of individuals. This allows us to test whether higher income groups are more likely to be opposed to further immigration in countries that are relatively generous with their welfare benefits to immigrants as suggested by the tax adjustment model (see Hanson *et al.*, 2007; Facchini and Mayda, 2008, 2009; Mayda, 2006), or whether, as suggested by the benefit adjustment model, the opposite applies (Hainmueller and Hiscox, 2010). Furthermore, since income data is missing for a large number of our observations and such data is known to be potentially subject to measurement error and to noise in surveys, we repeat the same analysis but use information on educational attainment as a proxy for high income levels.<sup>9</sup> Finally, we examine the hypothesis of O'Rourke and Sinnott (2006) and test whether older individuals

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<sup>9</sup>Definitions for both the high-income group variable and for the high education variable are provided in the data appendix A.1 (see rows labeled high income and high education).

have more negative attitudes towards immigration in countries with particularly high differences in immigrant-native welfare take-up rates by including an interaction term of the age of the respondent with benefit take-up differences.

{Table 3: Around here}

The results indicate that natives with higher incomes have a significantly higher probability of being in favour of immigration than lower income groups. In addition the interaction term of high-income groups with the benefit take-up differences indicates that higher income groups are more likely to be opposed to immigration in countries with a generous welfare system than low-income groups. This effect is, however, statistically insignificant for instrumented and uninstrumented probit regressions and for the instrumented ordered probit specification (in table A2 in the appendix). It is slightly statistically significant for the uninstrumented ordered probit specification.<sup>10</sup> Evidence for the tax adjustment model is therefore only weak. This finding is corroborated in specifications in which educational attainment of natives is used as a proxy for income and is interacted with differences in benefit take-up. Here, interaction terms are insignificant both in the probit and the ordered probit specification irrespective of whether benefit differences are instrumented or not. For older natives the increase in anti-immigration attitudes with increasing differences in benefit take-up is significantly stronger than for younger ones. This result may indicate that older people fear a reduction of old-age related benefits because of the high benefit dependence of immigrants. Coefficients for immigrants, by contrast, remain insignificant in both the instrumented and uninstrumented probit and ordered probit results. This applies to the effect of income on immigrants' attitudes towards immigration as well as to all level and interaction terms with benefits considered. This reconfirms that neither the labour market nor the social security channel are particularly important in determining immigrants' attitudes towards immigration.

## 5.2 Detailed benefit types

Finally, in table 4 we present results for estimates of equation (1) when disaggregating benefits into more detailed subcategories (differences in unemployment, old age, survivor, sickness, disability, child related, social exclusion related and housing related benefit take-up rates between

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<sup>10</sup>This result is not reported but available from the authors on request.

immigrants and natives). On account of the large number of benefit types considered, which complicates instrumentation, and because the results presented above do not differ substantially between instrumented and un-instrumented results, this table presents only the results of un-instrumented regressions. These suggest that greater differences in benefits related to pension payments (old age and survivor benefits) have a particularly strong impact on natives' attitudes towards immigration, as these have a statistically significant negative sign in both the probit and the ordered probit specifications. In addition, unemployment benefits, child-related and social exclusion benefits, as well as housing benefits, have a significantly negative impact on natives' attitudes towards immigration in either the probit or the ordered probit specification. As a consequence, only disability benefits and health benefits remain insignificant determinants of natives' attitudes towards immigration in both specifications. For immigrants, by contrast, once more all types of benefits (except for health benefits in the case of the probit specification) remain insignificant determinants of immigration attitudes.

{Table 4: Around here}

## 6 Robustness

To sum up, our results provide robust evidence of the welfare channel for shaping natives' attitudes towards immigration and slightly weaker evidence that high-income groups and older natives are particularly concerned about immigration in countries in which immigrants receive benefits more often than natives. There are, however, a number of reservations that pertain to the current results. These apply in particular to the measurement of the dependent variable (i.e. immigration attitudes) and the measurement of the difference in benefit receipts between immigrants and natives through differences in benefit take-up rates. In table 5 we repeat our baseline estimation but use two different dependent variables. These are formulated in an analogous way to our previous variables but ask respondents about their attitudes towards immigration of people of a different race or ethnic group and towards immigration of people from poorer countries outside Europe. This analysis confirms the main results of the above analysis. Once more all coefficients of differences in benefit take-up in the regressions for immigrants' attitudes are insignificant. The difference in aggregate benefit take-up is also significantly negative in all

specifications for natives' attitudes (except for the case of instrumented probit regressions for attitudes towards immigrants of a different race or ethnicity). In contrast to previous results, however, when contributory benefits are disaggregated from non-contributory benefits their impact differs statistically significantly in most cases. The negative impact of non-contributory benefits is larger, for natives' attitudes towards both immigration by people of a different race or ethnicity and from poor countries. Interestingly, natives are thus more concerned about welfare benefits that are mostly tax financed than they are about benefits that are at least partially financed by social security contributions of immigrants when asked about immigration of immigrants of a different race or ethnicity or from poor countries, while the same does not apply when asked about immigration by people of the same ethnicity.

{Table 5 : Around Here}

{Table 6 : Around Here}

In table 6 we repeat our baseline estimations using the benefit level ratio between immigrants and natives (i.e. the difference in per capita benefit levels between immigrants and natives as a share of per capita benefit levels of natives) rather than differences in benefit take-up rates as our key dependent variable. Our results change only marginally. Marginal effects of the estimates are somewhat lower. They now have to be interpreted as the percentage point change in the probability of having positive attitudes towards immigration as a reaction to a percentage point change in the benefit level ratio. The only relevant qualitative difference is that now for the immigrant sample differences in non-contributory benefit level ratios are weakly statistically significant.

## 7 Conclusions

This paper analyses how immigrants' and natives' attitudes towards immigration are influenced by differences in welfare benefit receipt between immigrants and natives. Its contributions are twofold. First, it uses direct measures of immigrants' welfare utilization for 21 European countries to test for the importance of the welfare channel in shaping attitudes to immigration. This allows us to identify the effects of immigrants' welfare dependence on natives' attitudes towards immigration more directly than in previous studies. It also allows us to analyse the impact of

different aspects of a country's social security system on attitudes towards immigration in more detail than was previously possible. Second, it analyses attitudes of the immigrants already residing in European countries towards further immigration. In particular we hypothesise that resident immigrants should be more strongly affected by labour market competition and less concerned about additional social security claims from further immigration than natives.

We find that among the economic determinants of attitudes towards immigration the labour market competition channel is of little relevance. Not only high-skilled natives but also immigrants are more strongly in favour of immigration than their less skilled counterparts. There is, however, no statistically significant evidence that less educated natives and immigrants are more strongly opposed to immigration in countries receiving a high share of low-skilled immigrants as predicted by labour market theory.

The welfare channel seems to be more relevant for natives' attitudes. In all of our specifications, natives residing in countries with large differences in benefit take-up rates between immigrants and natives are also more likely to be opposed to immigration. This result is robust to a number of different specifications and estimation techniques as well as to instrumenting for the potential endogeneity of benefit receipt and also to using different measures of relative benefit receipt. Furthermore, the negative impact of differences in benefit receipt on natives' attitudes towards immigration is particularly strong for pension related benefits. In addition, results provide weak evidence that the negative impact of differences in benefit take-up rates between immigrants and natives is larger for high-income groups. There is slightly more robust evidence that the negative impact of benefit take-up differences is greater among older natives.

Interestingly, we do not find similar stylised facts for immigrants. One potential explanation for this may be that individuals prefer redistribution among co-nationals to redistribution across nationalities. Another explanation could be that immigrants, as low-income groups in their respective host countries, are less concerned about the welfare benefit effects of immigration than natives. Analysing the differences in the factors shaping natives' and immigrants' attitudes towards immigration may therefore represent a fruitful avenue for future research on the determinants of attitudes towards immigration.



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## A Oaxaca decomposition

To construct the explained part of the Oaxaca Blinder decomposition, which is used as an instrument for relative benefits receipt, we analyse to what extent the difference in welfare benefits between immigrants and natives can be attributed to differences in observable characteristics between the groups and to what extent these differences are due to “returns” to these characteristics. This is achieved by separately estimating probit models for benefit participation of natives and immigrants at each time period ( $t$ ) and for each country ( $j$ ) in our data. Subsequent Oaxaca-Blinder decompositions (see Blinder, 1973; Oaxaca, 1973) are performed. As independent variables in this analysis we use education, house ownership, marital status, children in the household, household size, age and its square and income and its square as well as a gender dummy in the case of contributory benefits (Huber and Oberdabernig, 2014).

This allows us to determine whether an over- or underrepresentation of immigrants in welfare benefits can be explained by individual characteristics. Defining  $\widehat{\gamma}_{it}^m$  and  $\widehat{\gamma}_{it}^n$  as the country and time period specific coefficient estimates for the probability of receiving welfare benefits— $P(T_{it}^k)$ —for immigrants and natives and using natives as the base group for the decomposition (since natives can be expected not to be discriminated against in our context), differences between immigrants and natives in contributory and non-contributory benefit take-up rates can be decomposed into two effects by noting that (see Yun, 2005a; Bauer and Sinning, 2008; Fairlie, 2005):

$$P(T_{it}^m) - P(T_{it}^n) = [\bar{\Phi}(Z_{it}^m \widehat{\gamma}_{it}^n) - \bar{\Phi}(Z_{it}^n \widehat{\gamma}_{it}^n)] + [\bar{\Phi}(Z_{it}^m \widehat{\gamma}_{it}^m) - \bar{\Phi}(Z_{it}^m \widehat{\gamma}_{it}^n)] \quad (2)$$

where the first term in square brackets is a difference in characteristics effect (i.e. our instrument) and the second term an unexplained difference in parameters effect (which we do not consider further, as it may be related to discrimination). Table A4 in the appendix shows the results of this decomposition. It can be seen that the explained part of this decomposition, which is one of the instruments we use for overall differences in benefit receipt, usually explains the largest part of the total difference in both contributory and non-contributory benefits, while the unexplained (or discriminatory part) of this decomposition often remains rather small.

Table 1: Descriptive statistics

Variable	Natives			Immigrants		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<i>Dependent variable</i>						
Pro Immigration dummy - same race and ethnicity	43290	0.682	0.466	3574	0.745	0.436
<i>Migration index - same race:</i>						
Allow none	43290	0.075	0.263	3574	0.049	0.216
Allow a few	43290	0.243	0.429	3574	0.206	0.405
Allow some	43290	0.469	0.499	3574	0.487	0.500
Allow many	43290	0.214	0.410	3574	0.258	0.437
<i>Control variables</i>						
Av. Age of immigrants	43290	44.458	7.240	3574	43.736	6.507
Share skilled immigrants	43290	0.676	0.115	3574	0.683	0.114
Importance of equal treatment	43290	4.862	1.024	3574	5.035	0.979
Importance of safety	43290	4.541	1.213	3574	4.660	1.208
Importance understanding others	43290	4.581	1.020	3574	4.752	1.015
Importance of traditions	43290	4.247	1.314	3574	4.347	1.343
Life satisfaction	43290	7.055	2.174	3574	6.865	2.239
Satisfaction with economy	43290	4.855	2.500	3574	5.124	2.565
Left-right scale	43290	5.117	2.159	3574	4.728	2.146
Preference for redistribution	43290	2.241	1.060	3574	2.223	1.060
Male	43290	0.487	0.500	3574	0.476	0.499
Age	43290	47.479	18.073	3574	48.046	16.849
Single	43290	0.276	0.447	3574	0.200	0.400
Urban region	43290	0.622	0.485	3574	0.775	0.418
<i>Economic activity:</i>						
Employed (base category)	43290	0.529	0.499	3574	0.534	0.499
In education	43290	0.084	0.278	3574	0.055	0.229
Unemployed	43290	0.030	0.170	3574	0.045	0.207
Out of labour force	43290	0.121	0.326	3574	0.140	0.347
Retired	43290	0.222	0.416	3574	0.210	0.407
Other labour market status	43290	0.014	0.116	3574	0.016	0.125
Religious	43290	0.548	0.498	3574	0.581	0.493
Children	43290	0.389	0.488	3574	0.461	0.499
Parent migrant	43290	0.083	0.275	3574	0.895	0.306
<i>Education:</i>						
Skill ISCED 0-1 (base category)	43290	0.092	0.289	3574	0.115	0.319
Skill ISCED 2	43290	0.192	0.394	3574	0.172	0.377
Skill ISCED 3	43290	0.422	0.494	3574	0.335	0.472
Skill ISCED 4	43290	0.035	0.183	3574	0.040	0.195
Skill ISCED 5+	43290	0.260	0.438	3574	0.339	0.473
<i>Regiona/national variables</i>						
Skillratio	43290	1.197	2.047	3574	0.966	0.800
Benefit difference	43290	0.020	0.085	3574	0.005	0.057
Contrib benefits diff	43290	0.037	0.160	3574	0.016	0.138
Non-contrib ben diff	43290	0.010	0.116	3574	0.017	0.119
High income dummy	31594	0.357	0.479	2564	0.311	0.463
Skill dummy	43290	0.716	0.451	3574	0.713	0.452

Source: European Social Survey, EU-SILC, European Labour Force Survey, own calculations.

Table 2: Baseline estimation results (marginal effects)

	Overall natives				Economically active natives				Immigrants			
	(1)	(1)	(2)	(2)	(1)	(1)	(2)	(2)	(1)	(1)	(2)	(2)
	Probit	IV-probit	Probit	IV-probit	Probit	IV-probit	Probit	IV-probit	Probit	IV-probit	Probit	IV-probit
Highest completed educ. = ISCED 2	0.0231 (0.0183)	0.0232 (0.0183)	0.0230 (0.0184)	0.0230 (0.0184)	0.0262 (0.0311)	0.0261 (0.0311)	0.0259 (0.0311)	0.0255 (0.0313)	-0.0498 (0.0559)	-0.0526 (0.0562)	-0.0504 (0.0560)	-0.0566 (0.0565)
Highest completed educ. = ISCED 3	0.0796*** (0.0203)	0.0796*** (0.0203)	0.0793*** (0.0204)	0.0790*** (0.0204)	0.0627* (0.0321)	0.0623* (0.0321)	0.0622* (0.0321)	0.0613* (0.0324)	0.0450 (0.0624)	0.0444 (0.0617)	0.0443 (0.0626)	0.0397 (0.0620)
Highest completed educ. = ISCED 4	0.183*** (0.0306)	0.183*** (0.0306)	0.184*** (0.0306)	0.185*** (0.0305)	0.155*** (0.0435)	0.155*** (0.0434)	0.156*** (0.0435)	0.157*** (0.0433)	-0.172 (0.160)	-0.178 (0.160)	-0.173 (0.160)	-0.185 (0.161)
Highest completed educ. = ISCED5 or more	0.160*** (0.0235)	0.160*** (0.0235)	0.160*** (0.0236)	0.160*** (0.0237)	0.136*** (0.0323)	0.136*** (0.0324)	0.136*** (0.0324)	0.135*** (0.0327)	0.133** (0.0573)	0.134** (0.0574)	0.133** (0.0573)	0.134** (0.0573)
Migrant to native skillratio	-0.00250 (0.00853)	-0.00247 (0.00852)	-0.00259 (0.00852)	-0.00256 (0.00851)	-0.00657 (0.0153)	-0.00652 (0.0153)	-0.00673 (0.0153)	-0.0068 (0.0153)	-0.0533 (0.0615)	-0.0503 (0.0611)	-0.0535 (0.0616)	-0.0526 (0.0610)
Migrant to native skillratio*ISCED2	0.00650 (0.00823)	0.00650 (0.00823)	0.00650 (0.00823)	0.00650 (0.00823)	0.00572 (0.0145)	0.00575 (0.0145)	0.00579 (0.0145)	0.00588 (0.0145)	0.0709 (0.0586)	0.0707 (0.0593)	0.0714 (0.0589)	0.0739 (0.0592)
Migrant to native skillratio*ISCED 3	0.0000661 (0.00862)	0.00006 (0.00862)	0.00010 (0.00861)	0.0000887 (0.00860)	0.000264 (0.0154)	0.000272 (0.0154)	0.000391 (0.0154)	0.00047 (0.0154)	0.0436 (0.0586)	0.0422 (0.0579)	0.0437 (0.0586)	0.0437 (0.0582)
Migrant to native skillratio* ISCED 4	-0.0232 (0.0177)	-0.0231 (0.0177)	-0.0237 (0.0177)	-0.0237 (0.0176)	-0.0185 (0.0248)	-0.0183 (0.0248)	-0.0190 (0.0248)	-0.0191 (0.0248)	0.271 (0.175)	0.276 (0.174)	0.272 (0.176)	0.279 (0.176)
Migrant to native skillratio *ISCED 5 or more	0.00951 (0.00906)	0.00950 (0.00906)	0.00952 (0.00906)	0.00942 (0.00907)	0.0121 (0.0154)	0.0122 (0.0155)	0.0122 (0.0154)	0.0122 (0.0155)	0.0579 (0.0524)	0.0547 (0.0527)	0.0577 (0.0524)	0.0543 (0.0526)
Native to immigrants benefit take-up rate diff.	-2.329*** (0.404)	-2.500*** (0.512)			-2.139*** (0.613)	-2.751*** (0.804)			-0.0829 (2.137)	-6.244 (6.644)		
Native to immigrants contr. benefit take-up rate diff.			-1.475*** (0.253)	-1.832*** (0.406)			-1.512*** (0.389)	-2.025*** (0.573)			0.731 (1.526)	-3.942 (4.096)
Native to immigrants non- contr. benefit take-up rate diff.			-1.917*** (0.363)	-2.878*** (0.940)			-1.865*** (0.557)	-3.095** (1.357)			0.287 (1.839)	-7.591 (5.654)
Test Statistics												
F-Test excl. instruments ben (P-value) <sup>a)</sup>	0.0000				0.0000				0.0186			
F-Test excl. instruments ncben (P-value) <sup>a)</sup>					0.0000				0.0000			
F-Test excl. instruments cben (P-value) <sup>a)</sup>					0.0000				0.0000			
Endogeneity Test (P-value) <sup>a)</sup>	0.6182				0.2733				0.7794			
Test for Hansen J-Statistic (P-value) <sup>a)</sup>	0.4230				0.3844				0.3894			
T-Test ncben=cben (P-value)	0.1142				0.4019				0.6922			
Number of observations	43290	43290	43290	43290	24187	24187	24187	24187	3574	3574	3574	3574

Notes: Table presents marginal effects (at means) of probit and iv-probit estimates, results for additional control variables are reported in table A5 in the appendix, marginal effects of instrumented ordered probit regressions are reported in table A1 in the appendix. a) test results are based on the linear probability model (reported in Table A9 in the appendix). Values in parantheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table 3: Results for interactions of benefit receipt with education, income and age (marginal effects)

	Natives			Immigrants		
	Interactions with			Interactions with		
	Income	Skill	Age	Income	Skill	Age
Highest completed educ. = ISCED 2	0.00531 (0.0259)	0.0285 (0.0176)	0.0308* (0.0183)	-0.0999 (0.0649)	-0.0620 (0.0551)	-0.0544 (0.0570)
Highest completed educ. = ISCED 3	0.0758*** (0.0278)	0.0785*** (0.0208)	0.0861*** (0.0203)	0.0362 (0.0786)	0.0322 (0.0613)	0.0434 (0.0620)
Highest completed educ. = ISCED 4	0.136*** (0.0320)	0.179*** (0.0313)	0.187*** (0.0305)	-0.214 (0.164)	-0.187 (0.160)	-0.177 (0.156)
Highest completed educ. = ISCED5 or more	0.129*** (0.0316)	0.162*** (0.0236)	0.166*** (0.0236)	0.117* (0.0689)	0.124** (0.0571)	0.132** (0.0577)
Migrant to native skillratio	0.000191 (0.0202)	-0.00441 (0.00877)	-0.00360 (0.00862)	-0.154 (0.108)	-0.0648 (0.0641)	-0.0502 (0.0615)
Migrant to native skillratio*ISCED2	0.0138 (0.0163)	0.00696 (0.00832)	0.00791 (0.00836)	0.141** (0.0632)	0.0817 (0.0592)	0.0702 (0.0602)
Migrant to native skillratio*ISCED 3	-0.00506 (0.0234)	0.00246 (0.00880)	0.00148 (0.00869)	0.0663 (0.0756)	0.0562 (0.0620)	0.0418 (0.0582)
Migrant to native skillratio* ISCED 4	0.00900 (0.0210)	-0.0162 (0.0180)	-0.0190 (0.0175)	0.294 (0.187)	0.284 (0.175)	0.279 (0.171)
Nigrant to native skillratio *ISCED 5 or more	0.0200 (0.0228)	0.0122 (0.00980)	0.0110 (0.00941)	0.103 (0.0657)	0.0666 (0.0559)	0.0547 (0.0532)
Native to immigrants benefit take-up rate diff.	-3.500*** (1.141)	-2.572*** (0.523)	-2.220*** (0.509)	-7.623* (4.604)	-6.480 (6.675)	-7.365 (6.729)
High income dummy	0.0465*** (0.0111)			0.0109 (0.0266)		
Native to immigrants benefit take-up rate diff. * high income	-0.0283 (0.0699)			-0.529 (0.411)		
Native to immigrants benefit take-up rate diff.*skilled native		0.125 (0.0858)			0.0255 (0.408)	
Native to immigrants benefit take-up rate diff.*age native			-0.00594*** (0.00225)			0.00987 (0.0118)
Test statistics						
F-Test excl. instruments ben (P-value) <sup>a)</sup>	0.0000	0.0000	0.0000	0.0012	0.0292	0.0062
F-Test excl. instruments ben * interacted (P-value) <sup>a)</sup>	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Endogeneity Test (P-value) <sup>a)</sup>	0.0643	0.4447	0.7160	0.1928	0.5443	0.8307
Test for Hansen J-Statistic (P-value) <sup>a)</sup>	0.4120	0.6268	0.4282	0.9176	0.6070	0.6126
Number of observations	31594	43290	43290	2556	3574	3574

Notes: Table presents marginal effects of iv-probit estimates. a) test results are based on the linear probability model (reported in table A9 in the annex). Values in brackets are cluster robust standard errors. Marginal effects of control variables are not reported (see table A2 in the annex for marginal effects of the ordered probit specification and table A6 and A7 for full coefficient estimates/coefficients of full specification) \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.



Table 4: Results for individual types of benefits (marginal effects)

	Probit	Ordered probit			
		Natives			
Difference in unemployment benefit take up rate	-1.930 (1.741)	0.940** (0.448)	2.066** (0.967)	-0.830** (0.397)	-2.176** (1.019)
Difference in old age benefit take up rates	-1.225* (0.687)	0.699*** (0.180)	1.538*** (0.392)	-0.618*** (0.165)	-1.619*** (0.409)
Difference in survivor benefit take up rates	-10.26** (4.943)	2.941** (1.351)	6.467** (2.897)	-2.599** (1.178)	-6.809** (3.075)
Difference in sicknes benefit take up rates	-1.840 (1.376)	0.265 (0.328)	0.582 (0.722)	-0.234 (0.290)	-0.613 (0.760)
Difference in disability benefit take up rates	2.824 (2.703)	0.724 (0.641)	1.592 (1.406)	-0.640 (0.570)	-1.676 (1.478)
Difference in child related benefit take up rates	-0.596 (1.513)	0.942** (0.378)	2.072** (0.823)	-0.833** (0.339)	-2.181** (0.864)
Difference in social exclusion take up rates	-0.136 (1.335)	0.696** (0.324)	1.529** (0.707)	-0.615** (0.290)	-1.610** (0.742)
Difference in housing benefit take up rates	-3.119** (1.577)	0.0233 (0.375)	0.0511 (0.825)	-0.0206 (0.332)	-0.0539 (0.869)
Number of observations	43290	43290	43290	43290	43290
		Immigrants			
Difference in unemployment benefit take up rate	3.464 (6.847)	-2.731 (15.91)	0.167 (0.970)	0.646 (3.757)	0.0239 (0.155)
Difference in old age benefit take up rates	3.846 (3.086)	5.299 (7.257)	-0.323 (0.446)	-1.253 (1.724)	-0.0463 (0.0900)
Difference in survivor benefit take up rates	-14.50 (16.20)	-10.97 (38.76)	0.670 (2.357)	2.594 (9.140)	0.0959 (0.385)
Difference in sicknes benefit take up rates	-9.095** (4.165)	-8.463 (9.996)	0.517 (0.612)	2.001 (2.369)	0.0740 (0.139)
Difference in disability benefit take up rates	11.99 (9.898)	9.613 (22.82)	-0.587 (1.395)	-2.273 (5.406)	-0.0840 (0.216)
Difference in child related benefit take up rates	6.842 (6.181)	5.028 (14.32)	-0.307 (0.877)	-1.189 (3.394)	-0.0440 (0.130)
Difference in social exclusion take up rates	3.220 (5.194)	-4.770 (12.64)	0.291 (0.772)	1.128 (2.983)	0.0417 (0.140)
Difference in housing benefit take up rates	-8.112 (5.259)	-0.814 (12.87)	0.0497 (0.785)	0.192 (3.042)	0.00711 (0.112)
Number of observations	3574	3574			

Notes: Table presents marginal effects (at mean) of un-instrumented probit and ordered probit estimations. Values in parentheses are cluster robust standard errors. Marginal effects of control variables education dummies and education-migrant skill ratio interactions are not reported (see table A8 in the appendix for coefficients of full specification) \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table 5: Results of robustness tests for alternative dependent variables (marginal effects)

	Natives				Immigrants			
	Dependent variable: attitudes towards immigrants of other race or ethnicity							
	Probit		IV-probit		Probit		IV-probit	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Highest completed educ. = ISCED 2	0.0394 (0.0242)	0.0392 (0.0243)	0.0394 (0.0242)	0.0393 (0.0243)	0.00406 (0.0916)	0.000504 (0.0918)	0.00492 (0.0916)	0.000658 (0.0921)
Highest completed educ. = ISCED 3	0.0950*** (0.0246)	0.0946*** (0.0247)	0.0950*** (0.0246)	0.0942*** (0.0247)	0.0506 (0.0870)	0.0471 (0.0870)	0.0508 (0.0872)	0.0472 (0.0871)
Highest completed educ. = ISCED 4	0.167*** (0.0351)	0.168*** (0.0351)	0.167*** (0.0351)	0.169*** (0.0351)	-0.221 (0.143)	-0.227 (0.144)	-0.218 (0.143)	-0.227 (0.145)
Highest completed educ. = ISCED5 or more	0.213*** (0.0282)	0.212*** (0.0283)	0.213*** (0.0282)	0.212*** (0.0284)	0.163* (0.0910)	0.162* (0.0912)	0.162* (0.0909)	0.162* (0.0911)
Migrant to native skillratio	0.00237 (0.00960)	0.00219 (0.00961)	0.00235 (0.00960)	0.00231 (0.00959)	-0.0516 (0.0839)	-0.0525 (0.0840)	-0.0527 (0.0843)	-0.0525 (0.0841)
Migrant to native skillratio*ISCED2	-0.00481 (0.00922)	-0.00475 (0.00921)	-0.00481 (0.00922)	-0.00478 (0.00915)	0.0286 (0.0856)	0.0308 (0.0859)	0.0287 (0.0853)	0.0308 (0.0860)
Migrant to native skillratio*ISCED 3	-0.00790 (0.00950)	-0.00787 (0.00949)	-0.00790 (0.00950)	-0.00793 (0.00948)	0.0116 (0.0905)	0.0119 (0.0905)	0.0120 (0.0907)	0.0119 (0.0905)
Migrant to native skillratio* ISCED 4	-0.0182 (0.0224)	-0.0183 (0.0223)	-0.0183 (0.0224)	-0.0182 (0.0222)	0.355** (0.176)	0.360** (0.179)	0.352** (0.176)	0.360** (0.179)
Migrant to native skillratio *ISCED 5 or more	-0.00404 (0.0100)	-0.00410 (0.0100)	-0.00402 (0.0100)	-0.00431 (0.0100)	0.0255 (0.0838)	0.0258 (0.0840)	0.0268 (0.0837)	0.0259 (0.0837)
Native to immigrants benefit take-up rate diff.	-1.532** (0.718)		-1.295 (0.847)		-0.703 (2.385)		1.804 (5.103)	
Native to immigrants contr. benefit take-up rate diff.		-0.580 (0.359)		-1.145* (0.624)		1.791 (1.766)		1.920 (2.630)
Native to immigrants non- contr. benefit take-up rate diff.		-2.032*** (0.504)		-3.543*** (1.370)		-0.344 (1.995)		-0.135 (4.073)
	Test statistics							
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0000				0.0176	
F-Test excl. instruments ncben (P-value) <sup>a)</sup>			0.0000				0.0000	
F-Test excl. instruments cben (P-value) <sup>a)</sup>			0.0000				0.0000	
Endogeneity Test (P-value) <sup>a)</sup>			0.0038 0.0273				0.6698 0.4819	
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.2674 0.1336				0.4028 0.4786	
T-Test ncben=cben (P-value)	0.0001		0.0075		0.0753		0.3143	
Number of observation	43283	43283	43283	43283	3552	3552	3552	3552
	Dependent variable: attitudes towards immigrants from poor countries							
Highest completed educ. = ISCED 2	0.0392** (0.0197)	0.0391** (0.0197)	0.0392** (0.0197)	0.0395** (0.0197)	-0.157 (0.0973)	-0.160 (0.0976)	-0.156 (0.0974)	-0.162* (0.0982)
Highest completed educ. = ISCED 3	0.0828*** (0.0206)	0.0826*** (0.0206)	0.0828*** (0.0206)	0.0828*** (0.0207)	-0.213*** (0.0786)	-0.216*** (0.0785)	-0.213*** (0.0787)	-0.217*** (0.0788)
Highest completed educ. = ISCED 4	0.168*** (0.0332)	0.169*** (0.0331)	0.168*** (0.0332)	0.170*** (0.0329)	-0.146 (0.153)	-0.150 (0.153)	-0.143 (0.154)	-0.153 (0.154)
Highest completed educ. = ISCED5 or more	0.190*** (0.0206)	0.190*** (0.0207)	0.190*** (0.0206)	0.190*** (0.0207)	-0.00779 (0.0834)	-0.00846 (0.0835)	-0.00835 (0.0832)	-0.00794 (0.0833)
Migrant to native skillratio	0.0101 (0.00869)	0.0100 (0.00868)	0.0101 (0.00869)	0.0103 (0.00864)	-0.139 (0.101)	-0.140 (0.101)	-0.140 (0.101)	-0.140 (0.100)
Migrant to native skillratio*ISCED2	-0.00461 (0.00796)	-0.00460 (0.00795)	-0.00461 (0.00796)	-0.00482 (0.00791)	0.149* (0.0840)	0.152* (0.0845)	0.149* (0.0837)	0.153* (0.0847)
Migrant to native skillratio*ISCED 3	-0.00570 (0.00873)	-0.00567 (0.00872)	-0.00570 (0.00873)	-0.00589 (0.00868)	0.195*** (0.0705)	0.195*** (0.0704)	0.195*** (0.0706)	0.195*** (0.0703)
Migrant to native skillratio* ISCED 4	-0.0165 (0.0236)	-0.0169 (0.0236)	-0.0164 (0.0236)	-0.0171 (0.0235)	0.214 (0.130)	0.217* (0.131)	0.212 (0.131)	0.219* (0.131)
Migrant to native skillratio *ISCED 5 or more	-0.00161 (0.0101)	-0.00163 (0.0101)	-0.00162 (0.0101)	-0.00192 (0.0101)	0.131* (0.0730)	0.132* (0.0731)	0.132* (0.0729)	0.130* (0.0729)
Native to immigrants benefit take-up rate diff.	-1.992*** (0.725)		-2.076** (0.900)		-0.531 (2.505)		1.542 (4.798)	
Native to immigrants contr. benefit take-up rate diff.		-0.957** (0.445)		-1.269** (0.554)		0.899 (1.871)		-0.455 (2.766)
Native to immigrants non- contr. benefit take-up rate diff.		-1.850*** (0.511)		-2.080* (1.155)		-0.947 (2.212)		-3.455 (4.104)
	Test statistics							
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0000				0.0165	
F-Test excl. instruments ncben (P-value) <sup>a)</sup>			0.0000				0.0000	
F-Test excl. instruments cben (P-value) <sup>a)</sup>			0.0000				0.0000	
Endogeneity Test (P-value) <sup>a)</sup>			0.6875 0.2139				0.3492 0.9016	
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.5711 0.3826				0.5180 0.6800	
T-Test ncben=cben (P-value)	0.0267		0.3515		0.1418		0.1257	
Number of observations	43158	43158	43158	43158	3544	3544	3544	3544

Notes: Table presents marginal effects (at means) of uninstrumented and instrumented probit regressions. a) test results are based on the linear probability model. Values in brackets are cluster robust standard errors. Marginal effects of control variables are not reported (see tables A11 and A12 in the annex for coefficients of full specification and ordered probit models) \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table 6: Results of robustness tests for alternative measures of benefits receipt (marginal effects)

	Natives				Immigrants			
	Probit		IV-probit		Probit		IV-probit	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Highest completed educ. = ISCED 2	0.0239 (0.0183)	0.0237 (0.0183)	0.0239 (0.0182)	0.0237 (0.0182)	-0.0496 (0.0555)	-0.0514 (0.0555)	-0.0496 (0.0555)	-0.0512 (0.0555)
Highest completed educ. = ISCED 3	0.0810*** (0.0204)	0.0809*** (0.0203)	0.0812*** (0.0203)	0.0809*** (0.0203)	0.0450 (0.0622)	0.0434 (0.0621)	0.0451 (0.0623)	0.0440 (0.0620)
Highest completed educ. = ISCED 4	0.183*** (0.0308)	0.184*** (0.0308)	0.182*** (0.0308)	0.183*** (0.0308)	-0.172 (0.159)	-0.177 (0.160)	-0.172 (0.159)	-0.178 (0.160)
Highest completed educ. = ISCED5 or more	0.161*** (0.0235)	0.161*** (0.0235)	0.161*** (0.0233)	0.161*** (0.0233)	0.133** (0.0573)	0.132** (0.0573)	0.133** (0.0573)	0.132** (0.0573)
Migrant to native skillratio	-0.00193 (0.00853)	-0.00207 (0.00852)	-0.00201 (0.00853)	-0.00218 (0.00854)	-0.0531 (0.0615)	-0.0541 (0.0613)	-0.0528 (0.0616)	-0.0525 (0.0613)
Migrant to native skillratio*ISCED2	0.00577 (0.00821)	0.00595 (0.00821)	0.00602 (0.00820)	0.00622 (0.00823)	0.0704 (0.0584)	0.0723 (0.0585)	0.0702 (0.0585)	0.0715 (0.0588)
Migrant to native skillratio*ISCED 3	-0.000660 (0.00862)	-0.000560 (0.00862)	-0.000470 (0.00863)	-0.000357 (0.00863)	0.0435 (0.0585)	0.0442 (0.0584)	0.0434 (0.0585)	0.0429 (0.0583)
Migrant to native skillratio* ISCED 4	-0.0244 (0.0178)	-0.0242 (0.0178)	-0.0240 (0.0178)	-0.0237 (0.0178)	0.271 (0.175)	0.277 (0.176)	0.271 (0.175)	0.278 (0.176)
Migrant to native skillratio *ISCED 5 or more	0.00917 (0.00906)	0.00930 (0.00908)	0.00941 (0.00905)	0.00952 (0.00909)	0.0581 (0.0524)	0.0590 (0.0524)	0.0582 (0.0524)	0.0587 (0.0524)
Native to immigrants benefit diff.	-0.182 (0.113)		-0.553*** (0.199)		-0.186 (0.438)		-0.278 (0.723)	
Native to immigrants contr. benefit diff.		-0.248*** (0.0721)		-0.486*** (0.119)		-0.156 (0.320)		-0.334 (0.499)
Native to immigrants non- contr. benefit diff.		-0.183*** (0.0513)		-0.294*** (0.0959)		-0.261* (0.153)		-0.397 (0.254)
Test statistics								
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0000				0.0000	
F-Test excl. instruments ncben (P-value) <sup>a)</sup>				0.0000				0.0000
F-Test excl. instruments cben (P-value) <sup>a)</sup>				0.0000				0.0000
Endogeneity Test (P-value) <sup>a)</sup>			0.0038	0.0273			0.7268	0.6979
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.2674	0.1336			0.4993	0.9296
T-Test ncben=cben (P-value)		0.3100		0.0298		0.6981		0.8475
Number of observations	43290	43290	43290	43290	3574	3574	3574	3574

Notes: Table presents marginal effects (at means) of probit and iv-probit regressions. a) test results are based on the linear probability models. Values in parantheses are cluster robust standard errors. Marginal effects of control variables are not reported (see table A10 in the appendix for coefficients of full specification and ordered probit results) \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table A1: IV-ordered probit baseline estimation results (marginal effects)

	Total benefits				Split benefits			
	allow none	allow few	allow some	allow many	allow none	allow few	allow some	allow many
	All natives							
Highest completed educ. = ISCED 2	-0.0101* (0.00532)	-0.0221* (0.0115)	0.00890* (0.00474)	0.0233* (0.0121)	-0.0101* (0.00533)	-0.0221* (0.0115)	0.00888* (0.00475)	0.0233* (0.0121)
Highest completed educ. = ISCED 3	-0.0232*** (0.00531)	-0.0510*** (0.0109)	0.0205*** (0.00477)	0.0537*** (0.0115)	-0.0232*** (0.00534)	-0.0510*** (0.0109)	0.0205*** (0.00479)	0.0537*** (0.0116)
Highest completed educ. = ISCED 4	-0.0435*** (0.00887)	-0.0957*** (0.0189)	0.0385*** (0.00812)	0.101*** (0.0198)	-0.0436*** (0.00886)	-0.0958*** (0.0189)	0.0385*** (0.00813)	0.101*** (0.0198)
Highest completed educ. = ISCED5 or more	-0.0509*** (0.00604)	-0.112*** (0.0107)	0.0450*** (0.00526)	0.118*** (0.0119)	-0.0509*** (0.00607)	-0.112*** (0.0108)	0.0449*** (0.00528)	0.118*** (0.0120)
Migrant to native skillratio	0.0000724 (0.00226)	0.000159 (0.00496)	-0.0000639 (0.00199)	-0.000168 (0.00523)	0.0000728 (0.00226)	0.000160 (0.00498)	-0.0000643 (0.00200)	-0.000169 (0.00524)
Migrant to native skillratio*ISCED2	-0.0000806 (0.00249)	-0.000177 (0.00549)	0.0000712 (0.00220)	0.000187 (0.00578)	-0.0000710 (0.00250)	-0.000156 (0.00550)	0.0000627 (0.00221)	0.000164 (0.00579)
Migrant to native skillratio*ISCED 3	0.000585 (0.00220)	0.00129 (0.00484)	-0.000517 (0.00194)	-0.00135 (0.00510)	0.000585 (0.00221)	0.00129 (0.00484)	-0.000517 (0.00195)	-0.00135 (0.00510)
Migrant to native skillratio* ISCED 4	0.00564 (0.00665)	0.0124 (0.0146)	-0.00498 (0.00588)	-0.0131 (0.0153)	0.00579 (0.00667)	0.0127 (0.0146)	-0.00511 (0.00589)	-0.0134 (0.0154)
Nigrant to native skillratio *ISCED 5 or more	-0.0000204 (0.00192)	-0.0000448 (0.00423)	0.0000180 (0.00170)	0.0000472 (0.00445)	-0.0000313 (0.00192)	-0.0000688 (0.00423)	0.0000276 (0.00170)	0.0000724 (0.00445)
Native to immigrants benefit take-up rate diff.	0.649*** (0.127)	1.426*** (0.277)	-0.573*** (0.119)	-1.501*** (0.286)				
Native to immigrants contr. benefit take-up rate diff.					0.393*** (0.0836)	0.863*** (0.190)	-0.347*** (0.0803)	-0.909*** (0.195)
Native to immigrants non- contr. benefit take-up rate diff.					0.341* (0.201)	0.749* (0.453)	-0.301* (0.183)	-0.788* (0.472)
Number of observations	43290				43290			
	Economically active natives							
Highest completed educ. = ISCED 2	-0.0129* (0.00780)	-0.0338 (0.0206)	0.0103* (0.00624)	0.0364 (0.0222)	-0.0129 (0.00782)	-0.0338 (0.0207)	0.0103 (0.00627)	0.0364 (0.0223)
Highest completed educ. = ISCED 3	-0.0211*** (0.00753)	-0.0554*** (0.0198)	0.0168*** (0.00595)	0.0597*** (0.0214)	-0.0211*** (0.00756)	-0.0554*** (0.0199)	0.0168*** (0.00598)	0.0597*** (0.0215)
Highest completed educ. = ISCED 4	-0.0409*** (0.0114)	-0.108*** (0.0306)	0.0326*** (0.00931)	0.116*** (0.0329)	-0.0410*** (0.0114)	-0.108*** (0.0305)	0.0327*** (0.00931)	0.116*** (0.0328)
Highest completed educ. = ISCED5 or more	-0.0426*** (0.00789)	-0.112*** (0.0202)	0.0340*** (0.00604)	0.121*** (0.0223)	-0.0425*** (0.00794)	-0.112*** (0.0203)	0.0339*** (0.00608)	0.120*** (0.0224)
Migrant to native skillratio	0.00210 (0.00303)	0.00553 (0.00797)	-0.00168 (0.00245)	-0.00595 (0.00855)	0.00211 (0.00304)	0.00554 (0.00799)	-0.00168 (0.00246)	-0.00597 (0.00857)
Migrant to native skillratio*ISCED2	-0.000116 (0.00321)	-0.000304 (0.00844)	0.0000924 (0.00256)	0.000328 (0.00909)	-0.0000985 (0.00323)	-0.000259 (0.00848)	0.0000786 (0.00258)	0.000279 (0.00913)
Migrant to native skillratio*ISCED 3	-0.000371 (0.00290)	-0.000975 (0.00763)	0.000296 (0.00232)	0.00105 (0.00821)	-0.000377 (0.00291)	-0.000992 (0.00765)	0.000301 (0.00233)	0.00107 (0.00823)
Migrant to native skillratio* ISCED 4	0.00726 (0.00672)	0.0191 (0.0177)	-0.00579 (0.00536)	-0.0205 (0.0190)	0.00739 (0.00671)	0.0194 (0.0177)	-0.00590 (0.00536)	-0.0209 (0.0190)
Nigrant to native skillratio *ISCED 5 or more	-0.00186 (0.00309)	-0.00488 (0.00812)	0.00148 (0.00250)	0.00526 (0.00871)	-0.00187 (0.00310)	-0.00492 (0.00814)	0.00149 (0.00251)	0.00530 (0.00874)
Native to immigrants benefit take-up rate diff.	0.684*** (0.166)	1.796*** (0.439)	-0.545*** (0.140)	-1.935*** (0.468)				
Native to immigrants contr. benefit take-up rate diff.					0.415*** (0.109)	1.091*** (0.294)	-0.331*** (0.0928)	-1.174*** (0.312)
Native to immigrants non- contr. benefit take-up rate diff.					0.364 (0.232)	0.956 (0.624)	-0.290 (0.190)	-1.029 (0.667)
Number of observations	24187				24187			
	migrants							
Highest completed educ. = ISCED 2	0.00484 (0.0126)	0.0187 (0.0481)	0.000686 (0.00193)	-0.0242 (0.0623)	0.00557 (0.0128)	0.0213 (0.0481)	0.000784 (0.00200)	-0.0276 (0.0624)
Highest completed educ. = ISCED 3	-0.0129 (0.0106)	-0.0498 (0.0412)	-0.00183 (0.00337)	0.0645 (0.0531)	-0.0124 (0.0106)	-0.0474 (0.0410)	-0.00175 (0.00324)	0.0615 (0.0530)
Highest completed educ. = ISCED 4	-0.00880 (0.0205)	-0.0339 (0.0793)	-0.00125 (0.00393)	0.0440 (0.103)	-0.00789 (0.0207)	-0.0302 (0.0790)	-0.00111 (0.00376)	0.0392 (0.103)
Highest completed educ. = ISCED5 or more	-0.0323*** (0.0101)	-0.125*** (0.0400)	-0.00458 (0.00783)	0.162*** (0.0514)	-0.0325*** (0.0102)	-0.124*** (0.0400)	-0.00457 (0.00780)	0.161*** (0.0515)
Migrant to native skillratio	0.00713 (0.0102)	0.0275 (0.0395)	0.00101 (0.00220)	-0.0356 (0.0511)	0.00737 (0.0102)	0.0282 (0.0394)	0.00104 (0.00223)	-0.0366 (0.0511)
Migrant to native skillratio*ISCED2	-0.0108 (0.0106)	-0.0418 (0.0395)	-0.00153 (0.00297)	0.0541 (0.0515)	-0.0114 (0.0106)	-0.0434 (0.0393)	-0.00160 (0.00306)	0.0564 (0.0514)
Migrant to native skillratio*ISCED 3	0.000730 (0.0105)	0.00281 (0.0404)	0.000103 (0.00149)	-0.00365 (0.0523)	0.000542 (0.0106)	0.00207 (0.0404)	0.0000763 (0.00149)	-0.00269 (0.0525)
Migrant to native skillratio* ISCED 4	-0.0109 (0.0209)	-0.0420 (0.0811)	-0.00154 (0.00370)	0.0545 (0.105)	-0.0115 (0.0212)	-0.0438 (0.0814)	-0.00161 (0.00379)	0.0569 (0.105)
Nigrant to native skillratio *ISCED 5 or more	0.00251 (0.00916)	0.00967 (0.0352)	0.000355 (0.00145)	-0.0125 (0.0457)	0.00264 (0.00927)	0.0101 (0.0354)	0.000371 (0.00146)	-0.0131 (0.0460)
Native to immigrants benefit take-up rate diff.	0.157 (0.772)	0.606 (2.973)	0.0223 (0.111)	-0.786 (3.850)				
Native to immigrants contr. benefit take-up rate diff.					0.335 (0.541)	1.279 (2.048)	0.0471 (0.110)	-1.660 (2.665)
Native to immigrants non- contr. benefit take-up rate diff.					0.701 (0.791)	2.678 (2.988)	0.0986 (0.198)	-3.477 (3.886)
Number of observations	3574				3574			

Notes: Table presents marginal effects (at means) of iv-ordered probit results, results for additional controll variables are reported in table A5 in the appendix, marginal effects of probit regressions are reported in table 2. a) test results are based on the linear probability models (reported in Table A9 in the appendix). Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table A2: IV-ordered probit estimation results for models with interaction effects (marginal effects)

	Natives				Immigrants			
	allow none	allow few	allow some	allow many	allow none	allow few	allow some	allow many
	Income interactions				Income interactions			
High income dummy	-0.0123*** (0.00238)	-0.0295*** (0.00604)	0.0103*** (0.00225)	0.0315*** (0.00624)	-0.00462 (0.00459)	-0.0169 (0.0161)	-0.00111 (0.00164)	0.0227 (0.0217)
Native to immigrants benefit take-up rate diff.	0.365 (0.247)	0.879 (0.603)	-0.306 (0.212)	-0.939 (0.639)	0.159 (0.646)	0.580 (2.379)	0.0380 (0.161)	-0.777 (3.180)
Native to immigrants benefit take-up rate diff. * high income	0.0228 (0.0167)	0.0549 (0.0409)	-0.0191 (0.0144)	-0.0586 (0.0433)	-0.00258 (0.0761)	-0.00945 (0.278)	-0.000618 (0.0182)	0.0126 (0.373)
T-Test ncben=cben (P-value)	0.1209	0.1267	0.1318	0.1232	0.8104	0.8115	0.8168	0.8112
	Skill interactions				Skill interactions			
Native to immigrants benefit take-up rate diff.	0.650*** (0.129)	1.430*** (0.282)	-0.575*** (0.122)	-1.506*** (0.291)	0.250 (0.778)	0.966 (2.997)	0.0355 (0.119)	-1.251 (3.878)
Native to immigrants benefit take-up rate diff. * skilled native	-0.00396 (0.0203)	-0.00871 (0.0447)	0.00350 (0.0180)	0.00918 (0.0470)	-0.0561 (0.0694)	-0.216 (0.267)	-0.00797 (0.0163)	0.281 (0.346)
T-Test ncben=cben (P-value)	0.0000	0.0000	0.0000	0.0000	0.804	0.8037	0.8107	0.8035
	Age interactions				Age interactions			
Native to immigrants benefit take-up rate diff.	0.584*** (0.127)	1.285*** (0.280)	-0.516*** (0.119)	-1.352*** (0.290)	0.286 (0.816)	1.110 (3.173)	0.0399 (0.125)	-1.436 (4.094)
Native to immigrants benefit take-up rate diff. * age native	0.00137** (0.000570)	0.00301** (0.00125)	-0.00121** (0.000507)	-0.00317** (0.00131)	-0.00279 (0.00218)	-0.0108 (0.00844)	-0.000390 (0.000780)	0.0140 (0.0110)

Notes: Table presents marginal effects of iv-ordered probit results of specifications as in table 3, results for additional controls are omitted but reported in Table A6 in the annex. a) test results are based on the linear probability model. Values in brackets are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table A3: Coefficient estimates for robustness tests

	Natives				Immigrants			
	Oprobit		IV-oprobit		Oprobit		IV-oprobit	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Highest completed educ. = ISCED 2	0.0938*	0.0936*	0.0935*	0.0933*	-0.0811	-0.0778	-0.0811	-0.0771
	(0.0481)	(0.0480)	(0.0478)	(0.0478)	(0.202)	(0.202)	(0.202)	(0.203)
Highest completed educ. = ISCED 3	0.215***	0.215***	0.215***	0.215***	0.208	0.209	0.208	0.210
	(0.0460)	(0.0460)	(0.0458)	(0.0459)	(0.175)	(0.175)	(0.175)	(0.175)
Highest completed educ. = ISCED 4	0.397***	0.397***	0.395***	0.396***	0.142	0.143	0.142	0.143
	(0.0793)	(0.0792)	(0.0794)	(0.0791)	(0.336)	(0.336)	(0.336)	(0.336)
Highest completed educ. = ISCED5 or more	0.466***	0.466***	0.466***	0.466***	0.525***	0.527***	0.525***	0.528***
	(0.0462)	(0.0461)	(0.0457)	(0.0458)	(0.167)	(0.167)	(0.168)	(0.168)
Migrant to native skillratio	0.000590	0.000525	0.000411	0.000303	-0.122	-0.124	-0.122	-0.124
	(0.0207)	(0.0207)	(0.0209)	(0.0209)	(0.167)	(0.166)	(0.167)	(0.167)
Migrant to native skillratio*ISCED2	-0.000943	-0.000656	-0.000200	0.0000256	0.181	0.182	0.181	0.181
	(0.0231)	(0.0231)	(0.0232)	(0.0231)	(0.166)	(0.166)	(0.166)	(0.166)
Migrant to native skillratio*ISCED 3	-0.00702	-0.00680	-0.00644	-0.00628	-0.00808	-0.00852	-0.00798	-0.00907
	(0.0203)	(0.0203)	(0.0204)	(0.0204)	(0.172)	(0.172)	(0.172)	(0.172)
Migrant to native skillratio* ISCED 4	-0.0543	-0.0536	-0.0530	-0.0524	0.179	0.178	0.179	0.178
	(0.0609)	(0.0609)	(0.0611)	(0.0610)	(0.342)	(0.341)	(0.342)	(0.342)
Migrant to native skillratio *ISCED 5 or more	-0.000706	-0.000519	0.00000412	0.0000531	-0.0373	-0.0375	-0.0373	-0.0379
	(0.0175)	(0.0175)	(0.0175)	(0.0176)	(0.150)	(0.150)	(0.150)	(0.150)
Native to immigrants benefit diff.	-0.558*		-1.626***		0.770		0.872	
	(0.301)		(0.416)		(0.963)		(1.670)	
Native to immigrants contr. benefit diff.		-0.587***		-1.154***		0.689		0.735
		(0.188)		(0.306)		(0.703)		(1.203)
Native to immigrants non- contr. benefit diff.		-0.224**		-0.469*		-0.185		-0.225
		(0.113)		(0.246)		(0.352)		(0.586)
Test statistics								
T-Test ncben=cben (P-value)	0.0280		0.0005		0.1386		0.2412	
Number of observations	43290	43290	43290	43290	3574	3574	3574	3574

Notes: Table presents coefficients of oprobit and iv-oprobit regressions. Effects of control variables not reported. Values in parentheses are cluster robust standard errors of the estimate. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively.

Table A4: Results for Oaxaca-Blinder decompositions

Country	Year	Contributory benefits			Non-contributory benefits		
		Difference	Explained	Unexplained	Difference	Explained	Unexplained
AT	2004	-0.031	-0.054	0.023	0.060	0.104	-0.044
AT	2006	-0.043	-0.049	0.006	0.080	0.099	-0.018
BE	2004	-0.019	0.033	-0.051	0.110	0.098	0.012
BE	2006	-0.057	-0.010	-0.047	0.111	0.116	-0.005
BE	2008	-0.076	-0.011	-0.065	0.139	0.174	-0.035
BG	2008	0.145	0.177	-0.032	0.003	-0.023	0.026
CY	2006	-0.132	-0.078	-0.054	-0.076	0.025	-0.100
CZ	2008	0.161	0.151	0.010	-0.064	-0.035	-0.029
DE	2006	0.250	0.228	0.022	-0.064	-0.031	-0.033
DK	2004	0.038	0.017	0.020	0.142	0.145	-0.003
DK	2006	0.057	0.020	0.037	0.097	0.108	-0.011
EE	2004	0.206	0.186	0.020	-0.110	-0.074	-0.035
EE	2006	0.231	0.218	0.013	-0.042	-0.013	-0.030
ES	2006	-0.129	-0.080	-0.049	0.014	0.014	0.000
HU	2006	0.079	0.111	-0.032	-0.040	-0.015	-0.025
HU	2008	-0.037	0.020	-0.057	0.040	0.042	-0.002
IS	2004	-0.071	-0.038	-0.034	-0.019	0.035	-0.054
LU	2004	-0.133	-0.119	-0.014	0.145	0.168	-0.023
LV	2008	0.220	0.233	-0.013	-0.057	-0.035	-0.022
NL	2006	-0.008	0.007	-0.014	0.077	0.083	-0.006
NL	2008	0.003	0.000	0.003	0.036	0.010	0.026
NO	2004	-0.035	-0.051	0.016	0.163	0.148	0.015
NO	2006	-0.025	-0.032	0.006	0.077	0.089	-0.012
PL	2006	0.503	0.488	0.015	-0.086	-0.067	-0.019
PL	2008	0.489	0.496	-0.007	-0.067	-0.091	0.024
PT	2008	-0.144	-0.135	-0.008	0.048	0.085	-0.037
SE	2008	0.004	0.056	-0.052	0.115	0.123	-0.007
SE	2010	0.005	0.053	-0.049	0.175	0.068	0.107
SI	2006	0.099	0.088	0.011	0.025	0.036	-0.011
SI	2008	0.102	0.086	0.017	-0.048	0.020	-0.068
SI	2010	0.085	0.096	-0.011	0.018	0.021	-0.004
SK	2006	0.198	0.199	-0.001	0.013	0.015	-0.003
UK	2006	-0.112	-0.071	-0.041	0.050	0.102	-0.052
UK	2008	-0.127	-0.088	-0.040	0.031	0.069	-0.038

Notes: Table presents results of an Oaxaca-Blinder decomposition of benefit take-up rates. Numbers are differences in take up rates between immigrants and natives in percentage points

Table A5: Coefficient estimates for baseline specification

	Natives						Immigrants						Economically active					
	Probit	IV-probit	IV-probit	IV-probit	IV-probit	IV-probit	Probit	IV-probit	IV-probit	IV-probit	IV-probit	IV-probit	Probit	IV-probit	IV-probit	IV-probit	IV-probit	IV-probit
Av. Age of immigrants	-0.00188 (0.00170)	-0.00177 (0.00169)	-0.00193 (0.00169)	-0.00206 (0.00169)	-0.00532 (0.00422)	-0.00460 (0.00409)	0.0154 (0.0202)	0.0152 (0.0196)	0.00562 (0.0241)	0.00736 (0.0215)	0.00811 (0.0145)	0.00577 (0.0140)	-0.00874 (0.00585)	-0.00846 (0.00579)	-0.00926 (0.00585)	-0.00958 (0.00588)	-0.00846* (0.00466)	-0.00752* (0.00456)
Share skilled immigrants	-0.0143 (0.0826)	-0.00701 (0.0830)	-0.0129 (0.0827)	-0.00698 (0.0873)	-0.0490 (0.213)	-0.0564 (0.225)	1.166 (0.782)	1.156 (0.789)	1.281 (0.779)	1.457* (0.805)	1.436** (0.610)	1.547** (0.625)	0.0700 (0.266)	0.0926 (0.267)	0.0859 (0.268)	0.146 (0.286)	0.0178 (0.223)	0.00971 (0.238)
Importance of equal treatment	0.0317*** (0.00411)	0.0317*** (0.00411)	0.0317*** (0.00411)	0.0315*** (0.00412)	0.0856*** (0.0107)	0.0856*** (0.0107)	0.0983*** (0.0392)	0.0985*** (0.0392)	0.0954*** (0.0399)	0.0965*** (0.0395)	0.0925*** (0.0324)	0.0924*** (0.0325)	0.115*** (0.0154)	0.115*** (0.0155)	0.115*** (0.0155)	0.115*** (0.0156)	0.0963*** (0.0131)	0.0964*** (0.0132)
Importance of safety	-0.0319*** (0.00355)	-0.0319*** (0.00355)	-0.0319*** (0.00355)	-0.0320*** (0.00354)	-0.0795*** (0.00771)	-0.0794*** (0.00771)	-0.0646* (0.0359)	-0.0645* (0.0359)	-0.0644* (0.0358)	-0.0640* (0.0356)	-0.0481** (0.0242)	-0.0481** (0.0242)	-0.0963*** (0.0132)	-0.0963*** (0.0132)	-0.0964*** (0.0132)	-0.0966*** (0.0131)	-0.0870*** (0.00990)	-0.0868*** (0.00987)
Importance understanding others	0.0383*** (0.00376)	0.0383*** (0.00375)	0.0383*** (0.00376)	0.0383*** (0.00375)	0.113*** (0.0112)	0.113*** (0.0112)	0.0524 (0.0480)	0.0521 (0.0479)	0.0533 (0.0478)	0.0514 (0.0477)	0.0408 (0.0411)	0.0404 (0.0410)	0.115*** (0.0181)	0.115*** (0.0181)	0.115*** (0.0181)	0.115*** (0.0180)	0.124*** (0.0164)	0.125*** (0.0164)
Importance of traditions	-0.0129*** (0.00293)	-0.0130*** (0.00293)	-0.0129*** (0.00294)	-0.0131*** (0.00294)	-0.0420*** (0.00814)	-0.0421*** (0.00814)	0.0186 (0.0330)	0.0185 (0.0329)	0.0220 (0.0339)	0.0223 (0.0339)	0.0232 (0.0268)	0.0245 (0.0267)	-0.0302*** (0.0109)	-0.0305*** (0.0108)	-0.0303*** (0.0109)	-0.0311*** (0.0110)	-0.0389*** (0.0110)	-0.0390*** (0.0111)
Life satisfaction	0.00713*** (0.00190)	0.00703*** (0.00191)	0.00712*** (0.00191)	0.00693*** (0.00191)	0.0244*** (0.00466)	0.0243*** (0.00466)	0.0671*** (0.0200)	0.0668*** (0.0199)	0.0661*** (0.0202)	0.0653*** (0.0201)	0.0466*** (0.0149)	0.0461*** (0.0149)	0.0137** (0.00695)	0.0136* (0.00695)	0.0137** (0.00695)	0.0134* (0.00695)	0.0212*** (0.00616)	0.0211*** (0.00616)
Satisfaction with economy	0.0230*** (0.00216)	0.0234*** (0.00217)	0.0230*** (0.00216)	0.0239*** (0.00217)	0.0597*** (0.00591)	0.0602*** (0.00591)	0.0816*** (0.0214)	0.0817*** (0.0213)	0.0804*** (0.0212)	0.0816*** (0.0212)	0.0704*** (0.0125)	0.0705*** (0.0124)	0.0744*** (0.00768)	0.0758*** (0.00777)	0.0749*** (0.00766)	0.0777*** (0.00774)	0.0618*** (0.00663)	0.0625*** (0.00677)
Left-right scale	-0.0148*** (0.00230)	-0.0148*** (0.00230)	-0.0148*** (0.00230)	-0.0148*** (0.00231)	-0.0433*** (0.00561)	-0.0432*** (0.00561)	-0.0102 (0.0187)	-0.0102 (0.0187)	-0.0103 (0.0185)	-0.00886 (0.0147)	-0.0212 (0.0147)	-0.0206 (0.0147)	-0.0486*** (0.00939)	-0.0485*** (0.00939)	-0.0486*** (0.00938)	-0.0484*** (0.00941)	-0.0544*** (0.00797)	-0.0544*** (0.00798)
Preference for redistribution	0.00382 (0.00433)	0.00392 (0.00433)	0.00383 (0.00433)	0.00398 (0.00433)	0.0129 (0.00982)	0.0130 (0.00983)	-0.104** (0.0411)	-0.104** (0.0411)	-0.109*** (0.0409)	-0.110*** (0.0408)	-0.128*** (0.0304)	-0.130*** (0.0304)	0.0206 (0.0175)	0.0208 (0.0174)	0.0207 (0.0175)	0.0208 (0.0174)	0.0194 (0.0135)	0.0197 (0.0135)
Male	0.000777 (0.00838)	0.000692 (0.00836)	0.000747 (0.00837)	0.000524 (0.00833)	0.0257 (0.0191)	0.0256 (0.0191)	0.108 (0.0872)	0.106 (0.0872)	0.113 (0.0866)	0.111 (0.0864)	0.0954 (0.0658)	0.0966 (0.0657)	0.0171 (0.0294)	0.0165 (0.0293)	0.0168 (0.0293)	0.0155 (0.0292)	0.0355 (0.0227)	0.0353 (0.0227)
Age	-0.0000143 (0.000371)	-0.0000172 (0.000371)	-0.0000145 (0.000371)	-0.0000240 (0.000371)	-0.000732 (0.000872)	-0.000723 (0.000873)	-0.00384 (0.00493)	-0.00387 (0.00495)	-0.00396 (0.00488)	-0.00431 (0.00484)	-0.00576 (0.00400)	-0.00596 (0.00398)	0.00285* (0.00154)	0.00287* (0.00154)	0.00285* (0.00154)	0.00286* (0.00154)	0.00216* (0.00124)	0.00217* (0.00124)
Single	-0.00654 (0.0113)	-0.00646 (0.0113)	-0.00663 (0.0113)	-0.00682 (0.0113)	-0.00311 (0.0278)	-0.00271 (0.0278)	0.311*** (0.112)	0.310*** (0.112)	0.311*** (0.112)	0.301*** (0.112)	0.139** (0.0695)	0.136** (0.0690)	0.0123 (0.0381)	0.0126 (0.0382)	0.0113 (0.0380)	0.0110 (0.0380)	0.0191 (0.0322)	0.0197 (0.0322)
Urban region	0.0279*** (0.00933)	0.0277*** (0.00931)	0.0279*** (0.00932)	0.0276*** (0.00929)	0.0521** (0.0215)	0.0520** (0.0215)	0.186* (0.113)	0.184 (0.113)	0.192* (0.112)	0.193* (0.112)	0.0710 (0.0979)	0.0738 (0.0986)	0.0899*** (0.0303)	0.0902*** (0.0302)	0.0905*** (0.0303)	0.0905*** (0.0301)	0.0906*** (0.0267)	0.0906*** (0.0267)
In education	0.115*** (0.0175)	0.115*** (0.0175)	0.115*** (0.0175)	0.114*** (0.0175)	0.270*** (0.0386)	0.270*** (0.0386)	0.264 (0.189)	0.262 (0.189)	0.257 (0.189)	0.251 (0.188)	0.245** (0.123)	0.239* (0.123)	-0.0102 (0.0728)	-0.00972 (0.0730)	-0.0109 (0.0729)	-0.00885 (0.0728)	0.00439 (0.0587)	0.00351 (0.0589)
Unemployed	-0.00103 (0.0257)	-0.000832 (0.0257)	-0.00109 (0.0257)	-0.000592 (0.0256)	0.00718 (0.0590)	0.00634 (0.0590)	0.321* (0.178)	0.322* (0.177)	0.320* (0.179)	0.327* (0.179)	0.134 (0.174)	0.136 (0.174)	-0.0102 (0.0728)	-0.00972 (0.0730)	-0.0109 (0.0729)	-0.00885 (0.0728)	0.00439 (0.0587)	0.00351 (0.0589)
Out of labour force	-0.0287** (0.0116)	-0.0288** (0.0116)	-0.0286** (0.0116)	-0.0286** (0.0116)	-0.0515* (0.0303)	-0.0523* (0.0304)	0.108 (0.105)	0.109 (0.105)	0.107 (0.105)	0.110 (0.104)	0.128 (0.103)	0.130 (0.103)	-0.0102 (0.0728)	-0.00972 (0.0730)	-0.0109 (0.0729)	-0.00885 (0.0728)	0.00439 (0.0587)	0.00351 (0.0589)
Retired	-0.0505*** (0.0138)	-0.0505*** (0.0138)	-0.0505*** (0.0138)	-0.0504*** (0.0138)	-0.112*** (0.0315)	-0.112*** (0.0315)	-0.242 (0.161)	-0.242 (0.161)	-0.231 (0.159)	-0.223 (0.158)	-0.130 (0.112)	-0.123 (0.112)	0.0481 (0.0321)	0.0484 (0.0320)	0.0477 (0.0321)	0.0481 (0.0319)	0.0268 (0.0221)	0.0271 (0.0220)
Other labour market status	-0.0111 (0.0306)	-0.0119 (0.0306)	-0.0110 (0.0306)	-0.0122 (0.0305)	-0.00362 (0.0648)	-0.00491 (0.0647)	-0.451 (0.285)	-0.449 (0.284)	-0.435 (0.278)	-0.437 (0.276)	-0.256 (0.233)	-0.253 (0.231)	0.0481 (0.0321)	0.0484 (0.0320)	0.0477 (0.0321)	0.0481 (0.0319)	0.0268 (0.0221)	0.0271 (0.0220)
Religious	0.0328*** (0.00954)	0.0329*** (0.00955)	0.0327*** (0.00953)	0.0328*** (0.00955)	0.0564*** (0.0191)	0.0567*** (0.0192)	0.0563 (0.0957)	0.0556 (0.0956)	0.0548 (0.0958)	0.0573 (0.0948)	0.0517 (0.0788)	0.0524 (0.0784)	-0.0200 (0.0354)	-0.0205 (0.0353)	-0.0205 (0.0354)	-0.0225 (0.0348)	-0.0176 (0.0283)	-0.0170 (0.0281)
Children	-0.00904 (0.0101)	-0.00912 (0.0101)	-0.00908 (0.0101)	-0.00953 (0.0101)	-0.0175 (0.00999)	-0.0169 (0.0246)	-0.0630 (0.0663)	-0.0643 (0.0666)	-0.0652 (0.0661)	-0.0704 (0.0658)	-0.0353 (0.0673)	-0.0385 (0.0671)	0.0354 (0.0353)	0.0353 (0.0354)	0.0354 (0.0348)	0.0353 (0.0348)	0.0283 (0.0283)	0.0281 (0.0281)
Parent migrant	0.0485*** (0.0157)	0.0485*** (0.0157)	0.0485*** (0.0157)	0.0486*** (0.0157)	0.146*** (0.0352)	0.146*** (0.0353)	0.104 (0.149)	0.104 (0.149)	0.108 (0.149)	0.109 (0.149)	0.0306 (0.102)	0.0336 (0.102)	0.177*** (0.0586)	0.177*** (0.0588)	0.177*** (0.0587)	0.179*** (0.0588)	0.194*** (0.0450)	0.193*** (0.0452)
Highest completed educ. = ISCED 2	0.0231 (0.0183)	0.0230 (0.0184)	0.0232 (0.0183)	0.0230 (0.0184)	0.0919* (0.0478)	0.0917* (0.0479)	-0.172 (0.194)	-0.174 (0.195)	-0.181 (0.195)	-0.195 (0.195)	-0.0790 (0.203)	-0.0901 (0.203)	0.0782 (0.0930)	0.0774 (0.0931)	0.0778 (0.0930)	0.0761 (0.0935)	0.138 (0.0842)	0.138 (0.0845)
Highest completed educ. = ISCED 3	0.0796*** (0.0203)	0.0793*** (0.0204)	0.0796*** (0.0203)	0.0796*** (0.0204)	0.211*** (0.0458)	0.211*** (0.0460)	0.156 (0.216)	0.153 (0.216)	0.153 (0.213)	0.137 (0.213)	0.211 (0.174)	0.201 (0.174)	0.187* (0.0961)	0.186* (0.0963)	0.186* (0.0962)	0.183* (0.0970)	0.227*** (0.0808)	0.227*** (0.0811)
Highest completed educ. = ISCED 4	0.183*** (0.0306)	0.184*** (0.0306)	0.183*** (0.0306)	0.185*** (0.0305)	0.397*** (0.0784)	0.398*** (0.0784)	-0.597 (0.546)	-0.600 (0.549)	-0.616 (0.544)	-0.635 (0.547)	0.143 (0.336)	0.128 (0.335)	0.462*** (0.130)	0.465*** (0.130)	0.463*** (0.130)	0.468*** (0.130)	0.440*** (0.124)	0.440*** (0.124)
Highest completed educ. = ISCED5 or more	0.160*** (0.0235)	0.160*** (0.0235)	0.160*** (0.0235)	0.160*** (0.0237)	0.465*** (0.0463)	0.464*** (0.0465)	0.462** (0.195)	0.462** (0.195)	0.464** (0.194)	0.459** (0.193)	0.527*** (0.167)	0.526*** (0.167)	0.407*** (0.0973)	0.405*** (0.0976)	0.406*** (0.0974)	0.403*** (0.0983)	0.458*** (0.0825)	0.457*** (0.0829)
Migrant to native skillratio	-0.00250 (0.00853)	-0.00259 (0.00852)	-0.00247 (0.00852)	-0.00256 (0.00851)	-0.000660 (0.0206)	-0.000664 (0.0206)	-0.185 (0.212)	-0.185 (0.212)	-0.174 (0.210)	-0.181 (0.209)	-0.116 (0.166)	-0.119 (0.166)	-0.0196 (0.0456)	-0.0201 (0.0456)	-0.0194 (0.0455)	-0.0203 (0.0456)	-0.0226 (0.0326)	-0.0227 (0.0327)
Migrant to native skillratio*ISCED2	0.00650 (0.00823)	0.00650 (0.00823)	0.00650 (0.00823)	0.00650 (0.00823)	0.000735 (0.0228)	0.000647 (0.0228)	0.245 (0.204)	0.247 (0.205)	0.244 (0.206)	0.254 (0.205)	0.177 (0.167)	0.184 (0.166)	0.0171 (0.0432)	0.0173 (0.0432)	0.0171 (0.0431)	0.0175 (0.0432)	0.00124 (0.0345)	0.00106 (0.0347)
Migrant to native skillratio*ISCED 3	0.0000661 (0.00862)	0.0000990 (0.00862)	0.0000627 (0.00862)	0.0000887 (0.00862)	-0.00534 (0.0201)	-0.00534 (0.0201)	0.151 (0.202)	0.151 (0.202)	0.146 (0.199)	0.150 (0.200)	-0.0119 (0.171)	-0.00877 (0.171)	0.000787 (0.0460)	0.00117 (0.0460)	0.000813 (0.0460)	0.00140 (0.0460)	0.00399 (0.0312)	0.00405 (0.0313)
Migrant to native skillratio* ISCED 4	-0.0232 (0.0177)	-0.0237 (0.0177)	-0.0231 (0.0177)	-0.0237 (0.0176)	-0.0514 (0.0605)	-0.0528 (0.0606)	0.938 (0.598)	0.940 (0.602)	0.954 (0.595)	0.959 (0.599)	0.178 (0.341)	0.185 (0.342)	-0.0551 (0.0741)	-0.0566 (0.0740)	-0.0546 (0.0741)	-0.0571 (0.0740)	-0.0779 (0.0722)	-0.0794 (0.0721)
Migrant to native skillratio *ISCED 5 or more	0.00951 (0.00906)	0.00952 (0.00906)	0.00950 (0.00906)	0.00942 (0.00907)	0.000186 (0.0176)	0.000285 (0.0176)	0.200 (0.182)	0.200 (0.182)	0.189 (0.183)	0.187 (0.182)	-0.040							



## A.1 Definition of variables and data sources

Table 1: Definition of variables

Variable	Definition	Data source
<i>Dependent variable</i>		
migration index: same race	Index ranging from 1 to 4 based on the answer to the question "To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?" Answers: 1 Allow many to 4 Allow none. Rescaled to pro-immigration index: 1 Allow none to 4 Allow many.	ESS
migration dummy: same race	Dummy variable equal to one if the respondent answers the question "To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?" with "Allow many" or "Allow a few".	ESS
<i>Control variables</i>		
average age migrants	Average age of immigrants. Calculated based on LFS data of 5-year age groups (age was evaluated at the mean for each age group) (measured at NUTS-2 where available).	LFS
proportion skilled migrants	Proportion of migrants with completed upper secondary education or higher (ISCED 3+) (measured at NUTS-2 where available).	LFS
justice	Index ranging from 1 to 6 based on the answer to the question "Please listen to each description and tell me how much each person is or is not like you. She/he thinks it is important that every person in the world should be treated equally. She/he believes everyone should have equal opportunities in life." Answers: 1 Very much like me to 4 Not like me at all.	ESS
safety	Index ranging from 1 to 6 based on the answer to the question "Please listen to each description and tell me how much each person is or is not like you. It is important to her/him to live in secure surroundings. She/he avoids anything that might endanger her/his safety." Answers: 1 Very much like me to 4 Not like me at all.	ESS
understanding	Index ranging from 1 to 6 based on the answer to the question "Please listen to each description and tell me how much each person is or is not like you. It is important to her/him to listen to people who are different from her/him. Even when she/he disagrees with them, she/he still wants to understand them." Answers: 1 Very much like me to 4 Not like me at all.	ESS
traditions	Index ranging from 1 to 6 based on the answer to the question "Please listen to each description and tell me how much each person is or is not like you. Tradition is important to her/him. She/he tries to follow the customs handed down by her/his religion or her/his family." Answers: 1 Very much like me to 4 Not like me at all.	ESS
life satisfaction	Index ranging from 0 to 10 based on the answer to the question "All things considered, how satisfied are you with your life as a whole nowadays?" Answers: 0 Extremely dissatisfied to 10 Extremely satisfied.	ESS

Table 1: (continued)

Variable	Definition	Data source
economic satisfaction	Index ranging from 0 to 10 based on the answer to the question "On the whole how satisfied are you with the present state of the economy in [country]?" Answers: 0 Extremely dissatisfied to 10 Extremely satisfied.	ESS
left-right scale	Index ranging from 0 to 10 based on the answer to the question "In politics people sometimes talk of "left" and "right". Where would you place yourself on this scale?" Answers: 0 Left to 10 Right.	ESS
redistribution	Index ranging from 1 to 5 based on the answer to the question "The government should take measures to reduce differences in income levels." Answers: 1 Agree strongly to 5 Disagree strongly.	ESS
male	Dummy variable equal to one if the respondent is male.	ESS
age	Age of the respondent.	ESS
single	Dummy variable equal to one if the respondent's marital status is never married.	ESS
urban	Dummy variable equal to one if the area where the respondent lives is a town or small city or bigger.	ESS
in education	Dummy variable equal to one if the respondent was in education in the 7 days prior to the interview.	ESS
unemployed	Dummy variable equal to one if the respondent was unemployed in the 7 days prior to the interview.	ESS
out of labour force	Dummy variable equal to one if the respondent was out of the labour force (unemployed not looking for a job, permanently sick or disabled, or doing housework or looking after children) in the 7 days prior to the interview.	ESS
retired	Dummy variable equal to one if the respondent was retired in the 7 days prior to the interview.	ESS
other activity	Dummy variable equal to one if the respondent was not in education, unemployed, out of the labour force or retired and was also not doing paid work in the 7 days prior to the interview.	ESS
religious	Dummy variable equal to one if the respondent belongs to any particular religion or denomination.	ESS
children	Dummy variable equal to one if the respondent is living with children in the same household.	ESS
parents migrants	Dummy variable equal to one if at least one parent of the respondent was born in a country different to the country of residence of the respondent.	ESS
skillratio	Ratio of (proportion of skilled immigrants/proportion of unskilled immigrants) to (proportion of skilled natives/proportion of skilled natives) where skill is measured as at least completed upper secondary education (ISCED 3 or higher) (measured at NUTS-2 where available). This measure is based on \citetMayda06.	LFS
skill ISCED 2	Dummy variable equal to one if the highest level of education the respondent has achieved is completed lower secondary education (ISCED 2).	ESS
skill ISCED 3	Dummy variable equal to one if the highest level of education the respondent has achieved is completed upper secondary education (ISCED 3).	ESS
skill ISCED 4	Dummy variable equal to one if the highest level of education the respondent has achieved is completed post-secondary non-tertiary education (ISCED 4).	ESS

Table 1: (continued)

Variable	Definition	Data source
skill ISCED 5+	Dummy variable equal to one if the highest level of education the respondent has achieved is completed tertiary education (ISCED 5-6).	ESS
i. skill ISCED 2*skillratio	Interaction term of the skillratio with the dummy for completed lower secondary education (ISCED 2).	ESS and EU-LFS
i. skill ISCED 3*skillratio	Interaction term of the skillratio with the dummy for completed upper secondary education (ISCED 3).	ESS and EU-LFS
i. skill ISCED 4*skillratio	Interaction term of the skillratio with the dummy for completed post-secondary non-tertiary education (ISCED 4).	ESS and EU-LFS
i. skill ISCED 5+*skillratio	Interaction term of the skillratio with the dummy for completed tertiary education (ISCED 5-6).	ESS and EU-LFS
benefit difference	Take-up ratio of welfare benefits calculated as the ratio of the proportion of immigrants that obtain welfare benefits to the proportion of natives that obtain welfare benefits.	EU-SILC
contrib benefits diff	Take-up ratio of welfare benefits calculated as the ratio of the proportion of immigrants that obtain contributory welfare benefits to the proportion of natives that obtain contributory welfare benefits. Contributory welfare benefits include unemployment benefits, old-age benefits, survivors' pensions, sickness benefits, and disability benefits.	EU-SILC
non-contrib ben diff	Take-up ratio of welfare benefits calculated as the ratio of the proportion of immigrants that obtain non-contributory welfare benefits to the proportion of natives that obtain non-contributory welfare benefits. Non-contributory welfare benefits include housing benefits, family and children related allowances, and payments to those at risk of social exclusion.	EU-SILC
high education	Dummy variable equal to one if the respondent completed upper secondary education or higher (ISCED 3+).	ESS
i. benefits*skill	Interaction term of the skill dummy and the take-up ratio of welfare benefits.	ESS and EU-SILC
high income	Dummy variable equal to one if the respondent's income is in the upper three income deciles (upper three deciles for 2008 and 2010; approximately upper three deciles for 2004 and 2006; here we used an approximation based on information on income of all respondents).	ESS
i. benefits*hic	Interaction term of the high-income dummy and the take-up ratio of welfare benefits.	ESS and EU-SILC
i. benefits*age	Interaction term of age and the take-up ratio of welfare benefits.	ESS and EU-SILC
<i>Instruments</i>		
benefit take-up natives	Proportion of natives that receive welfare benefits (measured at NUTS-2 where available).	EU-SILC
expl diff- contrib	Difference in characteristics (explained) part of the difference in contributory benefit receipt between immigrants and natives, obtained from Blinder-Oaxaca decompositions.	
expl diff - non-contrib	Difference in characteristics (explained) part of the difference in non-contributory benefit receipt between immigrants and natives, obtained from Blinder-Oaxaca decompositions.	
<i>Variables used in robustness checks</i>		

Table 1: (continued)

Variable	Definition	Data source
skill ISCED 2	Dummy variable equal to one if the highest level of education the respondent has achieved is completed lower secondary education (ISCED 2).	ESS
skill ISCED 3	Dummy variable equal to one if the highest level of education the respondent has achieved is completed upper secondary education (ISCED 3).	ESS
skill ISCED 4	Dummy variable equal to one if the highest level of education the respondent has achieved is completed post-secondary non-tertiary education (ISCED 4).	ESS
skill ISCED 5+	Dummy variable equal to one if the highest level of education the respondent has achieved is completed tertiary education (ISCED 5-6).	ESS
mig index: diff race	Index ranging from 1 to 4 based on the answer to the question "To what extent do you think [country] should allow people of a different race or ethnic group as most [country] people to come and live here?" Answers: 1 Allow many to 4 Allow none. Rescaled to pro-immigration index: 1 Allow none to 4 Allow many.	ESS
mig dummy: diff race	Dummy variable equal to one if the respondent answers the question "To what extent do you think [country] should allow people of a different race or ethnic group as most [country] people to come and live here?" with "Allow many" or "Allow a few".	ESS
mig index: poorer country	Index ranging from 1 to 4 based on the answer to the question "To what extent do you think [country] should allow people of the poorer countries outside Europe to come and live here?" Answers: 1 Allow many to 4 Allow none. Rescaled to pro-immigration index: 1 Allow none to 4 Allow many.	ESS
mig dummy: poorer country	Dummy variable equal to one if the respondent answers the question "To what extent do you think [country] should allow people of the poorer countries outside Europe to come and live here?" with "Allow many" or "Allow a few".	ESS

## B Additional tables not for publication

Table A6: Coefficient estimates for baseline specification with interaction effects

	Natives			Immigrants		
	Interaction with			Interaction with		
	Income	Skill	Age	Income	Skill	Age
Av. Age of immigrants	-0.00244 (0.00203)	-0.00194 (0.00170)	-0.00202 (0.00168)	0.00401 (0.00708)	0.00151 (0.00702)	0.00120 (0.00713)
Share skilled immigrants	0.0125 (0.107)	-0.0129 (0.0832)	-0.0160 (0.0826)	0.557* (0.319)	0.392* (0.227)	0.372 (0.230)
Importance of equal treatment	0.0337*** (0.00477)	0.0318*** (0.00412)	0.0317*** (0.00412)	0.0314** (0.0135)	0.0274** (0.0115)	0.0290** (0.0117)
Importance of safety	-0.0302*** (0.00394)	-0.0319*** (0.00356)	-0.0317*** (0.00356)	-0.0148 (0.0123)	-0.0185* (0.0104)	-0.0189* (0.0106)
Importance understanding others	0.0354*** (0.00399)	0.0382*** (0.00373)	0.0384*** (0.00376)	-0.000188 (0.0145)	0.0154 (0.0139)	0.0152 (0.0135)
Importance of traditions	-0.0125*** (0.00304)	-0.0130*** (0.00295)	-0.0131*** (0.00295)	0.0152 (0.00971)	0.00637 (0.00980)	0.00639 (0.00998)
Life satisfaction	0.00541** (0.00221)	0.00703*** (0.00191)	0.00680*** (0.00192)	0.0206*** (0.00686)	0.0191*** (0.00573)	0.0193*** (0.00579)
Satisfaction with economy	0.0236*** (0.00261)	0.0230*** (0.00216)	0.0230*** (0.00217)	0.0203*** (0.00630)	0.0234*** (0.00636)	0.0230*** (0.00640)
Left-right scale	-0.0156*** (0.00238)	-0.0148*** (0.00230)	-0.0148*** (0.00229)	-0.00428 (0.00557)	-0.00302 (0.00544)	-0.00262 (0.00541)
Preference for redistribution	0.000602 (0.00427)	0.00374 (0.00433)	0.00346 (0.00429)	-0.0245* (0.0140)	-0.0313*** (0.0119)	-0.0312*** (0.0119)
Male	0.00244 (0.00877)	0.000727 (0.00837)	0.000167 (0.00838)	0.0342 (0.0271)	0.0327 (0.0256)	0.0338 (0.0254)
Age	0.000218 (0.000397)	0.00000402 (0.000371)	0.000106 (0.000356)	-0.00153 (0.00184)	-0.00113 (0.00140)	-0.000915 (0.00126)
Single	-0.00397 (0.0127)	-0.00620 (0.0113)	-0.00642 (0.0113)	0.0882** (0.0437)	0.0906*** (0.0321)	0.0897*** (0.0321)
Urban region	0.0265** (0.0105)	0.0272*** (0.00938)	0.0284*** (0.00928)	0.0244 (0.0423)	0.0552* (0.0323)	0.0559* (0.0321)
In education	0.109*** (0.0200)	0.118*** (0.0174)	0.113*** (0.0179)	0.0363 (0.0595)	0.0751 (0.0547)	0.0813 (0.0541)
Unemployed	-0.00561 (0.0296)	-0.000776 (0.0256)	-0.00125 (0.0259)	0.0786 (0.0620)	0.0924* (0.0530)	0.0952* (0.0522)
Out of labour force	-0.0234* (0.0133)	-0.0287** (0.0116)	-0.0296** (0.0117)	0.0520 (0.0337)	0.0308 (0.0305)	0.0312 (0.0305)
Retired	-0.0492*** (0.0136)	-0.0495*** (0.0138)	-0.0467*** (0.0135)	-0.0149 (0.0528)	-0.0676 (0.0464)	-0.0711 (0.0459)
Other labour market status	0.00716 (0.0303)	-0.0112 (0.0308)	-0.0116 (0.0308)	-0.0290 (0.0875)	-0.125 (0.0813)	-0.124 (0.0801)
Religious	0.0332*** (0.0109)	0.0326*** (0.00950)	0.0311*** (0.00947)	0.0147 (0.0320)	0.0164 (0.0279)	0.0165 (0.0277)
Children	-0.00882 (0.0115)	-0.00908 (0.0101)	-0.00828 (0.00983)	-0.00104 (0.0235)	-0.0186 (0.0191)	-0.0174 (0.0193)
Parent migrant	0.0455*** (0.0175)	0.0486*** (0.0157)	0.0504*** (0.0154)	0.0163 (0.0461)	0.0316 (0.0433)	0.0301 (0.0436)
Highest completed educ. = ISCED 2	0.00531 (0.0259)	0.0285 (0.0176)	0.0308* (0.0183)	-0.0999 (0.0649)	-0.0620 (0.0551)	-0.0544 (0.0570)
Highest completed educ. = ISCED 3	0.0758*** (0.0278)	0.0785*** (0.0208)	0.0861*** (0.0203)	0.0362 (0.0786)	0.0322 (0.0613)	0.0434 (0.0620)
Highest completed educ. = ISCED 4	0.136*** (0.0320)	0.179*** (0.0313)	0.187*** (0.0305)	-0.214 (0.164)	-0.187 (0.160)	-0.177 (0.156)
Highest completed educ. = ISCED5 or more	0.129*** (0.0316)	0.162*** (0.0236)	0.166*** (0.0236)	0.117* (0.0689)	0.124** (0.0571)	0.132** (0.0577)
Migrant to native skillratio	0.000191 (0.0202)	-0.00441 (0.00877)	-0.00360 (0.00862)	-0.154 (0.108)	-0.0648 (0.0641)	-0.0502 (0.0615)
Migrant to native skillratio*ISCED2	0.0138 (0.0163)	0.00696 (0.00832)	0.00791 (0.00836)	0.141** (0.0632)	0.0817 (0.0592)	0.0702 (0.0602)
Migrant to native skillratio*ISCED 3	-0.00506 (0.0234)	0.00246 (0.00880)	0.00148 (0.00869)	0.0663 (0.0756)	0.0562 (0.0620)	0.0418 (0.0582)
Migrant to native skillratio* ISCED 4	0.00900 (0.0210)	-0.0162 (0.0180)	-0.0190 (0.0175)	0.294 (0.187)	0.284 (0.175)	0.279 (0.171)
Migrant to native skillratio *ISCED 5 or more	0.0200 (0.0228)	0.0122 (0.00980)	0.0110 (0.00941)	0.103 (0.0657)	0.0666 (0.0559)	0.0547 (0.0532)
Native to immigrants benefit take-up rate diff.	-3.500*** (1.141)	-2.572*** (0.523)	-2.220*** (0.509)	-7.623* (4.604)	-6.480 (6.675)	-7.365 (6.729)
High income dummy	0.0465*** (0.0111)			0.0109 (0.0266)		
Native to immigrants benefit take-up rate diff. * high income	-0.0283 (0.0699)			-0.529 (0.411)		
Native to immigrants benefit take-up rate diff.*skilled native		0.125 (0.0858)			0.0255 (0.408)	
Native to immigrants benefit take-up rate diff.*age native			-0.00594*** (0.00225)			0.00987 (0.0118)
Number of observations	31594	43290	43290	2556	3574	3574

Notes: Table presents coefficients of probit and iv-probit coefficients for the specification in table 3. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A7: Coefficient of iv-ordered probit estimates for baseline specification with interaction effects

	Natives			Immigrants		
	Interaction with			Interaction with		
	Income	Skill	Age	Income	Skill	Age
Av. Age of immigrants	-0.00395 (0.00518)	-0.00532 (0.00423)	-0.00548 (0.00420)	0.0150 (0.0184)	0.00810 (0.0148)	0.00778 (0.0149)
Share skilled immigrants	-0.283 (0.290)	-0.0491 (0.213)	-0.0563 (0.212)	1.782** (0.851)	1.483** (0.606)	1.428** (0.630)
Importance of equal treatment	0.0899*** (0.0129)	0.0857*** (0.0107)	0.0857*** (0.0107)	0.115*** (0.0372)	0.0924*** (0.0323)	0.0991*** (0.0343)
Importance of safety	-0.0769*** (0.00868)	-0.0795*** (0.00771)	-0.0792*** (0.00773)	-0.0521* (0.0271)	-0.0477** (0.0243)	-0.0503** (0.0243)
Importance understanding others	0.114*** (0.0119)	0.113*** (0.0112)	0.113*** (0.0112)	0.0334 (0.0455)	0.0415 (0.0409)	0.0395 (0.0403)
Importance of traditions	-0.0420*** (0.00871)	-0.0420*** (0.00817)	-0.0425*** (0.00817)	0.0373 (0.0256)	0.0234 (0.0268)	0.0233 (0.0267)
Life satisfaction	0.0235*** (0.00540)	0.0244*** (0.00466)	0.0237*** (0.00469)	0.0521*** (0.0181)	0.0472*** (0.0150)	0.0474*** (0.0152)
Satisfaction with economy	0.0622*** (0.00755)	0.0597*** (0.00580)	0.0597*** (0.00583)	0.0684*** (0.0152)	0.0704*** (0.0125)	0.0690*** (0.0125)
Left-right scale	-0.0486*** (0.00595)	-0.0433*** (0.00560)	-0.0432*** (0.00561)	-0.0148 (0.0162)	-0.0205 (0.0148)	-0.0202 (0.0147)
Preference for redistribution	0.00549 (0.00993)	0.0128 (0.00982)	0.0120 (0.00980)	-0.124*** (0.0388)	-0.129*** (0.0304)	-0.125*** (0.0303)
Male	0.0210 (0.0209)	0.0257 (0.0191)	0.0246 (0.0191)	0.106 (0.0812)	0.0933 (0.0669)	0.0985 (0.0658)
Age	0.000363 (0.00102)	-0.000727 (0.000870)	-0.000408 (0.000830)	-0.00685 (0.00567)	-0.00574 (0.00399)	-0.00498 (0.00363)
Single	0.0266 (0.0331)	-0.00298 (0.0279)	-0.00288 (0.0278)	0.177* (0.100)	0.144** (0.0695)	0.139** (0.0698)
Urban region	0.0585** (0.0251)	0.0519** (0.0216)	0.0530** (0.0215)	-0.00586 (0.117)	0.0683 (0.0981)	0.0718 (0.0978)
In education	0.257*** (0.0427)	0.271*** (0.0385)	0.264*** (0.0394)	0.223 (0.158)	0.246** (0.122)	0.273** (0.125)
Unemployed	-0.00964 (0.0744)	0.00728 (0.0589)	0.00696 (0.0591)	0.0858 (0.192)	0.132 (0.175)	0.146 (0.170)
Out of labour force	-0.0304 (0.0365)	-0.0515* (0.0303)	-0.0534* (0.0303)	0.163 (0.127)	0.128 (0.102)	0.126 (0.104)
Retired	-0.115*** (0.0309)	-0.111*** (0.0315)	-0.104*** (0.0311)	0.0179 (0.127)	-0.128 (0.113)	-0.153 (0.109)
Other labour market status	0.0275 (0.0716)	-0.00366 (0.0648)	-0.00423 (0.0649)	-0.189 (0.202)	-0.252 (0.232)	-0.254 (0.228)
Religious	0.0558** (0.0246)	0.0563*** (0.0191)	0.0529*** (0.0193)	0.0538 (0.0916)	0.0555 (0.0791)	0.0528 (0.0788)
Children	-0.0189 (0.0291)	-0.0175 (0.0246)	-0.0153 (0.0239)	0.0188 (0.0908)	-0.0355 (0.0678)	-0.0284 (0.0649)
Parent migrant	0.147*** (0.0414)	0.146*** (0.0352)	0.151*** (0.0346)	-0.0484 (0.115)	0.0323 (0.101)	0.0202 (0.104)
Highest completed educ. = ISCED 2	0.147** (0.0671)	0.0936** (0.0473)	0.108** (0.0471)	-0.308 (0.242)	-0.0430 (0.206)	-0.0889 (0.200)
Highest completed educ. = ISCED 3	0.231*** (0.0654)	0.211*** (0.0462)	0.226*** (0.0458)	0.260 (0.248)	0.186 (0.170)	0.202 (0.174)
Highest completed educ. = ISCED 4	0.382*** (0.0850)	0.396*** (0.0791)	0.406*** (0.0778)	-0.0101 (0.378)	0.108 (0.338)	0.152 (0.335)
Highest completed educ. = ISCED5 or more	0.461*** (0.0688)	0.465*** (0.0463)	0.477*** (0.0466)	0.481* (0.246)	0.512*** (0.164)	0.511*** (0.164)
Migrant to native skillratio	0.0962* (0.0570)	-0.00115 (0.0208)	-0.00381 (0.0205)	-0.432 (0.310)	-0.167 (0.171)	-0.118 (0.167)
Migrant to native skillratio*ISCED2	-0.0458 (0.0440)	0.000812 (0.0230)	0.00444 (0.0222)	0.442** (0.179)	0.168 (0.168)	0.174 (0.168)
Migrant to native skillratio*ISCED 3	0.00212 (0.0525)	-0.00471 (0.0202)	-0.00163 (0.0199)	0.00189 (0.256)	0.0428 (0.178)	-0.0130 (0.172)
Migrant to native skillratio* ISCED 4	-0.00783 (0.0583)	-0.0495 (0.0607)	-0.0421 (0.0605)	0.327 (0.410)	0.243 (0.345)	0.177 (0.341)
Migrant to native skillratio *ISCED 5 or more	0.00779 (0.0480)	0.000819 (0.0178)	0.00398 (0.0179)	0.0715 (0.243)	0.0157 (0.150)	-0.0378 (0.151)
Native to immigrants benefit take-up rate diff.	-3.661 (2.499)	-5.933*** (1.160)	-5.330*** (1.151)	-2.550 (10.43)	-4.085 (12.66)	-4.689 (13.37)
High income dummy	0.123*** (0.0245)			0.0744 (0.0710)		
Native to immigrants benefit take-up rate diff. * high income	-0.228 (0.170)			0.0415 (1.224)		
Native to immigrants benefit take-up rate diff.*skilled native		0.0362 (0.186)			0.916 (1.130)	
Native to immigrants benefit take-up rate diff.*age native			-0.0125** (0.00518)			0.0457 (0.0360)
Number of observations	31594	43290	43290	2564	3574	3574

Notes: Table presents coefficients of iv-oprobit results for the specification in table A2. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A8: Coefficient of probit and ordered probit estimates for detailed benefit types

	Natives		Immigrants	
	Probit	Oprobit	Probit	Oprobit
Av. Age of immigrants	-0.00535 (0.00506)	-0.00492 (0.00444)	-0.00535 (0.00506)	-0.00492 (0.00444)
Share skilled immigrants	-0.0334 (0.242)	-0.0614 (0.219)	-0.0334 (0.242)	-0.0614 (0.219)
Importance of equal treatment	0.0908*** (0.0117)	0.0856*** (0.0107)	0.0908*** (0.0117)	0.0856*** (0.0107)
Importance of safety	-0.0914*** (0.0102)	-0.0795*** (0.00770)	-0.0914*** (0.0102)	-0.0795*** (0.00770)
Importance understanding others	0.110*** (0.0108)	0.113*** (0.0112)	0.110*** (0.0108)	0.113*** (0.0112)
Importance of traditions	-0.0372*** (0.00845)	-0.0420*** (0.00814)	-0.0372*** (0.00845)	-0.0420*** (0.00814)
Life satisfaction	0.0203*** (0.00547)	0.0244*** (0.00463)	0.0203*** (0.00547)	0.0244*** (0.00463)
Satisfaction with economy	0.0663*** (0.00632)	0.0600*** (0.00594)	0.0663*** (0.00632)	0.0600*** (0.00594)
Left-right scale	-0.0424*** (0.00664)	-0.0432*** (0.00560)	-0.0424*** (0.00664)	-0.0432*** (0.00560)
Preference for redistribution	0.0112 (0.0125)	0.0129 (0.00985)	0.0112 (0.0125)	0.0129 (0.00985)
Male	0.00234 (0.0240)	0.0256 (0.0191)	0.00234 (0.0240)	0.0256 (0.0191)
Age	-0.0000675 (0.00106)	-0.000734 (0.000873)	-0.0000675 (0.00106)	-0.000734 (0.000873)
Single	-0.0179 (0.0325)	-0.00294 (0.0279)	-0.0179 (0.0325)	-0.00294 (0.0279)
Urban region	0.0803*** (0.0267)	0.0523** (0.0215)	0.0803*** (0.0267)	0.0523** (0.0215)
In education	0.329*** (0.0503)	0.270*** (0.0387)	0.329*** (0.0503)	0.270*** (0.0387)
Unemployed	-0.00169 (0.0737)	0.00738 (0.0589)	-0.00169 (0.0737)	0.00738 (0.0589)
Out of labour force	-0.0820** (0.0333)	-0.0516* (0.0303)	-0.0820** (0.0333)	-0.0516* (0.0303)
Retired	-0.144*** (0.0397)	-0.112*** (0.0316)	-0.144*** (0.0397)	-0.112*** (0.0316)
Other labour market status	-0.0303 (0.0876)	-0.00262 (0.0644)	-0.0303 (0.0876)	-0.00262 (0.0644)
Religious	0.0945*** (0.0274)	0.0565*** (0.0191)	0.0945*** (0.0274)	0.0565*** (0.0191)
Children	-0.0263 (0.0289)	-0.0175 (0.0246)	-0.0263 (0.0289)	-0.0175 (0.0246)
Parent migrant	0.139*** (0.0449)	0.146*** (0.0352)	0.139*** (0.0449)	0.146*** (0.0352)
Highest completed educ. = ISCED 2	0.0660 (0.0526)	0.0920* (0.0479)	0.0660 (0.0526)	0.0920* (0.0479)
Highest completed educ. = ISCED 3	0.229*** (0.0586)	0.212*** (0.0461)	0.229*** (0.0586)	0.212*** (0.0461)
Highest completed educ. = ISCED 4	0.527*** (0.0880)	0.398*** (0.0785)	0.527*** (0.0880)	0.398*** (0.0785)
Highest completed educ. = ISCED5 or more	0.460*** (0.0679)	0.465*** (0.0466)	0.460*** (0.0679)	0.465*** (0.0466)
Migrant to native skillratio	-0.00667 (0.0245)	-0.000315 (0.0207)	-0.00667 (0.0245)	-0.000315 (0.0207)
Migrant to native skillratio*ISCED2	0.0186 (0.0236)	0.000632 (0.0228)	0.0186 (0.0236)	0.000632 (0.0228)
Migrant to native skillratio*ISCED 3	-0.000141 (0.0247)	-0.00546 (0.0201)	-0.000141 (0.0247)	-0.00546 (0.0201)
Migrant to native skillratio* ISCED 4	-0.0676 (0.0506)	-0.0522 (0.0605)	-0.0676 (0.0506)	-0.0522 (0.0605)
Migrant to native skillratio *ISCED 5 or more	0.0272 (0.0260)	0.000159 (0.0176)	0.0272 (0.0260)	0.000159 (0.0176)
Difference in unemployment benefit take up rate	-5.533 (4.989)	-8.573** (4.019)	-5.533 (4.989)	-8.573** (4.019)
Difference in old age benefit take up rates	-3.513* (1.969)	-6.380*** (1.616)	-3.513* (1.969)	-6.380*** (1.616)
Difference in survivor benefit take up rates	-29.42** (14.19)	-26.83** (12.10)	-29.42** (14.19)	-26.83** (12.10)
Difference in sicknes benefit take up rates	-5.278 (3.949)	-2.414 (2.996)	-5.278 (3.949)	-2.414 (2.996)
Difference in disability benefit take up rates	8.098 (7.758)	-6.605 (5.825)	8.098 (7.758)	-6.605 (5.825)
Difference in child related benefit take up rates	-1.709 (4.340)	-8.595** (3.408)	-1.709 (4.340)	-8.595** (3.408)
Difference in social exclusion take up rates	-0.389 (3.827)	-6.345** (2.930)	-0.389 (3.827)	-6.345** (2.930)
Difference in housing related benefits	-8.943** (4.527)	-0.212 (3.425)	-8.943** (4.527)	-0.212 (3.425)
Number of observations	43290	43290	43290	43290

Notes: Table presents coefficients of probit and ordered probit results for the specification in table 4. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.



Table A9: Linear probability model estimates for baseline specification and specification with interaction effects

	Natives					Immigrants				
	Agg point	Disagg point	Agg skill	Agg hic	Agg age	Agg point	Disagg point	Agg skill	Agg hic	Agg age
Av. Age of immigrants	-0.00377 (0.00296)	-0.00328 (0.00286)	-0.00377 (0.00296)	-0.00280 (0.00356)	-0.00387 (0.00294)	0.00496 (0.00941)	0.00385 (0.00926)	0.00498 (0.00956)	0.00972 (0.0118)	0.00494 (0.00964)
Share skilled immigrants	-0.0347 (0.150)	-0.0381 (0.159)	-0.0348 (0.150)	-0.183 (0.199)	-0.0380 (0.150)	0.958** (0.381)	1.036*** (0.394)	0.971** (0.384)	1.177** (0.533)	0.944** (0.395)
Importance of equal treatment	0.0595*** (0.00750)	0.0595*** (0.00751)	0.0595*** (0.00750)	0.0614*** (0.00897)	0.0595*** (0.00749)	0.0603*** (0.0215)	0.0604*** (0.0216)	0.0601*** (0.0215)	0.0750*** (0.0246)	0.0649*** (0.0225)
Importance of safety	-0.0547*** (0.00535)	-0.0546*** (0.00535)	-0.0547*** (0.00535)	-0.0515*** (0.00589)	-0.0545*** (0.00537)	-0.0329** (0.0159)	-0.0330** (0.0159)	-0.0329** (0.0159)	-0.0348* (0.0181)	-0.0349** (0.0160)
Importance understanding others	0.0785*** (0.00783)	0.0785*** (0.00784)	0.0786*** (0.00784)	0.0772*** (0.00819)	0.0786*** (0.00784)	0.0258 (0.0269)	0.0256 (0.0269)	0.0263 (0.0268)	0.0182 (0.0295)	0.0249 (0.0264)
Importance of traditions	-0.0290*** (0.00560)	-0.0291*** (0.00559)	-0.0290*** (0.00561)	-0.0281*** (0.00586)	-0.0293*** (0.00561)	0.0167 (0.0170)	0.0175 (0.0170)	0.0170 (0.0170)	0.0267* (0.0161)	0.0168 (0.0170)
Life satisfaction	0.0170*** (0.00332)	0.0170*** (0.00332)	0.0170*** (0.00332)	0.0160*** (0.00378)	0.0166*** (0.00334)	0.0321*** (0.0100)	0.0319*** (0.0101)	0.0325*** (0.0101)	0.0360*** (0.0120)	0.0328*** (0.0102)
Satisfaction with economy	0.0429*** (0.00391)	0.0433*** (0.00398)	0.0429*** (0.00391)	0.0437*** (0.00505)	0.0429*** (0.00393)	0.0457*** (0.00818)	0.0459*** (0.00814)	0.0456*** (0.00818)	0.0435*** (0.00940)	0.0446*** (0.00824)
Left-right scale	-0.0298*** (0.00382)	-0.0297*** (0.00383)	-0.0298*** (0.00382)	-0.0325*** (0.00406)	-0.0297*** (0.00383)	-0.0139 (0.00968)	-0.0135 (0.00965)	-0.0135 (0.00975)	-0.00992 (0.0104)	-0.0131 (0.00963)
Preferece for redistribution	0.00936 (0.00688)	0.00949 (0.00689)	0.00938 (0.00689)	0.00440 (0.00685)	0.00885 (0.00687)	-0.0837*** (0.0202)	-0.0851*** (0.0202)	-0.0841*** (0.0202)	-0.0791*** (0.0256)	-0.0813*** (0.0202)
Male	0.0170 (0.0133)	0.0169 (0.0133)	0.0170 (0.0133)	0.0133 (0.0141)	0.0163 (0.0133)	0.0598 (0.0434)	0.0606 (0.0434)	0.0586 (0.0440)	0.0663 (0.0530)	0.0619 (0.0432)
Age	-0.000585 (0.000605)	-0.000580 (0.000606)	-0.000587 (0.000605)	0.000173 (0.000689)	-0.000381 (0.000581)	-0.00389 (0.00266)	-0.00402 (0.00264)	-0.00388 (0.00265)	-0.00447 (0.00370)	-0.00336 (0.00238)
Single	-0.00333 (0.0190)	-0.00311 (0.0190)	-0.00337 (0.0191)	0.0168 (0.0222)	-0.00320 (0.0190)	0.0959** (0.0448)	0.0941** (0.0445)	0.0985** (0.0447)	0.122* (0.0649)	0.0959** (0.0451)
Urban region	0.0357** (0.0152)	0.0356** (0.0152)	0.0358** (0.0153)	0.0387** (0.0171)	0.0362** (0.0152)	0.0513 (0.0644)	0.0532 (0.0649)	0.0503 (0.0643)	-0.000465 (0.0765)	0.0524 (0.0642)
In education	0.185*** (0.0262)	0.185*** (0.0262)	0.185*** (0.0261)	0.169*** (0.0286)	0.182*** (0.0267)	0.141** (0.0705)	0.137* (0.0703)	0.142** (0.0696)	0.124 (0.0910)	0.162** (0.0700)
Unemployed	0.00000425 (0.0422)	-0.000547 (0.0422)	-0.0000303 (0.0422)	-0.0134 (0.0524)	-0.000150 (0.0423)	0.0822 (0.116)	0.0842 (0.116)	0.0811 (0.116)	0.0454 (0.130)	0.0908 (0.113)
Out of labour force	-0.0395* (0.0211)	-0.0401* (0.0212)	-0.0395* (0.0211)	-0.0263 (0.0250)	-0.0406* (0.0211)	0.0828 (0.0675)	0.0840 (0.0676)	0.0829 (0.0672)	0.105 (0.0825)	0.0811 (0.0678)
Retired	-0.0768*** (0.0225)	-0.0770*** (0.0225)	-0.0769*** (0.0225)	-0.0782*** (0.0216)	-0.0723*** (0.0222)	-0.0841 (0.0742)	-0.0803 (0.0743)	-0.0831 (0.0748)	0.0118 (0.0823)	-0.101 (0.0718)
Other labour market status	-0.00143 (0.0449)	-0.00241 (0.0449)	-0.00142 (0.0449)	0.0212 (0.0479)	-0.00177 (0.0450)	-0.174 (0.159)	-0.173 (0.158)	-0.172 (0.158)	-0.119 (0.135)	-0.173 (0.155)
Religious	0.0424*** (0.0135)	0.0427*** (0.0135)	0.0424*** (0.0135)	0.0412*** (0.0169)	0.0404*** (0.0136)	0.0345 (0.0521)	0.0352 (0.0520)	0.0363 (0.0526)	0.0357 (0.0593)	0.0354 (0.0520)
Children	-0.0138 (0.0173)	-0.0135 (0.0173)	-0.0138 (0.0173)	-0.0141 (0.0200)	-0.0124 (0.0169)	-0.0258 (0.0433)	-0.0279 (0.0432)	-0.0261 (0.0436)	0.00931 (0.0585)	-0.0208 (0.0415)
Parent migrant	0.0969*** (0.0240)	0.0970*** (0.0241)	0.0969*** (0.0240)	0.0948*** (0.0274)	0.0999*** (0.0237)	0.0235 (0.0682)	0.0252 (0.0686)	0.0243 (0.0681)	-0.0271 (0.0747)	0.0144 (0.0702)
Highest completed educ. = ISCED 2	0.0758** (0.0347)	0.0758** (0.0348)	0.0750** (0.0342)	0.111** (0.0488)	0.0839** (0.0343)	-0.0443 (0.132)	-0.0533 (0.133)	-0.0172 (0.133)	-0.199 (0.165)	-0.0495 (0.131)
Highest completed educ. = ISCED 3	0.167*** (0.0334)	0.167*** (0.0335)	0.167*** (0.0335)	0.178*** (0.0468)	0.174*** (0.0333)	0.146 (0.116)	0.137 (0.116)	0.139 (0.117)	0.165 (0.165)	0.140 (0.116)
Highest completed educ. = ISCED 4	0.298*** (0.0541)	0.299*** (0.0541)	0.299*** (0.0544)	0.278*** (0.0580)	0.303*** (0.0537)	0.0935 (0.212)	0.0818 (0.212)	0.0803 (0.215)	-0.00940 (0.246)	0.0992 (0.211)
Highest completed educ. = ISCED5 or more	0.336*** (0.0340)	0.335*** (0.0343)	0.336*** (0.0338)	0.319*** (0.0482)	0.342*** (0.0343)	0.346*** (0.110)	0.344*** (0.110)	0.344*** (0.110)	0.305* (0.160)	0.334*** (0.109)
Migrant to native skillratio	-0.000598 (0.0148)	-0.000509 (0.0148)	-0.000381 (0.0148)	0.0621 (0.0415)	-0.00362 (0.0148)	-0.0771 (0.113)	-0.0826 (0.113)	-0.0962 (0.121)	-0.289 (0.205)	-0.0770 (0.114)
Migrant to native skillratio*ISCED2	0.000917 (0.0163)	0.000765 (0.0163)	0.000873 (0.0162)	-0.0310 (0.0320)	0.00419 (0.0160)	0.114 (0.106)	0.121 (0.106)	0.101 (0.107)	0.294** (0.123)	0.109 (0.108)
Migrant to native skillratio*ISCED 3	-0.00335 (0.0145)	-0.00344 (0.0146)	-0.00363 (0.0146)	-0.000298 (0.0373)	-0.0000668 (0.0145)	-0.00140 (0.117)	0.00334 (0.117)	0.0213 (0.125)	0.0217 (0.173)	-0.00349 (0.118)
Migrant to native skillratio* ISCED 4	-0.0382 (0.0429)	-0.0392 (0.0430)	-0.0390 (0.0430)	-0.00403 (0.0414)	-0.0317 (0.0429)	0.128 (0.221)	0.136 (0.223)	0.158 (0.228)	0.232 (0.271)	0.127 (0.221)
Migrant to native skillratio *ISCED 5 or more	0.00258 (0.0128)	0.00255 (0.0129)	0.00230 (0.0129)	0.0139 (0.0333)	0.00589 (0.0133)	-0.0163 (0.102)	-0.0147 (0.102)	0.00878 (0.106)	0.0684 (0.163)	-0.0145 (0.103)
Native to immigrants benefit take-up rate diff.	-4.340*** (0.799)		-4.314*** (0.812)	-2.883* (1.709)	-3.991*** (0.811)	-2.682 (7.389)		-3.508 (7.499)	-2.618 (6.695)	-4.025 (7.954)
Native to immigrants contr. benefit take-up rate diff.		-2.655*** (0.540)					-4.053 (5.534)			
Native to immigrants non- contr. benefit take-up rate diff.		-2.414* (1.328)					-7.935 (7.958)			
Native to immigrants benefit take-up rate diff.*skilled			-0.0156 (0.128)					0.514 (0.747)		
High income dummy				0.0868*** (0.0168)					0.0502 (0.0444)	
Native to immigrants contr. benefit take-up rate diff. * high income				-0.187* (0.110)					-0.108 (0.725)	
Native to immigrants benefit take-up rate diff.*age native					-0.00741** (0.00353)					0.0328 (0.0229)
Number of observations	43290	43290	43290	31594	43290	3574	3574	3574	2564	3574

Notes: Table presents iv-linear probability model results for the specification in tables 2 and 3. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A10: Linear probability model results for robustness test (benefit level ratios)

	Natives				Immigrants			
	LPM		IV-LPM		LPM		IV-LPM	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Av. Age of immigrants	-0.00222 (0.00295)	-0.00232 (0.00294)	-0.00209 (0.00289)	-0.00235 (0.00290)	0.00649 (0.00886)	0.00670 (0.00889)	0.00646 (0.00879)	0.00667 (0.00882)
Share skilled immigrants	-0.0820 (0.154)	-0.0798 (0.155)	-0.103 (0.155)	-0.0866 (0.155)	0.944** (0.393)	0.985** (0.392)	0.943** (0.392)	0.989** (0.388)
Importance of equal treatment	0.0598*** (0.00753)	0.0598*** (0.00753)	0.0600*** (0.00751)	0.0599*** (0.00751)	0.0609*** (0.0217)	0.0611*** (0.0216)	0.0608*** (0.0214)	0.0610*** (0.0214)
Importance of safety	-0.0544*** (0.00537)	-0.0545*** (0.00537)	-0.0543*** (0.00536)	-0.0544*** (0.00535)	-0.0330** (0.0161)	-0.0333** (0.0161)	-0.0330** (0.0158)	-0.0333** (0.0159)
Importance understanding others	0.0787*** (0.00786)	0.0787*** (0.00786)	0.0787*** (0.00782)	0.0786*** (0.00782)	0.0256 (0.0273)	0.0252 (0.0272)	0.0256 (0.0269)	0.0252 (0.0269)
Importance of traditions	-0.0286*** (0.00565)	-0.0286*** (0.00565)	-0.0285*** (0.00565)	-0.0285*** (0.00564)	0.0160 (0.0169)	0.0162 (0.0169)	0.0161 (0.0168)	0.0163 (0.0169)
Life satisfaction	0.0174*** (0.00332)	0.0174*** (0.00332)	0.0177*** (0.00330)	0.0176*** (0.00331)	0.0321*** (0.0101)	0.0320*** (0.0101)	0.0322*** (0.0100)	0.0320*** (0.0100)
Satisfaction with economy	0.0413*** (0.00405)	0.0412*** (0.00402)	0.0402*** (0.00401)	0.0405*** (0.00396)	0.0460*** (0.00827)	0.0461*** (0.00827)	0.0459*** (0.00818)	0.0461*** (0.00815)
Left-right scale	-0.0296*** (0.00382)	-0.0296*** (0.00382)	-0.0296*** (0.00379)	-0.0297*** (0.00379)	-0.0138 (0.00978)	-0.0137 (0.00979)	-0.0138 (0.00968)	-0.0137 (0.00967)
Preference for redistribution	0.00915 (0.00693)	0.00908 (0.00693)	0.00877 (0.00691)	0.00882 (0.00689)	-0.0830*** (0.0203)	-0.0833*** (0.0203)	-0.0830*** (0.0201)	-0.0834*** (0.0201)
Male	0.0179 (0.0134)	0.0178 (0.0134)	0.0179 (0.0133)	0.0178 (0.0133)	0.0584 (0.0439)	0.0594 (0.0438)	0.0585 (0.0434)	0.0597 (0.0434)
Age	-0.000574 (0.000612)	-0.000576 (0.000612)	-0.000566 (0.000610)	-0.000576 (0.000609)	-0.00388 (0.00270)	-0.00390 (0.00270)	-0.00388 (0.00268)	-0.00391 (0.00266)
Single	-0.00124 (0.0191)	-0.00152 (0.0191)	-0.00143 (0.0190)	-0.00187 (0.0191)	0.0947** (0.0449)	0.0940** (0.0447)	0.0948** (0.0447)	0.0941** (0.0445)
Urban region	0.0356** (0.0153)	0.0360** (0.0153)	0.0369** (0.0153)	0.0369** (0.0153)	0.0499 (0.0651)	0.0507 (0.0652)	0.0500 (0.0643)	0.0510 (0.0643)
In education	0.187*** (0.0263)	0.187*** (0.0263)	0.188*** (0.0262)	0.187*** (0.0263)	0.142** (0.0713)	0.141** (0.0713)	0.142** (0.0705)	0.141** (0.0705)
Unemployed	0.000358 (0.0424)	0.000163 (0.0424)	-0.00139 (0.0422)	-0.000893 (0.0422)	0.0839 (0.117)	0.0839 (0.117)	0.0837 (0.116)	0.0836 (0.116)
Out of labour force	-0.0400* (0.0213)	-0.0399* (0.0213)	-0.0401* (0.0212)	-0.0398* (0.0212)	0.0831 (0.0684)	0.0835 (0.0685)	0.0830 (0.0676)	0.0835 (0.0677)
Retired	-0.0769*** (0.0227)	-0.0770*** (0.0227)	-0.0776*** (0.0228)	-0.0775*** (0.0227)	-0.0849 (0.0755)	-0.0830 (0.0755)	-0.0850 (0.0747)	-0.0829 (0.0746)
Other labour market status	-0.00165 (0.0451)	-0.000983 (0.0451)	0.000757 (0.0451)	0.000793 (0.0450)	-0.176 (0.161)	-0.180 (0.162)	-0.176 (0.160)	-0.180 (0.160)
Religious	0.0432*** (0.0136)	0.0431*** (0.0136)	0.0431*** (0.0135)	0.0430*** (0.0135)	0.0349 (0.0527)	0.0348 (0.0526)	0.0349 (0.0521)	0.0347 (0.0520)
Children	-0.0125 (0.0173)	-0.0127 (0.0173)	-0.0122 (0.0172)	-0.0127 (0.0173)	-0.0257 (0.0438)	-0.0252 (0.0439)	-0.0256 (0.0433)	-0.0252 (0.0433)
Parent migrant	0.0959*** (0.0242)	0.0960*** (0.0242)	0.0957*** (0.0241)	0.0960*** (0.0240)	0.0232 (0.0687)	0.0249 (0.0687)	0.0231 (0.0678)	0.0250 (0.0679)
Highest completed educ. = ISCED 2	0.0772** (0.0351)	0.0771** (0.0350)	0.0775** (0.0348)	0.0772** (0.0348)	-0.0415 (0.132)	-0.0395 (0.132)	-0.0416 (0.130)	-0.0398 (0.131)
Highest completed educ. = ISCED 3	0.170*** (0.0336)	0.170*** (0.0336)	0.171*** (0.0334)	0.170*** (0.0334)	0.148 (0.117)	0.149 (0.117)	0.148 (0.116)	0.148 (0.116)
Highest completed educ. = ISCED 4	0.299*** (0.0549)	0.299*** (0.0549)	0.298*** (0.0549)	0.298*** (0.0546)	0.0968 (0.213)	0.0971 (0.213)	0.0969 (0.211)	0.0967 (0.211)
Highest completed educ. = ISCED5 or more	0.337*** (0.0341)	0.337*** (0.0340)	0.338*** (0.0336)	0.338*** (0.0336)	0.348*** (0.111)	0.349*** (0.111)	0.348*** (0.109)	0.348*** (0.110)
Migrant to native skillratio	0.000357 (0.0149)	0.000302 (0.0149)	0.000610 (0.0150)	0.000352 (0.0150)	-0.0763 (0.114)	-0.0774 (0.114)	-0.0762 (0.113)	-0.0775 (0.113)
Migrant to native skillratio*ISCED2	-0.000339 (0.0166)	-0.000135 (0.0166)	-0.000167 (0.0165)	0.000159 (0.0164)	0.113 (0.106)	0.113 (0.106)	0.113 (0.105)	0.113 (0.105)
Migrant to native skillratio*ISCED 3	-0.00462 (0.0148)	-0.00447 (0.0148)	-0.00458 (0.0148)	-0.00429 (0.0147)	-0.00289 (0.118)	-0.00320 (0.118)	-0.00289 (0.116)	-0.00310 (0.116)
Migrant to native skillratio* ISCED 4	-0.0403 (0.0434)	-0.0399 (0.0433)	-0.0397 (0.0433)	-0.0391 (0.0432)	0.125 (0.223)	0.125 (0.223)	0.125 (0.220)	0.126 (0.221)
Migrant to native skillratio *ISCED 5 or more	0.00186 (0.0129)	0.00200 (0.0129)	0.00202 (0.0129)	0.00222 (0.0129)	-0.0169 (0.103)	-0.0169 (0.103)	-0.0168 (0.102)	-0.0167 (0.102)
Native to immigrants benefit diff.	-0.392* (0.220)		-1.179*** (0.316)		0.465 (0.607)		0.414 (1.015)	
Native to immigrants contr. benefit diff.		-0.422*** (0.138)		-0.844*** (0.227)		0.393 (0.445)		0.333 (0.758)
Native to immigrants non- contr. benefit diff.		-0.167** (0.0807)		-0.348* (0.179)		-0.150 (0.229)		-0.205 (0.378)
Test statistics								
F-Test excl. instruments ben (P-value)			0.0000				0.0000	
F-Test excl. instruments ncben (P-value)				0.0000				0.0000
F-Test excl. instruments cben (P-value)				0.0000				0.0000
Endogeneity Test (P-value)			0.0038	0.0273			0.7268	0.6979
Test for Hansen J-Statistic (P-value)			0.2674	0.1336			0.4993	0.9296
T-Test ncben=cben (P-value)		0.0376		0.0006		0.1504		0.2946
Number of observations	43290	43290	43290	43290	3574	3574	3574	3574

Notes: Table presents results of linear probability model. a) test results are based on the linear probability model. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A11: Results for alternative dependent variable "Attitudes towards immigrants of other race or ethnicity" (natives)

	Probit		IV-LPM		IV-Probit		IV-Oprobit	
Av. Age of immigrants	-0.00345 (0.00211)	-0.00354* (0.00211)	-0.00417 (0.00361)	-0.00451 (0.00361)	-0.00337 (0.00211)	-0.00401* (0.00216)	-0.00565 (0.00508)	-0.00602 (0.00507)
Share skilled immigrants	0.00533 (0.111)	0.0210 (0.111)	0.0284 (0.186)	0.0589 (0.198)	0.00336 (0.111)	0.0420 (0.117)	0.0514 (0.261)	0.0879 (0.277)
Importance of equal treatment	0.0538*** (0.00480)	0.0537*** (0.00479)	0.0868*** (0.00713)	0.0865*** (0.00716)	0.0538*** (0.00480)	0.0535*** (0.00481)	0.122*** (0.0102)	0.122*** (0.0103)
Importance of safety	-0.0454*** (0.00422)	-0.0455*** (0.00422)	-0.0753*** (0.00604)	-0.0754*** (0.00604)	-0.0453*** (0.00422)	-0.0456*** (0.00421)	-0.107*** (0.00875)	-0.107*** (0.00874)
Importance understanding others	0.0497*** (0.00447)	0.0496*** (0.00448)	0.0876*** (0.00662)	0.0875*** (0.00665)	0.0498*** (0.00447)	0.0495*** (0.00450)	0.125*** (0.00923)	0.124*** (0.00927)
Importance of traditions	-0.0196*** (0.00328)	-0.0197*** (0.00327)	-0.0350*** (0.00528)	-0.0351*** (0.00526)	-0.0196*** (0.00328)	-0.0198*** (0.00327)	-0.0501*** (0.00754)	-0.0503*** (0.00752)
Life satisfaction	0.00931*** (0.00221)	0.00918*** (0.00221)	0.0149*** (0.00367)	0.0146*** (0.00367)	0.00932*** (0.00221)	0.00902*** (0.00224)	0.0213*** (0.00521)	0.0210*** (0.00521)
Satisfaction with economy	0.0247*** (0.00216)	0.0252*** (0.00212)	0.0459*** (0.00352)	0.0471*** (0.00343)	0.0246*** (0.00217)	0.0259*** (0.00216)	0.0635*** (0.00510)	0.0650*** (0.00494)
Left-right scale	-0.0253*** (0.00240)	-0.0253*** (0.00239)	-0.0429*** (0.00391)	-0.0429*** (0.00390)	-0.0253*** (0.00240)	-0.0253*** (0.00239)	-0.0610*** (0.00578)	-0.0611*** (0.00577)
Preference for redistribution	-0.000807 (0.00542)	-0.000720 (0.00543)	0.00321 (0.00730)	0.00342 (0.00733)	-0.000809 (0.00542)	-0.000634 (0.00543)	0.00405 (0.0102)	0.00431 (0.0102)
Male	0.00000938 (0.0107)	-0.000168 (0.0107)	0.0170 (0.0152)	0.0166 (0.0152)	0.0000435 (0.0107)	-0.000477 (0.0107)	0.0243 (0.0212)	0.0237 (0.0212)
Age	-0.000536 (0.000463)	-0.000548 (0.000462)	-0.00159** (0.000699)	-0.00161** (0.000699)	-0.000536 (0.000463)	-0.000558 (0.000462)	-0.00218** (0.000978)	-0.00220** (0.000980)
Single	0.0221** (0.0112)	0.0223** (0.0112)	0.0176 (0.0163)	0.0172 (0.0163)	0.0223** (0.0112)	0.0217* (0.0112)	0.0235 (0.0232)	0.0230 (0.0232)
Urban region	0.0456*** (0.00894)	0.0452*** (0.00892)	0.0585*** (0.0138)	0.0581*** (0.0138)	0.0456*** (0.00894)	0.0450*** (0.00890)	0.0817*** (0.0194)	0.0812*** (0.0193)
In education	0.109*** (0.0159)	0.109*** (0.0158)	0.167*** (0.0254)	0.165*** (0.0252)	0.110*** (0.0159)	0.107*** (0.0158)	0.234*** (0.0367)	0.231*** (0.0365)
Unemployed	0.00490 (0.0235)	0.00603 (0.0235)	-0.0214 (0.0392)	-0.0207 (0.0391)	0.00498 (0.0235)	0.00628 (0.0234)	-0.0258 (0.0551)	-0.0249 (0.0550)
out of labour force	-0.0336** (0.0137)	-0.0335** (0.0137)	-0.0564*** (0.0199)	-0.0563*** (0.0199)	-0.0337** (0.0137)	-0.0332** (0.0137)	-0.0771*** (0.0279)	-0.0770*** (0.0279)
Retired	-0.0632*** (0.0135)	-0.0629*** (0.0134)	-0.108*** (0.0203)	-0.107*** (0.0203)	-0.0632*** (0.0135)	-0.0627*** (0.0133)	-0.152*** (0.0285)	-0.151*** (0.0284)
Other labour market status	-0.00936 (0.0357)	-0.0108 (0.0356)	-0.0212 (0.0465)	-0.0228 (0.0463)	-0.00944 (0.0357)	-0.0114 (0.0356)	-0.0337 (0.0650)	-0.0359 (0.0647)
Religious	0.00256 (0.00821)	0.00251 (0.00818)	0.00856 (0.0113)	0.00851 (0.0113)	0.00260 (0.00821)	0.00233 (0.00815)	0.0107 (0.0159)	0.0107 (0.0158)
Children	0.00850 (0.0105)	0.00804 (0.0105)	0.00394 (0.0174)	0.00315 (0.0175)	0.00857 (0.0105)	0.00741 (0.0105)	0.00527 (0.0244)	0.00433 (0.0244)
Parent migrant	0.0595*** (0.0118)	0.0594*** (0.0118)	0.118*** (0.0200)	0.118*** (0.0200)	0.0595*** (0.0119)	0.0596*** (0.0118)	0.169*** (0.0288)	0.169*** (0.0288)
Highest completed educ. = ISCED 2	0.0394 (0.0242)	0.0392 (0.0243)	0.0968*** (0.0371)	0.0960*** (0.0370)	0.0394 (0.0242)	0.0393 (0.0243)	0.133** (0.0518)	0.132** (0.0517)
Highest completed educ. = ISCED 3	0.0950*** (0.0246)	0.0946*** (0.0247)	0.206*** (0.0328)	0.205*** (0.0329)	0.0950*** (0.0246)	0.0942*** (0.0247)	0.281*** (0.0454)	0.280*** (0.0455)
Highest completed educ. = ISCED 4	0.167*** (0.0351)	0.168*** (0.0351)	0.309*** (0.0540)	0.310*** (0.0537)	0.167*** (0.0351)	0.169*** (0.0351)	0.415*** (0.0768)	0.418*** (0.0766)
Highest completed educ. = ISCED5 or more	0.213*** (0.0282)	0.212*** (0.0283)	0.398*** (0.0360)	0.397*** (0.0362)	0.213*** (0.0282)	0.212*** (0.0284)	0.552*** (0.0505)	0.552*** (0.0508)
Migrant to native skillratio	0.00237 (0.00960)	0.00219 (0.00961)	0.0102 (0.0147)	0.00972 (0.0147)	0.00235 (0.00960)	0.00231 (0.00959)	0.0151 (0.0205)	0.0151 (0.0205)
Migrant to native skillratio*ISCED2	-0.00481 (0.00922)	-0.00475 (0.00921)	-0.0152 (0.0173)	-0.0148 (0.0172)	-0.00481 (0.00922)	-0.00478 (0.00915)	-0.0230 (0.0246)	-0.0230 (0.0245)
Migrant to native skillratio*ISCED 3	-0.00790 (0.00950)	-0.00787 (0.00949)	-0.0249* (0.0137)	-0.0245* (0.0137)	-0.00790 (0.00950)	-0.00793 (0.00948)	-0.0361* (0.0190)	-0.0362* (0.0189)
Migrant to native skillratio* ISCED 4	-0.0182 (0.0224)	-0.0183 (0.0223)	-0.0669 (0.0484)	-0.0669 (0.0482)	-0.0183 (0.0224)	-0.0182 (0.0222)	-0.0903 (0.0682)	-0.0909 (0.0680)
Migrant to native skillratio *ISCED 5 or more	-0.00404 (0.0100)	-0.00410 (0.0100)	-0.0188 (0.0126)	-0.0185 (0.0126)	-0.00402 (0.0100)	-0.00431 (0.0100)	-0.0285 (0.0174)	-0.0288* (0.0173)
Native to immigrants benefit diff.	-1.532** (0.718)		-2.300** (1.017)		-1.295 (0.847)		-3.437** (1.466)	
Native to immigrants contr. benefit diff.		-0.580 (0.359)		-1.813*** (0.699)		-1.145* (0.624)		-2.574** (1.025)
Native to immigrants non- contr. benefit diff.		-2.032*** (0.504)		-3.494** (1.646)		-3.543*** (1.370)		-4.658** (2.336)
Test statistics								
F-Test excl. instruments ben (P-value) <sup>(b)</sup>			0.0000					
F-Test excl. instruments ncben (P-value) <sup>(a)</sup>				0.0000				
F-Test excl. instruments cben (P-value) <sup>(b)</sup>				0.0000				
Endogeneity Test (P-value) <sup>(b)</sup>			0.8820	0.2267				
Test for Hansen J-Statistic (P-value) <sup>(b)</sup>			0.4894	0.5356				
T-Test ncben=cben (P-value)		0.0001		0.1584		0.0075		0.2020
Number of observations	43283	43283	43283	43283	43283	43283	43283	43283

Notes: Table presents marginal effects of uninstrumented and instrumented probit regressions. a) test results are based on the linear probability model. Values in brackets are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A12: Results for alternative dependent variable "Attitudes towards immigrants of other race or ethnicity" (immigrants)

	Probit	Probit	iv-lpm	iv-lpm	iv-probit	iv-probit	iv-oprobit	iv-oprobit
Av. Age of immigrants	0.00106 (0.00520)	0.000820 (0.00510)	0.00174 (0.00718)	0.00106 (0.00715)	0.00226 (0.00516)	0.000878 (0.00510)	0.00210 (0.0111)	0.00124 (0.0105)
Share skilled immigrants	0.517** (0.259)	0.513** (0.257)	0.870** (0.408)	0.913** (0.412)	0.501** (0.255)	0.511** (0.258)	1.265** (0.616)	1.327** (0.620)
Importance of equal treatment	0.0337** (0.0148)	0.0341** (0.0148)	0.0708*** (0.0265)	0.0711*** (0.0266)	0.0339** (0.0147)	0.0341** (0.0148)	0.103*** (0.0389)	0.104*** (0.0390)
Importance of safety	-0.0258* (0.0152)	-0.0258* (0.0152)	-0.0248 (0.0226)	-0.0248 (0.0226)	-0.0257* (0.0152)	-0.0258* (0.0153)	-0.0345 (0.0325)	-0.0346 (0.0325)
Importance understanding others	0.0318** (0.0161)	0.0317** (0.0161)	0.0310 (0.0257)	0.0309 (0.0256)	0.0317** (0.0161)	0.0317** (0.0161)	0.0446 (0.0369)	0.0444 (0.0369)
Importance of traditions	-0.0146 (0.00987)	-0.0147 (0.00988)	-0.0223 (0.0170)	-0.0219 (0.0171)	-0.0150 (0.00997)	-0.0147 (0.0100)	-0.0333 (0.0249)	-0.0328 (0.0250)
Life satisfaction	0.0120* (0.00636)	0.0118* (0.00637)	0.0167* (0.00953)	0.0164* (0.00957)	0.0121* (0.00638)	0.0118* (0.00642)	0.0230* (0.0138)	0.0226 (0.0138)
Satisfaction with economy	0.0195** (0.00782)	0.0196** (0.00780)	0.0294*** (0.0104)	0.0296*** (0.0103)	0.0196** (0.00785)	0.0196** (0.00780)	0.0427*** (0.0150)	0.0430*** (0.0150)
Left-right scale	-0.0169*** (0.00619)	-0.0168*** (0.00617)	-0.0363*** (0.00942)	-0.0359*** (0.00933)	-0.0169*** (0.00619)	-0.0168*** (0.00617)	-0.0525*** (0.0135)	-0.0520*** (0.0134)
Preference for redistribution	-0.0310** (0.0126)	-0.0312** (0.0127)	-0.0657*** (0.0202)	-0.0667*** (0.0203)	-0.0304** (0.0128)	-0.0312** (0.0127)	-0.0965*** (0.0284)	-0.0980*** (0.0284)
Male	0.0243 (0.0309)	0.0237 (0.0310)	0.0505 (0.0500)	0.0505 (0.0500)	0.0236 (0.0311)	0.0236 (0.0312)	0.0747 (0.0722)	0.0747 (0.0723)
Age	-0.00327** (0.00136)	-0.00335** (0.00136)	-0.00552** (0.00224)	-0.00563** (0.00221)	-0.00326** (0.00136)	-0.00335** (0.00135)	-0.00774** (0.00330)	-0.00791** (0.00327)
Single	0.0504 (0.0425)	0.0487 (0.0424)	0.0828 (0.0514)	0.0807 (0.0517)	0.0501 (0.0425)	0.0487 (0.0426)	0.121 (0.0763)	0.118 (0.0767)
Urban region	0.0428 (0.0360)	0.0407 (0.0361)	0.0502 (0.0614)	0.0500 (0.0616)	0.0418 (0.0361)	0.0406 (0.0364)	0.0688 (0.0891)	0.0689 (0.0894)
In education	0.0825 (0.0679)	0.0791 (0.0681)	0.206** (0.0950)	0.202** (0.0946)	0.0830 (0.0678)	0.0791 (0.0678)	0.325** (0.149)	0.320** (0.148)
Unemployed	0.0550 (0.0708)	0.0554 (0.0709)	0.0376 (0.118)	0.0393 (0.119)	0.0552 (0.0707)	0.0553 (0.0710)	0.0505 (0.168)	0.0533 (0.169)
Out of labour force	0.0115 (0.0458)	0.0131 (0.0457)	0.0425 (0.0859)	0.0439 (0.0859)	0.0117 (0.0458)	0.0131 (0.0457)	0.0667 (0.123)	0.0686 (0.123)
Retired	-0.0246 (0.0551)	-0.0235 (0.0550)	-0.0591 (0.0847)	-0.0565 (0.0842)	-0.0257 (0.0550)	-0.0236 (0.0545)	-0.0873 (0.121)	-0.0834 (0.120)
Other labour market status	-0.0338 (0.0885)	-0.0314 (0.0882)	-0.0161 (0.140)	-0.0139 (0.139)	-0.0353 (0.0885)	-0.0314 (0.0881)	-0.0190 (0.202)	-0.0165 (0.202)
Religious	0.0408 (0.0346)	0.0406 (0.0347)	0.0195 (0.0562)	0.0199 (0.0562)	0.0409 (0.0346)	0.0405 (0.0347)	0.0263 (0.0827)	0.0269 (0.0827)
Children	0.0220 (0.0281)	0.0207 (0.0280)	0.0343 (0.0416)	0.0323 (0.0414)	0.0222 (0.0281)	0.0208 (0.0280)	0.0490 (0.0606)	0.0460 (0.0603)
Parent migrant	-0.0195 (0.0367)	-0.0184 (0.0369)	0.0267 (0.0507)	0.0285 (0.0507)	-0.0203 (0.0369)	-0.0184 (0.0369)	0.0426 (0.0733)	0.0451 (0.0733)
Highest completed educ. = ISCED 2	0.00406 (0.0916)	0.000504 (0.0918)	-0.00704 (0.157)	-0.0137 (0.158)	0.00492 (0.0916)	0.000658 (0.0921)	-0.0244 (0.227)	-0.0334 (0.229)
Highest completed educ. = ISCED 3	0.0506 (0.0870)	0.0471 (0.0870)	0.102 (0.141)	0.0950 (0.141)	0.0508 (0.0872)	0.0472 (0.0871)	0.137 (0.202)	0.129 (0.202)
Highest completed educ. = ISCED 4	-0.221 (0.143)	-0.227 (0.144)	0.0936 (0.190)	0.0849 (0.190)	-0.218 (0.143)	-0.227 (0.145)	0.136 (0.276)	0.125 (0.276)
Highest completed educ. = ISCED5 or more	0.163* (0.0910)	0.162* (0.0912)	0.388*** (0.136)	0.386*** (0.136)	0.162* (0.0909)	0.162* (0.0911)	0.557*** (0.197)	0.555*** (0.198)
Migrant to native skillratio	-0.0516 (0.0839)	-0.0525 (0.0840)	-0.0443 (0.132)	-0.0480 (0.132)	-0.0527 (0.0843)	-0.0525 (0.0841)	-0.0700 (0.191)	-0.0737 (0.191)
Migrant to native skillratio*ISCED2	0.0286 (0.0856)	0.0308 (0.0859)	0.0643 (0.122)	0.0698 (0.122)	0.0287 (0.0853)	0.0308 (0.0860)	0.107 (0.183)	0.114 (0.183)
Migrant to native skillratio*ISCED 3	0.0116 (0.0905)	0.0119 (0.0905)	-0.0202 (0.140)	-0.0174 (0.140)	0.0120 (0.0907)	0.0119 (0.0905)	-0.0248 (0.201)	-0.0223 (0.202)
Migrant to native skillratio* ISCED 4	0.355** (0.176)	0.360** (0.179)	0.150 (0.221)	0.155 (0.222)	0.352** (0.176)	0.360** (0.179)	0.215 (0.326)	0.220 (0.327)
Migrant to native skillratio *ISCED 5 or more	0.0255 (0.0838)	0.0258 (0.0840)	-0.0801 (0.121)	-0.0792 (0.121)	0.0268 (0.0837)	0.0259 (0.0837)	-0.116 (0.173)	-0.116 (0.173)
Native to immigrants benefit diff.	-0.703 (2.385)		-2.107 (5.164)		1.804 (5.103)		-3.373 (9.983)	
Native to immigrants contr. benefit diff.		1.791 (1.766)		-1.197 (3.667)		1.920 (2.630)		-2.105 (5.441)
Native to immigrants non- contr. benefit diff.		-0.344 (1.995)		-4.899 (5.448)		-0.135 (4.073)		-7.423 (8.288)
Test statistics								
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0176					
F-Test excl. instruments ncben (P-value) <sup>a)</sup>				0.0000				
F-Test excl. instruments cben (P-value) <sup>a)</sup>				0.0000				
Endogeneity Test (P-value) <sup>a)</sup>			0.6698	0.4819				
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.4028	0.4786				
T-Test ncben=cben (P-value)		0.0753		0.1738		0.3143		0.1954
Number of observations	3552	3552	3562	3562	3552	3552	3562	3562

Notes: Table presents marginal effects of uninstrumented and instrumented probit regressions. a) test results are based on the linear probability model. Values in brackets are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A13: Results for alternative dependent variable "Attitudes towards immigrants from poorer country" (Natives)

	probit	probit	iv-lpm	iv-lpm	iv-probit	iv-probit	iv-oprobit	iv-oprobit
Av. Age of immigrants	-0.00460** (0.00204)	-0.00455** (0.00203)	-0.00603 (0.00367)	-0.00584 (0.00371)	-0.00463** (0.00204)	-0.00468** (0.00203)	-0.00815 (0.00511)	-0.00776 (0.00513)
Share skilled immigrants	-0.148 (0.112)	-0.139 (0.113)	-0.161 (0.202)	-0.158 (0.215)	-0.147 (0.113)	-0.136 (0.119)	-0.204 (0.280)	-0.206 (0.298)
Importance of equal treatment	0.0644*** (0.00579)	0.0643*** (0.00579)	0.105*** (0.00815)	0.105*** (0.00822)	0.0644*** (0.00579)	0.0643*** (0.00582)	0.145*** (0.0117)	0.145*** (0.0117)
Importance of safety	-0.0415*** (0.00431)	-0.0415*** (0.00431)	-0.0713*** (0.00617)	-0.0713*** (0.00615)	-0.0415*** (0.00431)	-0.0415*** (0.00431)	-0.0987*** (0.00867)	-0.0987*** (0.00864)
Importance understanding others	0.0471*** (0.00471)	0.0471*** (0.00471)	0.0787*** (0.00675)	0.0787*** (0.00676)	0.0471*** (0.00471)	0.0470*** (0.00471)	0.109*** (0.00936)	0.109*** (0.00937)
Importance of traditions	-0.0139*** (0.00406)	-0.0139*** (0.00405)	-0.0237*** (0.00616)	-0.0238*** (0.00613)	-0.0139*** (0.00406)	-0.0140*** (0.00404)	-0.0336*** (0.00864)	-0.0336*** (0.00861)
Life satisfaction	0.0108*** (0.00247)	0.0107*** (0.00247)	0.0196*** (0.00350)	0.0195*** (0.00351)	0.0108*** (0.00247)	0.0107*** (0.00249)	0.0277*** (0.00487)	0.0276*** (0.00489)
Satisfaction with economy	0.0218*** (0.00247)	0.0222*** (0.00249)	0.0400*** (0.00367)	0.0404*** (0.00369)	0.0218*** (0.00248)	0.0223*** (0.00253)	0.0543*** (0.00522)	0.0547*** (0.00521)
Left-right scale	-0.0275*** (0.00236)	-0.0275*** (0.00236)	-0.0464*** (0.00350)	-0.0464*** (0.00350)	-0.0276*** (0.00237)	-0.0275*** (0.00235)	-0.0646*** (0.00511)	-0.0646*** (0.00509)
Preference for redistribution	-0.00906** (0.00425)	-0.00896** (0.00424)	-0.0132** (0.00655)	-0.0131** (0.00655)	-0.00906** (0.00425)	-0.00896** (0.00424)	-0.0180** (0.00898)	-0.0178** (0.00898)
Male	-0.00444 (0.00900)	-0.00458 (0.00899)	0.00257 (0.0113)	0.00244 (0.0114)	-0.00445 (0.00900)	-0.00471 (0.00898)	0.00329 (0.0155)	0.00315 (0.0155)
Age	-0.00137*** (0.000479)	-0.00137*** (0.000479)	-0.00277*** (0.000706)	-0.00277*** (0.000708)	-0.00137*** (0.000479)	-0.00137*** (0.000481)	-0.00377*** (0.000971)	-0.00377*** (0.000974)
Single	0.0117 (0.0124)	0.0118 (0.0124)	0.0243 (0.0183)	0.0243 (0.0183)	0.0117 (0.0124)	0.0117 (0.0125)	0.0329 (0.0252)	0.0330 (0.0253)
Urban region	0.0313*** (0.0103)	0.0310*** (0.0103)	0.0399*** (0.0154)	0.0398*** (0.0153)	0.0313*** (0.0103)	0.0311*** (0.0102)	0.0546*** (0.0209)	0.0545*** (0.0209)
In education	0.103*** (0.0197)	0.103*** (0.0197)	0.165*** (0.0286)	0.165*** (0.0285)	0.103*** (0.0197)	0.103*** (0.0196)	0.226*** (0.0397)	0.225*** (0.0397)
Unemployed	0.0365 (0.0257)	0.0371 (0.0257)	0.0559 (0.0386)	0.0556 (0.0387)	0.0365 (0.0257)	0.0368 (0.0257)	0.0802 (0.0539)	0.0797 (0.0539)
Out of labour force	-0.0240 (0.0148)	-0.0240 (0.0148)	-0.0337 (0.0219)	-0.0340 (0.0220)	-0.0240 (0.0148)	-0.0240 (0.0148)	-0.0447 (0.0302)	-0.0452 (0.0302)
Retired	-0.0660*** (0.0139)	-0.0660*** (0.0139)	-0.103*** (0.0218)	-0.103*** (0.0218)	-0.0660*** (0.0139)	-0.0661*** (0.0139)	-0.142*** (0.0300)	-0.142*** (0.0300)
Other labour market status	0.0199 (0.0306)	0.0188 (0.0306)	0.0199 (0.0441)	0.0192 (0.0439)	0.0199 (0.0306)	0.0189 (0.0306)	0.0247 (0.0606)	0.0239 (0.0604)
Religious	0.00449 (0.00839)	0.00453 (0.00837)	0.0144 (0.0123)	0.0145 (0.0123)	0.00448 (0.00838)	0.00444 (0.00835)	0.0190 (0.0169)	0.0192 (0.0170)
Children	0.00776 (0.0119)	0.00753 (0.0120)	0.0149 (0.0179)	0.0150 (0.0180)	0.00773 (0.0119)	0.00746 (0.0120)	0.0204 (0.0244)	0.0206 (0.0246)
Parent migrant	0.0660*** (0.0159)	0.0660*** (0.0159)	0.125*** (0.0204)	0.125*** (0.0204)	0.0660*** (0.0159)	0.0660*** (0.0159)	0.174*** (0.0285)	0.174*** (0.0284)
Highest completed educ. = ISCED 2	0.0392** (0.0197)	0.0391** (0.0197)	0.0741** (0.0361)	0.0739** (0.0361)	0.0392** (0.0197)	0.0395** (0.0197)	0.100** (0.0500)	0.101** (0.0499)
Highest completed educ. = ISCED 3	0.0828*** (0.0206)	0.0826*** (0.0206)	0.144*** (0.0307)	0.144*** (0.0308)	0.0828*** (0.0206)	0.0828*** (0.0207)	0.192*** (0.0425)	0.192*** (0.0426)
Highest completed educ. = ISCED 4	0.168*** (0.0332)	0.169*** (0.0331)	0.276*** (0.0581)	0.277*** (0.0580)	0.168*** (0.0332)	0.170*** (0.0329)	0.364*** (0.0813)	0.365*** (0.0812)
Highest completed educ. = ISCED5 or more	0.190*** (0.0206)	0.190*** (0.0207)	0.326*** (0.0274)	0.325*** (0.0276)	0.190*** (0.0206)	0.190*** (0.0207)	0.441*** (0.0382)	0.441*** (0.0384)
Migrant to native skillratio	0.0101 (0.00869)	0.0100 (0.00868)	0.0184 (0.0134)	0.0183 (0.0135)	0.0101 (0.00869)	0.0103 (0.00864)	0.0256 (0.0187)	0.0261 (0.0187)
Migrant to native skillratio*ISCED2	-0.00461 (0.00796)	-0.00460 (0.00795)	-0.0100 (0.0136)	-0.0100 (0.0136)	-0.00461 (0.00796)	-0.00482 (0.00791)	-0.0148 (0.0192)	-0.0152 (0.0192)
Migrant to native skillratio*ISCED 3	-0.00570 (0.00873)	-0.00567 (0.00872)	-0.0127 (0.0119)	-0.0126 (0.0119)	-0.00570 (0.00873)	-0.00589 (0.00868)	-0.0182 (0.0163)	-0.0186 (0.0163)
Migrant to native skillratio* ISCED 4	-0.0165 (0.0236)	-0.0169 (0.0236)	-0.0612 (0.0487)	-0.0617 (0.0487)	-0.0164 (0.0236)	-0.0171 (0.0235)	-0.0813 (0.0674)	-0.0825 (0.0675)
Migrant to native skillratio *ISCED 5 or more	-0.00161 (0.0101)	-0.00163 (0.0101)	-0.00664 (0.0119)	-0.00659 (0.0120)	-0.00162 (0.0101)	-0.00192 (0.0101)	-0.0105 (0.0163)	-0.0109 (0.0162)
Native to immigrants benefit diff.	-1.992*** (0.725)		-2.614** (1.018)		-2.076** (0.900)		-3.850*** (1.472)	
Native to immigrants contr. benefit diff.		-0.957** (0.445)		-1.710** (0.781)		-1.269** (0.554)		-2.385** (1.097)
Native to immigrants non- contr. benefit diff.		-1.850*** (0.511)		-1.815 (2.173)		-2.080* (1.155)		-2.273 (2.763)
Test statistics								
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0000					
F-Test excl. instruments ncben (P-value) <sup>a)</sup>				0.0000				
F-Test excl. instruments cben (P-value) <sup>a)</sup>				0.0000				
Endogeneity Test (P-value) <sup>a)</sup>			0.6875	0.2139				
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.5711	0.3826				
T-Test ncben=cben (P-value)		0.0154		0.9563		0.3515		0.9563
Number of observations	43158	43158	43158	43158	43158	43158	43158	43158

Notes: Table presents marginal effects of probit and iv-probit regressions. a) test results are based on the linear probability model. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

Table A14: Results for alternative dependent variable "Attitudes towards immigrants from poorer country" (Immigrants)

	probit	probit	iv-lpm	iv-lpm	iv-probit	iv-probit	iv-oprobit	iv-oprobit
Av. Age of immigrants	-0.00441 (0.00586)	-0.00475 (0.00558)	-0.00301 (0.00992)	-0.00495 (0.00956)	-0.00339 (0.00573)	-0.00547 (0.00546)	-0.00418 (0.0137)	-0.00644 (0.0133)
Share skilled immigrants	0.368 (0.296)	0.371 (0.296)	0.893* (0.471)	0.948** (0.475)	0.354 (0.296)	0.400 (0.301)	1.227* (0.674)	1.296* (0.679)
Importance of equal treatment	0.0208 (0.0127)	0.0211* (0.0127)	0.0540*** (0.0198)	0.0538*** (0.0198)	0.0211* (0.0126)	0.0211* (0.0127)	0.0753*** (0.0275)	0.0752*** (0.0276)
Importance of safety	-0.0206 (0.0130)	-0.0207 (0.0130)	-0.0321 (0.0201)	-0.0322 (0.0201)	-0.0206 (0.0130)	-0.0207 (0.0130)	-0.0428 (0.0274)	-0.0430 (0.0274)
Importance understanding others	0.0234 (0.0179)	0.0235 (0.0180)	0.0502* (0.0298)	0.0502* (0.0298)	0.0234 (0.0180)	0.0234 (0.0179)	0.0691* (0.0400)	0.0691* (0.0399)
Importance of traditions	0.00142 (0.0109)	0.00147 (0.0109)	-0.0121 (0.0172)	-0.0112 (0.0172)	0.00103 (0.0108)	0.00188 (0.0109)	-0.0176 (0.0240)	-0.0165 (0.0240)
Life satisfaction	0.00916 (0.00784)	0.00900 (0.00785)	0.0184 (0.0128)	0.0181 (0.0128)	0.00926 (0.00789)	0.00889 (0.00791)	0.0241 (0.0175)	0.0236 (0.0175)
Satisfaction with economy	0.0200*** (0.00704)	0.0200*** (0.00703)	0.0239** (0.00952)	0.0239** (0.00951)	0.0201*** (0.00707)	0.0200*** (0.00701)	0.0326** (0.0133)	0.0326** (0.0133)
Left-right scale	-0.0227*** (0.00679)	-0.0225*** (0.00678)	-0.0360*** (0.0116)	-0.0358*** (0.0116)	-0.0226*** (0.00676)	-0.0224*** (0.00686)	-0.0505*** (0.0164)	-0.0501*** (0.0165)
Preference for redistribution	-0.0350*** (0.0125)	-0.0354*** (0.0125)	-0.0716*** (0.0206)	-0.0730*** (0.0204)	-0.0345*** (0.0126)	-0.0360*** (0.0125)	-0.102*** (0.0276)	-0.104*** (0.0276)
Male	0.0531* (0.0318)	0.0531* (0.0317)	0.0664 (0.0459)	0.0673 (0.0456)	0.0526* (0.0320)	0.0536* (0.0317)	0.0938 (0.0630)	0.0948 (0.0626)
Age	-0.00309*** (0.000956)	-0.00316*** (0.000948)	-0.00580*** (0.00139)	-0.00591*** (0.00139)	-0.00308*** (0.000958)	-0.00320*** (0.000959)	-0.00762*** (0.00199)	-0.00777*** (0.00199)
Single	0.0977** (0.0430)	0.0963** (0.0429)	0.129*** (0.0481)	0.128*** (0.0480)	0.0974** (0.0428)	0.0959** (0.0430)	0.181*** (0.0683)	0.179*** (0.0682)
Urban region	0.00927 (0.0357)	0.00791 (0.0358)	0.0428 (0.0622)	0.0438 (0.0629)	0.00835 (0.0358)	0.00902 (0.0362)	0.0574 (0.0866)	0.0593 (0.0876)
In education	0.0581 (0.0656)	0.0556 (0.0654)	0.137 (0.0864)	0.133 (0.0862)	0.0585 (0.0656)	0.0544 (0.0653)	0.202 (0.125)	0.197 (0.125)
Unemployed	0.00296 (0.0472)	0.00360 (0.0472)	-0.0360 (0.0806)	-0.0349 (0.0810)	0.00318 (0.0472)	0.00434 (0.0473)	-0.0488 (0.109)	-0.0474 (0.110)
Out of labour force	0.0444 (0.0413)	0.0458 (0.0412)	0.112 (0.0868)	0.113 (0.0866)	0.0445 (0.0413)	0.0460 (0.0412)	0.160 (0.119)	0.161 (0.119)
Retired	-0.0390 (0.0448)	-0.0372 (0.0445)	-0.0783 (0.0673)	-0.0746 (0.0666)	-0.0399 (0.0448)	-0.0356 (0.0442)	-0.107 (0.0911)	-0.102 (0.0906)
Other labour market status	-0.0426 (0.0938)	-0.0410 (0.0936)	-0.0160 (0.161)	-0.0126 (0.160)	-0.0440 (0.0933)	-0.0404 (0.0927)	-0.0115 (0.221)	-0.00790 (0.220)
Religious	0.00715 (0.0354)	0.00706 (0.0355)	0.0393 (0.0588)	0.0396 (0.0588)	0.00725 (0.0354)	0.00730 (0.0356)	0.0582 (0.0820)	0.0586 (0.0820)
Children	0.0328 (0.0351)	0.0319 (0.0351)	0.0504 (0.0513)	0.0485 (0.0510)	0.0331 (0.0351)	0.0312 (0.0350)	0.0683 (0.0706)	0.0658 (0.0703)
Parent migrant	0.0186 (0.0451)	0.0197 (0.0454)	0.0795 (0.0551)	0.0816 (0.0554)	0.0181 (0.0451)	0.0203 (0.0455)	0.111 (0.0747)	0.114 (0.0751)
Highest completed educ. = ISCED 2	-0.157 (0.0973)	-0.160 (0.0976)	-0.241 (0.179)	-0.249 (0.180)	-0.156 (0.0974)	-0.162* (0.0982)	-0.347 (0.246)	-0.354 (0.248)
Highest completed educ. = ISCED 3	-0.213*** (0.0786)	-0.216*** (0.0785)	-0.171 (0.151)	-0.179 (0.151)	-0.213*** (0.0787)	-0.217*** (0.0788)	-0.237 (0.204)	-0.242 (0.204)
Highest completed educ. = ISCED 4	-0.146 (0.153)	-0.150 (0.153)	-0.00842 (0.219)	-0.0195 (0.220)	-0.143 (0.154)	-0.153 (0.154)	-0.000572 (0.297)	-0.0103 (0.297)
Highest completed educ. = ISCED5 or more	-0.00779 (0.0834)	-0.00846 (0.0835)	0.169 (0.141)	0.167 (0.141)	-0.00835 (0.0832)	-0.00794 (0.0833)	0.235 (0.191)	0.236 (0.192)
Migrant to native skillratio	-0.139 (0.101)	-0.140 (0.101)	-0.160 (0.132)	-0.164 (0.132)	-0.140 (0.101)	-0.140 (0.100)	-0.228 (0.181)	-0.228 (0.180)
Migrant to native skillratio*ISCED2	0.149* (0.0840)	0.152* (0.0845)	0.234* (0.126)	0.240* (0.127)	0.149* (0.0837)	0.153* (0.0847)	0.349** (0.177)	0.353** (0.178)
Migrant to native skillratio*ISCED 3	0.195*** (0.0705)	0.195*** (0.0704)	0.157 (0.118)	0.161 (0.119)	0.195*** (0.0706)	0.195*** (0.0703)	0.222 (0.160)	0.222 (0.160)
Migrant to native skillratio* ISCED 4	0.214 (0.130)	0.217* (0.131)	0.113 (0.202)	0.121 (0.203)	0.212 (0.131)	0.219* (0.131)	0.153 (0.284)	0.158 (0.285)
Migrant to native skillratio *ISCED 5 or more	0.131* (0.0730)	0.132* (0.0731)	0.0389 (0.115)	0.0399 (0.115)	0.132* (0.0729)	0.130* (0.0729)	0.0554 (0.157)	0.0520 (0.157)
Native to immigrants benefit diff.	-0.531 (2.505)		1.187 (5.697)		1.542 (4.798)		0.477 (8.308)	
Native to immigrants contr. benefit diff.		0.899 (1.871)		-1.078 (3.850)		-0.455 (2.766)		-2.137 (5.323)
Native to immigrants non- contr. benefit diff.		-0.947 (2.212)		-3.874 (5.849)		-3.455 (4.104)		-6.071 (8.107)
Test statistics								
F-Test excl. instruments ben (P-value) <sup>a)</sup>			0.0165					
F-Test excl. instruments ncben (P-value) <sup>a)</sup>				0.0000				
F-Test excl. instruments cben (P-value) <sup>a)</sup>				0.0000				
Endogeneity Test (P-value) <sup>a)</sup>			0.3492	0.9016				
Test for Hansen J-Statistic (P-value) <sup>a)</sup>			0.5180	0.6800				
T-Test ncben=cben (P-value)		0.1418		0.3130		0.1257		0.3050
Number of observations	3544	3544	3554	3554	3544	3544	3554	3554

Notes: Table presents marginal effects of probit and iv-probit regressions. a) test results are based on the linear probability model. Values in parentheses are cluster robust standard errors. \*\*\*, (\*\*), (\*) indicate significance at the 1%, (5%), (10%) level, respectively. Country and year fixed effects are not reported.

## **Project Information**

### **Welfare, Wealth and Work for Europe**

#### **A European research consortium is working on the analytical foundations for a socio-ecological transition**

##### **Abstract**

Europe needs change. The financial crisis has exposed long-neglected deficiencies in the present growth path, most visibly in the areas of unemployment and public debt. At the same time, Europe has to cope with new challenges, ranging from globalisation and demographic shifts to new technologies and ecological challenges. Under the title of Welfare, Wealth and Work for Europe – WWWforEurope – a European research consortium is laying the analytical foundation for a new development strategy that will enable a socio-ecological transition to high levels of employment, social inclusion, gender equity and environmental sustainability. The four-year research project within the 7<sup>th</sup> Framework Programme funded by the European Commission was launched in April 2012. The consortium brings together researchers from 34 scientific institutions in 12 European countries and is coordinated by the Austrian Institute of Economic Research (WIFO). The project coordinator is Karl Aiginger, director of WIFO.

For details on WWWforEurope see: [www.foreurope.eu](http://www.foreurope.eu)

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	<b>Aston University</b>	ASTON	United Kingdom