WWW.DAGLIANO.UNIMI.IT

CENTRO STUDI LUCA D'AGLIANO
DEVELOPMENT STUDIES WORKING PAPERS

N. 281

November 2009

**Individual Attitudes towards *Skilled* Migration:
an Empirical Analysis across Countries**

Giovanni Facchini*
Anna Maria Mayda**

*** Erasmus University Rotterdam, University of Milan, CEPR, Centro Studi
Luca d'Agliano and CES-Ifo
** Georgetown University, CEPR, IZA, CreAM and Centro Studi Luca
d'Agliano**

Individual attitudes towards *skilled* migration:

an empirical analysis across countries[*]

Giovanni Facchini[†]and Anna Maria Mayda[‡]

November 9, 2009

Abstract

It is commonly argued that skilled immigration benefits the destination country through several channels. Yet, only a small group of countries reports to have policies in place aimed at increasing the intake of skilled immigrants. Why? In this paper we analyze the factors that affect a *direct* measure of individual attitudes towards skilled migration, focusing on two main channels: the labor market and the welfare state. We find that more educated natives are *less* likely to favor skilled immigration – consistent with the labor-market channel – while richer people are more likely to do so – in accordance with the welfare state channel under the tax adjustment model. Our findings thus suggest that the labor market competition threat perceived by skilled natives in the host countries might be driving the observed cautious policies.

JEL classification: F22, J61.
Keywords: Skilled Immigration, Attitudes, Immigration Policy, Political Economy.

1   Introduction

Skilled migrants are likely to benefit destination countries by increasing employment, capital accumulation and income (Ortega and Peri 2009). Moreover, the contribution of immigrants to the fiscal balance of the welfare state improves with their skill level (Boeri, Hanson, and McCormick 2002; Bonin, Raffelhueschen, and Walliser 2000). However, only a small number of countries have made "skill" the main criterion to select immigrants (Bertoli et al. 2009).[1] What is the role played by public opinion in explaining this somewhat surprising finding? More generally, why do people favor or oppose skilled immigration?

The existing literature has emphasized two main channels through which individual attitudes towards (overall) immigration are affected. On the one hand, several studies have highlighted the role played by non–economic drivers, and in particular cultural and ethnic factors (Hainmueller and Hiscox 2007; Citrin, Green, Muste, and Wong 1997; Burns and Gimpel 2000). On the other, a growing number of papers has shown that economic factors systematically affect preferences. Following Borjas (1999), labor market and welfare state considerations have been the focus of researchers' attention.

Scheve and Slaughter (2001) find that, in the United States, unskilled workers are more likely to oppose immigration, relative to skilled workers. This result is consistent with the labor market competition hypothesis, since immigrants in the U.S. are on average less skilled than natives, and thus compete with unskilled workers in the labor market. The robustness of the labor-market result is confirmed by Mayda (2006) in a cross–country setting: individual skill is positively correlated with pro-immigration attitudes in countries where immigrants are on average unskilled, while it is negatively correlated with attitudes in countries where immigrants are on average skilled, relative to the native population.[2] Furthermore, both Scheve and Slaughter (2001) and Mayda (2006) show that skill does not play a role in shaping attitudes when the sample is restricted to individuals outside the labor force. Thus the effect of skill is indeed working through the labor market channel.

Turning to the role played by the welfare state, using U.S. data, Hanson, Scheve, and Slaughter (2007) and Hanson (2005) find that the negative correlation between skill and anti-immigration preferences – driven by the labor market – becomes smaller in absolute value and sometimes positive in states with high exposure to immigrant fiscal pressure. Using cross-country data, Facchini and Mayda (2009) find that, in countries where immigrants are

---

[1]Furthermore, Bertoli et al. 2009 show that only 25 percent of the large set of countries in their study has policies aimed at increasing the intake of skilled migrants.

[2]O'Rourke and Sinnott (2004) find similar results.

unskilled relative to natives, individual income is negatively correlated with pro-immigration preferences, while the correlation changes sign in destinations characterized by skilled migration. Both sets of results – for the U.S. and across countries – are consistent with the welfare-state channel, in particular under the *tax adjustment model* of immigration attitudes. While non–economic factors undoubtedly play an important role, these findings can hardly be reconciled with the view that economic characteristics are just proxies for non-economic drivers, as has been suggested by some authors (Hainmueller and Hiscox 2007). In other words, economic considerations do appear to play a systematic role in shaping attitudes.

An important caveat that applies to all the studies mentioned above is that they use data on attitudes towards *overall* migration and, at the same time, assume that respondents in each country are aware of the actual skill composition of migrants coming to their country. In other words, the existing literature carries out an *indirect* study of attitudes towards skilled and unskilled migrants. In this paper, on the other hand, we focus on a *direct* measure of individual attitudes towards skilled migration, taking advantage of a question on this topic which has been included in the 2002-2003 round of the European Social Survey (ESS).[3] Following the literature, we focus on the role played by the labor market and the welfare state channels. We find that more educated natives are *less* likely to favor skilled immigration – consistent with the labor-market channel – while richer people are more likely to do so – in accordance with the welfare state channel under the *tax adjustment model* of Facchini and Mayda (2009). Our results also show that skilled immigrants are perceived to be more desirable than non-skilled ones on non–economic grounds, especially by individuals who are concerned about security and by those who value traditions and customs.

Our analysis thus lends new support to the role of economic drivers of individual attitudes towards immigration, based on *direct* evidence on preferences towards skilled migration. To the best of our knowledge, this paper is the first to do so using a large cross–country dataset. In virtue of their simplicity, the findings of this paper are likely to represent the cleanest results on the topic in the literature. In addition and importantly, to the extent that the political process reflects the uneven effect that skilled immigration has on different groups in the population – and the ability of those who lose to capture the attention of governments – our results provide an explanation for the lack of substantive progress in the implementation of skilled-selective migration policies.

The only other paper which has taken advantage of direct evidence on preferences towards skilled and unskilled immigration is the recent contribution by Hainmueller and Hiscox

---

[3]The 2002-2003 ESS covers more than 40,000 individuals.

(2008). In their work, the authors use an online survey carried out in the United States between 2007 and 2008 on a sample of slightly less than 1600 individuals.[4] Respondents are randomly divided in two groups. The first group is asked whether the US should admit a higher number of *skilled* immigrants, while the second is asked whether the US should instead admit a higher number of *unskilled* immigrants. The authors merge together answers to the two different questions and investigate the role played by labor market and welfare state drivers of attitudes, using cross–state differences in fiscal exposure to immigration.[5] Differently from our study, the authors find only weak support for the role played by economic determinants of individual preferences. Importantly, the analysis carried out by Hainmueller and Hiscox (2008) suffers from two shortcomings. On the one hand, the use of answers to two different questions as a unique dependent variable is likely to create substantial noise in the estimates.[6] Secondly, the impact of the labor market and welfare state channels is investigated separately, i.e. in two different empirical specifications. This is likely to generate biased estimates of the two effects since – as has been shown by Facchini and Mayda (2009) – education and income are highly correlated at the individual level.

The remainder of our paper is organized as follows. Section 2 presents the main economic models that have been used to analyze the determinants of individual attitudes towards immigration. Section 3 describes our data, while section 4 presents our main results. Section 5 concludes the paper.

2 Understanding individual attitudes towards skilled migrants

Individual attitudes towards skilled migrants are affected by a number of economic and non-economic factors. To understand the economic drivers of preferences, we follow the existing literature, and assume that respondents are characterized by self-interest maximizing behavior. This implies that, in forming their opinion, individuals consider the impact of skilled migration on their utility. Since the economic impact of skilled migration is uneven across the population, the main economic drivers of attitudes are associated with income-distribution effects. In addition, from a non-economic point of view, voters' perception of

---

[4]The experiment carried out by the authors was embedded in the Cognitive Style Survey, but unfortunately no further information is provided concerning the representativeness of the sample at the desired (state) level of aggregation.

[5]See Hanson, Scheve, and Slaughter (2007).

[6]In addition, the purpose of the randomization in this setting is not completely clear.

skilled migration is related to political, cultural and security issues.

The income-distribution effects of skilled migration can take place through two main channels, i.e. the labor market and the welfare state channels. Assume that skilled and unskilled labor are combined to produce a single good according to a constant returns to scale production function (factor-proportions-analysis model). Theory predicts that, through the labor market channel, the income-distribution effects of migration depend on the skill composition of migrants relative to natives in the destination country. If immigrants are on average more skilled than natives, they will hurt skilled natives and benefit unskilled ones, as their arrival will induce a decrease in the skilled wage and an increase in the unskilled wage. Therefore, using data on attitudes towards the highly skilled, the empirical prediction of the factor proportions analysis model is that, in every country, a negative relationship should hold between voters' individual skill and attitudes towards skilled migration.

The main OECD destination countries of immigrant flows are characterized by large welfare states (Boeri, Hanson, and McCormick 2002), through which the public sector redistributes a substantial fraction of national income across individuals. In these contexts, immigration has a non-negligible impact on public finances, since foreign workers both contribute to and benefit from the welfare state. The aggregate net effect of immigration on the welfare state is either positive or negative, depending on the socio-economic characteristics of immigrants relative to natives. Besides the aggregate effect, the arrival of immigrants also implies income-distribution effects through the welfare-state channel. These effects are crucial to understand public opinion on immigration.

Following Facchini and Mayda (2009), we can consider a simple redistributive system, in which all income sources are taxed at the same rate and all individuals in the economy, i.e. both natives and immigrants, are entitled to an equal lump sum per capita benefit. By construction, this simple welfare system redistributes resources from high-income to low-income individuals. To assess the effect of immigration through the welfare state, we can consider two adjustment mechanisms. On the one hand, migration can bring about changes in the tax rate, while per capita benefits are kept constant (*tax adjustment model*). On the other, the per capita benefits can adjust while tax rates are unchanged (*benefit adjustment model*).

If immigration is skilled, under both policy scenarios, all natives are likely to benefit from the presence of foreign workers, due to a positive welfare spillover. However, the extent to which natives benefit from skilled migration through the welfare state channel differs according to each voter's income level. That is, there will be income distribution effects. In

turn, these income distribution effects depend on the adjustment mechanism of the welfare state to migration.

[INSERT Figure 1 APPROX HERE]

Figure 1 illustrates the working of the two adjustment models.[7] In the two panels, we plot the correlation between an individual's pre-tax income and pro-skilled-migration attitudes. Under the tax adjustment model (left panel), all individuals benefit from the inflow of skilled foreign workers (the line is in the positive hortant), since the government will be able to lower the tax rate (while keeping the level of per capita benefits unchanged). However, the reduction in the tax rate will benefit rich individuals to a greater extent than poor ones, since tax payments represent a larger fraction of rich voters' net income.

Under the benefit adjustment model (right panel), an inflow of skilled immigrants continues to benefit all individuals but will have a more pronounced effect on those individuals that are at the receiving end of the welfare system, i.e. those with a low-income. The reason is that the per capita benefit represents a larger fraction of a poor individual's net income, thus changes in per capita benefits affect this group more strongly. In particular, if a country receives skilled migrants, the per capita benefit will increase, and all natives will be made better off, but poor ones more so than rich ones.

What are the implications of the welfare-state framework for the empirical analysis? Using data on public opinion towards skilled immigrants, the prediction of the model is that in every country attitudes and individual income should be positively correlated under the tax adjustment model and negatively correlated under the benefit adjustment model.

A third channel through which migration affects the well being of natives (not necessarily unevenly) is the price channel. For example, Cortes (2008) and Frattini (2008) focus on the effect of unskilled immigration on the overall price level in the US and the UK, respectively. Although there is no systematic study of the price effects of skilled immigration, they are likely to exist and be substantial. In general, we expect the reduction in prices due to skilled immigration to benefit everybody, thus giving rise to more favorable average attitudes towards skilled migration. However, without further research, no clear predictions can be made from the point of view of income distribution effects. Finally, besides the labor market, the welfare state and the price channels, there is a fourth economic determinant of individual attitudes, i.e. efficiency considerations. In particular, skilled migration is likely to have a strong impact on productivity and innovation activity. In relation to the latter effect, Kerr and Lincoln (2008) evaluate the impact of high-skilled immigrants on US technological

---

[7]For a formal analysis, see Facchini and Mayda (2009).

progress. They find a positive effect of higher numbers of H1B visas on innovation, primarily through the direct contributions of ethnic inventors. The effect of skilled migration on innovation activity is likely to be taken in great consideration by public opinion – especially in countries at the frontier of technological research, such as the U.S. – as evidenced by the media coverage of this topic (see, for instance, Economist, March 7, 2009). Once again, while efficiency considerations are likely to make public opinion more favorable to skilled migration on average, it is unclear what their income distribution effects are.

To conclude, there are a number of economic channels through which public opinion on skilled migration is affected. All of them, except the labor-market channel, imply a favorable attitude towards skilled migrants, to a greater or smaller extent for different types of individuals.

From a non-economic point of view, public opinion on skilled migration is shaped by political, cultural and security issues. Political considerations imply that skilled natives should favor skilled migrants – since their arrival will increase the likelihood that the median voter is skilled – while unskilled natives should oppose them (see Ortega 2005). Thus, from a political point of view, we would expect a positive relationship between the level of individual skill and favorable attitudes towards skilled migrants. From a cultural point of view, both skilled and unskilled natives should welcome the skill qualifications of educated migrants, who are likely to adjust to the local culture more quickly and with smaller assimilation costs than unskilled migrants. Finally, from a security point of view, we expect public opinion to be in favor of skilled migration since highly educated migrants are less likely to be undocumented and therefore less likely to be involved in illegal activities.[8] Thus, our overall expectation is that attitudes towards skilled migration should be overwhelmingly favorable.

3   Summary statistics

We use the 2002-2003 round of the European Social Survey (ESS). The immigration question we examine in the ESS data set is more specific than the one analyzed in the existing literature, as it asks directly about skilled migration. In particular, we use respondents' answers to the following question: "Please tell me how important you think each of these things should be in deciding whether someone born, brought up and living outside [country] should be able to come and live here. Please use this card. Firstly, how important should it

---

[8]Both the cultural and security channels imply more favorable average attitudes towards skilled migrants. However, no clear predictions can be made on income distribution effects.

be for them to have good educational qualifications?..." We use the answers to this question to construct the variable *pro-skilled-migration*, which ranges between 0 and 10 and is higher the more the individual favors skilled migration. Summary statistics of *pro-skilled-migration* and the other ESS variables included in the regressions are presented in Tables 1 and 2. The summary statistics also provide information on the per capita GDP of the destination country (in 2002, PPP-adjusted) – which comes from the World Development Indicators data set – and on the relative skill ratio of natives to immigrants, which is measured as the ratio of skilled to unskilled labor in the native relative to the immigrant populations.[9]

The summary statistics show that public opinion on average supports skilled migration. In the overall sample, the average of *pro-skilled-migration* is 6.23. There exists variation across countries but is not substantial. All countries have average values of pro-skilled-migration which range between 4.6 (corresponding to Sweden) and 7.7 (corresponding to Greece) and median values which range between 5 (corresponding to Sweden and Norway) and 8 (corresponding to Greece and Israel).

4   Empirical evidence

Using *pro-skilled-migration* as the dependent variable, we estimate ordered probit models which control for country fixed effects – to account for unobserved, additive, country-specific effects – and have standard errors clustered by country – to account for heteroscedasticity and correlation of individual observations within a country.

Table 3 presents the results of our estimation. In column (1), we investigate the impact on attitudes of the socio-demographic background of the respondent. We find that older respondents (i.e., respondents with a less recent year of birth) and males are more likely to favor good educational qualifications of immigrants. On the other hand, being a citizen does not affect views on skilled migration.

In regressions (2)-(4), we find evidence which is remarkably consistent with the predictions of the theoretical model and with our findings in previous work (Mayda 2006, Facchini and Mayda 2009). As pointed out by theory, the two key individual-level variables for the income-distribution effects are the level of education – which captures the impact of labor-market effects on attitudes – and the level of income – which captures the effect of welfare-state

---

[9]For both natives and immigrants, the ratio of skilled to unskilled labor is measured as the ratio of the number of individuals with upper secondary or tertiary education to the number of individuals with lower secondary education. We use 2002-2003 data on native and immigrant populations by level of education (lower secondary education, upper secondary, tertiary) from Table I.12 SOPEMI (2005).

considerations on attitudes. Our results in regression (2) show that, the higher the education level attained by the respondent, the *lower* is the probability that he favors good educational qualifications of immigrants (the coefficient is significant at the 1% level). In particular, based on specification (2), a one unit increase in the education level (for example, going from "lower secondary or second stage of basic" to "upper secondary") decreases the likelihood that an individual favors skilled migration by 2 percentage points.[10] This result suggests that skilled natives feel threatened by the labour-market competition of skilled migrants.[11] In addition, to the extent that political considerations are important (Ortega 2005), our estimates for the impact of individual skill represent a lower-bound of the effect through the labor-market channel (since the political channel works in the opposite direction).

Education and income are clearly correlated, as well-educated individuals tend to have higher incomes. This implies that it is problematic to analyze the labor-market channel independently from the welfare-state channel since the exclusion of individual income is likely to produce an omitted variable bias in the estimation of the impact of education.[12] On the other hand, while education and income are positively and significantly correlated, they are far from being perfectly collinear, which makes it possible to analyze them together.[13] Thus, in regression (3), we introduce education and log of real income together in the same specification. We find that, controlling for individual income, the impact of skill is still negative and significant (at the 1% level). It is also larger in absolute value relative to the estimate in regression (2)[14], which is consistent with the expected omitted variable bias. In addition, we find that the higher the level of real income of the respondent the *higher* is the probability that he supports skilled migration. In particular, based on specification (3), a one unit increase in the real income level increases the likelihood that an individual

---

[10]To facilitate the presentation of the marginal effects, we estimate a probit model. In particular, this marginal effect is based on the estimation of a probit model which uses as the dependent variable a dichotomous definition of pro-skilled-migration attitudes – the dichotomous variable equals 1 if *pro-skilled-migration* is greater or equal to 6, and equals 0 if *pro-skilled-migration* is smaller or equal to 5 – and the same regressors as in column (2), Table 3.

[11]We have investigated whether the negative impact of education is more pronounced for individuals in the labor force as opposed to individuals outside of the labor force. We find that indeed this is the case, and this result is consistent with the effect working through the labor-market channel. However, since 75% of the observations of the labor-force question are missing in the ESS sample, we refrain from reading too much support into this result.

[12]Given that, as we will see, income has a positive impact on *pro-skilled migration* and income and education are positively correlated, we expect a positive omitted variable bias, i.e. the estimate of education without controlling for income should be biased towards zero.

[13]The correlation between education and income is in the ESS dataset 0.22.

[14]Based on specification (3) and using the dichotomous definition of the pro-skilled-migration variable, the marginal effect of education is -2.4 percentage points.

favors skilled migration by 0.6 percentage points.[15] This result is consistent with the tax adjustment mechanism of the welfare state model. In particular, skilled migration is likely to represent a net contribution for the destination country's welfare state. The reduction in tax rates implied by the arrival of highly-qualified foreign workers benefits both poor and rich respondents, but the rich to a greater extent than the poor. The estimates in this paper in favor of the tax adjustment model are consistent with our previous findings based on attitudes towards *overall* migration from the ISSP dataset (Facchini and Mayda 2009).

The results on the labor-market and welfare-state channels are robust to introducing additional control variables in column (4). In that regression, we find that individuals affiliated with the political right are more likely to favor good educational qualifications for immigrants. On the other hand, surprisingly, trade union members are less likely to support skilled migration. In addition, consistent with the discussion on the non-economic determinants, individuals who are concerned about security and those who value traditions and customs, respectively, are in favor of skilled migration.

To conclude, the results in regressions (2)-(4) show that skilled migration produces pronounced income-distribution effects. Since the estimates are consistent with the tax adjustment model, the income distribution effects implied by the welfare-state channel work in the opposite direction relative to the labor market. In particular, individual skill and income have opposite effects on individual attitudes towards skilled immigrants. Since education and income tend to be positively associated, the labor market and welfare state channels partially offset each other. For example, the very same skilled and high-income professional in Ireland may feel ambivalent regarding the arrival of skilled immigrants since he might benefit from them from a welfare-state point of view – through reductions in his tax burden – but be hurt by them through labor-market substitution effects.

5 Conclusions

In this paper we have carried out a cross–country analysis of individual preferences towards *skilled* immigrants. We have shown that respondents across countries are broadly in favor of skilled immigration. However, individual preferences also show substantial heterogeneity. Our results show that non–economic factors, like the concern for national security or the attachment to traditions and customs, play a significant role. Even more importantly, we

---

[15]This marginal effect is based on the estimation of a probit model which uses as the dependent variable the dichotomous definition of pro-skilled-migration attitudes and the same regressors as in column (3), Table 3.

have found that economic drivers, working both through the labor market and the welfare state, shape attitudes towards the highly skilled: Unskilled natives are more in favor of skilled immigrants than their skilled counterparts; similarly, richer individuals are more favorable than poorer ones.

Turning to migration policies, the broad support for skilled immigration we have unveiled in our data suggests that a simple model of direct democracy is not fully able to explain the limited diffusion of skill–selective immigration policies (Bertoli et al. 2009). One possible explanation lies in the role played by interest groups which pressure policymakers to give a higher weight to the opinion/utility of certain groups in society relative to the rest of public opinion. For instance it is well known that, in the United States, professional associations have been actively engaged in efforts to limit skilled immigration. For example – in analyzing the role played by the American Medical Association – Bhagwati (2009) points out that "...professional societies,..., can effectively condition and restrict inflows, virtually acting as gatekeepers... When skilled immigrants are involved, professional societies have the possibility of not merely lobbying for restrictions but also are able, in cases, to apply "prior restraint" by manipulating professional qualification procedures." Systematically investigating the role of pressure groups – in shaping policies towards skilled immigration – in relation to the rest of public opinion is an important avenue of future research.

References

Bertoli, S., H. Bruecker, G. Facchini, A. M. Mayda, and G. Peri (2009). The battle for brains. Report for the Fondazione Rodolfo de Benedetti.

Bhagwati, J. (2009). Overview of issues. In J. Bhagwati and G. H. Hanson (Eds.), *Skilled migration: Phenomenon, prospects, problems and policies.* Oxford and New York: Oxford University Press.

Boeri, T., G. Hanson, and B. McCormick (2002). *Immigration policy and the welfare system.* Oxford OX2, 6DP: Oxford University Press.

Bonin, H., B. Raffelhueschen, and J. Walliser (2000). Can immigration alleviate the demographic burden? *FinanzArchiv: Public Finance Analysis 57*, 1–21.

Borjas, G. J. (1999). The economic analysis of immigration. In O. C. Ashenfelter and D. Card (Eds.), *Handbook of labor economics*, pp. 1697–1760. Amsterdam: North-Holland.

Burns, P. and J. Gimpel (2000). Economic insecurity, prejudicial stereotypes and public opinion on immigration policy. *Political Science Quarterly 115*, 201–225.

Citrin, J., D. Green, C. Muste, and C. Wong (1997). Public opinion towards immigration reform: teh role of economic motivations. *Journal of Politics 59*, 858–881.

Cortes, P. (2008). The effect of low skilled immigration on US prices: Evidence from CPI data. *Journal of Political Economy 116*, 381–422.

Facchini, G. and A. M. Mayda (2009). Individual attitudes towards immigrants: Welfare state determinants across countries. *Review of Economics and Statistics 91*, 291–314.

Frattini, T. (2008). Immigration and prices in the United Kingdom. Mimeo, UCL.

Hainmueller, J. and M. J. Hiscox (2007). Educated preferences: Explaining attitudes toward immigration in Europe. *International Organization 61*, 399–442.

Hainmueller, J. and M. J. Hiscox (2008). Attitudes towards highly skilled and low skilled immigration: Evidence from a survey experiment. Mimeo, Harvard.

Hanson, G. H. (2005). *Why does immigration divide America? Public finance and political opposition to open borders*. Washington, D.C.: Institute for International Economics.

Hanson, G. H., K. Scheve, and M. Slaughter (2007). Public finance and individual preferences over globalization strategies. *Economics and Politics 19*, 1–33.

Kerr, W. R. and W. F. Lincoln (2008). The supply-side of innovation: H1b visa reform and us ethnic invention. mimeo, Harvard Business School.

Mayda, A. M. (2006). Who is against immigration? A cross-country investigation of individual attitudes toward immigrants. *Review of Economics and Statistics 88*, 510–530.

O'Rourke, K. H. and R. Sinnott (2004). The determinants of individual attitudes towards immigration. *European Journal of Political Economy 22*, 838–861.

Ortega, F. (2005). Immigration policy and skill upgrading. *Journal of Public Economics 89*, 1841–1863.

Ortega, F. and G. Peri (2009). The causes and effects of international migrations: Evidence from OECD countries 1980-2005. Mimeo, University of California at Davis.

Scheve, K. F. and M. J. Slaughter (2001). Labor market competition and individual preferences over immigration policy. *Review of Economics and Statistics 83*, 133–145.

SOPEMI (2005). *Trends in International Migration 2004 Edition*. Paris: OECD.
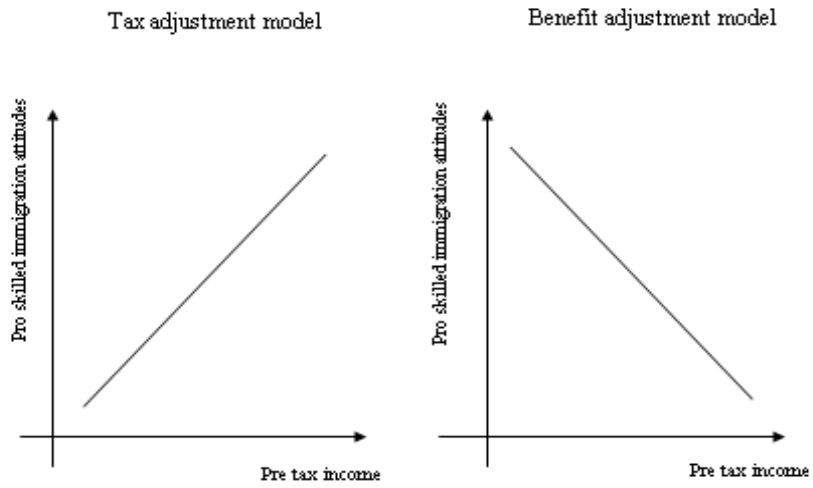
Figure 1. The welfare state channel

Tax adjustment model

Benefit adjustment model

Table 1. Summary statistics of individual-level variables (ESS)

Variable	Obs	Mean	Std. Dev.	Min	Max
pro-skilled-migration	30975	6.2273	2.7452	0	10
year of birth	30975	1955	17.5685	1893	1988
male	30975	0.4831	0.4997	0	1
citizen	30975	1.0382	0.1917	1	2
education (highest level attained)	30975	2.9868	1.4918	0	6
real income	30975	2.8151	1.7838	0.1111	12

Table 2. Summary statistics of individual-level variables by country and of country-level variables

country	pro-skilled-migration (mean)	pro-skilled-migration (median)	education	real income	per capita gdp	relative skill composition (2002-2003)
Austria	6.641365	7	3.348189	3.013095	29014.66	3.141503
Belgium	6.097203	7	3.055944	2.780771	27459.14	1.804188
Czech Republic	6.381974	7	3.111588	1.816185	16556.42	2.641453
Denmark	6.243116	7	3.287962	3.563468	28956.7	1.163756
Finland	6.335023	7	2.971847	3.211368	26018.38	1.244552
France	6.21119	7	3.039401	2.345164	26612.92	3.508463
Germany	6.721546	7	3.373154	3.216287	25545.68	5.656399
Greece	7.738864	8	2.199889	2.107014	18834.2	0.8265503
Hungary	6.823139	7	2.289609	1.068756	14159.44	0.6697858
Ireland	6.11385	7	2.806338	1.907975	35652.91	0.4042847
Israel	6.908894	8	3.502169	1.975383	22002.85	.
Italy	5.841424	6	2.317152	2.274649	25554.43	.
Luxembourg	6.485214	7	2.742607	3.338771	59976.5	2.054675
Netherlands	5.592118	6	3.042857	3.402215	29550.49	1.65946
Norway	5.150543	5	3.51164	3.769239	34750.03	1.422166
Portugal	5.975758	6	1.686869	2.042577	18398.29	0.3274704
Slovenia	6.306743	7	3.378289	1.525227	18017.7	.
Spain	6.135576	7	2.097859	2.140123	22444.72	0.5475358
Sweden	4.618788	5	3.090661	3.293816	26468.27	1.415028
Switzerland	6.218572	7	3.334807	4.539899	31019.92	5.193212
United Kingdom	6.287578	7	3.055587	3.754944	27175.5	2.038001

Summary statistics in these tables are based on the same observations as in regression 3, Table 4. These summary statistics do not use design and population size weights. *pro-skilled-migration* ranges between 0 and 10 and it is higher the more the individual thinks that it is important for immigrants to have good educational qualifications. *education (highest level attained)* goes from 0 to 6 (not completed primary education; primary or first stage of basic; lower secondary or second stage of basic; upper secondary; post secondary, non-tertiary; first stage of tertiary; second stage of tertiary). *real income* is household's total net income (expressed on a scale from 1 to 12) divided by the number of household members. *per capita gdp* in 2002 (PPP, constant 2000 international $) is from the World Bank.

The *relative skill composition* (RSC) is the ratio of skilled to unskilled labor in the native relative to the immigrant populations. For both natives and immigrants, the ratio of skilled to unskilled labor is measured as the ratio of the number of individuals with upper secondary or tertiary education to the number of individuals with lower secondary education. The RSC uses data on the stock of immigrants and natives in 2002-2003 (OECD 2005).

Table 3. Determinants of individual attitudes towards skilled migration (ESS)

Ordered probit with country dummies	1	2	3	4
Dependent variable	pro-skilled-migration			
year of birth	-0.0067	-0.0057	-0.0054	-0.0047
	0.0011**	0.0013**	0.0014**	0.0011**
male	0.0396	0.0499	0.0294	0.0681
	0.0119**	0.0116**	0.0137*	0.0143**
citizen	0.0376	0.0364	0.021	-0.0062
	0.0589	0.0657	0.0663	0.052
education (highest level attained)		**-0.0603**	**-0.0714**	**-0.0613**
		0.0133	**0.0143**	**0.0174**
real income			**0.0084**	**0.0145**
			0.0037*	**0.0069***
trade union member				-0.0321
				0.0166+
rural (area of residence)				0.0096
				0.0162
political affiliation with the right				0.0515
				0.0109**
religious				-0.0037
				0.0031
concerned about security				0.0991
				0.0091**
importance of traditions and customs				0.0353
				0.0056**
Observations	39035	38785	30975	25378
Pseudo R-squared	0.01	0.01	0.01	0.02

The table reports coefficient estimates for ordered probit regressions (the cutoff values are not shown). Robust standard errors, clustered by country, are presented under each coefficient. As recommended in the ESS website, our estimation uses both design and population size weights. + significant at 10%; * significant at 5%; ** significant at 1%. All regressions in this table control for country fixed effects. *pro-skilled-migration* ranges between 0 and 10 and it is higher the more the individual thinks that it is important for immigrants to have good educational qualifications. *education (highest level attained)* goes from 0 to 6 (not completed primary education; primary or first stage of basic; lower secondary or second stage of basic; upper secondary; post secondary, non-tertiary; first stage of tertiary; second stage of tertiary). *real income* is household's total net income (expressed on a scale from 1 to 12) divided by the number of household members.