

# Intentions to Return

## Evidence from Romanian Migrants

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## Abstract

Romania faces an acute population crisis with an aging workforce and an increased number of emigrants particularly from the young, highly educated/skilled population. This paper uses a new cross-sectional data set of Romanian emigrants to find which factors are related to plans to return home permanently. The analysis pays particular attention to differences in expected earnings and skills and training acquired as a migrant. The study finds that higher expected

earnings in Romania and investment in Romanian firms are positively correlated with plans to return migrate. Policies that boost productivity and therefore wages as well as policies that improve the business climate could therefore encourage Romanian migrants to return to Romania, moderating the negative consequences of the declining and aging population, and increasing the skill stock of the Romanian labor force.

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# Intentions to Return: Evidence from Romanian Migrants

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## I Introduction

The question of economic migration within the European Union continues to generate much debate within and outside academia. This debate is not helped by inaccurate information on the number of economic migrants, asylum seekers, and illegal migrants from outside the EU (Zaiceva and Zimmermann, 2008) as well as confusion as to who is a migrant and who is not (e.g., foreign born or foreign citizen). Because of these problems, international agencies tend to use estimates when discussing migration flows between countries and regions. Although the accuracy of the number of migrant workers is sometimes questionable, there is a well-established literature on what causes people to migrate within or between countries,<sup>3</sup> including wage differentials, risk preferences, job prospects, migrant networks and objectives of migrants. A well-established literature has emerged as to the costs and benefits of migration in relation to the host country.<sup>4</sup>

A large body of work has also emerged analyzing whether migration is bad for the country of origin (e.g., brain-drain of the highly educated) or whether previously unrecognized feedback effects benefit the country (brain-gain<sup>5</sup>). Another strand of the migration discussion focuses on whether migrants are permanent or temporary, with the latter leading to theoretical and empirical work on the causes of return migration.

This paper focuses on the planned migration return of current Romanian emigrants and what correlates with this plan to return. This is a relevant question given the Romanian population is estimated to have fallen from 21.8 million to 19 million between 2002 and 2011 (Figure 1). Outward migration was responsible for over half of this decline. Restrictions on Romanians' right to work in most European Union (EU) countries did not prevent an increase in the stock of Romanian migrants abroad, from 1.3 million in 2000 to 2.8 million in 2010 (World Bank migration tables), or from 4.8 to 14.3 percent of the resident population in Romania (Figure 2). Migration may have acted as an important 'safety valve' in the functioning of labor markets in Romania during the 2000s. Many of those who would otherwise have registered as unemployed chose to leave Romania instead. On average, during the 2000s, 15.4 percent of migrants were unemployed when they left Romania compared with a national average unemployment rate of

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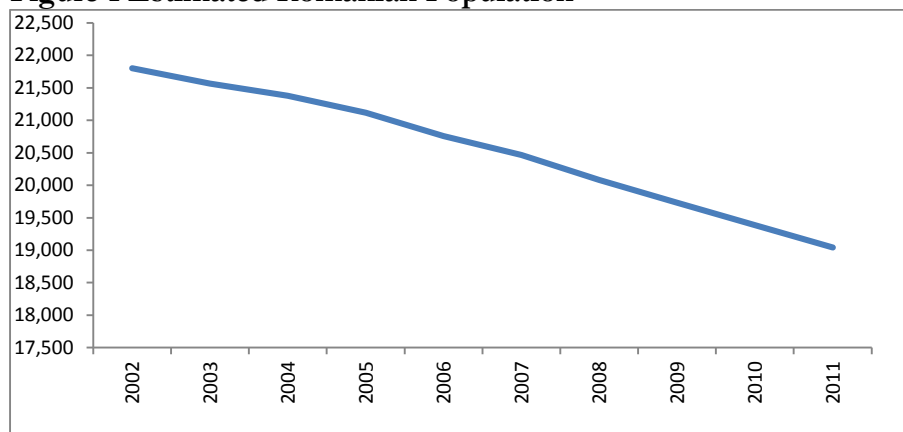
<sup>3</sup> Seminal work stems from Hicks (1932) who argued wage differences between countries was the main motivator for migrating, while Sjaastad (1962) and Becker (1964) argued that human capital theory triggered migration. There are several excellent reviews of migration theory including Greenwood (1997), Borjas (1999), Chiswick (1999), Bauer and Zimmermann (1999) and Massey et al, (1993).

<sup>4</sup> For a review of the theoretical and empirical evidence see Dustmann and Glitz (2005).

<sup>5</sup> See Elmenstein and Stark (1998), Beine et al (2001, 2008), Stark (2003), Schiff (2005) who argue that greater returns to human capital abroad encourages greater migration but also greater accumulation of human capital in the home country improving the average productivity/quality of the domestic labour force.

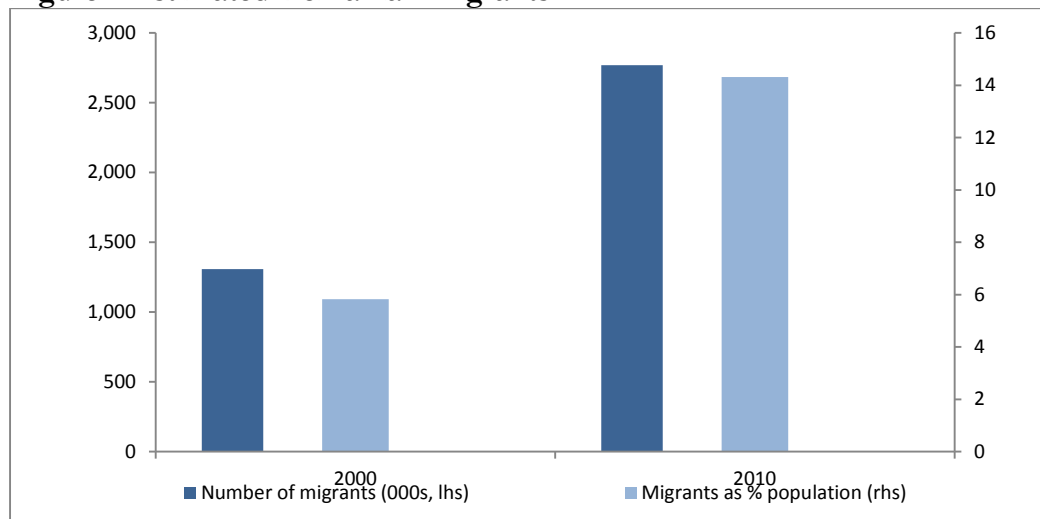
6.9 percent (Figure 3). While unemployment in other Eastern European countries fluctuated as expected with the economic boom of the 2000s and the downturn since 2008, in Romania unemployment responded comparatively little to the prevailing economic conditions. This was particularly beneficial during the crisis. When unemployment increased sharply in other countries, the response by many Romanians was to migrate, with a strong moderating effect on the unemployment rate (Figure 4).

**Figure 1 Estimated Romanian Population**



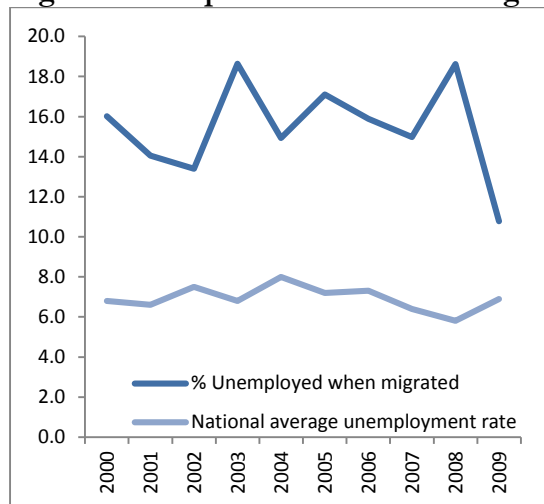
Sources: Eurostat; INSEE; Authors' estimations

**Figure 2 Estimated Romanian Migrants**



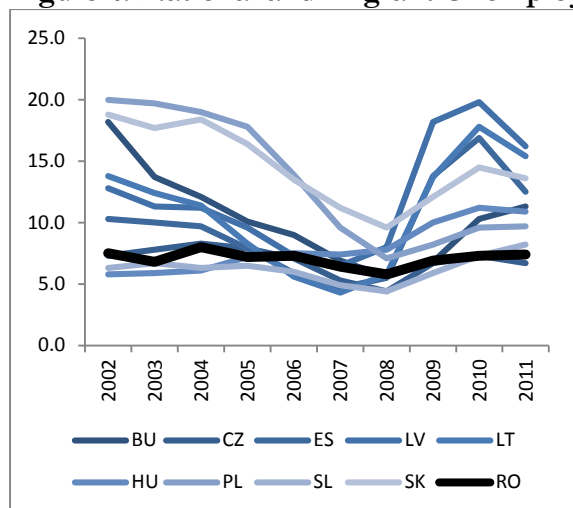
Source: World Bank Migration Tables

**Figure 3. Comparative Annual Average Unemployment Rate**



Source: Eurostat; IASCI; Soros Foundation

**Figure 4. National and Migrant Unemployment Rates**



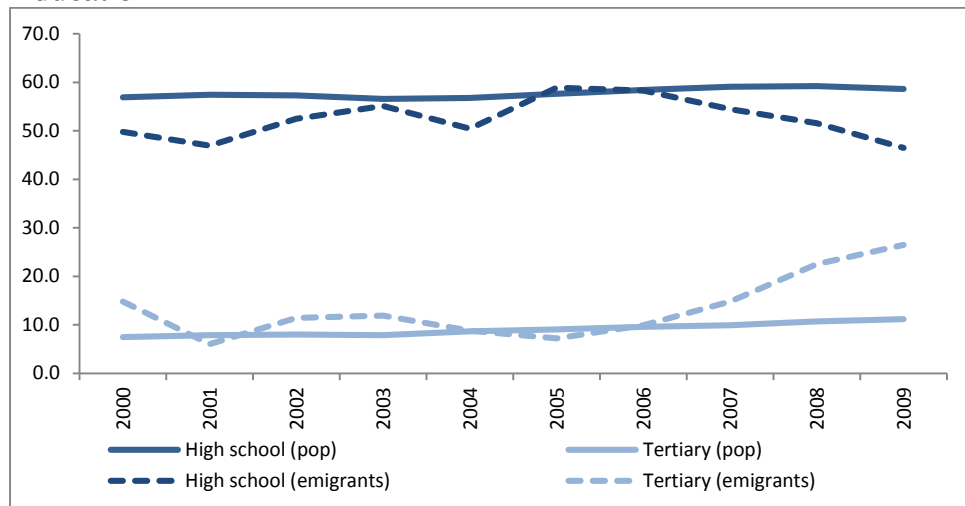
Source: Eurostat. BU=Bulgaria; CZ=Czech Republic; ES=Estonia; LV=Latvia; LT=Lithuania; HU=Hungary; PL=Poland; SL=Slovenia; SK=Slovakia; RO=Romania

Source: Eurostat; IASCI; Soros Foundation

There is also evidence that a brain drain effect has occurred with earlier migrants being less skilled than later migrants. Figure 5 illustrates the increasing proportion of migrants with tertiary education compared to the general population. The human capital stock has been falling and evidence from the World Bank Enterprise Surveys, in Figure 6, indicates that Romanian firms are finding it hard to recruit appropriate skilled employees. Even after the negative impacts of the financial crisis, the 2013 Enterprise Survey found that over a third of firms found lack of skills to be a major or very severe obstacle. The League of Romanian Students Abroad undertakes an annual survey and found that, in 2014, just a quarter of current students plan to return to Romania on graduation and only 14 percent of those who had completed under-

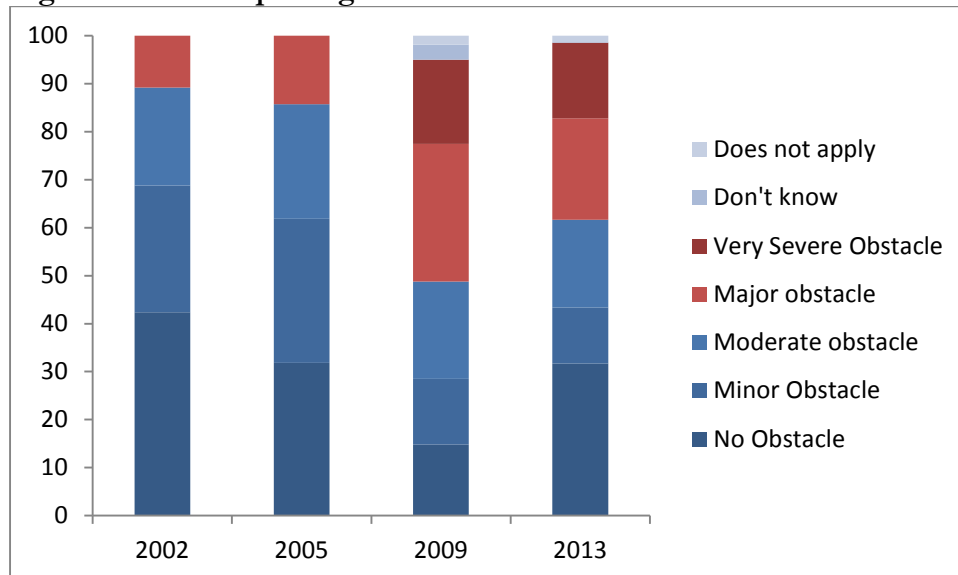
graduate studies abroad planned to do so. If migrants – particularly the well-educated – fail to return, then this brain-drain may have serious consequences for future Romanian growth and development.

**Figure 5 Percentage of Migrants and Population with High-School and Tertiary Education**



Sources: Eurostat; LASCI; Soros Foundation; Authors' calculations

**Figure 6 Firms Reporting Skills as Obstacles**



Sources: Enterprise Surveys, Authors' calculations

Despite its importance, both in terms of the number of migrants and its effects on the national economy, Romanian migration is an understudied phenomenon. This paper aims to address part of this shortfall. We will test what triggers migrants' plans to return to Romania. We will test whether wage differences, likelihood of employment in Romania, duration of migration, family

push and pull factors and networks are significantly linked to planning to return to Romania. The data used mean we can also explicitly control for education/training attained abroad and whether this has any effect on the decision to migrate back to Romania. This will test whether migrants perceive the returns to these skills as being greater in the home country than the host country. However, training abroad may have a separate integration effect that also influences the decision to return migrate. Information on previous and expected investment decisions of migrants is also utilized to test for ties with the host country and Romania.

The next section will review previous theoretical and empirical evidence on the causes of return migration and an overview of Romanian migration in the post-Communist period. Section III will present the method used to model plans to return to Romania and the hypotheses to be tested. Section IV will discuss the data used and the descriptive statistics. Section V will present and analyze the results from our model. Section VI will offer a summary of the findings and questions for future research.

## **II Theoretical and Empirical Review on Return Migration**

### *Theoretical Literature Review*

Standard economic theory argues that rational agents migrate wherever the expected present value of the total benefits outweighs the total costs of migration. The decision to return home is modeled within a utility maximizing framework by Galor and Stark (1990, 1991) and Djajic and Milbourne (1988) in which wages are lower in the home country than the host country and initial migration increases migrants' lifetime wealth. Despite this earnings gap, return migrants have a preference for living in their country of birth that results in a higher marginal utility of consumption in the home country than in the host country. Dustman and Weiss (2007) argue that migrants return home when the marginal cost of being away from the home country exceeds the diminishing marginal utility of wealth. Similar preference arguments are made by Hill (1987), Raffelhuschen (1992) and Yang (2006, 2008). Constant and Massey (2003) posit that migrants are more likely to migrate back to their home country because they have moved once before and also have better information on which to base their decision to return or not. The subjective, perceived, expected and actual relative ranking/position of individuals can also motivate decision making, including the returning home of migrants. Stark and Taylor (1991) and Stark (1992) argue that relative deprivation of migrants in the host country can cause return migration despite



large cross-country wage differentials. Borjas and Bratsberg (1996) model return migration within a life cycle framework where immigrants return home having realized some pre-determined savings goals. Mesnard (2004) develops a formal model of return migration triggered by achieving a savings target based on imperfect capital markets in the country of origin. Borjas and Bratsberg (1996) also predict return migration because of an error in the expected monetary benefits of migrating to the host country. In addition to these preference models of return migration, some of the recent brain-gain literature focuses on experiences gained abroad having higher returns in the home country (Reinhold and Thom, 2009; Barret and O'Connell, 2000; Barret and Goggin, 2010; Iara, 2006). Similarly, skills acquired abroad may have higher returns in the home country than in the host country, causing return migration (Dustman, 1994, 1995; Borjas and Bratsberg, 1996; Santos and Postel-Vinay, 2003; Mayr and Peri, 2008). Other factors that may affect the return migration process include information costs (Jayet and Gannon, 1991, Stark, 1995; Dustmann, 1998), the role of remittances (Rapoport and Docquier (2003); Dustman and Metres, 2009) and purchasing power differentials (Djajic, 1988; Stark, Helmenstein and Yegorov, 1997; Dustmann, 1997).

#### *Empirical Literature Review*

Zimmermann (1995) provides a historical account of migration within Europe in the post-World War II era that highlights four major migration periods, the last being triggered by the collapse of the Soviet Union in the late 1980s and early 1990s. Labor migration within Europe was assumed to be temporary in nature, unlike migration to North America, which was more likely to be permanent. Empirical evidence to support this view is found in Bohning (1981, 1987) and Glytsos (1988). With respect to transitional countries' migrants, surveys undertaken by the International Organisation for Migration (1998) found that over 80 percent of these migrants wished to return home from Western European countries within a few years of departure.

While the number of migrants is both politically and economically important, much recent academic work has focused on testing the theories of return migration using cross-sectional data. Borjas (1989) finds that less-skilled, poorer paid migrants in America are more likely to return home, while Reagan and Olsen (2000) find that migrants with a US college degree are more likely to return to their country of birth consistent with the returns to a degree being greater in the home (poor) than host (wealthy) country due to relative scarcity. In Europe, Dustmann (1996) analyzes the likelihood of return migration by workers in Germany, finding that years of residence in the host country, competency in speaking German and level of education all reduce

the likelihood of returning, while having children in the home country and being married increase the likelihood of returning. Constant and Massey (2003) find the likelihood of emigrants returning home from Germany increases if migrants remit home, have strong ties with home, are not wage-employed or have been a host resident for less than five years. Indicators of greater social assimilation within Germany reduce return likelihood.

Neckby (2006) differentiates between return migrants and migrants who emigrate from the host country to another host country and finds the likelihood of both increases with education. What kind of economic activities return migrants choose has been analyzed by Dustmann and Kirchkamp (2002), Radu and Epstein (2007) and Shima (2010) in Turkey, Bulgaria and Romania. Although the first two studies found that the more educated return migrants choose self-employment activities, something that is explained by higher returns to education in this activity compared to an employee, Shima finds that skills acquired abroad and the intention of a permanent return increase the likelihood of participating in the labor market upon returning.<sup>6</sup> Piracha and Vadean (2010) find that returning Albanian migrants who have achieved their savings goal and are more educated are more likely to become entrepreneurs compared to non-migrant working age Albanians. Less skilled returning Albanian migrants are, at least initially, more likely to be self-employed (own-account workers) than employees. Co, Gang and Yun (2000) find no evidence of returning male migrants earning more than male non-migrants in Hungary, but do find an earnings gap for females. This is consistent with females receiving higher returns to the occupation-specific human capital accumulated in the host country, in Hungary. Hazans (2008) finds a clear earnings gap between return migrants and non-migrants in Latvia again consistent with the theory that human capital acquired abroad has greater returns in the home country while also arguing that the savings of return migrants means they can search longer. The study by Mintchev and Boshnakov (2006) finds that Bulgarian households with a return migrant are more likely to have benefited from remittances in terms of household earnings and are more likely to have their own business, consistent with the work of Mesnard (2004). Iara (2006) and Martin and Radu (2012) find that returning migrants from across Central and Eastern Europe earn more than non-migrants in both self-employment and paid employment, while there is mixed evidence on the type of economic activity return migrants are likely to undertake.

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<sup>6</sup> The World Bank Survey data Shima uses in his work is drawn from highly educated return migrants so the findings of Dustmann and Kirchkamp (2002) and Radu and Epstein (2007) are not likely to be found.

The evidence to date strongly suggests that duration of stay in the host country, age when first migrated, education level before migrating, human capital acquired during migration and ties to the host and home countries all play some role in return migration. Evidence also suggests that return migrants earn more than non-migrants and that they are more likely to grow their own business that employs others.

### **III Method**

The likelihood of migrants returning is estimated using a probit model, where 1 is equal to those who “...plan to return to Romania (to live and work there permanently in the future)?” and 0 otherwise. The variables of interest are mostly taken from the International Agency for Source Country Information (IASCI), Soros Foundation and are based on previous findings in the literature. A number of push and pull factors are included such as whether the migrant has family in Romania, whether they remit home, whether there was already a network in the host country that assisted the migrant in finding a job or residence and whether the migrant has previously invested in the host country. The number of years being a migrant is included in our model to capture integration within the host country as well as the individual’s preference for being a migrant and the benefits this brings.

In keeping with previous theoretical and empirical work in the literature, we estimate an earnings gap between current earnings in the host country and estimated earnings in Romania. Estimated predicted earnings of migrants were based on using the estimated coefficients from a Heckman earnings model that used individual and household labor information from the 2012 Romanian Household Budget Survey (HBS). Only a very basic earnings equation could be estimated since much information could not be matched between the HBS and the IASCI. The earnings equation is consistent with a priori labor theory, e.g. a concave relationship between age and earnings and the more educated earning more.<sup>7</sup> Although we capture the relative earnings position of migrants, it would be interesting also to capture relative deprivation of migrants. The data allow us to calculate whether migrants have a better, same or worse occupation in the host country than they held in Romania prior to migrating and test the theoretical models of

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<sup>7</sup> All earnings are in Euros. HMS earnings data was converted into Euros based on the average foreign exchange between the Euro and Romanian Lei being 0.23 between 2010 and 2012 (<http://www.freecurrencyrates.com/exchange-rate-history/RON-EUR>). The HBS does not contain individual level information on earnings, instead only reporting income from employment at the household level. We based our sample on those households who had just one full-time worker to avoid the incomplete information problem of not knowing which worker earned what in the household. While this approach means losing many observations it does mean the sample we are left with contains more accurate earnings information.

determinants of return migration of Stark and Taylor (1991) and Stark (1992). It is expected, *ceteris paribus*, that migrants who have better (worse) occupations are less (more) likely to reveal return intentions.

Other variables of interest capture possible ‘brain-gain’ pathways. Firstly information on whether the migrant has undertaken any training is captured. Table 1 illustrates that 11-12 percent of our sample undertook at least language or vocational training while in the host country, additional to education undertaken in Romania. By controlling for such training we can test whether there is any potential brain-gain mechanism where perceived or expected returns to this human capital investment are greater in the host country or Romania. Another potential form of brain gain that we can capture is the risk-taking attitudes of migrants. We create a dummy variable that equals 1 if the migrant has acquired skills or experiences that have influenced investment interest. Socioeconomic characteristics such as age, marital status, children and education level are controlled as well as a group of industry dummies within which migrants work. Rather than individual country dummies, we place countries into six categories, Southern Europe, Northern Europe, non-Romance Southern Europe, Eastern Europe, Non-European English Speaking and other countries.

There are some weaknesses with the data. Firstly we do not have any information on actual return migration, only the intention to return. Longitudinal studies have shown that intention to initially migrate is a good predictor of actual migration (Van Dalen and Henkens, 2008; Boheim and Taylor, 2002), a finding consistent with the theoretical work of De Jong (1999, 2000) and Burda et al. (1998). While initial migration and return migration are driven by different factors, it is hard to think that intention and actual return migration would not also be correlated for our sample of emigrants.

Secondly the data we use in the analysis are not drawn from a random sample. Of the migrants interviewed, the poorly paid, unemployed, those that live far away, those who left more recently and illegal migrants will likely be underrepresented. Thirdly we do not control for selection into the initial decision to migrate since this is not contained in the data set. If migrants are less likely to be high-skilled or highly educated, then they are negatively selected with respect to these two human capital characteristics. Borjas and Bratsberg (1994) argue that return migrants from this group will tend to be the best of the worst. If migrants were positively selected with respect to human capital characteristics, then return migrants would tend to have either the highest or

lowest education levels. This has implications for the robustness of possible brain-gain estimations. The evidence on these selectivity effects is not conclusive (see Constant and Massey, 2003 for a summary of findings) and differs by the country of interest but represents a caveat when interpreting our estimations of intentions to return to Romania.

#### **IV Data and Descriptive Statistics**

The IASCI and the Soros Foundation in Romania surveyed Romanian migrants in August 2010. They interviewed nearly 3,000 migrants aged 18 years or older who were returning to Romania for a short visit at major air and land entry points and who had been economic migrants for one year or longer. The survey gathered detailed information including on employment, income, connections to Romania, networks, and education, as well as demographic information. The survey is rich but, as noted above, the methodology means that some caveats should be taken into consideration. Certain groups are likely to be underrepresented: this includes those who earn less money in their host country including the unemployed, those that live further away, those that migrated more recently, and illegal migrants who may have more difficulty re-entering their host country. The survey cannot therefore be taken to represent a cross-section of Romanian migrants. Nonetheless, the results provide a good insight into migrant labor market outcomes.

Of those surveyed, over 70 percent were in Southern Europe and 20 percent in Northern Europe. About 53 percent had a high school education compared with 70 percent of the total population. This reflects for example significant numbers of relatively unskilled migrants who sought work in the Spanish construction sector. Around 90 percent of migrants reported speaking well or fluently the language of their host country. This is partly a reflection of the linguistic similarities between Romania and the two main host countries – Spain and Italy. Despite the work restrictions in place on Romanians in many EU countries, 84 percent of migrants were legally entitled to work. Migrants tended to have either a similar or worse occupation when compared to working in Romania, consistent with previous work by Cingolani (2007). Typical examples were nurses who worked in old-age homes in Italy or skilled mechanics who become unskilled laborers in the construction sector in Spain. Networks played an important role in migration with 49 percent having received assistance from a friend or family member in gaining employment or accommodation upon migrating. Connections to Romania were still important: 64 percent of migrants reported having remitted money to Romania during the previous year. Migrants were less likely to be female than the average of the population (48 percent against 51.3 percent), likely to live in a smaller household (average size of 2.1 among migrants compared with 2.9 for the total population), and were younger than the average

Romanian (35 on average at the time of the survey against a population average of 39<sup>8</sup>). No information was gathered on ethnicity of the migrants.<sup>9</sup>

**Table 1 Descriptive Statistics**

<b>Variables</b>	<b>Mean</b>	<b>Std Error</b>
Intention to Return home	0.426	0.010
Earnings Gap (logs)	6.730	0.012
Probability of being employed if return to Romania – based on 2012 Household Budget Survey	0.444	0.005
Average Earnings of migrant workers (Euros)	1333.39	21.902
Predicted Earnings in Romania (Euros) – based on 2012 Household Budget Survey.	320.57	1.7889
Predicted earnings gap (Logs)	6.70	0.013
Predicted earnings (Logs)	5.74	0.0054
Assistance	0.487	0.010
Many Romanians nearby	0.434	0.011
Some Romanians nearby	0.356	0.010
No Romanians nearby	0.210	0.009
Speak well or fluently	0.899	0.006
Fluent and Language Training abroad	0.115	0.007
Fluent and no Language Training abroad	0.784	0.009
Not Fluent and Language Training abroad	0.003	0.001
Not Fluent and no Language Training abroad	0.098	0.006
Other training while abroad	0.258	0.011
Skills and experienced effected investment interest	0.644	0.010
Invested in host country	0.068	0.005
Legal Migrant	0.844	0.008
Spouse in Romania	0.173	0.008
Child <18 years	0.160	0.008
Child >18 years	0.119	0.007
Parents in Romania	0.686	0.010
Remittance	0.653	0.010
Share of Remittance on necessities	0.338	0.009
Share of Remittance on savings	0.108	0.005
Share of Remittance on investment	0.021	0.003
Share of Remittance on house improvement	0.187	0.007
Invested in Romania	0.181	0.008
Return to Romania several times a year or more	0.254	0.009
Tenure as Migrant	6.424	0.096
Same occupation	0.555	0.011
Better occupation	0.084	0.006
Worse occupation	0.362	0.010
Agriculture	0.061	0.005
Construction	0.277	0.010
Hotel	0.112	0.007

<sup>8</sup> Population data available from Eurostat:

[http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

<sup>9</sup> This is a pity given the importance of the Roma population in Romania, and the fact that demographic changes mean that they represent an increasing share of the working age population. Future research is required in this area.

Manufactured	0.119	0.007
Transport	0.052	0.005
Health	0.034	0.004
Trade	0.052	0.005
Domestic	0.220	0.009
Other	0.074	0.006
Age	35.379	0.203
Age-Squared	1341.918	15.492
Female	0.472	0.011
Household Size	2.115	0.027
Rural	0.330	0.010
Married	0.615	0.010
Children	0.241	0.009
No education	0.004	0.001
Prime education	0.008	0.002
General education	0.067	0.005
Vocational education	0.276	0.010
High School education	0.516	0.011
Higher education	0.131	0.007
South Europe	0.714	0.010
Northern Europe	0.203	0.009
Non-Rom South Europe	0.063	0.005
Eastern Europe	0.006	0.002
Non-European Anglophone	0.010	0.002
Other countries	0.004	0.001
Observations	2,163	

*Sources: IASCI; Soros Foundation; Author calculations.*

## V Results

The regression results for planned return migration are presented in Table 2. Controls are included for socioeconomic characteristics, region of migration and current industry. In line with migration and return migration theory, we are mainly interested in push and pull factors as well as variables that we interpret as possible avenues for ‘brain gain’ effects. We present results as ranges as results differ slightly depending upon model specification.

Consistent with standard migration theory, we find that an increase in the earnings gap of 1 percent (the difference between actual earnings in host country and predicted earnings in Romania) reduces the likelihood of perceived returning to Romania by around 10 percent.<sup>10</sup> Interestingly, the probability of being employed in Romania is negative (though insignificant), suggesting that those who are more likely to find work in Romania are less likely to return. This

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<sup>10</sup> An avenue of future work would be to estimate other relative earnings measures, notably actual earnings relative to predicted earnings in the host country, or by current or previous occupational group. The importance of relative earnings and relative position are known to be important in both mainstream economics, but also in other schools of thought notably within happiness economics and behavioural economics.

is likely indicative of the fact that the same people are also more likely to find work in their host country.

Assimilation and network effects are both expected to influence planned return migration. Assimilation here is captured by both age of the migrant and years as a migrant. The findings here are not robust to different model specifications, but what evidence there is supports the embedded argument, with an extra 10 years as a migrant reducing return likelihood by 3 to 7 percentage points.

Factors that could persuade migrants to remain include networks within the host country. These networks can help embed migrants into the host country and in this regard we control for whether or not migrants received assistance when they moved; and whether there are a large number of Romanians in the community in which the migrant is living. We may expect that assistance from friends in the host country prior to migrating would act as a pull to remain in the host country, but this has no effect. To capture other Romanian networks in host countries, we use information on whether there are many, some or no persons from place of origin living in close proximity to the migrant. Having many fellow Romanians nearby increases the likelihood of return migration by 5.2 to 5.6 percentage points. It could be that this network helps preserve ties with Romania but also re-enforces national identity amongst migrants that deters complete integration into the host country. Certainly more work is required into identity, integration and migration in this regard.<sup>11</sup>

What strongly determines remaining in the host country is proficiency in speaking the host country language and whether the migrant is legal or not. The former is expected and the effect is very large. Those who speak the native language fluently or well are around 17.4 percentage points less likely to plan to return migrate compared to those who do not speak the language or speak it a little. Interpretation of the result though is opaque since speaking the language could have been a pre-condition to deciding to migrate in the first place and there could have been a conscious decision to invest time and money in obtaining this skill. However it could also be that migrants learnt the language in the host country. To distinguish between fluency before and after migration we use information on whether the migrant has undertaken any training in the host country which distinguishes between different types of training. In Models 6 to 10 we combine language fluency and whether the migrant has undertaken any language training in the host country. We find that those who are fluent and have undertaken language training are 16.2

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<sup>11</sup> Work by Akerlof and Kranton (2000) and more recently Georgiadis and Manning (2013) analyses different kinds of identity and how this could be measured and this work is relevant and unexplored in the migration literature.



to 21.2 percentage points less likely to return migrate, while those who are fluent with no training are 13.8 to 16.8 percentage points less likely to return migrate though only the former is significant at the 10 percent level. In Model 7 in Table 2b, we also include a dummy for other training undertaken in the host country (e.g. vocational training) which is negative but insignificant. The cross-sectional nature of the data restricts interpretation particularly, in this case, because we do not know whether these migrants perceive such skills as having a higher return in Romania than abroad. However the model does control for age and years as a migrant, so our results are not consistent with the brain-gain argument of Dustman (1994, 1995), Borjas and Bratsberg, (1996), Santos and Postel-Vinay, (2003) and Mayr and Peri, (2008).

There is no reason to think that brain-gain pathways could not also include changes to preferences as a result of migrating. These pathways could include a greater preference for (in)tolerance towards others or in learning and trusting others. Related to this, we control for whether migrants' experiences acquired abroad have changed their interest in investment. When we include this simple term in our model it is not relevant but a greater focus on the changes in attitudes of migrants and whether these are potentially beneficial to Romania is needed in the literature.

As well as capturing human capital investment in the host country, it would also be of interest to test whether other investment in the host country reduces the probability of return migration since this, like human capital investment, would act as a restraint on leaving. The data set allows us to control for investment or credit provision for a business in the host country. It is perhaps more likely that such investments are in Romanian owned start-up or small/medium sized businesses or certainly in businesses that have ties with the Romanian community rather than in larger firms (e.g. through the purchasing of shares). Models 11 to 16 in Table 2b estimate that migrants who do undertake such investment decisions are around 7 percentage points less likely to return migrate, confirming expectations, although this is significant only in some models. In order to capture the uncertainty of migration, model 10 includes a dummy variable for whether the migrant can legally work or not. Legal migrants are around 14.5 percentage points less likely to return than illegals. This could well reflect the perilous nature of being an illegal migrant feeding into a greater desire to return to Romania where life is less uncertain. Among legal migrants though there could well be a perception and desire to maximize the opportunity they have in the host country and other potential destination countries in the future, something akin to a premium of being able to work legally.

Table 2b also includes a variety of Romanian pull variables. Generally these perform well in our models. Having young or old children residing in Romania plays a large part in planning to return home. Having children of less than 18 years of age increases the probability of returning by 6.5 to 9.1 percentage points, while the figure is 14.5 to 17.1 percentage points for children older than 18. This is perhaps surprising but could reflect a commitment to return to help and support working age children, or in expectation of being supported by them.

Those who remit something home are 9.9 to 11.9 percentage points more likely to return, reflecting established ties to Romania. There could though be differences in return intentions depending on how remittances are spent in Romania. For example, someone remitting mainly to invest in the family home may have different return intentions to those mainly remitting money for food and other necessities. Using information on the share of total remittances specified for consumption, savings, investment and investment in the home we find in model 11 that there are differences in return intentions, but that an increase in any share of specified remittance increases the chances of returning. A 1 percentage point rise in remittances specified for consumption as a share of total remittances (remittance for consumption/total remittance) results in a 3.6 to 4.1 percentage point rise in the likelihood of returning, while the figure for savings and home improvements are 16.9 to 17.6 percent and 12.9 to 13.3 percentage points increase, respectively. This indicates that a savings target or home improvement target by migrants predicts a far greater likelihood of return intention.

While we have controlled for investment in the host country and found this to reduce the likelihood of return intention by around 7 percentage points, when we include previous investment in Romania (model 11 onwards) this increases return intention by 16-17.3 percentage points. The size of this marginal effect is perhaps surprising given remittances are also controlled for in the model. This indicates the importance to differentiate wherever possible between remittances and business investments back home.

One theoretical argument for return migration is that migrants' expectations are not met or that they feel deprived relative to being in Romania. We model such an effect by including occupational gap variables that capture whether a migrant worker has a worse, similar or better occupation in the host country compared to Romania. Unfortunately this means losing those migrants who are self-employed or unemployed in the host country and those who previously had no job in Romania. Model 13 reveals there is no statistical relationship between our measure of relative deprivation and return likelihood.

## **VI Summary, Policy Implications, and Future Research**

This paper has used a new data set to test a number of theories of return migration with respect to Romanian migrants. This research is particularly interesting in the context of how migration is perceived within the European Union now that restrictions have been lifted further. The paper finds that an earnings gap, having invested in a business in the host country and investment in human capital abroad, particularly in speaking the host-country language, significantly reduce the likelihood of Romanians returning. The intention to learn a foreign language is a clear signal of intent to integrate into the host country and in this regard is something to be welcomed by the host country itself. We do find strong evidence of personal ties with Romania predicting a greater likelihood of returning as well as remittances and previous investment in Romania, while there is also evidence that having many Romanians living nearby in the host country also positively effects return likelihood.

Romania's declining population and the accompanying negative consequences could be partly moderated by encouraging migration to Romania or return migration. This paper has focused on the latter option which, for a country without a recent history of attracting migrants and speaking a language few outside the country learn, could be more viable in the short term. Nearly half of Romanian migrants surveyed planned to return home but this study has shown that several factors are related to this choice. Higher expected earnings in Romania and investment in (likely small) enterprises are positively correlated with plans to return to Romania. This suggests that policies that increase productivity and therefore wages could encourage Romanians abroad to return-migrate. In addition, policies that make it easier to begin and run a profitable firm could also attract return-migration. Improving the business climate would be a good step in the right direction. Finally, the Romanian government could improve both tracking of and connections to Romanians abroad. Currently, this is left to private groups such as the League of Romanian Students Abroad but there could be benefits to making this more systematic. For example, the Malaysian government tracks its ex-patriots and is able to attract some high-caliber individuals to return to positions in the public service or SOEs.

There are several areas of research that need exploring on the basis of this study. Firstly the role national identity plays in return migration is likely to be important but as yet is relatively unexplored. Recent work by Georgellis and Manning (2013) suggests that the more educated tend to have less of an identity while poorer people have stronger national identities. This study finds that education plays no role in return intentions but the negative sign on the highly educated variable is consistent with the identity literature.

The importance of earning reference points and indeed other reference points needs further research to test whether these are particular concerns for migrants. Comparing earnings to the different host country averages and gathering information on reservation and expected earnings could produce some interesting findings for return intentions but also to the life satisfaction and well-being of migrants. Breaking down the relationship between remittance payments and return intentions requires more work.

Finally, the data set used provides insights into the role of social networks and investment behavior, with the latter being closely linked to remittances. A deeper analysis of the former would allow for a better understanding of the networks migrants use to help them migrate, seek employment and other support. The latter would provide a deeper insight into how migrants might be able to support economic growth, job creation and poverty reduction in their home country without necessarily returning.

**Table 2a Plan to Return (Marginal Effects reported)**

Variables	Model (1)	Model (2)	Model (3)
Probability of being employed in Romania	-0.269	-0.266	
Predicted earnings in Romania	-0.000		
Predicted earnings in Romania (Logs)		0.017	
Actual Earnings-Predicted Earnings (Logs)			-0.103***
Agriculture	-0.049	-0.048	-0.071
Hotel	-0.071	-0.072	-0.072*
Manufactured	-0.039	-0.040	-0.030
Transport	-0.097*	-0.097*	-0.081
Health	-0.171**	-0.173**	-0.135**
Trade	-0.106*	-0.106*	-0.104*
Domestic	0.055	0.055	0.024
Other	-0.144***	-0.145***	-0.126***
Age	0.027	0.025	-0.004
Age-Squared	-0.000	-0.000	0.000
Female	-0.131**	-0.122*	-0.087***
Household Size	-0.063***	-0.062***	-0.057***
Rural	0.044*	0.044*	0.037
Married	-0.008	-0.008	0.030
Children	-0.060*	-0.061*	-0.064*
No education	-0.276	-0.261	-0.140
Prime education	0.128	0.142	0.142
General education	-0.027	-0.016	0.025
Vocational education	0.025	0.031	0.044*
Higher education	-0.001	-0.020	-0.055
Northern Europe	-0.058**	-0.059**	-0.035
Non-Rom South Europe	0.050	0.049	0.026
Eastern Europe	-0.427***	-0.431***	-0.397***
Non-European Anglophone	-0.082	-0.081	-0.074
Other countries	0.293*	0.288	0.259
Observations	2,011	2,011	1,990

Notes: Standard errors in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Reference groups are not fluent and no language training abroad, worse occupation, construction, high-school education, Southern Europe.

**Table 2b Plan to Return (Marginal Effects reported)**

VARIABLES	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)
Inearngap6	-0.098***	-0.096***	-0.094***	-0.093***	-0.093***	-0.091***	-0.081***
Assistance	-0.019	-0.024	-0.023	-0.023	-0.023	-0.019	-0.011
Many Romanians nearby	0.056*	0.053*	0.053*	0.052*	0.052*	0.052*	0.055*
Some Romanians nearby	0.056*	0.052*	0.053*	0.052*	0.052*	0.050*	0.055*
YrAgoMigr	-0.007**	-0.005*	-0.005*	-0.004	-0.004	-0.004	-0.003
Proficient in host language		-0.174***					
Fluent and Language Training abroad			-0.212***	-0.199***	-0.199***	-0.191***	-0.162***
Fluent and no Language Training abroad			-0.168***	-0.165***	-0.165***	-0.161***	-0.138***
Not Fluent and Language Training abroad			-0.158	-0.158	-0.157	-0.152	-0.163
Other training while abroad				-0.038	-0.038	-0.036	-0.033
Skills and experienced effected investment interest					-0.002	-0.002	0.005
Invested in host country						-0.056	-0.052
Legal Migrant							-0.145***
Agriculture	-0.081	-0.107**	-0.105**	-0.105**	-0.105**	-0.108**	-0.114**
Hotel	-0.073*	-0.071	-0.067	-0.061	-0.061	-0.062	-0.056
Manufactured	-0.032	-0.030	-0.029	-0.025	-0.025	-0.028	-0.023
Transport	-0.081	-0.069	-0.062	-0.059	-0.059	-0.057	-0.048

Health	-0.142**	-0.134**	-0.121*	-0.112	-0.112	-0.115*	-0.103
Trade	-0.093*	-0.085	-0.081	-0.082	-0.082	-0.077	-0.066
Domestic	0.021	0.020	0.022	0.018	0.018	0.017	0.001
Other	-0.122***	-0.109**	-0.113**	-0.109**	-0.109**	-0.109**	-0.106**
Age	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	0.001
Age-Squared	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Female	-0.088***	-0.079**	-0.076**	-0.075**	-0.075**	-0.081***	-0.077**
Household Size	-0.052***	-0.048***	-0.048***	-0.047***	-0.047***	-0.048***	-0.045***
Rural	0.039	0.033	0.034	0.035	0.035	0.034	0.036
Married	0.025	0.025	0.024	0.023	0.023	0.022	0.021
Children	-0.063*	-0.067*	-0.063*	-0.062*	-0.062*	-0.057	-0.058
No education	-0.102	-0.126	-0.130	-0.120	-0.119	-0.041	-0.051
Prime education	0.139	0.142	0.138	0.148	0.148	0.146	0.138
General education	0.028	0.012	0.012	0.013	0.013	0.016	0.027
Vocational education	0.048*	0.039	0.040	0.040	0.040	0.038	0.040
Higher education	-0.057	-0.058	-0.055	-0.054	-0.054	-0.051	-0.054
Northern Europe	-0.029	-0.059**	-0.056**	-0.055*	-0.055*	-0.055*	-0.064**
Non-Rom South Europe	0.031	0.003	0.006	0.005	0.005	-0.001	-0.001
Eastern Europe	-0.397***	-0.456***	-0.446***	-0.431***	-0.431***	-0.431***	-0.455***
Non-European Anglophone	-0.059	-0.070	-0.066	-0.054	-0.054	-0.041	-0.075
Other countries	0.276	0.216	0.221	0.253	0.254	0.246	0.268
Observations	1,980	1,975	1,980	1,980	1,980	1,962	1,962

Notes: Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Reference groups are not fluent and no language training abroad, worse occupation, construction, high-school education, Southern Europe.

**Table 2c Plan to Return (Marginal Effects reported)**

VARIABLES	Model (11)	Model (12)	Model (13)	Model (14)	Model (15)	Model (16)
lnearngap6	-0.081***	-0.086***	-0.078***	-0.082***	-0.084***	-0.083***
assist	-0.017	-0.027	-0.029	-0.026	-0.023	-0.026
othermig1	0.053*	0.048*	0.046	0.044	0.042	0.047
othermig2	0.061**	0.059**	0.069**	0.067**	0.064**	0.066**
YrAgoMigr	-0.001	-0.000	-0.001	-0.000	-0.000	-0.000
Fluent and Language Training abroad	-0.149***	-0.157***	-0.159***	-0.158***	-0.154***	-0.141***
Fluent and no Language Training abroad	-0.128***	-0.130***	-0.130***	-0.126***	-0.125***	-0.113***
Not Fluent and Language Training abroad	-0.186	-0.181	-0.139	-0.170	-0.166	-0.155
Other training while abroad	-0.028	-0.025	-0.025	-0.025	-0.021	-0.027
Skills and experienced effected investment interest	0.019	0.015	-0.014	-0.016	-0.016	-0.016
Invested in host country	-0.046	-0.047	-0.075*	-0.073	-0.070	-0.078*
Legal Migrant	-0.147***	-0.151***	-0.149***	-0.151***	-0.148***	-0.146***
Spouse in Romania	0.073*	0.058	0.067*	0.060	0.060	0.041
Child <18 years	0.091***	0.070**	0.065*	0.076**	0.079**	0.069**
Child >18 years	0.171***	0.149***	0.145***	0.152***	0.154***	0.150***



Parents in Romania	0.010	-0.001	0.002	0.001	0.010	0.011
Remit home		0.119***	0.099***			
Invested in Romania			0.226***	0.221***	0.216***	0.212***
Share of Remittance on necessities				0.041	0.041	0.036
Share of Remittance on savings				0.176***	0.174***	0.169***
Share of Remittance on investment				0.160*	0.173*	0.161*
Share of Remittance on house improvement				0.129***	0.133***	0.133***
Same occupation					-0.028	-0.023
Better occupation					-0.091**	-0.083*
Return several times a year or more to Romania						0.101***
Agriculture	-0.123**	-0.119**	-0.105**	-0.103**	-0.115**	-0.123**
Hotel	-0.057	-0.052	-0.055	-0.051	-0.054	-0.058
Manufactured	-0.022	-0.024	-0.017	-0.009	-0.006	-0.006
Transport	-0.051	-0.046	-0.038	-0.038	-0.032	-0.043
Health	-0.105	-0.106	-0.083	-0.082	-0.081	-0.087
Trade	-0.053	-0.052	-0.047	-0.039	-0.038	-0.050
Domestic	-0.007	-0.021	-0.009	-0.010	-0.033	-0.034
Other	-0.104**	-0.102**	-0.088*	-0.084*	-0.092**	-0.103**
Age	-0.009	-0.009	-0.007	-0.007	-0.009	-0.009
Age-Squared	0.000	0.000	0.000	0.000	0.000	0.000
Female	-0.079***	-0.072**	-0.055*	-0.054*	-0.049	-0.046
Household Size	-0.023*	-0.025**	-0.029**	-0.027**	-0.027**	-0.025**
Rural	0.036	0.040*	0.047**	0.042*	0.044*	0.045*

Married	-0.026	-0.026	-0.026	-0.030	-0.027	-0.029
Children	-0.025	-0.020	-0.022	-0.016	-0.011	-0.004
No education	-0.055	-0.104	-0.087	-0.115	-0.121	-0.132
Prime education	0.076	0.059	0.111	0.119	0.117	0.132
General education	0.031	0.032	0.035	0.038	0.042	0.043
Vocational education	0.039	0.037	0.042*	0.050**	0.054**	0.049*
Higher education	-0.029	-0.035	-0.029	-0.029	-0.028	-0.031
Northern Europe	-0.070**	-0.060**	-0.056**	-0.055*	-0.055**	-0.069**
Non-Rom South Europe	-0.014	-0.013	-0.013	-0.014	-0.010	-0.003
Eastern Europe	-0.432***	-0.407***	-0.395***	-0.394***	-0.388***	-0.444***
Non-European Anglophone	-0.084	-0.025	-0.005	0.000	-0.015	-0.015
Other countries	0.258	0.250	0.194	0.207	0.218	0.204
Observations	1,956	1,953	1,952	1,946	1,923	1,921

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Notes: Standard errors in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Reference groups are not fluent and no language training abroad, worse occupation, construction, high-school education, Southern Europe.

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