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Country-Specific Preferences and Employment Rates in Europe

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Abstract

European countries exhibit significant differences in employment rates of adult males. Differences in labor-leisure preferences, partly determined by cultural values that vary across countries, can be responsible for part of these differences. However, differences in labor market institutions, productivity, and skills of the labor force are also crucial factors and likely correlated with preferences. In this paper we use variation among first- and second-generation cross-country European migrants to isolate the effect of culturally transmitted labor-leisure preferences on individual employment rates. If migrants maintain some of their country of origin labor-leisure preferences as they move to different labor market conditions, we can separate the impact of preferences from the effect of other factors. We find country-specific labor-leisure preferences explain about 24% of the top-bottom variation in employment rates across European countries.

Key Words: Labor-Leisure Preferences, Cultural Transmission, Employment, Europe, Migrants.

JEL codes: J22, J61, Z10

1 Introduction

Beliefs, values and preferences are important determinants of human behavior including those activities with relevant consequences on the economic welfare of families and individuals (Guiso et al. [17]). A crucial set of decisions affecting the economic and psychological welfare of individuals are related to their working decisions. Looking for a job in the labor market, the number of hours worked in a day and weeks worked in the year are decisions with very important economic and social consequences. Previous studies have shown attitudes toward the family and family ties (Algan and Cahuc [3], Alesina and Giuliano [1]) and attitudes toward women and children (Giavazzi et al., [15]) are important determinants of labor market outcomes for women and young individuals. Those studies emphasize these attitudes are rather persistent from parents to children and differ across cultures (countries of origin). In order to separate the role of culturally-specific attitudes transmitted from parents to children, from other determinants of employment, such as skills, labor demand conditions and institutions of the labor market, which are also persistent across generations, some recent studies have used children of immigrants (often to the United States) and linked their employment outcomes to cultural attitudes measured in the country of origin of parents (e.g. Fernández [13], Alesina and Giuliano [1]). Those papers have focused heavily on family relationships, the role of women, cultural attitudes towards women and their labor market participation in order to explain the substantial increase in female labor force participation and its variation across countries.

The present paper is closely related to that literature, but asks a more direct and straightforward question with bearing on the labor supply decisions of all individuals. In the basic economic theory of labor supply (e.g. Borjas [7], Chapter 2) the decision to work and the amount of labor supplied depends crucially on the relative preferences of an individual for labor (consumption) versus leisure. One can think of these preferences as partly idiosyncratic and partly affected by the culture and family of origin and, thus, is transmitted across generations. In a family (culture) in which work is considered rewarding, fulfilling, and an important component of personal success, the dis-utility of labor is perceived as low, and people may be willing to work for less and supply more working hours. In a family (culture) in which work is considered, instead, as a burden and unpleasant and in which people give more importance to leisure and free time, the dis-utility of work can be high with consequences on employment decisions. While there is clearly a culturally-based component to these preferences, a significant part is certainly individual-specific and it may change over time with the employment experience itself. Even having access to the individual assessment about his/her labor-leisure preferences the endogenous component can be large. When in a successful job, a person may be more inclined to say that he/she likes working relative to what he/she would say if employed in an unpleasant or less successful job. Alternatively, people out of their job for reasons independent of their will may overemphasize their preference for working, as a way of regretting their current state. This may generate reverse causality.

This paper has three goals. First, we identify a culture-specific component of the labor-leisure preference that is different across countries-of-origin and changes slowly over time, so we can consider it a predetermined preference parameter. In the key part

of this paper we analyze whether it affects working decisions of prime-age males (rather than of more marginally attached groups such as women and youth). Second, we isolate (and quantify) the effect of such factors relative to other potentially correlated and transmittable factors, such as skills, language ability and other cultural values and perceptions. Third, we assess how much of the differences in male employment-to-population ratios across European countries, can be explained by this country-specific labor-leisure preference.

In order to answer these questions we use data from six waves of the European Social Survey (ESS), a biannual survey covering individuals in 26 European countries from 2002 to 2012. In spite of the rich information relative to individual preferences, values and ideology contained in this survey and its relatively large size, its use among applied economists has been scant[1]. The survey contains information on the country of birth of the respondent and of his/her father and mother. It also includes a series of labor market variables (employment, hours worked, working history), demographic information (education, age, gender, occupation), and several questions revealing preferences, values and beliefs of individuals. The data are representative of the population of each European country and they include more than 20,000 respondents in each wave, with a significant number of first- and second-generation migrants. In order to assess the labor-leisure preferences of individuals we use the following statement included in the 2010 wave of the survey: *"I would enjoy having a paid job even if I did not need the money."* The individual could strongly agree (score of 5), agree, be neutral, disagree, or strongly disagree (score of 1). As noted above, the current situation of an individual may affect the response to this statement. To isolate a predetermined part of the individual's preferences, we use the answer to this question to extract the country-specific component of the preference. Namely, we identify a country-specific component for this answer, as a fixed-effect on a regression including all the native residents of a country and controlling for all their observable characteristics. Then we associate this country-specific fixed effect with the country of birth of the parents (father) of each individual. We focus our analysis on individuals who live in a country different from their parents' birthplace. That is, we focus on first- and second-generation emigrants. After controlling for individual characteristics, observable characteristics of parents, and other characteristics of the country-of-residence and ancestry, we interpret the coefficient on this country-specific preference as the role of culturally-transmitted preferences about leisure on individual employment and other measures of labor supply.

Our estimates find a statistically and economically significant effect of culturally transmitted labor-leisure preferences in determining individual employment rates and hours worked. We focus on working-age males to avoid any family and gender relation issues. We still observe a difference of as much as 12 percentage points in employment-population ratios across some European countries (Sweden – in the top 10% – has a ratio of 0.94, while in Lithuania – in the bottom 10% – the ratio is 0.83). Using the estimated effects of country-specific labor-leisure preferences on employment probability, we can explain about 24% of the 90-10 percentile difference. This is a significant amount and

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[1]To our knowledge only Alesina and Giuliano [1] use one wave of the survey for a robustness check of the effect of family ties on labor supply of women.

contributes importantly to cross-country differences in Europe. While the emphasis in explaining cross-European employment rates has been on labor market institutions (unemployment insurance, labor taxation, unionization) and hysteresis in shocks (see Bassanini and Duval [6] and Arpaia and Mourre [5] for reviews), we emphasize that preferences also play a non-trivial role that may explain up to one quarter of the top-bottom differences in European employment rates.

The rest of the paper is organized as follows. Section 2 frames this paper within the existing literature. Section 3 provides a simple theoretical framework to interpret the empirical findings. Section 4 presents the empirical specifications and discusses issues of identification and interpretation of the coefficients. Section 5 presents data and summary statistics, section 6 shows the main results and Section 7 discusses some robustness checks and extensions. Section 8 compares the results obtained in this paper with estimates of similar effects from the literature Section 9 concludes the paper.

2   Literature Review

This paper contributes to two lines of research. One line, originating with the seminal study of Prescott [23], analyzes the possible determinants of differences in hours worked (and employment rates) across developed countries, contrasting the USA (with a high number of hours and weeks worked) and Continental Europe (with a low number of hours and weeks) and comparing potential effects of different preferences and different tax rates. The second line of research, beginning with Algan and Cahuc [3] has analyzed, instead, the role of culturally determined family ties and family attitudes on labor supply of households. This literature has maintained a specific focus on women, youth and old individuals' labor supply. The first line of research can be cast in a very simple question: how much of the cross-country differences in employment and hours worked is due to distortions such as taxes, regulations and rigidities that affect the marginal pay rate and how much is due to different preferences that affect the marginal rate of substitution between labor and leisure? The second line of research, instead, focuses on cultural values and attitudes towards family, gender and children that differ across countries and change slowly and may play an important role in labor supply decisions of families and in their allocation of time. Our paper combines the very simple question of the first group of papers, with the focus on cross-country difference and cultural transmission of preferences emphasized in the second.

Prescott [23] emphasized how lower labor supply in Europe could be fully explained by higher marginal tax rates, leaving no roles for difference in preferences and attitudes that affect the evaluation of labor and leisure. Such explanation, however, requires values for the elasticity of labor supply to wages much larger than those estimated in most micro-studies. Alesina, Glaeser and Sacerdote [2] emphasize the crucial role of unions and mandated holidays as coordination device that allow for longer periods of coordinated leisure in European Countries. They also dismissed an explanation of differences based purely on country-specific "preferences," as the US-Europe gap was not always present but opened during the 1980's a period of important policy changes. More recently, however, several authors have pointed at country-specific preferences for leisure as an impor-

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tant factor in explaining employment (or unemployment) differences across European countries. Brugger *et al.*, [8] is probably the paper most closely related to ours. In this paper the authors use unemployment register data from Switzerland to analyze the impact of culture on the unemployment outcomes of Swiss prime-age males. The authors distinguish a "Latin-speaking" cultural group (i.e. French, Italian, Romansh) from a "German-speaking" cultural group that they associate with two different attitudes/preferences towards working (more pro-leisure the first and more pro-work the second). The authors exploit variation of unemployment at the Röstigraben i.e. the border between language (cultural) regions which, however, is not a political border or a labor market border. At the Röstigraben one observes differences in culture with the same exact labor market and political institutions. The authors estimate a significant causal impact of culture on unemployment spells. While the paper is interesting and convincing, limitation due to the Swiss case, the fact that in that context it is hard to separate culture and language which may proxy for skills as well as culture, imply the estimates are hard to generalize.

In the literature on cultural attitudes and labor market outcomes, Algan and Cahuc [3] were the first to investigate the role of family ties and family preferences as an explanation for the heterogeneity between employment rates of females, youth and elderly across developed economies. The authors indicate that people in different countries have very different attitudes with respect to females and young/old individual, and this correlates with the employment rates of different demographic groups over the period even after controlling for country-specific characteristics and time dummies.[2] More recently, Alesina and Giuliano [1] have studied the impact of family ties on work decisions using individual responses from the World Value Survey (WVS) on the role of the family and the attitude that children are expected to have towards their parents. Their results suggest strong family ties are associated with higher home production, larger families, and lower labor force participation of women and youngsters. Giavazzi *et al.*, [15] use data from WVS to analyze whether attitudes towards gender, youth and leisure are significant determinants of the employment rates of women and youth, and hours of work. They emphasize the fact that even country-specific cultural attitudes change over time and use a panel of countries and migrants to identify this country-specific, yet changing, component of attitudes. They find perception of gender roles matters for the labor market outcomes of female workers. While Algan and Cahuc [3] used panel regressions with controls to argue the relationship between cultural attitudes and labor market outcomes, Alesina and Giuliano [1] and Giavazzi *et al.*, [15] leverage the variation of "cultural attitudes" within the second generation of immigrants to the US. When combined with a rich set of individual and parental controls, variation within this group allows the researcher to separate the cultural attitudes associated with country of ancestry from individual skills and economic incentives affected by the country of destination. The use of migrants to analyze these issues is sometimes called the "epidemiological approach" and has been used extensively to analyze the link between culture and several demographic and economic outcomes (Fernández [13] and Fernández and Fogli [14]), or between culture and

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[2]Algan and Cahuc [3] predict culture as the coefficients of the country fixed effects in individual level regressions, after controlling for an extensive set of individual characteristics. These predicted coefficients are then regressed on local employment rates, after controlling for the traditional set of LMI.

policy preferences (Luttmer and Singhal [19], and Algan and Cahuc [4]). Our paper is the first to use data on cross-country inter-European migrants to extract the country-specific preferences towards work/leisure as collected by the European Social Survey (ESS) and to tackle directly the question of how country-specific preferences affect employment and hours worked, how such effects compare with the effect of skills, institutions and labor demand, solving the hard issue of reverse causality.

3 Theoretical Framework

In this section we present a framework, rooted in the simplest textbook model of labor demand and supply, that allows us to give a foundation to our empirical analysis. It also helps provide an interpretation (although not fully structural) to the estimated coefficients. We consider a simple, representative agent static model that produces an equilibrium prediction about the individual labor supply that can be interpreted as fraction of total time worked, or as probability of working.

3.1 Labor Supply

Consider an individual i of type o, which denotes his culture of origin, working in country r (for residence). This individual splits his/her time endowment, which we standardize to 1 for convenience, between supply of labor in the measure of l_i and leisure, in the measure of $1 - l_i$.[3] The choice of l_i is made in order to maximize a utility function which depends positively on consumption c_i and negatively on the amount of labor supplied l_i as follows:

$$U_i = \theta_{io} c_i^\delta - l_i^\eta \tag{1}$$

For simplicity, we assume the parameters δ and η $(\geq \delta)$ are between 0 and 1 and common to all individuals so that the marginal utility of consumption is positive and decreasing and the marginal utility of labor is negative and also decreasing in absolute value. The term θ_{io} captures the individual preference for consumption relative to leisure, which we call the preference for working or for labor versus leisure. This preference is specific to individual i and we assume that it has a component that depends on the culture of origin o, common to all individuals from that culture of origin, and an idiosyncratic component that varies across individuals and may be correlated with other individual characteristics such as their education, ability, or innate characteristics. With this assumption the "labor-leisure preference" can be decomposed as: $\theta_{io} = \bar{\theta}_o * \theta_i$. In particular we assume that $\bar{\theta}_o$ and θ_i are orthogonal in logs, and the logarithm of θ_i has 0 mean so the expected value of $\log(\theta_{io})$ is equal to $\log(\bar{\theta}_o)$. We use this property and write $\log \theta_{io} = \log(\bar{\theta}_o) + \log(\theta_i)$. One important thing is the idiosyncratic component $\log(\theta_i)$ may not be orthogonal to other

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[3]If time is continuous one can think of l_i as fractions of hours worked every day. If there are indivisibilities of labor one can think of l_i as fraction of weeks worked in a year. This would translate, when we observe data about employment in a specific week, into the probability of working (being employed) that week.

characteristics of the individual (such as the productivity e_i introduced below). This implies part of the correlation between $\log \theta_{io}$ and labor supply can be due to correlation with the unobserved component of e_i. However, by construction, the country-of-origin component of preferences, $\log(\bar{\theta}_o)$, is orthogonal to individual characteristics as it does not depend at all on them; only on the country of origin.

We assume individuals have only labor income and they consume all of it in one period (that can be considered as one year). This implies the following budget constraint: $c_i = l_i w_{ior}$ where w_{ior} is the wage (yearly earnings) earned by an individual i from culture of origin o in country of work and residence r. Substituting this constraint into the utility function (1) and maximizing with respect to l_i we obtain the labor supply for the individual worker i of origin/culture o in country of residence r as interior solution of the optimization problem:

$$l_{ior} = \left(\frac{\delta}{\eta}\right)^{\frac{1}{\eta-\delta}} \theta_{io}^{\frac{1}{\eta-\delta}} w_{ior}^{\gamma} \tag{2}$$

The expression (2) is a log-linear individual labor supply that depends on individual labor-leisure preferences, $\theta_{io}^{\frac{1}{\eta-\delta}}$ and on the individual wage w_{ior} with an elasticity equal to $\gamma = \frac{\delta}{\eta-\delta} \geq 0$ that captures how individual supply of labor responds to the wage rate. Such elasticity is positive but typically small in the order of 0.1 to 0.2. The larger the labor-leisure preference θ_{io}, the larger is the labor supply of an individual.

3.2 Labor demand

We consider all individuals of origin o as perfect substitutes in production. However, we allow the productivity of each individual i to be different and captured by a scalar term e_i that depends on the skills of the individual (education, age, occupation, as well as some non-observable features such as innate ability and effort). We can call this term the individual labor effectiveness. Hence, we define the aggregate effective labor input from individual of origin o in country of residence r as:

$$l_{or} = \sum_i e_i l_{ior} \tag{3}$$

We also assume the production function of the final good in country r, Y_r, can be expressed (as in Card, [9]) as a constant returns to scale aggregation of workers from different countries of origins. In particular, we allow some characteristics of country of origin such as the quality of its schools, the prevailing culture, religion or set of beliefs, to affect productivity of workers through the term A_o in the same way across countries of residence. Finally, the country of residence may have specific productivity level A_r affecting all workers employed there. The aggregate production will be as follows:

$$Y_r = A_r \left(\sum_r A_o l_{or}\right) \tag{4}$$

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In equation (4) the term A_r captures technological and institutional factors of country r that affect the efficiency and productivity of the country and its labor demand. Similarly, A_o captures common characteristics of workers from culture of origin o that affect their productivity. We have assumed perfect substitutability between workers of different countries of origin and skill, but the framework can easily extend to imperfect substitutability of immigrants and natives or workers of different skills (as in Ottaviano and Peri [21], or in Ottaviano and Peri [22]). In case of imperfect substitutability, the final expression will include an extra term that depends on the relative supply of immigrants and natives, or of different skill groups. Taking the marginal productivity of worker i from culture/country of origin o working in country r and assuming that in equilibrium this has to equal the wage the worker is paid, we obtain the following labor demand condition:

$$w_{ior} = e_i A_r A_o \tag{5}$$

This condition implies an horizontal labor demand for each individual i of culture of origin o in residence r. It essentially allows for the (marginal) productivity of a worker to depend on three components. First, it depends on individual observable and unobservable abilities, e_i, determined by his/her schooling, ability, experience and skills. Second, it depends on the productivity of the country of residence, A_r, that vary with institutions, labor market conditions, demand, technology and efficiency in that country. Third, it depends on persistent characteristics of the country/culture of origin, A_o that affect productivity of individuals from that culture, such as work ethic, values, language and beliefs.

3.3 Equilibrium Employment and Estimating equation

If we substitute the marginal productivity expression (5) into the individual labor supply (2) we obtain the following equilibrium relation, representing the crossing point (equilibrium) of an upward sloping labor supply and an horizontal labor demand. The relationship represents how individual time worked as a fraction of total time available (or the probability of working) is related to individual preferences and determinants of productivity:

$$l_{ior} = \left(\frac{\delta}{\eta}\right)^{\frac{1}{\eta-\delta}} \theta_{io}^{\frac{1}{\eta-\delta}} e_i^\gamma A_r^\gamma A_o^\gamma \tag{6}$$

Taking the logarithm on both sides of equation (6) and substituting the expression of $ln(\theta_{io})$ with its decomposition into the culture-of-origin-specific and idiosyncratic/individual components we obtain:

$$\ln(l_{ior}) = \alpha + \beta \ln(\bar{\theta}_o) + \beta \ln(\theta_i) + \gamma \ln(e_i) + \gamma \ln A_r + \gamma \ln(A_o) \tag{7}$$

In expression (7) the parameter α equals $\ln\left(\frac{\delta}{\eta}\right)^{\frac{1}{\eta-\delta}}$ and the parameter β equals $\frac{1}{\eta-\delta}$. The variable $\ln(l_{ior})$ measures (the logarithm of) the fraction of time (year) worked by

individual i with culture of origin o who resides and works in country r. The variable $\ln(\bar{\theta}_o)$ captures the country-of-origin specific preference for working which is culturally determined, slow to change, and most importantly, uncorrelated with the individual-specific part $\beta \ln(\theta_i)$. Hence, this variable can be used to identify the effect of culturally-determined labor-leisure preferences on the labor supply as long as those preferences do not affect other aspects of the labor market. While one might guess the labor-leisure preferences – specific to country o – may affect the labor market institutions and regulations of country o itself, the impact on employment of individuals of culture o working in a different country, r is likely mediated by preferences alone. By considering first- and second-generation migrants, for whom $r \neq o$, we are able to isolate such an effect. We describe in the next section how we implement empirically and estimate the theoretically-motivated equation (7) and the threats to the identification of parameter β, capturing the impact of country-specific labor-leisure preferences on employment probability and time worked, and how we address them.

4   Empirical Implementation and Discussion of Identification

We use equation (7) as the basis for our empirical analysis. This equation also provides the structure to discuss important issues of estimation, identification and potential biases. First, let us emphasize that we are interested in the estimates of parameter β in (7). This parameter captures the causal impact of culture-of-origin specific preferences, $\ln(\bar{\theta}_o)$ on employment outcomes for individual i from culture o working in country $r \neq o$ (the specification including migrants only is the preferred one). Notice that in equation (7) the parameter β is also the coefficient of the term $\ln(\theta_i)$, capturing individual labor-leisure preferences. The problem with including the measure of individual preferences to identify the causal impact on employment is that individual preferences can be correlated with the unobserved component of skills and abilities, the term $\ln(e_i)$, so that the estimated coefficient on $\ln(\theta_i)$ can be a combination of β and γ. For instance, if more motivated people are more likely to produce more effort at work and to value labor more than leisure, then this non-observable characteristic will generate a positive correlation between $\ln(\theta_i)$ and $\ln(e_i)$, inducing a bias in the estimate of β. To measure labor-leisure preferences for an individual, $\ln(\theta_i)$, we use a dummy equal to one if the person strongly agrees with the statement "*I would enjoy having a paid job even if did not need the money*" and equal to 0 otherwise. Then, in order to "extract" the country-specific component, $\ln(\bar{\theta}_o)$, we regress the individual preferences on a set of controls for individual and parental characteristics (identical to those used in the regressions in Table 2) and country-specific dummies. This regression is performed only on data of the 2010 wave of the ESS which was the only one in which the question relative to labor-leisure preferences was posed. The coefficient on the country-specific variable are taken as the country-specific component of the preferences. In the regression below these values are attached to the country of origin of parents of the individuals in the survey as capturing the "culture of origin"

effect on working preferences of an individual $\ln(\overline{\theta}_o)$[4].

In our main empirical specification the outcome of interest – a proxy for the fraction of time worked – $\ln(l_{ior})$ in expression (7), is either a dummy for working/not working in the reference week, e or the logarithm of hours worked, $\ln(h)$. The key explanatory variable is the culture of origin labor-leisure preference calculated as described above that we call $(work\_preference)_o$ and varies across country of origin, o, but not across individuals and years. The corresponding variable at the individual level is $(work\_preference)_{ior}$, which includes culture-specific, as well as the idiosyncratic, terms. The units of observation for our regressions are individuals i from country of origin o resident of country r in year t that corresponds to the survey years. In most regression we limit our analysis to the first and second generation migrants, hence $o \neq r$, and we consider as culture of origin the country of birth of the parents of the individual. Hence the basic estimated specification is:

$$e_{iort} = a + b(work\_preference)_o + \phi_{rt} + b_1 X_{it} + b_2 X_{it}^{Parents} + b_3 C_{ot} + b_4 Values_{it} + \varepsilon_{irot} \quad (8)$$

The dependent variable e_{iort} is the measure of employment (probability of being employed or the logarithm of hours worked) for individual i from culture o resident in country r in year t. The coefficient of interest, b, captures the impact of culture-of-origin preferences for labor versus leisure $(work\_preference)_o$. The term ϕ_{rt} indicates a set of country of residence by year fixed effects. This rich set of fixed effects captures the term $\ln A_r$ in equation (7) and its variation over time. In particular, policies, institutions, endowments, laws and demand shocks in the country of residence that affect employment in any way are absorbed by this term. The variable X_{it} controls for the observable individual characteristics (age, schooling, marital status, children) that are important observable determinants of productivity and efficiency (the term $\ln(e_i)$ in equation (7)) while the parental characteristics $X_{it}^{Parents}$ (education and occupation of the father) are also likely to affect human capital inputs and hence other aspects of $\ln(e_i)$. The term C_{ot} captures some country of origin characteristics that potentially affect individual unobserved human capital and productivity (such as quality of schooling in the country of origin, language, income per person of country of origin) and that may be correlated with the culture of origin preference for working. That term captures the term $\ln A_o$ in equation (7). Finally, the vector $Values_{it}$ includes measures of other individual preferences that have been characterized by previous studies as "culturally transmitted" and can be correlated with work attitudes and employment outcomes (e.g. trust, religious attitudes). Their inclusion allows us to narrow the effect of $(work\_preference)_o$ to be interpreted as the specific effect of labor-leisure preferences (and not of generic cultural traits). The term ε_{irot} is a zero-average idiosyncratic error, capturing measurement error and other unobservable characteristics affecting employment of individuals.

Let us emphasize that given the arbitrary units of the variable $(work\_preference)_o$ we only estimate the "reduced form" parameter b. It expresses directly the link between culture-of-origin preferences and individual outcomes, rather than estimating a two-stage

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[4]The coefficients for this auxiliary regression are reported in Appendix B. As expected, education is positively related with the preference for working and age is negatively correlated with it.

specification in which culture of origin is a proxy (instrument) for individual labor-leisure preferences. The identifying assumption in equation (8) is that, conditional on the other individual, parental and country of residence controls, the culture of origin preferences for labor and leisure affect individual employment in the country of residence only via his/her own preferences. To strengthen our confidence in this strategy we provide a series of robustness checks and "placebo" tests of the main hypothesis. Moreover, in our preferred specifications we only use migrants, for which the unobservable characteristics of the country of origin do not affect labor market conditions in the country of work (residence). The use of migrants' behavior to separate the effects of "culturally transmitted" versus "environment driven" behavior is sometimes referred to as the "epidemiological" approach (see e.g. Fernández [13]). The migration decision allows to isolate the cultural incentives (associated with the country of origin of the migrant) and distinguish them from the economic incentives (determined by the country of destination of the migrant).

5 Data and descriptive statistics

Our primary data source is the European Social Survey (ESS). This is a multi-country survey, which was administered in 6 waves (one every two years) in 36 countries between 2002 and 2012. The data include detailed information on personal and family characteristics such as age, gender, education, marital status, number of children in the family, place of birth and labor market characteristics such as employment status and work characteristics. It also includes detailed information on the parental background, such as parents' education, employment status, occupation when the respondent was 14 years old and their country of birth . Finally, the data include detailed information on individual preferences and beliefs (such as the degree of integration in society, attitudes on some social issues, religious sentiment, self-interest, work and family values). We include in our analysis all 6 waves of the survey covering the period 2002-2012. The last five waves (i.e. ESS2-ESS6) include identifiers for father's and mother's country of birth as well as the year of immigration (the first wave only includes information on the continent of birth of the father and the mother). This information allows us to identify individuals that are not resident in the country where their parents were born and hence are first- or second-generation migrants. In particular, we focus on the country of birth of the father as identifier of the "culture of origin" of an individual. We will provide checks using the mother's country of origin and we will analyze the effect of having both parents foreign-born versus one only. In contrast to the "migrants," we call *natives* those individuals that are resident in the country of birth of the father. Let us emphasize that in many European countries second-generation migrants do not necessarily have the citizenship of the country of residence because of the prevalence of the *"ius sanguinis"* in transmitting citizenship rights. Hence, by considering first-and second-generation migrants as belonging to the same culture of origin, we acknowledge a potentially slow process of cultural assimilation in Europe that our results will confirm.

Besides a set of core questions on values, attitudes and beliefs, each ESS wave includes a rotating component. In particular, the 2010 ESS wave included a question describing individual attitudes towards work in some detail. Respondents were asked to what extent

they agreed with the following statement: *"I would enjoy having paid job even if I did not need money"*. The corresponding variable is coded by us from 1 to 5 where 1 stands for "disagree strongly", 2 for "disagree", 3 for "neither agree nor disagree", 4 for "agree" and 5 for "agree strongly". We use this answer in several different ways. First, we use the index directly as a measure of the preference of labor versus leisure. Then, we construct a variable equal to one if the person agrees or strongly agrees with the statement and zero otherwise. Finally, we code it in a more conservative way, by classifying as equal to one only people who "strongly agree" with the statement. All three variables are positively associated with the preference of labor versus leisure. As described in section 4 above, we identify the culture-specific component of this preference as the coefficient on the country-dummy after controlling for individual and parental characteristics in a regression with native individuals only and, as dependent variable, one of the measures of labor-leisure preference described above, most frequently we use the dummy variable equal to one for individual who "strongly agree".

Our dataset covers 26 countries during the period 2002-2012.[5] We exclude observations with missing information on basic individual or father characteristics, and we also exclude observations of immigrants from countries not included in our sample (i.e. outside Europe). We only include working-age individuals (between 15 and 64 years old), we exclude individuals who are disabled, in school, retired and people serving in the armed forces. Finally, we focus only on males. They are often the head of household and have high attachment to the labor market. This avoids gender and family issues that have been studied extensively by other authors in connection with culture and labor market decisions (e.g. Fernández and Fogli [14], and Alesina and Giuliano [1]). Our final sample includes $55,742$ individuals (males aged $15 - 64$) of which $53,068$ are natives, $1,471$ are first-generation migrants and $1,203$ are second-generation migrants.

Table 1 describes some aggregate characteristics of the main dependent variables and of the explanatory variables and demographic controls of the sample, separately for native, immigrants and for the whole population. We see that, in the aggregate, 10% of the sampled population strongly agrees with the statement about enjoying paid work and 50% either agrees or strongly agrees. The statement of "strong agreement" reveals a clear preference for working and is chosen by a minority (10%), thus, it is a more stringent way of characterizing the preference for labor versus leisure. These percentages in aggregate are quite similar for natives and migrants of first or second generation.

In terms of the outcome variables, the employment probability (rate) is on average about 0.9; however, it exhibits (as we will see below) large cross-country variation. Hours of work is, on average, 1 full time equivalent (i.e. 40 hours), while the current unemployment probability in the reference week was about 9% and the probability of ever being unemployed for 12 months or more was about 13%. About 40% of the sample has some

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[5]We exclude all countries that do not appear in ESS5, as this is the only wave that includes our variable of interest. We also exclude countries that do not appear at least in two waves and have fewer than 10 people as emigrants. In the end, the countries in our sample are the following: Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Lithuania, Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Spain, Sweden, Switzerland, UK, and Ukraine. See the on-line Appendix for details of the construction and harmonization of the aggregate ESS dataset.

tertiary education, while 44 percent has at least some secondary education. We consider "prime-age" individuals as those between 20 and 50 years of age among all working-age males. They constitute 72% of all workers in the sample. Finally, about two-thirds of individuals are married and the majority live in households with children. The aggregate characteristics of the sample of natives and migrants reveal the two groups are rather similar, with a greater tendency for first-generation migrants to be married and to come from more educated and entrepreneurial families.

[TABLE 1 AROUND HERE]

Table 2 reports means and standard deviations of employment rates for working-age native male workers and for workers in the 20-50 years old range for each country in the sample, averaging across years. Average employment rates display considerable cross-country variation. Even considering only prime-age males their employment/population ratio varies from about 0.95 (in Norway and Switzerland) to less than 0.80 (in Croatia and Bulgaria). Usually, Continental European, UK and Nordic countries show relatively high employment rates (above the sample average of 90%), and low employment rate dispersion (below the sample average of 30%). On the other side, Mediterranean European countries, and countries from Central and Eastern Europe (with the exception of the Czech Republic) are characterized by low average employment rates and high employment rate dispersion.

[TABLE 2 AROUND HERE]

Before presenting the empirical analysis, we show two important features of the data using simple graphs. They suggest labor-leisure preferences have a component common to all people with the same culture of origin and that this component is correlated with the employment behavior of migrants from that culture of origin[6]. Figure 1 shows an interesting scatterplot and linear correlation. On the horizontal axis we report the country-specific component of labor-leisure preferences, estimated as the coefficient on the country-fixed effect in the regression of native-only preferences (captured by the dummy "strongly agree" with "*I would enjoy having paid job even if I did not need money*") after controlling for all individual and parental characteristics. On the vertical axis we report the country-of-origin effect in the labor-leisure preferences (after controlling for country of residence effects) for migrants only. We see from the graph a statistically significant positive correlation (coefficient equal to 0.12 and standard error equal to 0.06) between the labor-leisure preference of natives and migrants from the same culture of origin. When constructing the vertical axis variable we only include migrants outside the country of origin, hence the correlation is not driven by exposure to common labor market conditions or common institutions. That correlation has to derive from the fact that emigrants share preferences with people in their country of origin.

[FIGURE 1 AROUND HERE]

The second correlation, shown in Figure 2, is between the culture-of-origin, labor-leisure preferences, reported in the horizontal axis and measured exactly as in Figure 1 and the employment rate of emigrants from the same culture-of-origin, aggregating all

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[6]We omit Bulgaria in the scatterplots. The labor-leisure average preference for this country is a big outlier, raising some doubts on the actual comparability of answers between this and other countries. In the regressions, however, we include Bulgaria, and also check robustness of the results after dropping it.

destinations. While there is a large amount of noise and variation, produced by many other confounding factors, we see a positive correlation that indicates (male, working age) emigrants from countries with higher labor-leisure preferences have a higher probability of being employed when abroad, wherever they are. The OLS linear coefficient is equal to 0.38 with a standard deviation of 0.27, hence not quite significant but suggestive of a positive association. Figure 3, finally, shows the correlation of culture-of-origin labor-leisure preferences with employment of natives in their own country of origin. A much lower correlation is detected. While the empirical analysis will be able to control for several other factors and isolate a potential causal effect more precisely, the scatterplots help to understand the importance of using emigrants to separate the impact of culture-of-origin preferences on employment from that of other factors and reverse causality. Consider, reasonably, that the question on labor-leisure preferences reveals a part of culturally-based attitudes and also a part that reflects current labor market opportunities. In countries with relatively poor job perspectives one can think that, given their basic attitudes, people would "long" for a job and represent a more positive attitude towards working. This would imply a negative correlation between current employment and the endogenous part of labor-leisure preferences. However, such a component is not present in emigrants who retain the culturally transmitted part of the preference, but are exposed to different labor market conditions depending on the country of residence so the potential reverse effect from employment to attitudes is averaged out. Hence, the correlation between country-of-origin preferences and emigrant employment isolates the part working through preferences (causal) and averages out the part due to reverse causality. In showing this, Figure 2 and 3 already illustrate the important role of the migrant-based "epidemiological approach" in isolating the effect of preferences, and show a strengthening of the correlation between labor-leisure preference and employment in emigrants, suggestive of a reduced role for reverse causality among migrants.

[FIGURE 2 AND 3 AROUND HERE]

To complete the description of the data sources, the country level indicators on economic conditions (i.e. economic performance and growth, labor market performance, and income inequality), and education quality (i.e. expenditure in education, enrollment rates, pupils-to- teachers ratios, and PISA scores) were obtained from World Bank and OECD data. More details on the construction of the variables and on the data sources are contained in the Data Appendix).

6 Main results: the effect of labor-leisure preferences

[TABLE 3 AROUND HERE]

In Table 3 we show the main results of the paper. In Row (c) and below we report the estimates of the coefficient on the variable $(work\_preference)_o$ that captures the culture-of-origin preference for working, measured as the coefficient on the country fixed effect of the auxiliary regression described in section 4. Specifications from Column [1] to Column [3] include progressively more controls. In Column [1] we only include country-of-residence-by-year fixed effects, capturing all its institutional and economic features,

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and removing them from the partial correlation analyzed. In Column [2], we add controls for individual characteristics, namely age, education, marital status, a dummy for the presence of children living in the household and a dummy for being in the country fewer than 20 years. These characteristics may clearly affect productivity and preferences, and have an impact on employment probability. In Column [3], we include additional controls for parental characteristics, namely father's education, employment status and occupation when respondent was 14 years old. Some unobservable human capital characteristics of individuals derive from parental investment, which these controls allow us to account for. The first two lines (a and b) of Table 3 show the coefficient on the variable $(work\_preference)_i$, the individual labor-leisure preference captured as a dummy equal to one when the individual strongly agrees with the statement "*I would enjoy having paid job even if I did not need money*". As discussed above the individual preference is likely to have an idiosyncratic – and potentially endogenous – part, as well as a culturally determined, more persistent part captured by $(work\_preference)_o$. While the estimates in Row (c) and below can be interpreted as the effect of culture-of-origin preferences on employment probability, the estimates in Rows (a) and (b) show how relevant endogeneity and omitted variable bias is in affecting the correlation at the individual level.

The dependent variable in each specification of Table 3 is a dummy equal to one if the person is working during the reference week and zero otherwise. The estimates of Row (a) show that there is a significant negative correlation between the individual statement about work preference and the probability of being employed. This estimate include both native and migrants and is stable across the increasingly demanding specifications. It reveals that individuals who are less likely to be employed are more likely to state that they enjoy having a paying job. Clearly, frustration with unemployment and non-employment or perceived job insecurity (see Dickerson and Green [11]) may be a reason for individuals to overstate their preference for work. Alternately, unobserved individual characteristics, such as a lack of practical sense, may negatively affect employment chances as well as lead them to overemphasize their enjoyment of work. Both of these problems would induce a spurious negative correlation between employment and their stated preferences for labor-leisure. This issue is present even when we restrict the sample to migrants only (as we do in Row (b)): their individual characteristics and experience may affect both their statement and their employment probability. Instead, things change when we assign to individuals the average preference for work from his culture of origin (as show in Row (c)). We identify a very strong positive and statistically significant effect of labor preference on employment if we limit our analysis to migrants (as done in Row (d)). Using the more conservative estimate from Column [3], an increase by 0.05 in the country-of-origin preference for work, which is as large as one standard deviation across countries and equal to about half the difference between the preferences of people from Spain and Norway, would imply a difference in employment probability by 3.5 percentage point for males. This is about 70% of the actual difference in employment rates of males between Spain (0.9) and Norway (0.95).

Specifications (e) and (f) capture the country-of-origin preference for work using different codifications of the variable that states individual's preferences. In (e), individual preferences are associated with a dummy equal to one if he/she agrees or strongly agrees with the statement (rather than only "strongly agree") about enjoying work. Hence, this

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captures a somewhat weaker preference for work, and may add some attenuation in that the majority of people are likely to have a dummy equal to one (see the average of this variable in Table 1). The standard deviation of this variable across countries is about 0.15. In line (f), we use the initial index ranging from 1 to 5 (from strong disagreement to strong agreement) directly. In this case, the standard deviation across countries is 0.32, larger than for the other two measures. Both measures strongly confirm the findings from Row (d). Row (e) shows coefficients between 0.2 and 0.225, while Row (f) shows values around 0.11. For one standard deviation of the variable capturing country-of-origin work preference, both estimates imply an impact on employment rate of between 3 and 3.5 percentage points.

In Specifications (d) to (f) we have only considered a cross section of individuals in year 2010, the year in which the question on work preferences is asked in the survey. Estimates in Row (g) and below include individuals in all waves (from 2004 to 2012) in the analysis. The variable $(work\_preference)_o$ is still calculated using 2010 data, thus we assume the country-of-origin preferences for working are stable enough to be a good proxy for the whole decade. Some studies, such as Giavazzi et al. [15], emphasize that cultural preferences evolve over time, and may evolve differently in different countries. In our case, we focus on the cross-country differences in these preferences and the analysis is limited to one decade – a reasonable period over which we can consider them constant. Row (g) includes male natives and immigrants in the regression, while Rows (h) and (i) consider only male migrants. Row (i) focuses on a large group of male migrants aged 20-50, the group with higher employment rates in our surveys. The effect of culture-of-origin preferences are always estimated to be very significant and positive. The coefficient is somewhat smaller than when estimated for 2010, but it is more precisely estimated as we leverage a much larger sample. Estimates from Row (h) suggest an increase in preference for work by one standard deviation in the culture of origin is associated with a 2 to 2.5 percentage point higher employment rate.

[TABLE 4 AROUND HERE]

In Table 4, we focus on the specification used in Row (h) of Table 1, which includes only migrants and looks at the entire period from 2004 to 2012, and considers different measures of individual labor supply. In Panel A of Table 4, we use the logarithm of hours worked in a year as dependent variable and we either consider only employed people (Row a) or all working-age individuals (Row b). These estimates show a significant impact of country-of-origin preferences for work on the intensive margin of hours worked for employed people. Estimates in Row (b), which account for both the extensive (employment) and intensive (hours per worker) margins of labor supply, suggest a one standard deviation increase in preferences for work is associated with an increase in hours of work by about 0.02 full-time equivalents, about 1 hour of work per person.

In Panel B of Table 4 we show the estimates when considering various measures of unemployment and non-employment as the dependent variable. In particular, these measures relate the country-of-origin preference with "cumulated" non-employment over the lifetime of a person. In Row (c), the outcome is being currently unemployed; in Row (d) it is a dummy for having ever had a 3-to-12 month unemployment spell; and in Row (e) it is a dummy for having experienced at least one unemployment spell lasting more than

12 months. Row (f) considers never having had a paid job as the outcome. The impact of the country-of-origin preference for work on all these measures of non-employment is negative and very significant. People from countries of origin with a greater preference for work are less likely to be unemployed as migrants, and are less likely to have a history of unemployment or non-employment. This is in line with the idea that the country-of-origin preference for work has a deep and lasting effect on the labor supply of individuals as migrants.

6.1 Cultural Integration and Cultural Transmission

[TABLE 5 AROUND HERE]

Assimilation into the culture of the country of residence is certainly a process that may attenuate the influence of the country-of-origin preferences on the behavior of migrants. Estimates in Tables 3 and 4 consider all migrants together. In this section we separate them according to some of their characteristics to test whether assimilation in the country of residence affects the strength of the culture of origin on employment of migrants. A long period of residence in the host country and more open attitudes towards assimilation into a different culture are features that should affect the degree of assimilation of migrants. In Table 5, we analyze this issue by partitioning migrants into groups with different characteristics that should be related to their degree of assimilation. By estimating different coefficients across groups that differ according to these characteristics, we infer the change in the effect of culture of origin under different degrees of assimilation. The ESS includes variables that are likely to capture important determinants of assimilation. The first is the length of time the immigrant has been in the country. Immigrants that spent a long time in the country of residence and interacted for many years with natives are more likely to absorb some aspects of the local culture. The second dimension along which we partition immigrants is their citizenship. The restrictive conditions on obtaining citizenship in European countries (e.g. by marriage, or naturalization) require great effort from immigrants, a commitment to integrate, and to have long-term residence in the country. Moreover, the benefits of citizenship can be rather limited for the group we are considering as they are intra-European migrants, many of which already have access to most of the rights of citizenship via EU or intra-Schengen agreements.[7] Hence, only immigrants with a strong commitment to their host country, or their children, may decide to become citizens. A final important feature we consider is immigrants' own attitude and inclination to become integrated with the culture of the country of residence. One piece of information to evaluate the migrants' attitude is their answer to the question whether they consider important "*understanding different people*". An affirmative answer to this question probably implies a more open attitude toward different people and cultures. We interpret this variable as a proxy for the migrant's individual openness to integration.[8]

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[7]Conversely, benefits of acquiring citizenship of the residence country can be relatively high (e.g. in terms of easiness of getting a work permit) for immigrants coming from countries outside of the Schengen area. In our sample these are Bulgaria, Croatia, Cyprus, Israel, Ukraine and Russian Federation.

[8]This may be an imperfect measure of the openness to cultural assimilation. Other measures of such attitude could be questions related to "speaking the residence language", "respecting a Host Country's

We split the sample in two groups along the three characteristics described above, analyzed individually, and present the results in Panels A, B and C of Table 5. In each panel, we report first the coefficient on the preference for work from a regression with the employment probability as dependent variable, conditional on the relevant measure of cultural integration (denoted by *(i)* in each panel). Then we report the estimated coefficients when interacting preferences for work with two dummies describing the heterogeneity in each dimension (denoted by *(ii)*). For this second set of regressions, we also show the p-value of a test of the null hypothesis that the coefficients on the two interactions are equal.[9]

First, in each panel we find a significant and positive coefficient of the country-of-origin preference for work, even after controlling for assimilation using our proxy variables. Second, in each of the three cases considered, there is some evidence assimilation reduces the effect of culture of origin on the probability of employment. Panel A(ii) shows the effect of culture of origin on employment is strong and stable only for workers who spent less than 20 years in the country of residence. The coefficient of this effect in the more conservative specification [3] is equal to 1.01 with a standard error equal to 0.08. Workers who lived in the host country more than 20 years do not exhibit any significant effect of country-of-origin work preference on employment after controlling for individual and parental characteristics. The p-value on a test of equal coefficients suggests the difference in the effects between long-time (more than 20 years) and recent (less than 20 years) immigrants is significant at the 1% level. In Panel B(ii) specification [3] we see, after controlling for individual characteristics, having the citizenship of the host country does not seem to reduce the impact of the country-of-origin culture. The estimated coefficient is 0.44 for non-citizens and 0.32 for citizens, with the difference between the two coefficients being not statistically significant. Finally, Panel C(ii) suggests individuals who attribute importance to the statement *"it is important to understand different people"* are less affected by their culture of origin in their employment (coefficient 0.39) relative to those stating that it is not important to understand different people (coefficient of 0.75), with the difference being significant at the 1%. The variable can be considered a measure of the openness of an individual to others and, specifically, to the culture of the host country. Hence, it may affect the likelihood and speed of integration.

Overall, these checks confirm that country-of-origin preferences for working have an important impact on the probability of employment, and that assimilation may be slow: the culture of origin may affect employment behavior, especially for individuals who do not obtain citizenship and are not naturally inclined to adjust to other people's view. This effect may persist long after the decision to migrate to a different country: on average, an individual who has lived more than 20 years in the host country does not exhibit much effect from country-of-origin preferences on their probability of being employed.

[TABLE 6 AROUND HERE]

In Table 6, we analyze the issue of intergenerational transmission of preferences look-

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Law" . These questions, however, are asked in other survey data (e.g. the European Value Study) but not in the ESS (see Litina et al. [18]).

[9]Notice that we focus on the entire pool of migrants. In fact, distinguishing between first and second generation would entail a large reduction of the number of observations available in each cell.

ing more closely at the second generation of migrants. The table shows the effect of country-of-origin preference on the employment outcomes of second-generation immigrants only. In the analysis we separate the culture of origin effect between individuals with either an immigrant father, an immigrant mother, or both. We focus on whether having a native parent (i.e. born in the country of residence) significantly reduces the culture of origin effect on the second generation. A native parent may certainly increase the effectiveness of assimilation into the culture and values of the country of residence. At the same time, a native parent may also have an impact on employment opportunities independent of the culture of origin, by transferring country-specific skills and network connections that are useful for productivity and the job finding. In Panel A, we consider the case of second-generation immigrants with an immigrant father by giving these individuals the working preference in their father's country of origin. This is as we did in the previous tables, in which culture of origin was the culture relative to the father's country of birth. In Panel B, we consider second-generation immigrants whose mother is an immigrant. We give these individuals the working preference in the mother's country of origin.[10] The focus on second-generation immigrants completely avoids issues of selective migration related to employment opportunities as the migration decision of the migrant parent (first generation) does not depend on the employment outcome of the offspring (see Fernández [13]).

In Columns [1]-[3], we present the basic results on the effect of culture of origin in employment, restricted to the second-generation sample. Echoing what we found in Table 5, the second generation – similarly to people who have been in the country for more than 20 years – does not seem to exhibit much effect from the father's culture of origin on employment probability. The estimates in Columns [1]-[3] are small and sometimes not significant. This changes when we distinguish between individuals who have both immigrant parents (coefficient in the first row of Specifications [4]-[6]) and those who have a native mother and immigrant father (sum of the coefficients in the first and third row of Columns [4]-[6]). Children with two immigrant parents still exhibit a strong positive effect from the father's country-of-origin preference for work on their employment probability (coefficient between 0.64 and 0.78 with standard error of 0.10 in Columns [4]-[6]). To the contrary, having a native mother completely offsets this effect (possibly the father's country-of-origin preference has a negative impact on employment in Specification [4]-[6]) and ensures full assimilation. Having a native mother also increases, per se, the probability of second-generation migrants to be employed (second row), possibly because having a native mother improves country-specific skills, network, and language knowledge. Panel B shows similar specifications, but with "culture of origin" now relative to the mother of the second-generation immigrant. From Specifications [1]-[3], we see the mother's country-of-origin preferences have a stronger impact on employment of the second generation than the father's country of origin. The coefficient is around 0.77 and very significant. Even in this case, however, the effect is concentrated on second-generation immigrants with both immigrant parents (first row, Specifications [4]-[6] of

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[10]This implies that for estimates in Panel A we adopt the same definition of migration status as in Tables 3 - 5 (i.e. based on the father's country of origin), while in Panel B we switch to the mother's country of origin.

Panel B). The positive effect of mother's culture-of-origin preference for work is between 1.4 and 1.77 in its impact on employment. However, the presence of a native father reduces, even in this case, the impact of mother's culture of origin on employment to 0. Having a native father also provides a similar advantage in the probability of having a job as a native mother (similar effects in second row coefficients in Panel A and B).

Overall, the culture of origin of parents still affects second generation attitudes towards work if both parents are immigrants. In this case the preference of parent's country of origin, especially of the mother's, has a strong positive impact on the probability of having a job. However, a marriage with a native person would produce much stronger assimilation for the second generation, and weakens the impact of preferences from the country of origin of one immigrant parent on the second generation job probability. This is an interesting result and it points at the great role of intermarriage in the assimilation of the second generation. Clearly intermarriage is not random, and the effect we estimate may be entirely due to the selection of immigrants with weaker ties to their country of origin culture into marriage with natives, followed by a weak transmission of their preferences to the children.

7 Extensions and Checks

7.1 Omitted Variables: Country of origin characteristics

[TABLE 7 AROUND HERE]

One concern in the identification strategy adopted so far is that other country of origin characteristics may be affecting skills and abilities of migrants, and may be correlated with the variable $(work\_preference)_o$ that measures working preferences in the country of origin. One characteristic that may have long-lasting effects on the employment possibilities of a migrant – by affecting his/her skills – is the quality of schooling and education in the country of origin. In Table 7 we address this issue and check the robustness of the coefficient estimates to the inclusion of country-of-origin indicators capturing variables that are correlated with school quality. In each panel of Table 7 we show the estimates of the coefficient of interest on $(work\_preference)_o$, as well as the coefficient on an indicator of schooling inputs and quality in the country of origin. In Panel A, we include education expenditure as a percentage of GDP (Columns [1]-[3]) or as a percentage of total public expenditure (Columns [4]-[6]) as controls. Then in Panel B we include the school enrollment rate for individuals of primary- and secondary-school age. A measure of pupil-to-teacher ratios (PtT) in primary and secondary school are included in Panel C, while the average PISA scores in reading and science (available for all the considered countries) are added in Panel D. Each panel shows the estimated effect of country of origin preferences for work in the first row, and the coefficients for the schooling quality variables in the country of origin in the remaining rows. The estimates for the coefficient of interest remains stable and significant across panels and specifications. The estimated coefficient is usually between 0.3 and 0.5. This provides reassurance that our main results are not driven by unobserved individual skills related to school characteristics. The effects of our proxies for quality in the education system in the country of origin are also significant.

In particular, a larger education expenditure as a % of GDP, higher enrollment rates in primary education, and lower pupil-to-teacher ratios in the country of origin are all associated with a higher employment probability of migrants in the residence country. Those indices may indicate better school quality in the country of origin that, when controlling for years of schooling, may affect the skill and productivity (and hence employment rate) of workers. We do not find any positive correlation between PISA scores in the country of origin and employment probability of migrants in the country of residence. PISA scores are outcomes (rather than inputs) of schooling, and also measure innate abilities and other aspects besides school quality. While individual abilities matter for education, and are controlled for in our regression, individual abilities in the culture of origin may matter less. Overall, Table 7 shows quality of schooling in the country of origin is likely to matter for the human capital of an individual[11] and hence his productivity and probability of employment. Nevertheless, the effect of country-of-origin work preference seems orthogonal to these controls and its effect survives unscathed to their inclusion.

[TABLE 8 AROUND HERE]

More generally, one concern of our approach is that economic conditions in the country of origin may affect the employment outcome of migrants. Economic conditions may be related to abilities of natives from those countries, which carry on to migrants. Economic conditions may also affect the perception of migrants in destination countries. In both cases, the economic success in the country of origin may be an omitted driver of employment probability of migrants. An alternative possibility is also that economic characteristics of countries of origin affect the selection of migrants, in turn affecting their performance in the host country. In Table 8 we control for these possibilities by including several different economic indicators from the migrants country of origin, one at a time. These vary by year and we check whether the baseline results on the impact of the culture of origin are robust to their inclusion. In turn, we include GDP per capita and growth of GDP per capita in Panel A. We include measures of labor market performance (employment to population ratio, and unemployment rate) in Panel B. Finally, we include measures of income inequality (such as 80/20 and 90/10 percentile ratios) in Panel C. The effect of culture-of-origin work preferences on individual employment probability remains strong and positive. At the same time, we identify some negative correlation between the measures of economic performance in the origin and the employment probability of migrants. Migrants from countries with lower GDP per capita, a lower employment-population ratio, and higher unemployment seem to have higher probability of employment in the host country. Moreover, migrants from countries with lower levels of inequality are more likely to be employed. These effects may be consistent with the idea that selection of migrants is stronger from countries with worse economic performance so that more skilled individuals (in some unobservable dimension) are more likely to migrate and have better employment opportunities in their destination. Alternatively, worse economic conditions at origin push migrants to work harder and to be more inclined to accept jobs, as their outside option is worse, reducing their probability of non-employment. While some of these effects are interesting per se, we are more

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[11]See Schoellman [24] for a quantification of the importance of education quality using migrants' human capital.

concerned that their inclusion does not affect the estimated effect on the culture-of-origin work preferences. That coefficient remains significant and stable in all specifications.

7.2 Omitted Variables: General Attitudes and Values

[TABLE 9 AROUND HERE]

Our analysis is focused on isolating the impact of the working preferences on labor supply, as economic theory suggests. However, country-of-origin culture may have implications for a sequence of personal values, beliefs that may affect social and individual behaviors of migrants. We considered several other values as potentially having important economic consequences as they may affect inclination and intensity of work, saving, interacting in markets and so on. Some very important beliefs with a broad range of implications, previously analyzed by several authors, are religious intensity (see e.g. Guiso et al. [16]; Giavazzi et al. [15]), self-interest or trust (Guiso et al. [17], Algan and Cahuc [4]) and attitudes towards the family and towards gender (Alesina and Giuliano [1], Giavazzi et al. [15]). In Table 9 we include, in turn, variables controlling for the values and attitudes revealed by individuals in order to check whether work preferences are robust to the inclusion of these additional characteristics. In panel A we add some measures of religiosity and religious participation as controls. In Panel B we include an index of loyalty and one of lack of generalized trust. In panel C we include measures of work attitudes regarding the importance of job security and women's role in the labor market. The estimates show that size and significance of the coefficient on preferences for work do not change much. Among the controls, religious intensity, distrust, and a negative view of women's role in the labor market have a negative impact on individual employment rates and are statistically significant. Indeed, existing studies show these three dimensions of individual preferences are strongly correlated (Guiso et al. [16], Guiso et al. [17], Giavazzi et al. [15].) and the presented regression shows they are associated with decreased employment probability of men. Perceived job insecurity is associated with a higher employment probability, which is consistent with the view that insecurity increases job-search and in-work effort (Clark et al. [10]). Finally, lack of loyalty towards friends does not seem to be correlated with individual employment probabilities.

[TABLE 10 AROUND HERE]

Complementary to Table 9, which considers the impact of other individual values on employment, Table 10 looks at how personal attitudes and choices (different from employment) are affected by the country-of-origin preference for working. In Table 10, we investigate the effect of country-of-origin work preferences on opinions and choices in the area of social equality and government intervention. A low preference for working, implies an individual considers labor a burdensome activity, seems more compatible with a position in favor of government intervention and redistribution and in favor of regulation of labor. The outcome variables we explore in the first two rows of Table 10 are a dummy equal to 1 if the respondent indicates the government should ensure safety for all workers (Row a), or if the respondent agrees that the government is responsible for the living standards of the unemployed (Row b). Then we consider whether the respondent has ever been a member of a trade union (Row c), or if he/she self-reports a left-wing

ideology (Row d), or if he/she reports it is important "to treat people equally" (Row e). Individuals from cultures of origin that value labor over leisure are less likely to state the government should ensure safety and living standards of workers, and are less likely to participate in a trade union. A one standard deviation increase in country-of-origin preferences for work is associated with about a 2.5 percentage point decrease in the probability the respondent indicates the government should guarantee safety, and about a 3 percentage points decrease in the probability the respondent has been a member of a trade union. No significant association of preferences for work emerges with preferences for equality or left wing ideology. Stronger preferences for working seem to go together with more "market oriented" attitudes vis-a-vis labor interactions and with the support for a smaller role of the government in it.

8   Comparisons and Magnitude

The results presented in the previous sections are consistent with a significant and long-lasting impact of culture-of-origin preferences for work on individual employment outcomes. How large and economically relevant is such an effect when compared to other determinants of employment rates? To get an idea of the importance of this factor relative to others, we compare the magnitude of the estimated effects of culture of origin work-preferences with other important determinants of employment probability both at the individual level and in the host country. The results are shown in Table 11 . In particular, we compare the effect of this specific trait with that of other cultural preferences and then with the effect of some specific institutions. In regressions shown in Panel A of Table 11, we show the effect of other indicators of culture of origin that have been associated with higher propensity to work. Brugger et al. [8] find cultural differences between Latin and German native speakers account for about 20% of the variation in Swiss unemployment across regions. Giavazzi et al. [15] find a negative effect of a conservative family culture on the employment outcomes of females and youth. In Column [1] we include a dummy for Latin language of origin and a measure of Linguistic proximity proposed by Melitz and Toubal [20] as explanatory variables for the probability of being employed. The first variable captures a general idea that the "Latin" culture is less inclined to value work than the German and Northern-European. The second variable instead checks whether cultural distance, measured as language affects the probability of finding employment. In Column [2], we include proxies for differences in the quality of education in the country of origin such as education expenditure as a percentage of GDP and the enrollment rates and pupil-to-teacher ratios, both in primary education. In Column [3] we include both the language and education quality variables. This first set of estimates confirms that having a Latin native language is associated with a lower probability of being employed, even after we account for the effect of a transferability of linguistic skills (proxied by linguistic proximity of workers to the language spoken in the country of residence), and lower un-observed skills of immigrants (proxied by the education quality in the country of origin). In Column [4], we include our indicator of culturally transmitted preferences for work, and the indicator measuring a conservative view regarding women's role in the labor market used by Giavazzi et al. [15]. Both indicators have a strong and significant impact

on employment probability, and so do linguistic indicators. Evidence in Columns [1]-[4] shows the culture-of-origin preference for work is still highly significant when controlling for the other cultural characteristics.[12] To generate insight on the relative magnitude of these forces, in Column [5] we perform the same regression as in Column [4], but we use standardized variables. Namely, we divide each variable by its standard deviation so we are able to compare the relative magnitude of the effect of culture and preferences. Our results suggest that a one standard deviation increase in the culture-of-origin preferences for work produces an increase in employment probability by about 1 percentage point, which is broadly comparable with the overall effect of linguistic variables[13]. Also, the effect of preferences for work is similar in size to the effect of a conservative work culture.

In Panel B we include the effect of preferences for work and that of some indicators of labor market institutions that are often considered important in determining the employment rate of a country (see Bassanini and Duval [6], and Arpaia and Mourre [5] for reviews). The first is the unemployment benefits replacement rate that captures the generosity of the unemployment system in a country and the second is the share of unionized workers (Union density) that captures the impact of bargaining power on unemployment. The results in columns [1]-[3] confirm the finding of previous research that implies lower employment probability, when the replacement rate is higher (as measured by the unemployment benefits replacement rate) and marginally lower employment probability in highly unionized economies. Even controlling for those factors, the country of origin preference for work is significant (column [4]). Estimates in column [5] confirm that the relative magnitude of this effect is larger and more significant than the effect of unionization on the employment probability, but it is about one seventh of the effect of unemployment benefits. All in all, the effect of culture of origin preferences for work seems as important as some other cultural traits and labor market institutions in affecting individual probability of employment, confirming that part, but by no means all, of the variation in adult employment rates across countries may be due to preferences and not to frictions or inefficiencies.

We finally want to use these estimates to make some simple calculations that provide an order of magnitude for the effects of culturally transmitted preferences on employment performance. Let's focus on the 90-10 percentile difference in employment rates across the considered European countries. In order to explain it, we take the coefficient of preferences for work estimated in Table 11, we multiply it for the country specific dummy differences between the 90-10, and see how this difference compares with the 90-10 difference in employment rates of males in those countries. The 90-10 difference in employment rates is given by the difference between the average employment rates of Sweden and Ireland (0.11 = 0.94 − 0.83), while the 90-10 difference in work prefer-

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[12]Notice that both Brugger et al. [8] and Giavazzi et al. [15] provide some insight over the role of preferences for work. Brugger et al. [8] interpret the remarkable differences in employment outcomes between Latin and German speakers in terms of preferences for leisure: Latin speakers are "bon vivants", relative to "workaholic" German speakers. Giavazzi et al. [15] describe a cultural dimension, related to the value of leisure, and find that preferences for holidays have a negative impact on hours of work.

[13]In fact, a one standard deviation decrease in the probability of speaking a Latin language together with a one standard deviation increase in linguistic proximity produce a 1.2 percentage point increase in the employment probability.

ences is given by the difference between the country effect in working preferences of Hungary and Sweden ($0.10 = 0.23 - 0.13$). This implies that preferences explain up to $[(0.10 * 0.267)/0.11] * 100 \approx 24\%$ of 90-10 variation in employment in the sample. This is significant. It is also much smaller than what could be explained by the estimated effects of differences in replacement rates: the 90-10 variation in the unemployment benefits replacement rate (0.25, i.e. the difference between the replacement rates of Ireland and Slovakia) explain up to $[0.25 * (-0.588)/0.11] * 100 \approx 134\%$ of 90-10 reduction in employment in the sample. So while institutional variables are certainly very relevant, cultural differences may be responsible for up to a fourth of the employment rate differences between high and low employment rate countries.

9   Conclusions

People whose preference for working is low should be less likely to work and should work fewer hours than people who strongly enjoy working. The attitude toward working is, in part, determined by one's experience or personality, but also by family and the culture of origin. In some cultures, working hard, being successful at work and passionate about it, is considered a great virtue. Other cultures, however, emphasize the importance of enjoying free time, regarding work as a needed annoyance. It is hard, however, to extract information on these cultural attitudes about work and to identify how much they affect one's preferences and, hence, the probability of working. In this paper we do just that: we estimate how much a taste for working translates in higher probability of employment by using differences across European countries and the country of origin of cross-European migrants. Recognizing the basic model of labor supply across individuals implies that different relative preferences for leisure and work imply different probability of work and different working hours, we use information on how much individuals *"would enjoy having a paid job even if* (they) *did not need the money"* to extract this preference at the individual level. However, as the individual response can be contaminated by omitted variables and reverse causation, we proxy the "deep" attitudes towards work – derived from the country-of-origin culture – using a cleaned index of this preference in the country of origin of an individual. We then focus only on migrants, exposed to labor market conditions of European countries different from that of origin, and analyze whether the country-of-origin preference for work still affects employment probability in the country of residence, controlling for all individual and parent's observable characteristics. We find that country-of-origin preference for work strongly affects the probability of being employed up to 20 years after migration. This effect is also present in the second generation if both parents are migrants. This effect generates a variation in employment probability that can explain up to 24% of the differences in working-age male employment rates between the high and low employment-population ratio countries in Europe.

Figure 1: Culture of origin and labor-leisure preferences of migrants
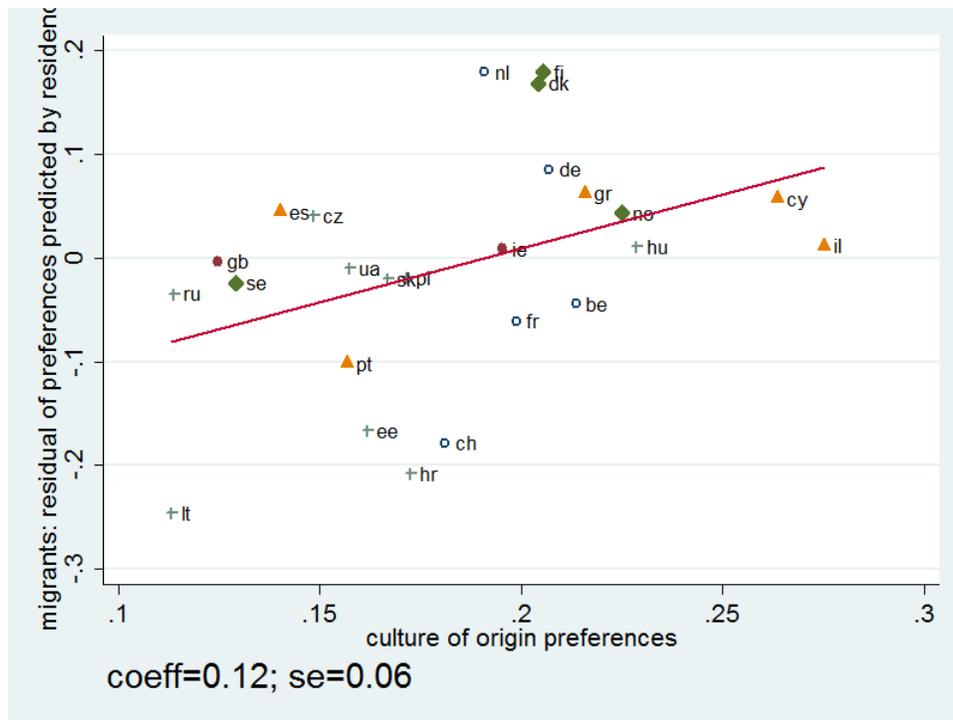
Notes: labor-leisure preferences of migrants, conditional on country of residence FE (y-axis) vs. culture of origin preferences (x-axis).

Figure 2: Culture of origin preferences and employment rate of migrants
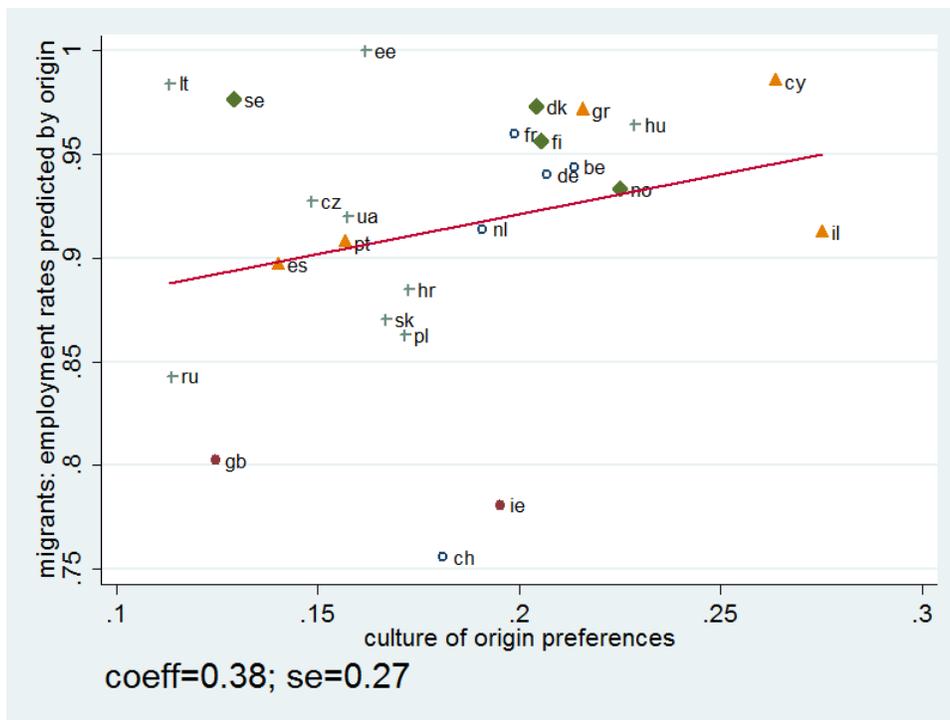
Notes: The employment rate of migrants predicted by origin country FE (y-axis) vs. culture of origin preferences (x-axis). Data refer to 2004-2012.

Figure 3: Culture of origin preferences and employment rate of natives
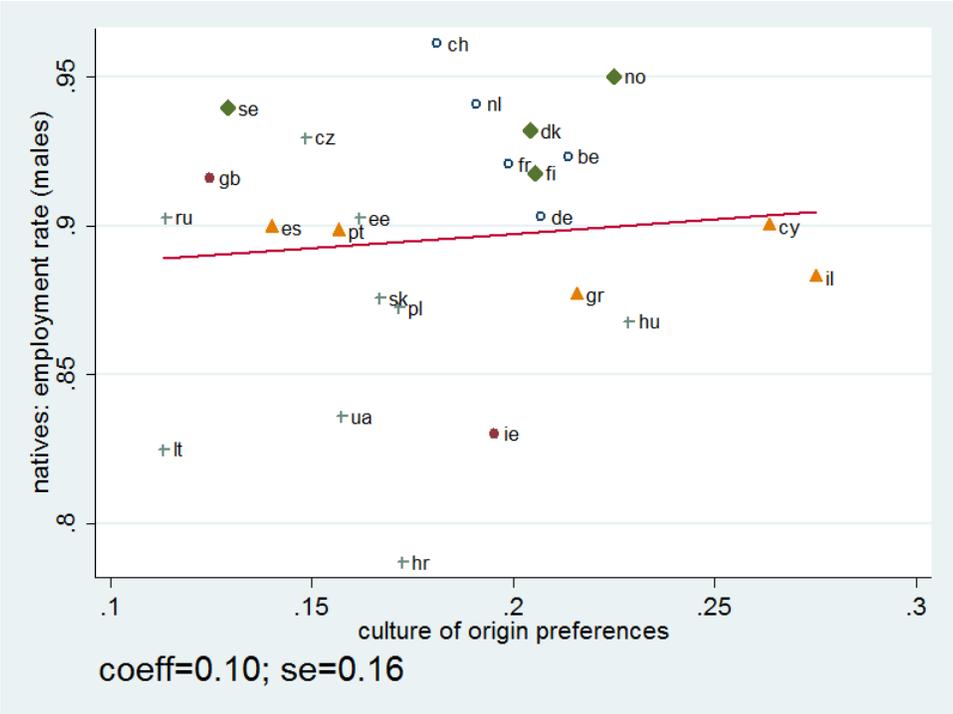
Notes: The employment rate of natives (y-axis) vs. culture of origin preferences (x-axis). Data refer to 2004-2012.

Table 1: Summary statistics for Migrants, Natives and Total Population

	Natives		Migrants, 1st		Migrants, 2nd		Total	
	mean	sd	mean	sd	mean	sd	mean	sd
Enjoy paid job, strongly agree	0.10	0.31	0.11	0.31	0.05	0.22	0.10	0.30
Enjoy paid job, agree or strongly agree	0.50	0.50	0.56	0.50	0.44	0.50	0.50	0.50
Employed	0.89	0.31	0.88	0.33	0.88	0.32	0.89	0.31
Hours of work (Full Time Equivalent)	1.00	0.44	0.97	0.45	1.00	0.46	1.00	0.44
Unemployed	0.09	0.28	0.10	0.30	0.10	0.30	0.09	0.28
Ever unemployed for 12 months or more	0.13	0.34	0.13	0.34	0.15	0.36	0.13	0.34
Never employed	0.01	0.10	0.01	0.11	0.01	0.08	0.01	0.10
Tertiary educated	0.39	0.49	0.42	0.49	0.40	0.49	0.39	0.49
Secondary educated	0.44	0.50	0.42	0.49	0.49	0.50	0.44	0.50
Age 20-50	0.72	0.45	0.76	0.43	0.68	0.47	0.72	0.45
Married	0.62	0.49	0.67	0.47	0.60	0.49	0.62	0.49
Father with tertiary education	0.22	0.41	0.32	0.46	0.23	0.42	0.22	0.41
Less than 20 years spent in the country (migrants, 1st only)	0.00	0.00	0.64	0.48	0.00	0.00	0.01	0.12

Notes: All the statistics are calculated on the population of Male individuals in working age (age 15-64), merging all the waves of the survey (years 2002-2012)

Table 2: Employment Rates by country

country	Working age	Age 20-50	country	Working age	Age 20-50
Belgium	92.3	94.2	Bulgaria	76.2	76.6
	(26.6)	(23.4)		(42.6)	(42.3)
Switzerland	96.1	96.2	Cyprus	89.9	90.1
	(19.3)	(19.2)		(30.1)	(29.8)
Czech Republic	93.0	93.3	Germany	90.9	90.7
	(25.6)	(25.1)		(29.6)	(29.0)
Denmark	93.2	92.8	Estonia	90.2	90.5
	(25.2)	(25.8)		(29.7)	(29.2)
Spain	89.9	90.5	Finland	91.8	93.4
	(30.1)	(29.3)		(27.5)	(24.9)
France	92.1	92.5	UK	91.6	91.8
	(27.0)	(26.3)		(27.8)	(27.5)
Greece	87.7	88.6	Croatia	78.7	81.7
	(32.9)	(31.8)		(41.0)	(38.7)
Hungary	86.6	86.9	Ireland	83.0	82.7
	(34.0)	(33.8)		(37.6)	(37.8)
Israel	88.2	89.4	Lithuania	82.5	85.7
	(32.2)	(30.8)		(38.0)	(35.1)
Netherlands	94.1	95.2	Norway	95.0	95.0
	(23.6)	(21.4)		(21.8)	(21.9)
Poland	87.25	88.9	Portugal	89.8	91.6
	(33.4)	(31.5)		(30.3)	(27.8)
Russia	90.3	90.6	Sweden	93.9	94.6
	(29.7)	(29.9)		(23.9)	(22.6)
Slovakia	87.6	88.1	Ukraine	83.6	85.0
	(33.0)	(32.4)		(37.1)	(35.7)
Total	90.02	90.5			
	(30.0)	(29.3)			

Notes: The population of reference are all male individuals; the average and standard deviation of employment rates are calculated across all years of the survey 2002-2012.

Table 3: Preferences for working in the culture of origin and employment probability

Panel A: Employment	[1]	[2]	[3]	Observations
(a) OLS, natives and migrants (2010)	-0.08***	-0.08***	-0.08***	9564
	(0.01)	(0.01)	(0.01)	
(b) OLS, migrants, 2010	-0.06	-0.05	-0.05	521
	(0.04)	(0.03)	(0.04)	
(c) reduced form IV, natives and migrants (2010)	0.54***	0.37***	0.32***	9564
	(0.06)	(0.06)	(0.05)	
(d) reduced form IV, migrants only (2010)	0.97***	0.80***	0.71***	521
	(0.08)	(0.10)	(0.12)	
(e) reduced form IV, migrants only (2010) – agree or strongly agree	0.25***	0.22***	0.20***	521
	(0.03)	(0.05)	(0.06)	
(f) reduced form IV, migrants only (2010) – 1-5 index	0.12***	0.11***	0.11***	521
	(0.01)	(0.02)	(0.03)	
(g) reduced form IV, natives and migrants (2004-2012)	0.29***	0.28***	0.24***	48027
	(0.05)	(0.03)	(0.03)	
(h) reduced form IV, migrants only (2004-2012)	0.53***	0.50***	0.41***	2674
	(0.05)	(0.05)	(0.05)	
(i) reduced form IV, migrants with age 20-50 (2004-2012)	0.40***	0.37***	0.32***	1919
	(0.06)	(0.06)	(0.06)	
country-by-year FE	yes	yes	yes	
individual controls	no	yes	yes	
parental controls	no	no	yes	

Notes: The dependent variable is a dummy equal to one for working during the reference week and 0 otherwise. The sample includes working age male natives and first, second generation migrants. Specifications (a),(b), show the estimated coefficient of the individual explanatory variable capturing preference for working measured by a dummy equal to 1 if the respondent strongly agrees with the statement *"I would enjoy having paid job even if did not need money"*. In rows (c),(d), and (g)-(i), we show the coefficient on the culture of origin preference for working obtained from the auxiliary regression described in the text. In row (e), the country-of-origin preference for working is constructed using in the auxiliary regression a dummy equal to one if respondents agree or strongly agrees with the statement above. In row (f), country-of-origin preference for working is constructed as an average index, from 1 (strongly disagree) to 5 (strongly agree) in the country of origin of the migrant. As described in the text culture of origin is based on father's country of birth. Column [1] includes country-by-year FE only. Column [2] includes country-by-year FE and individual characteristics (dummies for age, education, marital status, child living in family, dummy for migrant spending less than 20 years in a country) as controls. Column [3] includes country-by-year FE, individual characteristics and father characteristics (dummies for father's education, employment status and occupation when respondent was 14 years old) as controls. Robust standard errors, clustered by residence and origin country in parentheses. Significance levels:　　*: 10%　　**: 5%　　***: 1%.

Table 4: Preferences for working in the culture of origin and hours worked, unemployment

	[1]	[2]	[3]	Observations
Panel A: Hours of work (Full Time Equivalent)				
(a) weekly hours per employee	0.07***	0.07***	0.09***	2273
	(0.01)	(0.01)	(0.01)	
(b) weekly hours per person	0.48***	0.45***	0.40***	2569
	(0.03)	(0.02)	(0.02)	
Panel B: Unemployment		baseline specification (f)		
(c) currently unemployed	-0.45***	-0.40***	-0.31***	2527
	(0.04)	(0.05)	(0.04)	
(d) ever had short unemployment spell (3-12 months)	-0.73***	-0.53***	-0.39***	2569
	(0.10)	(0.12)	(0.14)	
(e) ever had long unemployment spell (12 months or more)	-0.27**	-0.40***	-0.32***	2569
	(0.10)	(0.12)	(0.11)	
(f) never had a paid job	-0.08***	-0.08***	-0.06***	2569
	(0.01)	(0.01)	(0.01)	
country-by-year FE	yes	yes	yes	
individual controls	no	yes	yes	
parental controls	no	no	yes	

Notes: The dependent variable in rows (a) and (b) is equal to the logarithm of hours of work, computed in FTE terms (40 hours per week). In rows (c)-(f) the dependent variable is a dummy equal to one if the individual experiences the type of unemployment described in the first column of the table. Each entry of the table is the coefficient of the country of origin preference for work obtained from the auxiliary regression described in the text. Column [1] includes country-by-year FE. Column [2] includes country-by-year FE and individual characteristics (dummies for age, education, marital status, child living in family, dummy for migrant spending less than 20 years in a country) as controls. Column [3] includes country-by-year FE, individual characteristics and father characteristics (dummies for father's education, employment status and occupation when respondent was 14 years old) as controls. Robust standard errors, clustered by host and origin country in parentheses. Significance levels: $*: 10\%$ $**: 5\%$ $***: 1\%$.

Table 5: Assimilation and the relationship between culture of origin and employment probability

	[1]	[2]	[3]	Observations
Panel A: Length of Stay (LoS) in the residence country				2674
(i) average effect of preference for work, (baseline)	0.53***	0.50***	0.41***	
	(0.05)	(0.05)	(0.05)	
(ii) heterogeneous effects, by LoS (years)				
(Preferences for work)*(LoS<20)	1.01***	1.07***	1.01***	
	(0.08)	(0.08)	(0.08)	
(Preferences for work)*(LoS>20)	0.11***	0.07	−0.05	
	(0.04)	(0.05)	(0.04)	
pvalue on test of equal coefficients	*0.00*	*0.00*	*0.00*	
Panel B: Citizenship of the residence country				2673
(i) average effect, conditional on citizenship	0.53***	0.46***	0.36***	
	(0.05)	(0.05)	(0.05)	
(ii) heterogeneous effects, by citizenship				
(Preferences for work)*(not citizens)	0.30***	0.44***	0.44***	
	(0.07)	(0.09)	(0.08)	
(Preferences for work)*(citizens)	0.62***	0.46***	0.32***	
	(0.07)	(0.06)	(0.06)	
pvalue on test of equal coefficients	*0.00*	*0.88*	*0.25*	
Panel C: Important to understand different people				2599
(i) average effect, conditional on important	0.55***	0.52***	0.43***	
	(0.06)	(0.06)	(0.06)	
(ii) heterogeneous effects, by importance of understanding				
(Preferences for work)*(not important)	0.93***	0.87***	0.75***	
	(0.07)	(0.10)	(0.08)	
(Preferences for work)*(important)	0.50***	0.48***	0.39***	
	(0.05)	(0.06)	(0.07)	
pvalue on test of equal coefficients	*0.00*	*0.00*	*0.00*	

Notes: The dependent variable is a dummy equal to one if the individual is employed in the reference week. The entry of the table represents the estimated coefficient on the explanatory variable of interest, equal to the country of origin preference for work and in specifications (ii) of each panel we include the interaction of that variable with a dummy defined in the first column. In panel A the effect is separated by length of stay, in panel B by citizenship and in panel C by individual attitudes. Column [1] includes country-by-year FE. Column [2] includes country-by-year FE and individual characteristics (dummies for age, education, marital status, child living in family, dummy for migrant spending less than 20 years in a country) as controls. Column [3] includes country-by-year FE, individual characteristics and father characteristics (dummies for father's education, employment status and occupation when respondent was 14 years old) as controls. Robust standard errors, clustered by host and origin country in parentheses. Significance levels: $*: 10\%$ $**: 5\%$ $***: 1\%$.

Table 6: Second generation migrants: The role of father, mother and inter-marriage

	[1]	[2]	[3]	[4]	[5]	[6]
Panel A: Origin based on father						
Preferences for work	0.06***	0.05*	−0.01	0.64***	0.71***	0.78***
	(0.02)	(0.03)	(0.05)	(0.09)	(0.11)	(0.10)
Native mother				0.19***	0.22***	0.25***
				(0.03)	(0.03)	(0.03)
(Preferences for work)*(Native mother)				−0.94***	−1.11***	−1.35***
				(0.11)	(0.13)	(0.10)
Observations	1203	1203	1203	1203	1203	1203
Panel B: Origin based on mother						
Preferences for work	0.78***	0.75***	0.77***	1.41***	1.65***	1.77***
	(0.07)	(0.10)	(0.10)	(0.07)	(0.10)	(0.09)
Native father				0.24***	0.32***	0.34***
				(0.03)	(0.04)	(0.04)
(Preferences for work)*(Native father)				−1.04***	−1.52***	−1.70***
				(0.18)	(0.18)	(0.22)
Observations	1240	1240	1240	1240	1240	1240

Notes: The dependent variable is a dummy equal to one if the individual is employed in the reference week. The entry of the table represents the estimated coefficient on the variable of interest, listed in the first column. Columns [1] and [4] include country-by-year FE as controls. Columns [2] and [5] include country-by-year FE and individual characteristics as controls. Columns [3] and [6] include country-by-year FE, individual characteristics and father characteristics as controls. Native father and mother are defined as father, mother born in the country of residence of the child. Robust standard errors and reported in parenthesis, clustered by residence and origin country. Significance levels: $*$: 10% $**$: 5% $***$: 1%.

Table 7: Controlling for the quality of education in the country of origin

	[1]	[2]	[3]	[4]	[5]	[6]
Panel A: Expenditure in education						
Preferences for work	0.37***	0.36***	0.28***	0.53***	0.49***	0.40***
	(0.03)	(0.04)	(0.04)	(0.07)	(0.07)	(0.06)
Education expenditure, % of GDP	0.02***	0.02***	0.01***			
	(0.00)	(0.00)	(0.00)			
Education expenditure, % of public exp.				−0.00*	−0.00**	−0.00**
				(0.00)	(0.00)	(0.00)
Observations	2674	2674	2674	2674	2674	2674
Panel B: Enrollment rates						
Preferences for work	0.50***	0.47***	0.39***	0.53***	0.50***	0.40***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Enrollment rates, primary	0.03***	0.03***	0.03***			
	(0.01)	(0.01)	(0.01)			
Enrollment rates, secondary				0.02	0.01	0.01
				(0.01)	(0.01)	(0.01)
Observations	2674	2674	2674	2674	2674	2674
Panel C: Pupils-to-Teachers ratio (PtT)						
Preferences for work	0.44***	0.39***	0.30***	0.54***	0.52***	0.42***
	(0.07)	(0.07)	(0.07)	(0.05)	(0.05)	(0.04)
PtT, primary school	−0.04**	−0.05*	−0.05*			
	(0.02)	(0.03)	(0.03)			
PtT, secondary school				−0.02***	−0.03***	−0.03***
				(0.01)	(0.01)	(0.01)
Observations	2674	2674	2674	2674	2674	2674
Panel D: PISA scores						
Preferences for work	0.43***	0.39***	0.30***	0.43***	0.41***	0.32***
	(0.08)	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)
PISA, reading	−0.00	−0.01*	−0.01**			
	(0.00)	(0.00)	(0.00)			
PISA, science				0.00	−0.00	−0.00
				(0.00)	(0.00)	(0.00)
Observations	2472	2472	2472	2472	2472	2472

Notes: The dependent variable is a dummy equal to one if the individual works in the reference week. The entry of the table is the estimated coefficient on the variable listed in the first column. In each panel we control for a different measure of the quality of schooling in the country of origin. Columns [1] and [4] include country-by-year FE as controls. Columns [2] and [5] include country-by-year FE and individual characteristics as controls. Columns [3] and [6] include country-by-year FE, individual characteristics and father characteristics as controls. Robust standard errors, clustered by host and origin country are reported in parentheses. Significance levels: $*: 10\%$ $**: 5\%$ $***: 1\%$.

Table 8: Controlling for Economic conditions in the country of origin

	[1]	[2]	[3]	[4]	[5]	[6]
Panel A: Economic performance, growth						
Preferences for work	0.55***	0.55***	0.47***	0.27***	0.26***	0.19***
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
GDP per capita (logs)	−0.00	−0.01***	−0.01***			
	(0.00)	(0.00)	(0.00)			
GDP per capita (growth)				−0.01***	−0.01***	−0.01***
				(0.00)	(0.00)	(0.00)
Observations	2674	2674	2674	2674	2674	2674
Panel B: Labor market performance						
Preferences for work	0.38***	0.32***	0.20***	0.53***	0.49***	0.39***
	(0.08)	(0.08)	(0.08)	(0.05)	(0.05)	(0.04)
Employment to population ratio	−0.03***	−0.04***	−0.04***			
	(0.01)	(0.01)	(0.01)			
Unemployment rate				0.02*	0.02*	0.03**
				(0.01)	(0.01)	(0.01)
Observations	2674	2674	2674	2674	2674	2674
Panel C: Income inequality						
Preferences for work	0.20***	0.20***	0.14**	0.25***	0.25***	0.17***
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
80/20 percentile ratio	−0.02***	−0.02***	−0.02***			
	(0.00)	(0.00)	(0.00)			
90/10 percentile ratio				−0.08***	−0.07***	−0.07***
				(0.01)	(0.01)	(0.01)
Observations	2662	2662	2662	2662	2662	2662

Notes: The dependent variable is a dummy equal to one if the individual works in the reference week. The entry of the table is the estimated coefficient on the variable listed in the first column. In each panel we control for a different measure of the economic conditions in the country of origin. Columns [1] and [4] include country-by-year FE as controls. Columns [2] and [5] include country-by-year FE and individual characteristics as controls. Columns [3] and [6] include country-by-year FE, individual characteristics and father characteristics as controls. Robust standard errors, clustered by host and origin country are reported in parentheses. Significance levels: ∗ : 10% ∗∗ : 5% ∗ ∗ ∗: 1%.

Table 9: Controlling for individual attitudes and beliefs

	[1]	[2]	[3]	[4]	[5]	[6]
Panel A: Religious intensity						
Preferences for work	0.54***	0.51***	0.42***	0.55***	0.52***	0.45***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Attend service > once a week	-0.02**	-0.04***	-0.04***			
	(0.01)	(0.01)	(0.01)			
Pray > once a week				-0.04***	-0.05***	-0.05***
				(0.01)	(0.01)	(0.02)
Observations	2658	2658	2658	2649	2649	2649
Panel B: Self-Interest, distrust						
Preferences for work	0.55***	0.52***	0.43***	0.54***	0.51***	0.41***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Loyal to friends: not like me	0.02**	0.01	0.01			
	(0.01)	(0.01)	(0.01)			
Distrust other people				-0.04***	-0.03***	-0.04***
				(0.01)	(0.01)	(0.01)
Observations	2636	2636	2636	2665	2665	2665
Panel C: Conservative work culture						
Preferences for work	0.68***	0.69***	0.46***	0.27***	0.33***	0.22***
	(0.06)	(0.08)	(0.10)	(0.07)	(0.07)	(0.06)
Job security important	0.03***	0.03***	0.03***			
	(0.00)	(0.01)	(0.01)			
Jobs scarce: more right to men				-0.04	-0.04**	-0.04**
				(0.02)	(0.02)	(0.02)
Observations	933	933	933	1544	1544	1544

Notes: The dependent variable is a dummy equal to one if the individual works in the reference week. The entry of the table is the estimated coefficient on the variable listed in the first column. In each panel we control for a different measure of individual attitudes. Columns [1] and [4] include country-by-year FE as controls. Columns [2] and [5] include country-by-year FE and individual characteristics as controls. Columns [3] and [6] include country-by-year FE, individual characteristics and father characteristics as controls. Robust standard errors, clustered by host and origin country are reported in parentheses. Significance levels: $*$: 10% $**$: 5% $***$: 1%.

Table 10: Effect on other outcomes and choices

	[1]	[2]	[3]	Observations
(a) important the government ensures safety	-0.63***	-0.62***	-0.53***	2593
	(0.17)	(0.16)	(0.17)	
(b) government partly responsible for living standards of unemployed	-0.62***	-0.66***	-0.55***	619
	(0.05)	(0.16)	(0.11)	
(c) ever member of a trade union	-0.31	-0.74***	-0.71***	2657
	(0.21)	(0.20)	(0.21)	
(d) leftwing ideology	-0.17	-0.18	-0.15	2345
	(0.11)	(0.16)	(0.17)	
(e) important treating people equally	-0.34	-0.34	-0.40	2600
	(0.26)	(0.30)	(0.33)	

Notes: The dependent variable in each regression is the variable described in the first column. The entries of the table are the coefficients on the culture of origin variable obtained from the auxiliary regression as defined in the text. Column [1] includes country-by-year FE as controls. Column [2] includes country-by-year FE and individual characteristics as controls. Column [3] includes country-by-year FE, individual characteristics and father characteristics as controls. Method of estimation is least squares. Robust standard errors, clustered by host and origin country, are reported in parentheses. Significance levels: $*$: 10% $**$: 5% $***$: 1%.

Table 11: Impact of alternative determinants of employment outcomes

	[1]	[2]	[3]	[4]	*standardized coefficients*
Panel A: Culture and skills from the country of origin					
Latin language	−0.020***		−0.021***	−0.016***	−0.006***
	(0.003)		(0.003)	(0.004)	(0.001)
Linguistic proximity	0.006		−0.001	0.031***	0.006***
	(0.004)		(0.004)	(0.006)	(0.001)
Education expenditure, % of GDP		0.008***	0.007***	−0.004*	−0.005*
		(0.002)	(0.002)	(0.002)	(0.003)
PtT, primary school		−0.024***	−0.026***	−0.022**	−0.007**
		(0.008)	(0.008)	(0.011)	(0.003)
Enrollment rates, primary		0.020***	0.022***	0.026***	0.009***
		(0.005)	(0.004)	(0.006)	(0.002)
Conservative work culture				−0.018***	−0.007***
				(0.003)	(0.001)
Preferences for work				0.183***	0.008***
				(0.064)	(0.003)
Observations	47809	47809	47809	29220	29220
Panel B: Institutions in the country of residence					
Unemployment benefits replacement rate	−0.592***		−0.582***	−0.588***	−0.072***
	(0.020)		(0.025)	(0.025)	(0.003)
Union density		−0.415***	−0.052	−0.048	−0.010
		(0.058)	(0.052)	(0.052)	(0.011)
Preferences for work				0.267***	0.010***
				(0.039)	(0.002)
Observations	48955	48955	48955	48955	48955

Notes: The dependent variable is a dummy equal to one if the person is employed in the reference week. The entries of the table are the coefficient on the variable described in the first column. In column [1] the reference group is the group of countries speaking German language. The other explanatory varfiables are described in the previous tables. "Conservative work culture" is measured as dummy variable =1 if the respondent answers "I Agree strongly" or "I Agree", to the statement: *When jobs are scarce, men should have more right to a job than women*, 0 otherwise. Specifications in Panel A include country by year FE. Specifications in Panel B include only country of residence and time fixed effects because we include some variables that vary only by country of residence and year. All specification include individual and father characteristics. In the last column the explanatory variables are subtracted of their means and divided by their standard deviation. Robust standard errors, clustered by host and origin country are reported in parentheses. Significance levels: $*: 10\%$ $**: 5\%$ $***: 1\%$.

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Appendix A   Data

Our main dataset is the European Social Survey (ESS). This is an academically-driven multi-country survey, which has been administered in 6 repeated rounds (one every two years between 2002-2012) in 36 countries. Each wave includes a core of set of questions regarding media and social trust, politics, subjective well-being, gender and household, socio-demographics, human values. In addition, each round includes a rotating section: The first round (ESS1, run in 2002) includes sections on immigration and citizen involvement. The second round (ESS2, in 2004) includes sections on health and care, economic morality, family work and well-being. The third round (ESS3, in 2006) includes modules regarding the timing of life and personal well-being. The fourth round (ESS4, in 2008) has modules on welfare attitudes and ageism. The fifth round (ESS5, in 2010) includes modules on family work and well-being and justice. Finally, the sixth round (ESS6, in 2012) includes modules on personal well-being and democracy.

We merge all ESS rounds in a single dataset with six repeated cross-sections at the individual level, and an unbalanced panel dimension at the country level. The raw dataset includes 303063 individual observations for 33 countries during the period $2002 - 2012$. We focus on the subset of countries available in ESS5, as this is the only round which includes the question we use to construct our baseline regressor, (see below). We also focus only on countries available for at least two rounds of the survey, to preserve the country panel dimension. Our final sample includes 27 countries: Belgium (available in all rounds), Bulgaria (available in ESS3-ESS6) Croatia (ESS4, ESS5), Cyprus (ESS3-ESS6), Czech Republic (all rounds, but ESS3), Denmark (all rounds), Estonia (ESS2-ESS6), Finland (all rounds), France (all rounds), Germany (all rounds), Greece (all rounds, but ESS3 and ESS6), Hungary (all rounds), Ireland (all rounds), Israel (all rounds, but ESS2, ESS3), Lithuania (ESS4-ESS6), Netherlands (all rounds), Norway (all rounds), Poland (all rounds), Portugal (all rounds), Russian Federation (ESS3-ESS6), Slovakia (ESS2-ESS6), Slovenia (all rounds), Spain (all rounds), Sweden (all rounds), Switzerland (all rounds), Ukraine (ESS2-ESS6), and UK (all rounds).

Appendix A.1   Main variables

Migration status of the respondent based on the country of birth of the father: =1 (respondent native of the residence country) if the father is born in the residence country, regardless of the respondent's country of birth; =2 (respondent first generation migrant) if respondent and father are not born in the residence country, =3 (respondent second generation migrant) if the respondent is born in the residence country but the father is not. The **country of origin** is the country of birth of the father. An alternative definition is **Migration status based on mother**: =1 if the mother is born in the residence country, regardless of the respondent's country of birth; =2 if respondent and mother are not born in the residence country, =3 if the respondent is born in the residence country but the mother is not. For this definition the country of origin is the country of birth of the mother. Respondent's migration status and country of origin (based on either definition) are obtained from variables *fbrncnt*, *mbrncnt* (ESS2, ESS3), *fbrncnta*, *mbrncnta* (ESS4, ESS5), *fbrncntb*, *mbrncntb* (ESS6). The migration status and country of origin cannot be

obtained for ESS1, which does not include information regarding the country of birth of the parents.

Preferences for work: =1 if the respondent answers "Agree strongly" to the statement: *I would enjoy having paid job even if I did not need the money*, 0 otherwise. This is variable *pdjbndm*, available in ESS5 only.

Appendix A.2   employment and alternative outcomes

Currently employed: dummy variable =1 if respondent is currently in the working age population (i.e. excluding people in education, retired, sick, and in military service) and paid work (Source variable: *mnactic* in ESS1-ESS6).

Currently unemployed: dummy variable =1 if respondent is currently in the workforce (i.e. excluding people in education, sick, retired, military service or housework) and unemployed (Source variable: *mnactic* in ESS1-ESS6).

Had short unemployment spell (3-12 months): dummy variable =1 if respondent ever been unemployed and seeking work for a period of more than three months and never lasted for more than twelve months (Source variables: *uemp3m*, *uemp12m* in ESS1-ESS6).

Had long unemployment spell (12 months): dummy variable =1 if respondent ever been unemployed and seeking work for a period of more than three months, and lasted for more than 12 months (Source variables: *uemp3m*, *uemp12m* in ESS1-ESS6).

Never had paid job: dummy variable =1 if respondent is not currently working and never had a paid job (Source variable: *pdjobev* in ESS1-ESS6).

Important treating people equally: dummy variable =1 if the respondent answers "Very much like me", to the statement *It is important that people are treated equally and have equal opportunities*, 0 otherwise (Source variable: *ipeqopt* in ESS1-ESS6).

Important the government ensures safety: dummy variable =1 if the respondent answers "Very much like me", to the statement *It is important that government is strong and ensures safety*, 0 otherwise (Source variable: *ipstrgv* in ESS1-ESS6).

Government partly responsible for the living standards of unemployed: dummy variable =1 if the respondent assigns a score from 4 to 10 to the statement: "generally speaking, would you say that tell me on a score of 0-10 how much responsibility you think governments should have in [ensuring a reasonable standard of living for the unemployed?] (Please tell me on a score of 0 to 10, where 0 means it should not be governments' responsibility at all and 10 means it should be entirely governments' responsibility), 0 otherwise" (Source variable: *gvslvue* in ESS4).

Leftwing ideology: dummy variable =1 if the respondent assigns a score from 1 to 3 to the statement: *where would you place yourself on this scale (where 0 means the left and 10 means the right)*, 0 otherwise (Source variable: *lrscale* in ESS1-ESS6).

Ever member of a trade union: dummy variable =1 if the respondent answer "Yes, previously", or "Yes, currently" to the question: *Are you or have you ever been member of a trade union or similar organisation*, 0 otherwise (Source variable: *mbtru* in ESS1-ESS6).

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Appendix A.3 Individual and parental characteristics

The definition of several variables providing demographic information has been changed from ESS1 to ESS6. Also, variables not harmonized with the main ESS categories, are made available in separate country-specific datasets. We reconstructed consistent information for the 27 countries during the period 2002-2012, by merging and harmonizing information from the six main ESS datasets and the additional country-specific data. Find below the list of the harmonized individual variables, and the corresponding ESS source variables in parentheses.

Age of the respondent: categorical variable =1 if age $\in [15, 20]$; =2 if age $\in (20, 30]$; =3 if age $\in (30, 50]$; =4 if age > 50. From this categorical variable we obtained four age group dummy variables. The reference group in the empirical analysis is > 50 (Source variables: *agea* in ESS1, ESS2, ESS4-ESS6; *age* in ESS3).

Education of the respondent: categorical variable =1 if highest educational attainment is tertiary, post-tertiary; =2 if it is *upper secondary, post secondary*; =3 if it is *primary, lower secondary*. From this categorical variable we obtained three dummy variables for respondent's education. The reference group in the empirical analysis is *tertiary, post-tertiary* (Source variables: *edulvla* in ESS1-ESS4; *edulvlb* in ESS5, ESS6).

Marital status of the respondent: categorical variable =1 if respondent is married; =2 if respondent is separated, divorced; =4 if respondent is widowed; =5 if respondent is single. From this categorical variable we obtained four marital status dummy variables. The reference group in the empirical analysis is single (Source variables: *marital* in ESS1, ESS2; *maritala* in ESS3, ESS4, ESS5; *maritalb* in ESS5, ESS6; *maritalee* and *maritalfr* from country specific files of Estonia and France, respectively).

Children in family: dummy variable =1 if there are children living in the family of the respondent (Source variable in ESS1-ESS6).

Years spent in the residence country (only 1st generation migrants): categorical variable =1 if years spent in the country < 1;=2 if years $\in [1, 5]$;=3 if years $\in [6, 10]$;=4 $\in [11, 20]$;=5 if years > 20, From this categorical variable we constructed two dummy variables for years spent in the residence country. The reference group in the empirical analysis is first generation migrant that spent more than 20 years in the residence country (Source variables *livecntr* in ESS1-ESS4; *inwyye, inwyys, livecnta* in ESS5,ESS6).

Education of the father: categorical variable =1 if highest educational attainment of the father is *tertiary, post-tertiary*; =2 if it is *upper secondary, post secondary*; =3 if it is *primary, lower secondary*. From this categorical variable we obtained three dummy variables for respondent's education. The reference group in the empirical analysis is father with *tertiary, post-tertiary* education (Source variables: *edulvlfa* in ESS1-ESS4; *edulvlfb* in ESS5, ESS6).

Employment status of the father, when the respondent was 14 years old: categorical variable =1 if father is *employee*; =2 if he is *self-employed*; =3 if he is *unemployed*;=4 if he is *absent or dead*. We dropped categories 3,4, as they included very few observations, and constructed two dummy variables for categories 1,2. We adopt as a reference group in the empirical analysis father *employee* (Source variables: *emprf14* in ESS1-ESS6).

Occupation of the father, when the respondent was 14 years old: categorical variable =1 if father is *senior manager, administrator* (equivalent ISCO1); =2 if father in *traditional professional occupations, middle or junior manager* (equivalent ISCO2, ISCO3); =3 if he is in *clerical*

and intermediate occupations (eq. ISCO4); =4 if he is in *modern professional occupations, technical and craft, semi routine occupations* (eq. ISCO6, ISCO7, ISCO8);=5 if he is in *Manual and service occupations* (eq. ISCO5, ISCO9). From this categorical variable we obtained five dummy variables. The reference group in the empirical analysis is father *senior manager, administration* (Source variables: *occf14* in ESS1; *occf14a* in ESS2, ESS3; *occf14b* in ESS4, ESS5, ESS6; *maritalb* in ESS5, ESS6; *occf14fr* and *OCCF14_FRA1* from country specific files of France; *occf14tr* from country specific files of Turkey; *occf14ie* from country specific files of Ireland; and *iscocof_RU* from country specific files Russia).

Appendix A.4 other individual characteristics, preferences

Citizenship: dummy variable =1 if the respondent has citizenship of the residence country, 0 otherwise (Source variable: *ctzcntr* in ESS1-ESS6)
Follow TV news less than 2 hours a week: dummy variable =1 if the respondent spends less than two hours of her time watching television, following news or programmes about politics and current affairs, 0 otherwise (Source variable: *tvpol* in ESS1-ESS6).
Important understand different people: dummy variable =1 if the respondent answers "Very much like me", "Like me", or "Somewhat like me" to the statement *It is important to understand people different from me*, 0 otherwise (Source variable: *ipudrst* in ESS1-ESS6).
Attend religious services once a week or more: dummy variable =1 if the respondent answers "Once a week", "More than once a week", or "Every day" to the statement: *How often do you attend religious services apart from special occasions*, 0 otherwise (Source variable: *rlgatnd* in ESS1-ESS6).
Pray once a week or more: dummy variable =1 if the respondent answers "Once a week", "More than once a week", or "Every day" to the statement: **How often do you pray apart from at religious services**, 0 otherwise (Source variable: *pray* in ESS1-ESS6).
Loyal to friends: not like me: dummy variable =1 if the respondent answers "A little like me", "Not like me", or "Not like me at all" to the statement: *It is important to be loyal to firends and devote to people close*, 0 otherwise (Source variable: *iplylfr* in ESS1-ESS6).
Distrust other people: dummy variable =1 if the respondent assigns a score from 1 to 4 to the statement: "generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? (Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted), 0 otherwise" (Source variable: *ppltrst* in ESS1-ESS6).
Job security important: dummy variable =1 if the respondent says "Very important", to the question: *For you personally, how important do you think would be [A secure job] if you were choosing a job?*, 0 otherwise (Source variable: *ipjbscr* in ESS1-ESS6).
Job scarce: more right to men than women: dummy variable =1 if the respondent answers "Agree strongly", "Agree", to the statement: *When jobs are scarce, men should have more right to a job than women*, 0 otherwise (Source variable: *mnrgtjb* in ESS2, ESS4, ESS5).
First language spoken: Latin linguistic family: dummy variable =1 if the language most spoken at home (first mentioned) belongs to the Latin Family according to the CIA world factbook (Source variables: *linghoma* in ESS1-ESS4, *linghom1* in ESS5,ESS6).

Appendix A.5   other country characteristics

World Development Indicators (WDI) the CEPII Gravity Dataset (CEPII). The reader will find below a precise description of the variables.

education expenditure, % **of GDP**: total public expenditure (current and capital) on education expressed as a percentage of GDP in a given year. Public expenditure on education includes government spending on educational institutions (both public and private), education administration, and transfers/subsidies for private entities (students/households and other privates entities) (Source: World Bank, World Development Indicators).

education expenditure, % **of public expenditure**: total public education expenditure (current and capital, see defibition above) expressed as a percentage of total government expenditure for all sectors in a given financial year (Source: World Bank, World Development Indicators).

enrollement rates, primary education: Net enrolment rate. Primary. Total is the ratio of children of the official primary school age who are enrolled in primary school to the total population of the official primary school age. (Source: World Bank, World Development Indicators).

enrollement rates, secondary education: Net enrolment rate. Secondary. All programmes. Total is the ratio of children of the official secondary school age who are enrolled in secondary school to the population of the official secondary school age (Source: World Bank, World Development Indicators).

Pupils to Teachers ratio, primary (secondary) school: Number of pupils enrolled in primary (secondary) school divided by the number of primary (secondary) school teachers, computed by the UNSECO Institute for Statistics (Source: World Bank, World Development Indicators).

PISA score, reading (science): Mean performance on the reading (science) scale. Average score of 15-year-old students on the PISA reading (science) scale. The metric for the overall reading (science) scale is based on a mean for participating OECD countries set at 500, with a standard deviation of 100 (Source: OECD Programme for International Student Assessment, PISA)

Linguistic proximity between origin and residence country: Unadjusted level of linguistic proximity between the origin and the destination country; we assume the index is equal to 1 when the country of origin is the same equals to destination (Source: Melitz and Toubal [**?**], based on data from the Automated Similarity Judgment Program, ASJP)

GDP per capita (level, annual growth): GDP per capita (constant 2000 US$) GDP per capita is gross domestic product (GDP) divided by midyear population. This measure is also used to compute annual percentage growth rate of GDP per capita (Source: World Development Indicators, based on World Bank national accounts data and OECD National Accounts data files).

employment to population ratio: Employment to population ratio, 15+, total (%) (modeled ILO estimate) Employment to population ratio is the proportion of a country's population that is employed (Source: World Development Indicators, based on International Labour Organization, Key Indicators of the Labour Market database).

unemployment rate: Unemployment, total: share of the total labor force that is without work but available for and seeking employment (Source: World Development Indica-

tors, based on International Labour Organization, Key Indicators of the Labour Market database).

80/20 (90/10) percentile ratios: Ratio between the income share held by the highest 20% (highest 10%) and the income share held by the lowest 20% (lowest 10%) (Source: World Development Indicators, based on various sources).

Unemployment benefits replacement rate: average of the net unemployment benefit (including SA and cash housing assistance) replacement rates for two earnings levels, three family situations and 60 months of unemployment (Source: OECD, Tax-Benefit Models.)

Trade Union density: Percentage of employees who are members of a trade-union (Source: OECD Employment Outlook).

Appendix B   First stage estimates: Individual and country-specific determinants of Preferences for work

Female	0.01
	(0.01)
Age 15-20	0.05***
	(0.02)
Age 20-30	0.02*
	(0.01)
Age 30-50	0.01
	(0.01)
Secondary education	−0.03***
	(0.01)
Primary education	−0.04***
	(0.01)
Married	0.00
	(0.01)
Separated/Divorced	0.01
	(0.01)
Widowed	0.03
	(0.02)
Children in the family	−0.00
	(0.01)
Father: secondary education	−0.02
	(0.01)
Father: primary education	−0.00
	(0.01)
Father: self-employed	0.00
	(0.01)
Father: professional	−0.02
	(0.02)
Father: technician	−0.06***
	(0.02)
Father: clerk	−0.05***
	(0.02)
Father: service worker	−0.05**
	(0.02)
Belgium	0.21***
	(0.02)
Bulgaria	0.35***
	(0.02)
Switzerland	0.18***
	(0.02)
Czech Republic	0.15***
	(0.02)
Cyprus	0.26***
	(0.03)
Germany	0.21***
	(0.02)
Denmark	0.20***
	(0.02)
Estonia	0.16***
	(0.02)
Spain	0.14***
	(0.02)
Finland	0.21***
	(0.02)
France	0.20***
	(0.02)
UK	0.12***
	(0.02)
Greece	0.22***
	(0.02)
Croatia	0.17***
	(0.03)
Hungary	0.23***
	(0.02)
Ireland	0.20***
	(0.02)
Israel	0.28***
	(0.03)
Lithuania	0.11***
	(0.03)
Netherlands	0.19***
	(0.02)
Norway	0.23***
	(0.02)
Poland	0.17***
	(0.02)
Portugal	0.16***
	(0.02)
Russia	0.11***
	(0.02)
Sweden	0.13***
	(0.02)
Slovenia	0.10***
	(0.02)
Slovakia	0.17***
	(0.02)
Ukraine	0.16***
	(0.03)
R sq.	0.14
Observations	25526

Notes: The dependent variable is preference for work measured by a dummy equal to 1 if the respondent strongly agrees with the statement "*I would enjoy having paid job even if did not need money*". OLS regressions on native individuals, 2010 Robust standard errors in parentheses. Significance levels: ∗ : 10%   ∗∗ : 5%   ∗ ∗ ∗: 1%.