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. [24]). 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 [7], Alesina and Giuliano [1]) and attitudes toward women and children (Giavazzi et al., [20]) are important determinants of labor market outcomes for women and young individuals. Those studies emphasize that cultural attitudes are rather persistent from parents to children and differ across 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 in the United States) and linked their employment outcomes to cultural attitudes measured in the country of origin of parents (e.g. Fernández [17], 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, even prime age males. In the basic economic theory of labor supply (e.g. Borjas [11], Chapter 2) the decision to work and the amount of labor supplied depends crucially on the relative preferences of an individual for labor versus leisure. One can think of these preferences as partly idiosyncratic and partly affected by the culture and family of origin and, thus, partly transmitted across generations. In a 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 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 labor supply decisions. While there is clearly a culturally-based component to these preferences, a significant part of them 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 clouding the identification of a causal impact of preferences on employment.

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 limited[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[2]. Then we associate this country-specific 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. For this group we observe a difference of as much as 12 percentage points in employment-population ratios across 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

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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.

[2]In robustness checks we also include native non-residents to determine the average country attitudes toward labor.

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 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 [10] and Arpaia and Mourre [9] 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 for prime age males.

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 discusses the results obtained in this paper with respects to the role of redistribution. Section 9 concludes the paper.

2   Literature Review

This paper contributes to two lines of research. One, originating with the seminal study of Prescott [32], 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 explanations based on different preferences and different tax rates. The other line of research, beginning with Algan and Cahuc [7] 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 [32] 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 [6] 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 important factor in explaining employment (or unemployment) differences across European countries. Brugger *et al.*, [12] is a paper 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 so called "Röstigraben" i.e. the border between language (cultural) regions which, however, does not correspond to political border or a labor market border . On the two sides of the "Röstigraben", the authors argue, one observes differences in culture but the same labor market and political institutions. The authors estimate a significant causal impact of cultural differences on differences in unemployment spells. The paper is very interesting and it exploits, as original source of identification, the discontinuity at the border. The analysis is limited to the Swiss case, and to only two cultures. The authors point out a cultural component of attitudes towards working from Latin to German differentials in unemployment spells' duration, after controlling for any differences in skills and other aspects of culture (beyond labor-leisure preferences), which may also be associated with the "Röstigraben" border and hence affect the estimates. Our approach uses transmission of culture across second generation of migrants, rather than a spatial discontinuity, to separate cultural from other effects. Also, we directly measure labor-leisure preferences using survey questions while Brugger *et al.*, [12] derive them as a "take-home" cultural effect, after accounting for potentially confounding factors. Hence, ours is a different and complementary method to the one used by Brugger *et al.*,[12]. Moreover, our approach prompts the inclusion of all countries in the analysis allowing each of them to differ in their cultural valuation of labor and leisure. In this way, we expand the focus relative to Brugger *et al.*,[12], trying to use our estimates to explain broad unemployment differences in Europe.

In the literature on cultural attitudes and labor market outcomes, Algan and Cahuc [7] 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.[3] 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.*, [20] also use data

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[3]Algan and Cahuc [7] 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.

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 the US, in order 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 [7] used panel regressions with controls to argue the relationship between cultural attitudes and labor market outcomes, Alesina and Giuliano [1] and Giavazzi *et al.*, [20] 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 or individual outcomes (Giuliano [21], Fernández [17] and Fernández and Fogli [18]), or between culture and policy preferences (Luttmer and Singhal [28], and Algan and Cahuc [8]) and attitudes towards labor regulation (Alesina et al. [4]. See als Alesina and Giuliano [3] for a review). Our paper, however is original in three respects, relative to the papers described above. First rather than obtaining culture-specific preferences from migrants to the US, which are known to be a strongly selected group of high skilled people (e.g. Gorgger and Hanson,[22]) we obtain country-specific preferences from estimates including all native people of a country. Then we include these preferences as determinants of employment outcomes for first and second generation migrants. Second, rather than inferring work attitudes from individual preferences for family or leisure time, we tackle directly the task of measuring country-specific preferences for working. Questions collected by the European Social Survey (ESS) allow us to capture these preferences and we analyze how they affect employment and hours worked. Third, while existing papers associate country-specific preferences with country-level indicators of employment performance (e.g. average annual hours), we analyze the quantitative importance of such cultural transmission of preferences on individual employment probabilities, vis-a-vis the role of skills, institutions and labor demand. In this way, we identify an important role for culture in explaining a part, but certainly not the largest share, of cross-European employment rate differences.

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 $1 - l_i$.[4] 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:

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

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 parameter θ_{io} captures the individual preference for labor relative to leisure, which we also call the preference for working. A larger value of this parameter implies that an individual experiences a lower marginal disutility when increasing the labor supply. This can be due to the fact that he/she offsets part of the disutility from effort with some enjoyment from work. 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 parameter" 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 characteristic of this parameter is that the idiosyncratic component $\log(\theta_i)$ may not be orthogonal to other characteristics of the individual (such as the productivity e_i that we will introduce 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:

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[4]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.

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

The expression (2) is a log-linear individual labor supply that depends on individual preferences for work, $\theta_{io}^{\frac{1}{\eta-\delta}}$ and on the individual wage w_{ior} with an elasticity equal to $\gamma = \frac{\delta}{\eta-\delta} \gtreqqless 0$ 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 preference for work parameter, 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:

$$l_{or} = \sum_i e_i l_{ior} \qquad (3)$$

We also assume the production function of the final good in country r, Y_r, can be expressed (as in Card, [13]) 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:

$$Y_r = A_r \left(\sum_o A_o l_{or}\right) \qquad (4)$$

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 [30], or in Ottaviano and Peri [31]). 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:

$$w_{ior} = e_i A_r A_o \qquad (5)$$

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 to the determinants of labor productivity:

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

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:

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

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, $\ln(\overline{\theta}_o)$ 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 components of skills and abilities, the term $\ln(e_i)$, so that the estimated coefficient on $\ln(\theta_i)$ could be a combination of β and γ. For instance, if more motivated people who value labor more than leisure are also more skilled in a non observable way 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 preferences for work of 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 culture-specific component of it, $\ln(\overline{\theta}_o)$, we regress the individual dummies on a set of controls for individual and parental characteristics (identical to those used in the regressions in Table 2) and on 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 effect are taken as the country-specific component of the preferences for work. Then these values are associated to the country of origin of parents of the individuals and they are considered as capturing the "culture of origin" attitude in working preferences of an individual $\ln(\overline{\theta}_o)$[5].

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. We call this variable $(work\_preference)_o$ and it only varies across countries 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 only to individual

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[5]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.

who reside in countries different from those of their culture of origin, $o \neq r$, 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 a measure of employment (probability of being employed or the logarithm of hours worked) for individual i from culture o who resides 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 determinants of 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 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 make us more confident that the effect of $(work\_preference)_o$ can be interpreted as the specific effect of labor-leisure preferences, rather than 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 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. We provide a series of robustness checks and "placebo" tests of the main hypothesis that strengthen our confidence in this strategy. In particular, we perform a number of exercises that show that selective migration along the work-culture dimension is not an issue in our estimates.[6] Moreover, in our preferred specifications we

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[6]Selective migration poses a threat to our identification strategy if the size of the migratory outflows is large enough to make the preferences predicted from the sample of natives systematically overstate the true country-specific preferences (e.g. because migrants have lower preferences for work than natives) and migrants are more likely to have a job than natives (e.g. because they are more skilled). In the on line

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 [17]). 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 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 citizenship in the country of residence because of the prevalence of the *"ius sanguinis"* in transmitting citizenship rights. 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. Respondents were asked to what extent they agreed with the statement: "*I would enjoy having paid job even if I did not need money*". The corre-

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Appendix, we show that country-specific preferences have no effect on individual migration status (see Table C-1) and confirm that our results are robust to the inclusion of total and high skilled emigration rates as controls (see Table C-5). Also, to account for any bias associated with selective migration, in Table 10 we perform a robustness check using as a main regressor the culture-of-origin preferences predicted from the entire set of individuals sharing the same origin (i.e. including both natives and migrants).

sponding 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". Our basic measure of the individual preference for labor versus leisure is a dummy equal to one for people who "strongly agree" with the statement and zero otherwise. 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, the labor preference dummy described above. [7] As robustness checks we also codify differently the preference for labor versus leisure either by using the 1-5 index directly or extending the dummy to one is a person agrees or strongly agrees with the statement and zero otherwise. Our results suggest that these alternative coding produce similar results (see on line Appendix, Table C-3).

Our dataset covers 26 countries during the period 2002-2012.[8] 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 (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. 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 [18], and Alesina and Giuliano [1]). Our final sample includes $55,742$ individuals 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 aggregate, 10% of the sample strongly agrees with the statement about enjoying paid work and 50% either agrees or strongly agrees. 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) significant cross-country variation.[9] 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

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[7] As Algan and Cahuc [8] notice, very often in individual survey questions only the two extreme answers have a clear meaning for the respondent. This is why our preferred definition groups together the answers "strongly agree" on one side and all other answers on the other side.

[8] 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.

[9] The high average employment probabilities are due to the fact that we exclude from the population sample a number of individuals that cannot supply labor despite being in working age (e.g. people in education, or disabled). These individuals are generally included in country aggregates provided by national statistical offices.

ever being unemployed for 12 months or more was about 13%. About 40% of the sample has some tertiary education, while 44 percent has 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, Western 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 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 that 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[10]. Figure 1 shows on the horizontal axis the country-specific component of labor-leisure preferences, estimated as the coefficient on the country-fixed effect in the regression of native-only preferences after controlling for all individual and parental characteristics. On the vertical axis it shows the country-of-origin component in the labor-leisure preferences (coefficient on the country-of-origin effect 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[11].

[FIGURE 1 AROUND HERE]

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[10]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.

[11]Size and statistical significance of the correlation becomes even larger when we regress individual preferences of immigrants on country-specific preferences, i.e. describe the cultural transmission of individual preferences featuring Luttmer and Singhal [28] and Fernández and Fogli [18] (see on line Appendix, Table C-2).

The second correlation, shown in Figure 2, is between the culture-of-origin work-preferences, reported on the horizontal axis and identical to Figure 1 and the employment rate of emigrants from the same culture-of-origin, aggregating all destinations. While there is a large amount of noise and variation, produced by many other confounding factors, we see a positive correlation that indicates emigrants from countries with higher labor-leisure preferences have a higher probability of being employed when abroad. The OLS 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. The correlation between preference for work and employment in the country of origin could work through the impact of preferences on institutions or on labor demand and attenuate the pure effect through supply, which is instead isolated in the scatterplot for emigrants. In showing this, Figure 2 and 3 already illustrate the important role of the migrant-based "epidemiological approach" in isolating the effect through preferences and labor supply.

[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 on line 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 (b) 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 above. 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 time-varying institutional and economic features of the country of residence. 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, and these controls allow us to account for

them. Line (a) of Table 3 differ from the others in that it shows the coefficient on the variable $(work\_preference)_i$, measured for the individual. As discussed above the individual preference may have an idiosyncratic – and potentially endogenous – part, as well as a culturally determined, more persistent part captured by the country-specific part $(work\_preference)_o$ which is the explanatory variable in row (b) to (e). Hence the estimates in Row (b)-(e) can be interpreted as the effect of culture-of-origin work preferences on employment probability, while the estimates in Row (a) show how relevant endogeneity and omitted variable bias is in affecting the correlation at the individual level. For all specifications we compute robust standard errors, two-way clustered by origin-destination country. We also re-run all estimates, with bootstrapped standard errors by country of origin to account for any measurement error in the estimated $(work\_preference)_o$. These estimates confirm the statistical significance of coefficients in Table 3 (see on line Appendix, Table C-4 for details).

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. 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 [15]) may lead to overstating one's preference for work. Alternately, unobserved individual characteristics 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 stated preferences for labor. Things change when we assign to individuals the average preference for work from the culture of origin.

In Specifications (a) and (b) 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 Rows (c)-(e) 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 are stable over the decade. Some studies, such as Giavazzi et al. [20], 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 preferences and the analysis is limited to one decade – a period over which we can consider them constant. Row (c) includes natives and immigrants in the regression, while Rows (d) and (e) consider only migrants. Row (e) focuses on the group of migrants aged 20-50, which has the highest employment rates in our surveys. The results show a strong, positive and statistically significant effect of work preference on employment probability, especially large when we limit our analysis to migrants (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 2 to 2.5 percentage point for males. This is about half of the actual difference in employment rates of males between Spain (0.9) and

Norway (0.95). [12]

[TABLE 4 AROUND HERE]

In Table 4, we focus on the specification used in Row (d) of Table 3, 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 also 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 week.

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 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 test whether assimilation in the country of residence affects the strength of the impact of culture of origin on employment. 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. 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 are more likely to have absorbed

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[12]Similar magnitudes are confirmed also in specifications that capture the country-of-origin preference for work using different codifications of the variable that states individual's preferences i.e. a dummy equal to one if he/she agrees or strongly agrees with the statement (rather than only "strongly agree") about enjoying work and the initial index ranging from 1 to 5 (from strong disagreement to strong agreement) directly. Estimates' results using these alternative mappings of country specific preferences are reported in Table C-3 in on line Appendix.

aspects of the local culture. The second dimension 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.[13] 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.[14]

We split the sample in two groups along each of the three characteristics described above 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 also 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.[15]

First, in each panel we find a significant average 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 that assimilation reduces the effect of culture of origin on the probability of employment. Panel A(ii) shows a significant and stable effect 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 of a test show these differences significant at the 1% level. In Panel B(ii) specification [3] 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 be-

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[13]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.

[14]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 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. [27]).

[15]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.

tween 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.

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 looking 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.[16] 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 [17]).

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

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[16]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.

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 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 of 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 skills related to school characteristics in the country of origin. Some of the proxies for education quality in the country of origin are significant. In particular, larger education expenditure as a percentage of GDP, higher enrollment rates in primary education, and lower pupil-to-teacher ratios in the country of origin are associated with higher employment probability of migrants. Those indices may proxy for school quality in the country of origin. We do not find any positive correlation between PISA scores in the country of origin and employment probability of migrants. PISA scores are outcomes (rather than inputs) of schooling. 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[17] and hence his probability of employment. Nevertheless, the effect of country-of-origin work preference seems orthogonal to these controls and its effect survives their inclusion. This remains true even if we add indicators that may account for unobserved human capital embodied either in the individual or in the "quality" of his ethnic network. In the on line Appendix we report robustness checks when we control for the labor force quality measures by Hanushek and Kimko [25], which are based on performance on international standardized tests, and the share of co-emigrants (i.e. emigrants from the same country of origin as the respondent) with a tertiary education degree (see on line Appendix, Table C-5). These robustness checks are in the spirit of Fernández and Fogli [18].

[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 either through abilities or through 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

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[17]See Schoellman [33] for a quantification of the importance of education quality using migrants' human capital.

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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. We include GDP per capita and growth of GDP per capita in Panel A, the measures of labor market performance (employment to population ratio, and unemployment rate) in Panel B and the 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 positive and significant. 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 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.

In the on line Appendix we present additional robustness checks, and show that our results are unchanged when we control for total and high skilled emigration rates from the country of origin, for cultural proximity (measured in terms of having colonial links) between origin and destination country, and for geographical distance between the two countries.[18] Results do not vary much either when we control for the size of the network of co-immigrants in the same destination (see on line Appendix, Table C-5).[19]

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 and beliefs that may affect social and individual behaviors of migrants. We considered several other values as potentially having important economic consequences and also possibly affecting the inclination to work. Religious intensity (see e.g. Guiso et al. [23]; Giavazzi et al. [20]), self-interest or trust (Guiso et al. [24], Algan and Cahuc [8]) and attitudes towards the family and towards gender (Alesina and Giuliano [1], Giavazzi et al. [20]) all can affect willingness to work. In Table 9 we

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[18]Cultural and geographical distance between the local labor market where the individual lives and the capital of the source country may involve, ceteris paribus, more difficulties on the labor market (see Guiso et al. [23]).

[19]An individual's network of co-immigrants may play an important role in transmitting and preserving a set of beliefs or preferences. In particular, the impact of the cultural proxies can be larger for those ancestries that show a greater tendency to cluster. This robustness is again in the spirit of Fernández and Fogli [18].

include, in turn, variables controlling for the values and attitudes revealed by individuals in order to check whether the effect of work preference is 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 employment rates of our sample and are statistically significant. Indeed, existing studies show these three dimensions of individual preferences are strongly correlated (Guiso et al. [23], Guiso et al. [24], Giavazzi et al. [20].) 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. [14]). Finally, lack of loyalty towards friends does not seem to be correlated with individual employment probabilities.

7.3 A Comparison: Alternative measures of country-specific preferences

[TABLE 10 AROUND HERE]

Up to now we have controlled for the potentially confounding effect of some origin-specific characteristics or individual preferences of immigrants, by including the appropriate controls in the second stage. However, some individual characteristics, may also present a country of origin specific component that can be correlated with $(work\_preference)_o$. To properly account for these factors, in Table 10 we report an additional set of estimates obtained when using alternative measures of country-specific preferences. In Row (1) we report our baseline specification to prompt comparability. In Panel A, we report results when we use a measure of $(work\_preference)_o$ obtained from a first-stage specification augmented by controlling for individual characteristics such as religious intensity and denomination (Row 2), generalized distrust, and conservative work culture (Row 3). We also control for a dummy for native language belonging to the Latin linguistic group (Row 4), and dummies for individual being unemployed or belonging to a discriminated group (Row 5). The estimated effect of $(work\_preference)_o$ obtained from any of these augmented first-stage specifications is basically unchanged, which confirms that our baseline results are not driven by unobserved productivity differences correlated with cultural preferences for work.

In Panel B, we report results when we use alternative measures of preferences for labor-leisure as a dependent variable. In Row (6) we report results when $(work\_preference)_o$ are predicted from all country of origin natives (i.e. including the first and second generation emigrants from that country). This robustness check avoids selection in the measure of country-specific preferences that would arise if migrants and non migrants have strongly different preferences. The coefficient of $(work\_preference)_o$ in Row (6) is larger than in Row (1), which suggests that accounting for the preferences of emigrants themselves, reinforces the impact of culturally-transmitted preferences on migrants' employ-

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ment outcomes. In Row (7), we measure country specific preferences as a simple (uncon-ditional) mean preference of natives who reside in their origin country. In this way, we reduce significantly the measurement error introduced by estimating the main regressor, but also add potential omitted variables to the estimates, as we no longer control for individual and parental characteristics. Estimates in Row (7) confirm our main results, while the coefficient becomes slightly smaller in size. Finally we use an alternative measure of work-preference, describing the importance attached to keeping own job, and captured as a dummy equal to 1 if individuals respond "to keep my job" to the question *"Which of the reasons shown on this card is the main reason why you put effort into your work?"* In Row (8) we present estimates when we use as a main regressor the variable $(Work\_effort)_o$ i.e. the predicted origin FE of a regression of individual work effort to keep a job by natives, after controlling for the usual set of individual and parental characteristics. Our results are again confirmed both in terms of significance and size of the estimated impact.[20]

7.4   A Comparison: Alternative Cultural Explanations

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 culture of origin 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 the effect of other indicators of culture of origin that have been associated with higher propensity to work. In particular, Brugger et al. [12] find that cultural differences between Latin and German native speakers account for about 20% of the variation in Swiss unemployment across regions. Alesina and Giuliano [1] and Giavazzi et al. [20] find a negative effect of a conservative family culture on the participation and employment outcomes of females and youth.

The results are shown in Table 11. In Column [1] we include a dummy for Latin language of origin and a measure of Linguistic proximity proposed by Melitz and Toubal [29] 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 unobserved skills of immigrants (proxied by the education quality in the country

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[20]Point estimates in column [3] suggest that one standard deviation increase of $(Work\_effort)_o$ (equal to 0.15) increases the individual employment probability by 2.4 percentage points, which is in line with results presented in Table 3, Row (d).

of origin). In Column [4], we include our indicator of culturally transmitted preferences for work, and an indicator measuring a conservative view regarding women's role in the labor market used by Alesina and Giuliano [1] and Giavazzi et al. [20]. 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. 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 subtract from each variable its mean, and divide it 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[21]. Also, the effect of preferences for work is similar in size to the effect of a conservative work culture.

[TABLE 11 AROUND HERE]

8 The Role of Redistribution

The connection between work preferences and employment that we have studied so far may interact with redistribution in two ways. First individuals who have more leisure-oriented preferences may see as desirable that social protection and redistribution in a society allows low income people the possibility of working less. The preference for leisure may be related to stronger preferences for redistribution and we will analyze that. On the other hand the generosity of redistribution (labor market insurance and size and progressivity of taxation) is itself an important determinant of employment decisions. Hence we will quantify how important preferences are, relative to taxation and unemployment insurance, in affecting employment of individuals.

8.1 Preferences for Work and Redistributive Attitudes

In Table 12, we investigate the effect of country-of-origin work preferences on opinions and choices in the area of social equality and government redistribution. A low preference for working, implies an individual considers labor a burdensome activity and it seems compatible with a position in favor of government redistribution and regulation of labor. The outcome variables we explore in the first two rows of Table 12 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). Finally we consider if he/she reports that it is important "to treat people

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[21]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.

equally" (Row e). The estimates reveal that 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. This is reasonable as both of those preferences clearly imply a much larger set of political and social attitudes not necessarily linked with the attitude towards labor. 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. This is consistent with other findings from the existing literature investigating the cultural determinants of attitudes towards redistribution (see Alesina and Giuliano [2] for a review). This literature shows that individual preferences for redistribution are often rooted in a "history of misfortune" in the country of origin that may reduce self-reliance and willingness to exert individual effort (hence dislike work) and make people more likely to prefer government and institutions that pursue social insurance and redistribution (see e.g. Giuliano and Spilimbergo [19]; Alesina and Glaeser [5]). Such preferences are culturally inherited over time and may persist even for generations who are not exposed to adverse economic shocks (see Luttmer and Singhal [28]).

[TABLE 12 AROUND HERE]

8.2   Labor Market Institutions and Taxation in the Host Country

Redistributive policies and taxation are also very different across European countries. In Table 13 we include explicitly indicators of institutions and redistributive policies in the country of residence of the immigrant as determinants of employment. When we do so we need to remove from the regressors the country of residence *by* year effects and only include country of residence *and* year effects. In Panel A, we consider the role of labor market institutions that are often considered as important in determining the employment rate of a country (see Bassanini and Duval [10], and Arpaia and Mourre [9] 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 potential impact of bargaining power on employment. 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] allow us to compare the magnitude of coefficients across determinants of employment, as we standardize each explanatory variable by its standard deviation. We see that the magnitude of the effect of work-preference is larger and more significant than the effect of unionization on the employment probability. However the effect of unemployment insurance is seven

times larger than that of work preferences.

In Panel B, we analyze the effect of labor taxation at different points of the wage distribution on employment and we capture measures of tax progressivity (see e.g. Alesina and Giuliano [1], Lehmann et al. [26]). In particular, we choose measures of labour taxation based on average tax rates (*ATR*) at different points of the earnings distribution, namely: 67% of the average wage, at the average wage (i.e. 100%) and at 167% of the average wage.[22] From the above information, we follow Lehmann et al. [26] and compute retention rates, namely the percentage of income left after tax, $retj_{i,t} = (1 - ATRj_{i,t})$ where $j = 67\%, 100\%, 167\%$ with respect to the average wage in country i and year t (the retention rates, therefore, are in percentage points), and express them in logarithms. In column [1] we include only $ln(\text{ret100}_{i,t})$, which features the typical empirical proxy for the average tax wedge on labor used in the unemployment literature (see Bassanini and Duval [10]). In countries in which the tax wedge is larger, the incentive to work should also be reduced. In column [2] we include measures of the retention rates at the other two points of the distribution, $ln(\text{ret67}_{i,t})$, and $ln(\text{ret167}_{i,t})$. In column [3], we include $ln(\text{ret100}_{i,t})$ and the progressivity indicator by Lehmann et al. [26] which consists in the logarithm of the ratio of retention rates at 67% and 167% of the average wage. In column [4], we also add culturally transmitted preferences for work. The estimated effect show that increased retention rate and increased progressivity of taxes (which implies lower relative burden for low income people) increase the supply of labor, as expected. Estimates in column [5] compare the magnitude of the effect of preferences for work with the effect of taxes. All specifications include the unemployment benefits replacement rate and union density as institutional controls. The coefficients confirm that larger retention rates and a more progressive tax system, imply a higher employment probability. However, even controlling for those factors, the country of origin preference for work turns out to be strongly significant and large: the effect of preferences is twice as big as the effect of tax progressivity, but significantly smaller than the effect of average taxation (about one tenth).

All in all, the effect of culture of origin preferences for work is robust and important. While its impact on employment probability is much smaller than the impact of unemployment insurance or tax wedge, it is still significant and more important than the estimated impact of tax progressivity and unionization. Part, but by no means all, of the variation in adult employment rates across countries may be due to preferences and not to frictions. Moreover, our results confirm the intuition in Prescott [32] that labor taxes are important determinants of labor supply elasticities in Europe and preferences, while also relevant, are much smaller in their quantitative impact.

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 across European Countries. Let's focus on the 90-10 percentile difference in employment rates across the European countries considered in this analysis. In order to explain it, we take the coefficient of preferences for work estimated in Ta-

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[22]These indicators are harmonised over time and across OECD countries and encompass income taxation by central and local governments and employers and employees social security contributions. We focus on single individuals without children.

ble 13, we multiply it for the differences between the country dummies at the 90th and 10th percentile in the auxiliary regression that estimates work preference across countries and see how this product compares with the difference in employment rates of males between the country at the 90-th and the country at the 10th percentile. 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 preferences 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. A similar magnitude would be estimated if we consider differences in labor taxation between the country at the 90th and 10th percentile of the distribution.

So while institutional variables are certainly very relevant, cultural differences would produce up to a fourth of the employment rate differences between high and low employment rate countries, even in absence of institutional differences.

[TABLE 13 AROUND HERE]

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 and being successful at work are considered great virtues. Other cultures emphasize the importance of enjoying free time, instead. 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 preference for working translates in higher probability of employment by using differences across European countries and the country of origin of cross-European migrants. The basic model of labor supply implies that different relative preferences for leisure and work imply different labor supply (probability). 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 index of preference in the country of origin. We then focus only on migrants living in European countries different from their country 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 gener-

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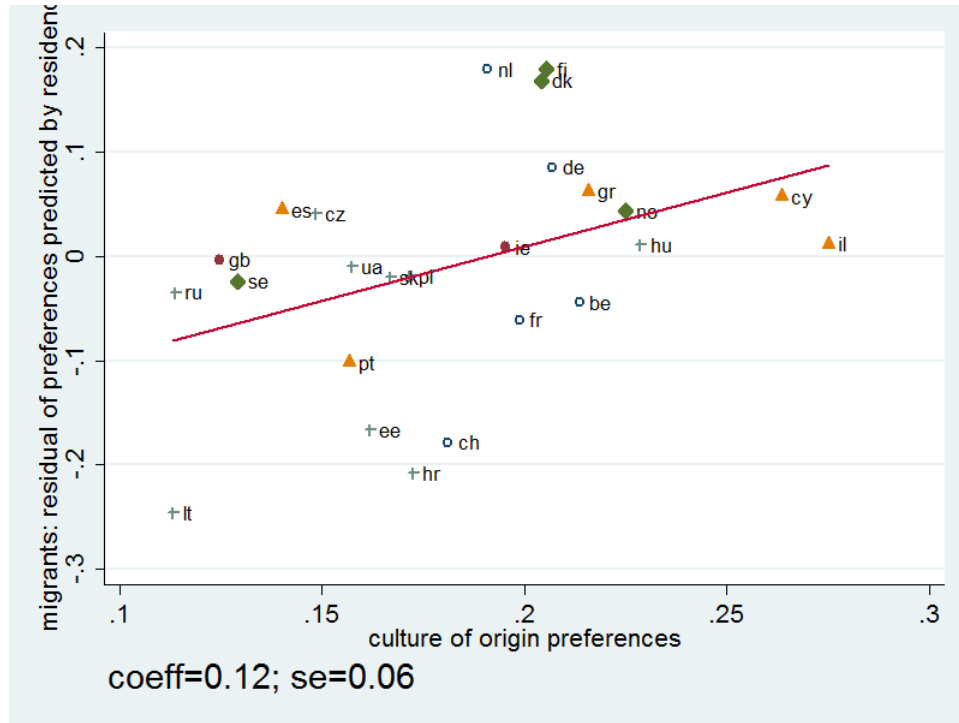
Notes: labor-leisure preferences of migrants, conditional on country of residence FE (y-axis) vs. culture of origin preferences (x-axis).

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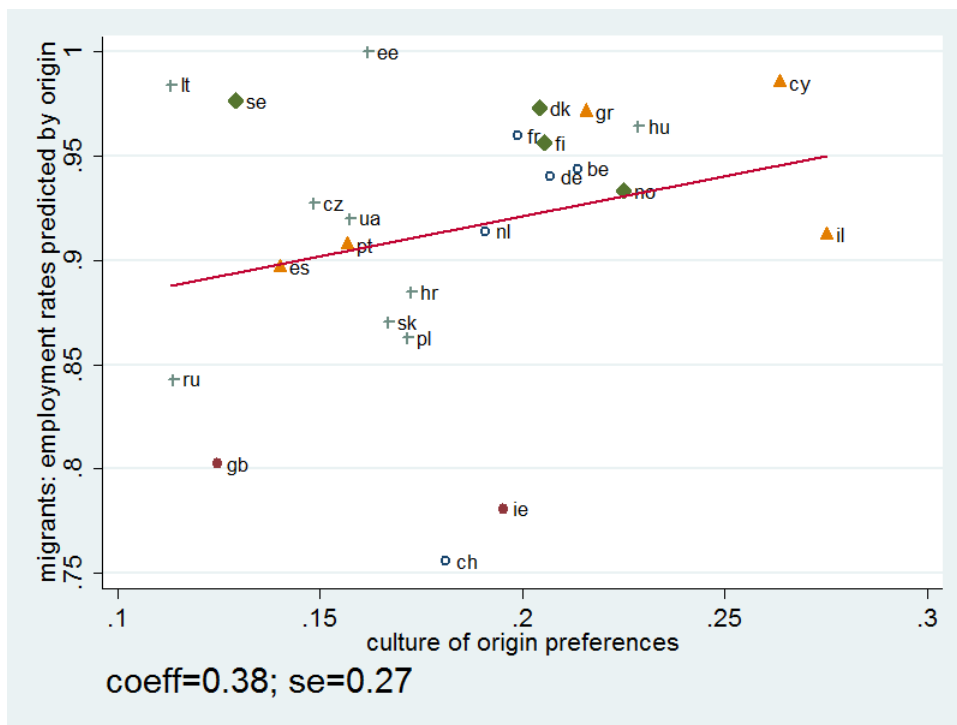
Notes: The employment rate of migrants predicted by origin country FE (y-axis) vs. culture of origin preferences (x-axis). Data refer to 2004-2012.

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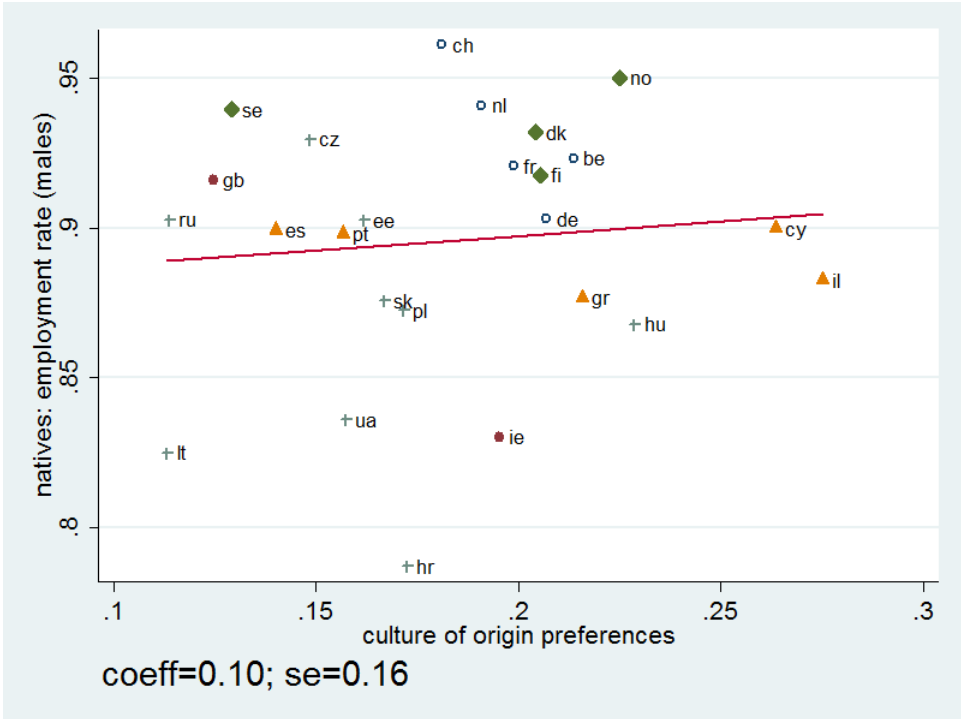
Notes: The employment rate of natives (y-axis) vs. culture of origin preferences (x-axis). Data refer to 2004-2012.

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) reduced form IV, natives and migrants (2010)	0.54***	0.37***	0.32***	9564
	(0.06)	(0.06)	(0.05)	
(c) reduced form IV, natives and migrants (2004-2012)	0.29***	0.28***	0.24***	48027
	(0.05)	(0.03)	(0.03)	
(d) reduced form IV, migrants only (2004-2012)	0.53***	0.50***	0.41***	2674
	(0.05)	(0.05)	(0.05)	
(e) 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. Specification (a) shows 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 (b)-(e), we show the coefficient on the culture of origin preference for working obtained from the auxiliary regression described in the text. 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. Bootstrapped standard errors (1000 repetitions), clustered by origin country in parentheses. Significance levels: *: 10%   **: 5%   ***: 1%.

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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)	baseline specification (d) in Table 3			
(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				
(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: $*: 10\%$ $**: 5\%$ $***: 1\%$.

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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: Alternative measures of country-specific preferences

	[1]	[2]	[3]	Obs.
(1) Preferences for work, baseline	0.53***	0.50***	0.41***	2674
	(0.05)	(0.05)	(0.05)	
Panel A: Additional controls in the 1st stage				
(2) Religious intensity, denomination	0.49***	0.47***	0.39***	2674
	(0.06)	(0.06)	(0.06)	
(3) Distrust, conservative work culture	0.53***	0.51***	0.41***	2674
	(0.05)	(0.06)	(0.05)	
(4) Latin language spoken	0.54***	0.52***	0.42***	2674
	(0.05)	(0.06)	(0.05)	
(5) Unemployed, discriminated	0.54***	0.52***	0.41***	2674
	(0.05)	(0.05)	(0.05)	
Panel B: Alternative measures of preferences for work				
(6) Entire pool of natives (including immigrants)	0.62***	0.62***	0.53***	2674
	(0.05)	(0.06)	(0.06)	
(7) Average preferences by origin (unconditional)	0.50***	0.46***	0.36***	2674
	(0.05)	(0.05)	(0.05)	
(8) $(Work\_effort)_o$	0.10***	0.13***	0.16***	2674
	(0.03)	(0.03)	(0.03)	

Notes: in Row (1) country-specific preferences are predicted after controlling for the usual set of individual and parental characteristics, as in the baseline specification in Table 3, Row (d). In Row (2) we added to the baseline specification dummies for attending religious services more than once a week, praying more than once a week (see Table 9, Panel A), and seven dummies for religious denomination. In Row (3), we added to the baseline set of controls generalized distrust, importance attached to job security and preference for men's over women's work when jobs are scarce (see Table 9, Panel B and C). In Row (4), we added to the baseline controls a dummy for the main spoken language belonging to the latin linguistic group. In Row (5), we include dummies for individual being unemployed or belonging to a discriminated group. In Row (6) country-specific preferences are predicted from the entire pool of people coming from the same country of origin, including first and second generation migrants in a different destination. In Row (7), country specific preferences are measured as (unconditional) average preferences of natives who reside in their origin country. In Row (8) they are the predicted origin FE from a regression of individual in-work effort to keep a job, after controlling for the usual set of individual and parental characteristics. Robust standard errors, clustered by residence and origin country in parentheses. Significance levels: $*: 10\%$ $**: 5\%$ $***: 1\%$

Table 11: Culture and skills from the country of origin: comparison and magnitudes

	[1]	[2]	[3]	[4]	standardized coefficients
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

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 variables 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. All specifications include country by year FE, 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%.

Table 12: Effect on individual preferences for redistribution

	[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 13: Labor market institutions and taxation in the residence country

	[1]	[2]	[3]	[4]	*standardized coefficients*
Panel A: Labor Market 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
Panel B: Labor Income Taxation					
$ln(ret100)$	0.667***	0.341***	0.692***	0.692***	0.098***
	(0.028)	(0.032)	(0.024)	(0.025)	(0.003)
$ln(ret67)$		0.251***			
		(0.015)			
$ln(ret167)$		0.172***			
		(0.031)			
$ln(\frac{ret67}{ret167})$			0.075***	0.070***	0.004***
			(0.015)	(0.015)	(0.001)
Preferences for work				0.275***	0.009***
				(0.041)	(0.001)
N	46830	46830	46830	46830	46830

Notes: In Panel B, retention rates are computed as $retj = 1 - \frac{T(j \times AW)}{j \times AW_{i,t}} = 1 - ATRj$ for $j \in \{67\%, 100\%, 167\%\}$ with respect to the average wage (AW). See Lehmann et al. [26] for details. All specifications 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. Specifications in panel B also include controls for union density and unemployment benefits replacement rates. 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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