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The Effect of Host Society Culture on Migrant Wage Discrimination: Approaching the Roestigraben

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This paper investigates whether host society culture affects migrant wage discrimination, i.e. whether migrant wage discrimination is more intense in host societies where culture is more inward-looking. The motivation for this investigation in the Swiss context stems from two stylized facts showing that (i) political preferences on issues related to migration, asylum and naturalization of foreigners are markedly more conservative in the German region and (ii) that average wage differences between migrants and natives are larger in the German region. Building on this, the paper begins with a comparison of returns to factors (for eight migrant groups compared to natives) using a human capital model of wage determination. It then performs an Oaxaca decomposition of wage differentials in order to compare its unexplained component across groups and regions. The last step consists in implementing a regression discontinuity design approach to establish whether host society culture is one of the determinants explaining differences in migrant wage discrimination across the language border. Results show returns to factors of wage-earning migrants are lower in the German region for a preponderant majority of migrant groups. The analysis of wage differentials and the associated unexplained parts also support the hypothesis that wage discrimination is more pronounced in this region of the Swiss labor market. Finally, results of the regression discontinuity design approach confirm that host society culture is one of the determinants of wage discrimination endured by migrants.

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April 21, 2012

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This paper investigates whether host society culture affects migrant wage discrimination, i.e. whether migrant wage discrimination is more intense in host societies where culture is more inward-looking. The motivation for this investigation in the Swiss context stems from two stylized facts showing that (i) political preferences on issues related to migration, asylum and naturalization of foreigners are markedly more conservative in the German region and (ii) that average wage differences between migrants and natives are larger in the German region. Building on this, the paper begins with a comparison of returns to factors (for eight migrant groups compared to natives) using a human capital model of wage determination. It then performs an Oaxaca decomposition of wage differentials in order to compare its unexplained component across groups and regions. The last step consists in implementing a regression discontinuity design approach to establish whether host society culture is one of the determinants explaining differences in migrant wage discrimination across the language border. Results show returns to factors of wage-earning migrants are lower in the German region for a preponderant majority of migrant groups. The analysis of wage differentials and the associated unexplained parts also support the hypothesis that wage discrimination is more pronounced in this region of the Swiss labor market. Finally, results of the regression discontinuity design approach confirm that host society culture is one of the determinants of wage discrimination endured by migrants.

JEL Code: F22, J15, J31, J60, J68, J71, Z10, Z13

Keywords: immigration, migration, labour market, culture, political preferences, wage discrimination, Switzerland

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1 Introduction[1]

Culture plays an important role in shaping economic outcomes. The most influential argument supporting this claim was probably made by Max Weber in 1905 when he proposed a theory explaining how beliefs and values deriving from a particular world view (protestantism) influence behaviours (hard work, savings) and, eventually, the way the economy is organized (capitalism). In labor market economics, several authors have suggested that non-economic factors play a role in determining economic outcomes. In the international context, empirical evidence shows that differences in national institutions can partly explain contrasts in unemployment equilibrium (Nickell and Layard, 1999) or in wage gaps between natives and migrants (Chiswick and Miller, 2006). In the Swiss context, where several linguistic regions are integrated into one labor market with common institutions, Brügger et al. (2009) have established that culture is causally related to differences in unemployment duration across regions. Following this logic, the question can be raised whether host society culture is causally related to differences in migrant wage gaps and wage discrimination across regions of the Swiss labor market.

This paper investigates whether host society culture affects the level of migrant wage discrimination, i.e., if migrant wage discrimination is more intense in the region where host society culture is most inward-looking.[2] The motivation for conducting this investigation in the Swiss context stems from two stylized facts showing that (i) political preferences on issues related to migration, asylum and naturalization of foreigners are markedly more conservative in the German region and closely follow the Roestigraben,[3] and (ii) that average wage differences between migrants and natives are larger in the German region. It draws on findings of other authors showing that, while the Swiss labor market is considered homogeneous (Cattaneo and Winkelmann, 2005; Brügger et al., 2009), wage discrimination is at work against migrants (Golder, 1999; de Coulon, 2001; Pommeranz, 2003), and employment discrimination is more widespread in the German than in the Latin region for second-generation migrants from former Yugoslavia (Fibbi et al., 2005). The contribution of the present study is to measure unexplained wage differentials between migrants and natives across the German and Latin regions of Switzerland, and examine whether host society culture is a significant

[1] This paper is part of a thesis (Kohler, 2012) on the economic and cultural integration of migrants in Switzerland, reverse causation between these two dimensions of the integration process, and the role of host society culture. Whereas each dimension is usually examined separately, this study proposes a systemic approach to investigate both the economic and cultural dimensions of migrant integration, their interaction as well as the influence of the broader social context. For a more detailed and critical contextualisation of this paper, see http://mpra.ub.uni-muenchen.de/38129/1/MPRA_paper_38129.pdf

[2] The description of a culture as more inward-looking than another could mean different things. In this study, this adjective is used in relation to the more or less conservative political preferences of host societies on migration, asylum and naturalization issues.

[3] The "Roestigraben" is a term describing the dividing line between the German-speaking and the French-speaking regions of Switzerland with their respective cultural differences. A definition has already been provided in the general introduction, but it is also illustrated in figures 5 and 6 in appendix to this paper.

determinant of observed differences in wage discrimination.

There are at least two reasons why the culture of a host society might matter for migrant wage discrimination. First, in a host society with a more inward-looking culture, social interactions between natives and migrants may be scarcer, thus negatively affecting the opportunities of migrants to gather information about employment providing best wage opportunities. Secondly, even if information were circulating freely in a host society, the influence of culture on preferences of natives would still entail a subjective cost when hiring a migrant. This would lead natives to keep good job opportunities first and foremost for their peers, as long as the cost of not attributing such an opportunity to a migrant is not too high. Alternatively, they might attribute it to the outsider if he agrees to relinquish on the attractive wage and to work for a lower wage. Through these two channels, host society culture could affect the level of migrant wage discrimination.

The paper is structured as follows. The next section offers a review of the literature related to migrant wage discrimination and to how cultural differences affect labor market outcomes. Section 3 presents stylized facts on differences in attitudes and voting patterns between the German and Latin regions of Switzerland concerning issues related to Swiss identity, migration, asylum and naturalization of foreigners. This section also points out differences in average wages of natives and migrants in both regions while presenting the 2003-2008 Swiss Labor Force Survey (SLFS) dataset used for the empirical investigation. Section 4 details the human capital model as well as the Oaxaca decomposition used to compare returns to factors, wage differentials and its unexplained component across origin groups. It then lays out the regression discontinuity design approach implemented to establish whether a causal effect can be attributed to host society culture in explaining differences in migrant wage discrimination across the language border. Section 5 presents the results. The last section concludes.

2 Related literature

2.1 About other countries

Leontaridi (1998) provides a historical perspective on the evolution of the theoretical debate between views competing to explain the nature and functioning of labor markets, i.e., supporters of the segmented labor market hypothesis and classical and neo-classical economists. In her review of most widely used empirical strategies that have been adopted in the literature to test the assumptions made by both schools of thought, she distinguishes four approaches (i) human capital models (ii) factor analysis (iii) cluster analysis and (iv) switching regressions. As this study follows the first approach applied to the Swiss context, this section focuses on studies using human capital models. It also reviews articles of authors that use alternative approaches as long as they present valuable evidence about the Swiss labor market.

In the 1970s, Blinder (1973) and Oaxaca (1973) were the first to conduct empirical studies on labor market segmentation based on human capital models. Their approach proposes a two-equation model linking a wage equation to a selection equation determining employment. This allows the decomposition of wage differentials into three parts, caused by differences in (i) endowments (ii) returns to factors (iii) selectivity. They find evidence of racial and gender discrimination, defined as the existence of an unexplained part in the wage differentials caused by differences in returns to factors. These findings were supported by evidence in many other countries (e.g., Zorlu, 2003, in the Netherlands; Elliott and Lindley, 2006, in the United Kingdom). The Blinder-Oaxaca decomposition is explained in more detail in the methodology section.

Since the 1970s, different extensions have been proposed to this approach. Arguing that policy implications derived from the acknowledgement of discrimination are limited, beause they can only lead to promoting stronger measures against discrimination without providing deeper insight into its causes, Neuman and Oaxaca (2004) further decompose the wage differential component due to selectivity effects. Although their theoretical extensions are interesting, their empirical findings remain inconclusive.

Chiswick[4] and Miller (2006) propose another extension to the human capital approach by combining it with a quantile regression methodology. They compare labor market outcomes of natives and migrants in the USA and Australia. Their results show that higher wage gaps in the USA and variations across quantiles may be caused by labor market institutions, especially differences in (minimum) wage regulations.

2.2 About Switzerland

Several authors have already implemented the Blinder-Oaxaca decomposition using Swiss data to test for and estimate the degree of market labor segmentation. However, in contrast with the present study, previous studies were more strongly constrained by the small size of their samples. Golder and Straubhaar (1999) define a human capital model, distinguishing men and women, as well as natives and first-generation migrants. Using 1995 SFLS data, they estimate an earnings function controlling for education and experience. They only correct for selection bias in regressions on female samples, arguing that participation rates in the labor force are very high for men. They find earnings differentials of 16% between men and women and 14% between natives and migrants. Their results also show that discrimination accounts for 85% and around 2/3

[4] Barry R. Chiswick was the first to empirically challenge the claim that migrants are discriminated on the American labor market. In his article published in 1978, "The Effect of Americanization on the Earnings of Foreign- born Men," he showed that observed wage gaps decrease with the number of years since migration.

of these differentials, respectively. De Coulon (2001) performs a similar exercise on the same male sample. He however distinguishes between first and second-generation migrants, as well as between education and experience acquired in the home and in the host country. His specification additionally includes dummies for firm size and hierarchical position. His results show Western European migrants actually earn more than natives even if slightly discriminated. Traditional country migrants earn less partly due to lower qualifications while migrants from other regions are most discriminated against. Schooling in Switzerland plays an important role. Results show that only one third of earnings differentials observed at the second generation cannot be accounted for by individual characteristics.

Other authors approached the same question through different empirical methods. Most of them find evidence that wage discrimination is at work against migrants in the Swiss labor market. Using data from the Wage Structure Survey, Pomeranz (2003) shows that in a simple earnings equation, migrant workers holding a permit suffer a wage penalty going from -1.9% (B-permit) to -16.8% (A-permit holders). Using data from the SLFS 2000, Sousa-Poza (2004) implements three empirical methods to test for the existence of labor market segmentation. Results of the cluster analysis indicate the existence of six or seven segments, among them one very large segment, which doesn't support the labor market segmentation hypothesis. Results of the switching model method support the hypothesis of a strictly dual labor market, and thus of labor market segmentation. Finally, the results of the analysis of low-wage mobility are inconclusive.

Three further studies matter for the present one, either because the intuition that was pursued or the methodology implemented served as a source of inspiration, or because of the findings made about the Swiss labour market. First, using data from the Swiss Household Panel (SHP) of 1999 and 2000, Cattaneo and Winkelmann (2005) examine the effects of mother tongue on labor market outcomes of Swiss residents. Instead of testing whether the law of one wage holds across linguistic regions, they examine whether the law of one wage holds within any given linguistic region when comparing native workers (i.e., Swiss workers whose mother tongue matches the language of the region they are living in) and non-native workers (other Swiss workers).[5] One advantage of their approach is that they do not have to control for factors such as geography, institutions, industrial structure, etc. that may have an influence on wage differences across regions. The authors also examine a model of the decision to move from one region to another. They find no evidence to suggest that the Swiss labor market is not perfectly integrated or that internal migrants are positively selected.

Secondly, Brügger et al. (2009) investigate the determinants of unemployment duration, and ask whether

[5]It should be noted that these definitions of natives and non-natives differ from those used in this paper, which are explained in the section presenting the data.

differences observed across the German and Latin regions of the Swiss labor market can be explained by cultural differences. To legitimize the use of a regression discontinuity design method, the authors proposes several arguments, backed up by evidence from the Swiss census 2000, to prove that the labor market cannot be considered to be segmented across cultural regions. First, the fact that 14% of workers in the Latin region and 8% in the German region cross the cultural border while commuting to work shows that the border is permeable, and mobility is symmetric when reported to the larger dimension of the German region. Second, migrants who are neither German native speakers nor Latin native speakers seem to have similar unemployment durations across the border. Third, although the share of migrants in the population is higher in the Latin region, which might intensify job competition, it is balanced near the language border (around 18%). They find that cultural differences can explain around 20% of the differences in unemployment duration across regions, and that horizontal transmission of culture (norms and values prevalent at the community level) is more important than vertical transmission (individual level).[6]

Finally, a sociological study by Fibbi et al. (2006) investigates the existence of employment discrimination against second-generation migrants originating from Portugal, Turkey and former Yougoslavia. The authors follow the guidelines of the International Labor Organization (ILO) for practice testing (similar curricula are sent out, the only difference being the origin and name of the fictitious applicant). Results show that employment discrimination is at work against second-generation migrants in both regions. Furthermore, in the group monitored in both regions, second-generation migrants from former-Yougoslavia, the probability to be refused a job interview is substantially higher in the German region.[7]

Drawing on the studies reviewed so far, this paper examines differences in wage outcomes across regions with the objective of determining whether host society culture has a significant effect on wage discrimination.

3 Stylized facts and data

3.1 Attitudes and voting patterns

The starting point for considering the research question is the markedly different attitudes and voting patterns that exist between Swiss citizens across the "Roestigraben." SHP data in table 1 shows that when asked to position themselves on a political left-right scale between 0 and 10, natives of German mother tongue appear to be slightly more conservative than natives of Latin mother tongue (0.31 point), but the

[6] The concept of "host society culture effect" used in this study is equivalent to what Brügger et al. (2009) call the "horizontal transmission of culture." It was chosen because, in the relation to migrant wage discrimination, it designates more clearly what is examined. The concept of "vertical transmission of culture" has no equivalent in this context.

[7] More details on this research can be found in the second paper of Kohler (2012).

averages are very close to each other and to the political center. Despite a shared political sensitivity, it appears German-speaking natives are much more cautious when it comes to relations with foreign countries and more assertive in relation to Swiss identity. This table also shows that, compared to Latin-speaking natives, German-speaking natives are more hostile to the idea of joining the EU (+20%), and less supportive of the idea of opening towards other countries (-11%). Whereas one can argue in good faith that differences in relation to the first question are motivated by political and other intelligible considerations, responses to the second more emotional question seem to support "clichés" about the Swiss German culture being more inward-looking and more attached to its traditions.

Although, differences related to such vague questions may seem irrelevant, it appears they are reflected in voting patterns. Table 2.2 shows that results of popular initiatives launched since 2000 in relation to naturalization, migration and asylum matters are systematically more conservative in the German region. The average gap separating both regions can occasionally reaches up to 19 percentage points. The illustration of these differences as a function of distance to the cultural border in figures 1 and 2 additionally reveals a recurrent and sharp gap at the border between both regions, hinting at the possible role of culture in explaining the preferences of voters.

Naturalization, migration and asylum potentially concern all migrants. In the Swiss political debate, however, not all migrants are considered equal. Even if French workers crossing the border daily to work in Switzerland or German nationals that occupy an increasing number of high-level positions in Swiss companies and universities have recently been targeted by right wing political parties, migrants from neighboring countries (Western and Southern Europe) don't have a major role in the political debate anymore. Since the first wave of Italian migration in the 1960s, a shift of symbolic barriers and a change in how Swiss define themselves and foreigners has occurred (Wicker 2003). For a majority of the Swiss population, Western and Southern European migrants may be considered as economic competitors at some times, but not as a threat to the Swiss identity. As a consequence, right wing political parties, like the Swiss People's Party, that initiate campaigns for tighter regulations pertaining to naturalization, migration and asylum find it most efficient to instrumentalize negative "clichés" about migrants coming from more distant and dangerous parts of the world. Over the last decade, right wing campaigns against migration, asylum and naturalization have made an increasingly intensive use of figures like "the violent Eastern European", "the African drug dealer," or "the veiled Muslim woman" (often portrayed in the guise of animals like rats, crows and most famously black sheeps)[8] in order to appeal to the fear and hatred of voters. Such campaigns have been systematically

[8]See the political ads of the Swiss People's Party in appendix to the general introduction of Kohler (2012).

more successful in the German part of Switzerland.

3.2 Wages

The second stylized fact supporting the investigation of the research question is the larger average wage gaps that are observed in the German region when comparing migrants and natives in Switzerland. Table 4 shows the average annual wages of men working full-time. Although natives earn slightly more in the German region, the wage level of natives is similar across both regions. For migrants, however, regional differences are significant. In comparison to natives, migrants seem to fare better in the Latin than in the German region. Migrant wage gaps are either negligible or smaller in the Latin region (except for African and Latin American men). It should be noted that the two most important non-Western migrant groups (Eastern Europeans, Turkey, Maghreb and the Mideast) both have average wages that are closer to those of natives in the Latin region.

3.3 Data and sample

The second stylized fact is based on SLFS data, which is used in the empirical part of this paper. Until 2002, the SLFS surveyed at most 15'000 individuals without over-sampling foreigners. As around 20% of the population is of foreign nationality, most of them from Western or Southern Europe, it contained very few observations on non-Western migrants. As a result, previous studies of labor market segmentation and wage discrimination in Switzerland either used datasets lacking information on origin (Pomeranz, 2003) or pooled individuals of different nationalities into very broad groups (Golder and Straubhaar, 1999; De Coulon, 2003; Sousa-Poza, 2004).

Since 2003, the SLFS has increased its sample to 40'000 and over-samples foreigners with 15'000 additional observations. By pooling waves from 2003 to 2008,[9] the SFLS sample reaches 308'346 observations. Table 2.3 details the composition across gender between natives (159'655), first and second-generation migrants (122'626 and 25'764) from eight ethnic groups: Western Europe (WE), Southern Europe (SE), Eastern Europe (EE), Africa (AF), Turkey, the Middle-East and Maghreb (TMM), Latin America (LA), Asia (AS) and South and Central Asia (SCA). For the sake of convenience, migrants from the last five groups will be referred to as "non-European" (NE) and those of the last four groups as "non-Western" (NW).[10] Natives

[9] Waves of the SLFS are made available by the Office Fédéral de la Statistique (OFS) the year after it was collected, e.g., data collected in 2008 is made available in 2009 only.

[10] Any such groupings can be the subject of a debate. Is it still relevant to distinguish between Southern, Western and Central Europe? Should Turkey be considered part of Eastern Europe as Russia is? There is no simple resolution to such issues. The list of all countries and the exact group classification, which is based on an aggregated United Nations typology and corresponds

are defined as individuals born in Switzerland and Swiss since birth. First generation migrants are born abroad. An individual born in Switzerland, but whose nationality is foreign is defined as a second-generation migrant.[11]

European migrants represent the bulk of migrant population, the most numerous being Southern Europeans, followed by Western and Eastern Europeans. Although TMM has a sizeable community, the five non-European minorities are comparatively much smaller. The same is true for the second generation. The even larger proportion of Southern Europeans is due to the fact that Italian and Spanish migrants where the first to come to Switzerland from the 1960s on. The relative size of the second generation is a rough indicator of the length of stay of a group in Switzerland.

As most second-generation groups are very small, this study focuses on first-generation migrants. Women are furthermore ignored in order to avoid well-known endogeneity issues (Kunze, 2006). Finally, the male sample is restricted to individuals in the work force aged between 16 and 65, as is done in other studies investigating wage outcomes to limit the number of outliers.

3.4 Descriptive statistics

Descriptive statistics presented in table 5 are based on all income-earning individuals (unlike those of table 4 based on individuals working full-time only). The sample used for the analysis of wage discrimination also includes unemployed individuals and is thus slightly larger.

Differences in average characteristic values among native men of both regions seem negligible. Regional differences in the characteristics of the three large groups of European migrants are minor too. In the smaller samples of non-European migrants, the average values of characteristics across regions vary more. As an example, TMM migrants are on average younger and less educated in the German region. Such differences might be related to differences in the origin of migration flows nurturing the two regions. In this case, whereas a majority of TMM migrants in the German region are of Turkish descent, they represent only half of the sample in the Latin region, the other half being mainly from Northern Africa. Asian and South and Central Asian female migrants display the largest cross-regional differences in characteristic averages.

to broad regions of origin, is available upon request.

[11] A small fraction of second-generation migrants are included in the native group as some of them only have the Swiss nationality since their birth.

4 Methods and specifications

This section presents the method used to analyze wage outcomes and wage discrimination in Switzerland. It then lays out the regression discontinuity design approach, which allows examining whether host society cultures play a role in shaping the way migrants are treated in both regions of the Swiss labor market.

4.1 Returns to factors, wage differentials and discrimination

The human capital model used for the analysis of wage outcomes and wage discrimination can be represented as a two-equation system composed of a wage function conditional on being selected into employment:

$$Y_i = X_i'\beta + \mu_i \tag{1}$$

$$E_i^* = H_i'\gamma + \varepsilon_i \tag{2}$$

where Y_i is the market wage (in logs) of wage-earning individual i, and E_i^* is the latent variable associated with being employed in a professional occupation. X_i is a vector of determinants of market wages and includes the variables already used by de Coulon (2003) in his specification of the wage equation: education (number of years);[12] age; civil status; experience (number of years at work without long interruption); supervision (number of employees under one's authority); whether one is involved in management or member of the board of directors; business size (number of workers); number of years of residence in Switzerland ; 6 year dummies and 14 sector dummies.[13]

H_i is a vector of the determinants of the probability to be employed including the following characteristics: education; age; civil status; number of years of residence in Switzerland; household size; and residence permit (C, B and other permits) dummies.

This model thus estimates the wage of an individual conditional on his selection into employment. In the first stage, a probit model is used to predict the probability of being employed and the inverse Mills' ratio[14]

[12] In the SFLS, the available educational variable is categorical. We use a scale proposed by de Coulon et al. (2003) to compute the number of years of education. In his 2003 article, de Coulon distinguished between education acquired in the home and in the host country. This distinction can't be made here, as this information is only available in specific modules of the SLFS recurring every 5 years. Adding this distinction in the specification would mean loosing 80% of the observations.

[13] Two missing determinants need to be commented. First, no variable accounting for the knowledge of the language spoken in the region is included in this list of wage determinants. This is not a choice of the author, but a limitation of the SLFS dataset that has been tolerated in previous studies. Furthermore, although language is probably a strong determinant when hiring an individual for a specific position, it is probably less the case for determining the wage of this individual. Secondly, the number of hours worked is not included because of alleged endogeneity issues. Indeed, it might be that an individual works more because he wants to earn more. Actually, results don't change much if the numbers of hours worked is included, showing that endogeneity is probably more a theoretical assumption than a reality (at least when considering annual income), and that most individuals don't chose to the number of hours they have to work.

[14] The inverse Mills'ratio is defined as the ratio of the probability density function to the cumulative distribution function of

is then included as a regressor in the second stage to correct for the selectivity into employment. Because the inverse Mills' ratio is a nonlinear function of the variables included in the first-stage probit model, the second-stage equation is identified even if first and second-stage regressors are the same. However, the nonlinearity of the inverse Mills' ratio arises from the assumption of normality in the probit model. In case this assumption doesn't hold, a simple alternative consists in including regressors in the first stage that are not relevant in the second stage. This makes the source of identification clear and debatable. In order to fulfill the condition that there be at least one exclusion restriction, and allow the consistent estimation of parameters, household size and residence permit are included in H_i, but excluded from X_i. Indeed, a man in charge of a large household probably faces more pressure to have a job than a bachelor, but this does not translate into a higher wage level. Similarly, whereas a temporary permit may prevent a migrant from applying for certain jobs, they are not expected to affect wages.

β and γ are the associated parameter vectors, and ε_i and μ_i are i.i.d error terms assumed to follow a bivariate normal distribution $(0, 0, \sigma_\varepsilon, \sigma_\mu, \rho)$. The probability of being employed in a professional occupation can be expressed as

$$\begin{aligned} Prob(E_i^* > 0) &= Prob(\varepsilon_i > -H_i'\gamma) \\ &= \Phi(H_i'\gamma), \end{aligned} \tag{3}$$

where $\Phi(\bullet)$ is the standard normal cumulative distribution function (the variance of ε is normalized to 1). Wages are observed if $E_i^* > 0$, so that the expected wage of an employed worker is given by

$$\begin{aligned} E(Y_i \,|E_i^* > 0) &= X_i'\beta + E(\mu_i \,|\varepsilon > -H_i'\gamma) \\ &= X_i'\beta + \theta\lambda_i, \end{aligned} \tag{4}$$

where $\theta = \rho\sigma_\mu$, $\lambda_i = \frac{\phi(H_i'\gamma)}{\Phi(H_i'\gamma)}$ and ϕ is the standard normal density function. The estimating equation for employed professionals may be expressed as

$$Y_i \,|E_i^* > 0 = X_i'\beta + \theta\lambda_i + error. \tag{5}$$

Focusing on the decomposition of the wage gap along ethnic lines in the presence of sample selectivity, the wage gap of migrant group j can be defined as $\overline{Y}_n - \overline{Y}_j = (\overline{X}_n'\hat{\beta}_n - \overline{\theta}_n\hat{\lambda}_n) - (\overline{X}_j'\hat{\beta}_j - \overline{\theta}_j\hat{\lambda}_j)$, where the

a distribution. It is labelled λ in the formulas and tables of this paper.

parameters are estimated by the Heckman procedure separately for each ethnic sub-sample. It follows that correcting for the selectivity bias requires a wage decomposition of the following form:

$$\overline{Y}_n - \overline{Y}_j = \overline{X}_n(\hat{\beta}_n - \hat{\beta}^*) + \overline{X}_j(\hat{\beta}^* - \hat{\beta}_j) + (\overline{X}'_n - \overline{X}'_j)\hat{\beta}^* + (\hat{\theta}_n\hat{\lambda}_n - \hat{\theta}_j\hat{\lambda}_j) \tag{6}$$

where $\hat{\beta}^*$ is the estimated non-discriminatory wage structure apart from selectivity effects. The first two terms on the right-hand side of equation 6 represent favoritism of natives and discrimination against foreign workers, the third term is the endowment component. The last term measures the contribution of selection effects to the observed migrant wage gap. If the native wage structure is considered as the non-discriminatory wage structure $\hat{\beta}^* = \hat{\beta}_n$, then

$$\overline{Y}_n - \overline{Y}_j = \underbrace{\overline{X}_j(\hat{\beta}_n - \hat{\beta}_j)}_{discrimination} + \underbrace{(\overline{X}'_n - \overline{X}'_j)\hat{\beta}_n}_{endowments} + \underbrace{(\hat{\theta}_n\hat{\lambda}_n - \hat{\theta}_j\hat{\lambda}_j)}_{selectivity} \tag{7}$$

This decomposition distinguishes the absolute migrant wage differential $AD_j = \overline{Y}_n - \overline{Y}_j$ which is composed of a part explained by differences in endowments $ED_j = (\overline{X}'_n - \overline{X}'_j)\hat{\beta}_n$ as well as by an unexplained part caused by differences in returns to factors that is usually attributed to discrimination $UD_j = \overline{X}_j(\hat{\beta}_n - \hat{\beta}_j)$. The differential due to selectivity can be further decomposed as already mentioned in the literature review, but it is not a priority concern in this study.

Following this theoretical approach, the empirical part first focuses on differences in returns to factors between natives and migrant groups j as estimated by vector β of equation 1. It then turns to wage differentials and its unexplained component often attributed to discrimination. Computing UD_j for eight migrant groups in both regions allows for a series of comparisons in order to establish which groups are most discriminated against, as well as if there are systematic differences across the German and Latin regions.

In line with the literature presented above, the Swiss labor market is considered homogeneous enough to allow for comparisons across regions.[15] However, to address the concern that results could be driven by the estimation of one single reference group (e.g., native men in the Latin region), two different groups of reference are used (i) native men of the region where migrants of ethnic subsample j are living, and (ii) native men of the German region. Furthermore, to address the concern that the chosen estimator could affect the results, returns to factors and UD_j are estimated using the maximum likelihood and the two-step estimator. For the sake of simplicity, only results obtained by maximum likelihood and in reference to native

[15]See arguments reported in the literature review, especially those made by Cattaneo and Winkelmann (2005) and Brügger et al. (2009). No new evidence or arguments are put forward in this study about the homogeneity of the Swiss labor market.

men of the region will be displayed, but results variations are discussed accordingly.

Stylized facts presented earlier suggest that there might be a relation between the more inward-looking native culture prevailing in the German region of the Swiss labor market and the comparatively lower average wages of migrants in that region. If results obtained using the human capital model outlined above show returns to factors are systematically lower for migrants in the German region, it would support the hypothesis that migrant wage discrimination is higher in the that region. However, it would not establish the significance of the causal link that might exist between the more inward-looking culture prevailing in that host society and the higher level of wage discrimination endured by migrants.

4.2 Geographic disparities and regression discontinuity design

Guiso et al. (2006) propose a methodology to assess the role culture has on economic outcomes by shaping prior beliefs and preferences. This study follows their advice as well as existing guidance on regression discontinuity design techniques (Imbens and Lemieux, 2008; Lee and Lemieux, 2010) and its actual implementation by Brügger et al. (2009), who investigate the role culture plays in explaining the longer average duration of unemployment observed in the Latin region of the Swiss labor market.

The key idea of regression discontinuity design is that geographic proximity preserves differences in culture, but lets differences in wage opportunities and institutions vanish (Brügger et al., 2009). In other words, observed differences in the treatment of migrants in the labor market at the cultural border are generated by differences in host society culture rather than by other factors. As mentioned above, several studies have performed cross-regional comparisons or put forward evidence supporting the claim that the Swiss labor market is homogeneous enough to allow for an analysis of structural breaks occurring on the Roestigraben. If this assumption is satisfied, then local contrasts in the unexplained part of the migrant wage differential observed at the border identify the effect of host society culture on wage discrimination endured by migrants.

Building on the notation used so far, let UDW_{ij} be the unexplained part of the wage differential of migrant i belonging to ethnic group j compared to the reference group. Empirically, UDW_{ij} is measured as the difference in the predicted wage of individual i using the coefficients estimated for the reference group and those of his ethnic group j. As wages are in logs, exponentiating predicted wages before taking the difference gives UDW_{ij} in Swiss francs. In the empirical part, several measures of UDW_{ij} are used based on two different reference groups and estimators. For the sake of simplicity, results obtained using the two-step estimator are omitted, but results variations are discussed accordingly.

Let every community c in Switzerland be defined as belonging to the German or Latin region, and $P_c = 1$ if a majority of its population speaks a Latin language, and $P_c = 0$ otherwise,[16] and D_c denote the distance by air of community c to the closest community located in the other region on the other side of the cultural border.[17] D_c is positive for communities in the German region and negative in the Latin region.

Furthermore, let $E_+(UDW_{ij})$ denote the limit of the expectation of UDW_{ij} on the German side of the cultural border, i.e., $E_+(UDW_{ij}) \equiv lim_{\epsilon \to 0} E(UDW_{ij}) \left| D_c = \epsilon \right)$, with $E_-(UDW_{ij})$ the corresponding expectation when approaching the cultural border from the Latin side. Contrasting the differential treatment endured by migrants on both sides of the cultural border crossing the Swiss labor market, the border contrast is composed of three components:

$$E_+(UDW_{ij}) - E_-(UDW_{ij}) = \beta \left[E_+(P_c) - E_-(P_c)\right] + \gamma \left[E_+(D_c) - E_-(D_c)\right] + \left[E_+(\nu_{ic}) - E_-(\nu_{ic})\right] \quad (8)$$

Equation 8 defines differences in the level of wage discrimination endured by migrants as a function of the majority culture and of the distance to the other cultural region. It allows exploring whether wage discrimination is discontinuous at the cultural border and whether distance to the other cultural region matters or not (which may hint at the permeability of the border).

If the specification of the wage equation, and hence the measured wage discrimination, is satisfactory, then the assumption that the error term ν_{ic} is mean independent of the border between cultural regions is respected, so that equation 8 can provide valid evidence about the causal role of host society culture in determining wage discrimination. In order to measure the contrast formulated in the previous equation, consider the following linear regression:

$$UDW_{ij} = \pi_0 + \pi_1 P_c + \pi_2 D_c + \delta X_{ic} + \nu_{ic} \quad (9)$$

where parameter π_1 is a consistent estimate of equation 8. X_{ic} is a vector of variables that capture differences between individuals and communities (e.g., implemented policies) that influence wage discrimination. However, it remains difficult to establish what such factors could be. X_{ic} only contains two additional co-

[16] The Latin region is defined as the French- and Italian-speaking communities in Switzerland. The German region covers German-speaking communities. Brügger et al. (2009) use the same definition. A typology classifying communities according to language is provided by the Federal Statistical Office (OFS). There are over 6000 communities in Switzerland. Note that it could be possible to take the proportion of inhabitants speaking a particular language instead of binarizing P_c, but this would not affect the results significantly as communities usually have linguistic majorities of over 85% as illustrated in Brügger et al. (2009).

[17] This measure was computed using the GRASS GISS software, and with the kind and indispensable assistance of Adrian Weber (geographer, Bern University, Switzerland). Different measures of distance exist. Distance could for example be measured in units of time needed to reach the cultural border by road. However, according to Brügger et al. (2009), differences in outcomes are negligible.

founders: the average skin color of the ethnic group to which an individual belongs, and cantonal policy to fight xenophobia. Skin color is an obvious marker likely to influence economic discrimination either directly or through the force "self-selection" of darker skin migrants into low-pay and low-prestige jobs. The skin color variable is built using the human skin color distribution map designed by the Italian geographer Renato Biasutti and based on von Luschan's chromatic scale, by assigning a value between 1 (clearest) and 8 (darkest) to each observation according to its origin group.[18] It is averaged for each of the eight origin regions. Policies to fight against xenophobia target the natives in order to foster a better understanding among communities as well as mutual tolerance. They are expected to affect the attitude of natives towards migrants and attenuate existing discriminations. This policy variable is built using the typology developed by Cattacin and Kaya (2001). In their comparative study of integration policies at the local level in Switzerland, the authors classify the 26 Swiss cantons in two categories: active/passive in "leading campaigns to sensibilize the public to cultural diversity and fight against racism and xenophobia." This categorization is based on the assessment of the extent to which cantons are involved in/support the organization of events like the National Day of Refugees or activities to increase public awareness about foreign cultures and ethnic diversity.

5 Results

5.1 Returns to factors

Results of the estimation by maximum likelihood of β for every migrant group j in equation 1 are presented in tables 6 and 7.[19] Coefficient signs are generally in line with those obtained in previous studies. Income increases with the number of years of education, experience, supervising other employees, the position in the professional hierarchy, business size, as well as with age. Married men earn more. A surprising result is that the number of years of residence in Switzerland is not always positive as could be expected based on the findings of similar studies. As an example, the wage of WE migrants in both regions, of SCA migrants in the German and AS migrants in the Latin region is decreasing with the number of years spent in Switzerland. This may be due to the qualitative change in migration flows originating from these regions.[20] Over the last

[18] The map is available in Barsh (2003).

[19] For some of the smaller population groups (LA and AS migrants in the German region, and SCA migrants in the Latin region), results obtained using the two-step estimator are displayed because the maximum-likelihood estimator did not converge. This is indicated by "2-STEP" under the log likelihood statistics.

[20] Until the 1990s, Switzerland had a rather stringent migration regime attributing few benefits to migrants. Pressure from European countries for the improvement of conditions for their nationals drove Swiss authorities to reconsider their policy. The idea to create a point system or to implement a "three circle" policy based on the concept of "cultural distance" of migrants were debated as means to satisfy Switzerland's neighbors without alienating xenophobic voters. De facto, Switzerland started to

10 years, Switzerland has experienced a large inflow of highly qualified migrants, especially from Western Europe. With the growing need of highly qualified workers and the shortage existing in certain segments of the labor market in developed countries, firms are now competing internationally to hire very specialized workers, who are moving almost freely around the world. Like in other developed countries, Swiss firms have hired many IT-specialists and other professionals they could not find on the domestic labor market, especially from Asia. These changes might explain why the coefficient on the number of years of residence is negative for some groups.

As the dependent variable is in logs, the magnitude of individual coefficients is easy to interpret. Thus, the effect of one more year of education for native men in the German region leads to an increase in wage of 4.4%. However, the purpose of displaying tables 6 and 7 is not to comment on individual coefficients, but to find patterns allowing for comparisons across migrant groups and regions.

Returns to education are generally slightly higher for natives compared to migrants. Among native men in the Latin region, one additional year of education yields an increase in wage of 5.08%, exceeding the returns to education obtained by other groups, the lowest significant returns being observed for TMM migrants (2.46%). In the German region, four groups display higher returns to education than natives. WE, AF, LA and SCA migrants earn on average between 4.81% and 5.63% more by additional year of education. The results for the last three groups might be driven by the fact that educational achievement along with wages in these small samples are more polarized. However, comparing returns to education across regions, it appears that they are higher in the German region for migrant men (except for SE and AS men). As a group, non-European (NE) migrants have higher returns in the German (3.45%) than in the Latin region (2.66%).

An interesting pattern appears when examining the relationship between coefficients on age and experience. Both have a positive effect on wage that is slightly decreasing over time. In the linear term only and in comparison to migrants, native men in the German region have a relatively low return to the experience acquired on the job (1.2%), but this is more than compensated by the higher return on age (6.6%). Apart from LA men whose return to age is high (8.4%), the wage of migrants living in the German region is more heavily dependent on experience. In the Latin region, these returns are of 1.9% and 6.2% for native men, in line with the pattern observed for natives in the German region. However, migrants enjoy higher returns to age and returns to experience are closer to that of natives in the Latin region compared to the German

apply a two circles policy, defining an "inner circle" and an "outer circle." Through bilateral agreements, EU/EFTA citizens are granted the same living and working rights as the Swiss, while for other countries, immigration is restricted to highly qualified individuals only (Mahnig et Piguet, 2003).

region. For example, non-European migrants in the German region have returns to age and experience of 2% and 1.8% respectively, but of 3.4% and 2.3% in the Latin region. This implies that whereas wages of natives in the German region tend to be automatically adjusted upwards over time, wages of migrants only increases as long as they do not change jobs, limiting their mobility and career opportunities. This trend is comparatively less pronounced in the Latin region.

Another pattern emerges when examining the effects related to the position in the professional hierarchy. Returns to being involved in supervision tasks are of a non-negligible magnitude, as wages increase by around 2% for each supervised employee. The increase in wage related to the participation in management is about 20%, but it can more than double for some migrant groups. In the Latin region, these returns are low for native men (2% and 13%) compared to migrants, indicating that these factors make less of a difference for the wage level of natives. In the German region, migrants are not necessarily much better rewarded than natives for performing supervision tasks (SE, EE and SCA men have lower returns to this factors in comparison to native men), but AF, LA and AS seem to enjoy higher returns from being involved in management.

No particular patterns emerge from examining the coefficients associated to marital status, business size and the number of years of residence in Switzerland. Native men earn a relatively large premium for being married (8.6% in the German and 8.9% in the Latin region) in comparison to migrants (only AF and LA men in the Latin region do better). Surprisingly, married TMM migrants in the Latin region earn less than non-married men. Concerning the effect of business size (the number of employees in the firm where an individual is working), the picture is blurred. Finally the number of years of residence has a negative effect on the wage of the four migrant groups mentioned earlier. It is insignificant for many other population groups.

There is a sense that selection effects may play a role in determining wages. This can be seen by looking at the statistics provided at the bottom of tables 6 and 7. Coefficient λ (lambda) take on both signs, but are negative most of the time. Since λ is inversely related to the probability of being employed, a negative coefficient indicates that (ceteris paribus) workers with higher probabilities of being employed will earn higher wages (conditional upon employment).

5.2 Wage differentials and discrimination

The decomposition of wage differentials is presented in table 8. The predicted wage of the reference group (Prediction 1) and of the migrant group j (Prediction 2) are first reported. The differential is then decomposed in three parts related to endowments, coefficients (discrimination) and interaction (selectivity). This is first done for individuals living in the German region, and below for those living in the Latin region. At the bottom of those tables, wage differentials and their unexplained part are compared across regions in order to observe whether results support the research hypothesis.

Predicted wages are significant for all groups. In table 9 predictions are exponentiated and compared to the observed wage in Swiss francs (see descriptive statistics in table 5). Predictions are in general close to the observed wage, supporting the hypothesis that the specification of the model is good. Discrepancies are largest in small samples, notably AF men in the German region, or AS and SCA migrants in the Latin region.

For most groups, the wage differential in comparison to the reference group is significant too. For LA and AS men in the German region and SCA migrants in the Latin region, the wage differentials as well as the three components are insignificant, which may be explained by the smaller size of the samples and the use of the two-step estimator.

The first part of the wage differential decomposition (endowments) is generally positive and significant. This indicates that differences in individual characteristics contribute to increasing the migrant wage gap. Western European men are the only group that is on average better endowed than natives. In comparison to the endowments component, the selectivity component has a minor impact on wage differentials. For Western migrants, the sign is in line with that of the estimated wage differentials. However, for non-Western groups that have a larger λ in tables 6 and 7, the result is reversed, and the effect is negative. In relation to the interpretation of λ (i.e., that workers with higher probabilities of being employed will earn higher wages), this may be interpreted as an indication that the polarization of income is more pronounced in these population groups in comparison to natives. The fact that the unemployment rate is higher among non-Western migrants with low qualifications supports this interpretation. On the contrary, if individuals with a high probability of being employed were not to earn comparatively higher wages, selectivity effects would be insignificant and the estimated average wage differential in comparison to natives would actually increase.

Results in relation to the second component of the decomposition (the unexplained wage differential) also provide an interesting insight. Indeed, whereas UD_j always have the sign of the wage differential and most of them are positive in the German region, UD_j are sometimes of the opposite sign and not significantly different from zero in the Latin region (except for WE and LA men). A simple interpretation of this result would imply that returns to factors are overall the same for natives and migrants in the Latin region, i.e., that there is no significant wage discrimination at work against migrants in this region.

Table 2.10 displays the equivalent in monetary terms (in CHF) of gains/losses in the annual predicted wage caused by differences in returns to factors, as estimated in tables 6 and 7. This effect varies from +1'302 (LA men in the Latin region) to -16'041 (AF men in the German region).

Wage decompositions are sensitive to a series of factors. However, results not displayed here show that patterns described above remain valid even if changes are brought to (i) the specification of the model (ii) the estimator as well as (iii) the reference group.[21] First, given the limitations of the SLFS, the specification of the model cannot be changed much. Previous studies based on the same dataset (Golder and Straubhaar, 1999; de Coulon, 2003) have set the parameters for estimating an earnings equation. Taking out the squared terms or the sector dummies or adding further variables (the number of hours worked that may be endegenous) does not change the results much. Secondly, opting for the two-step instead of the maximum-likelihood estimator yields qualitatively similar results. The two-step estimator tends to provide less significant coefficients when estimating returns to factors. As a consequence, predicted wages are less accurate, generally overestimated, and wage differentials much larger. It is also more difficult to interpret the results in real terms as exponentiated predictions and wage decomposition components are too large. However, although unexplained wage differentials grow in both regions and become significant in the Latin region, they remain much higher in the German region. Finally, if the Swiss labor market is assumed homogeneous for natives across regions, returns to factors should be sufficiently similar to enable the use of one wage structure (e.g., natives in the German region) as the reference to compute UD_j. Implementing this approach increases UD_j in the Latin region such that $UD_{jg} < UD_{jl}$ for some groups. However, as shown in the next section, although such variations diminish the estimated effect of host society culture on migrant wage discrimination, they do not jeopardize the identification of a host society culture effect.

5.3 The host society culture effect

As mentioned in the section on methodology, UDW_{ij} is defined as the unexplained part of the wage differential of migrant i belonging to ethnic group j compared to the reference group. Figures 3 and 4 show spatial representations of UDW_{ij} as a function of the distance to the language border. In the former, UDW_{ij} are computed using the wage structure of natives living in the region as the reference, whereas the wage structure of natives living in the German region is used in the latter. Both graphs in figure 3 show there is a structural break on the Roestigraben, indicating that migrants are more discriminated in the German

[21] Results discussed but not reported here are available upon demand.

region. The only exceptions are LA men.[22] When one same group of reference (i.e., natives in the German region) is used in figure 4, the structural break becomes smoother, but does not disappear.

The concern that differences in distance to the language border or factors so far omitted in the analysis might affect UDW_{ij} across regions are more specifically addressed by estimating equation 9. Mirroring figures 3 and 4, tables 11 and 12 present the results of the regression discontinuity design approach using UDW_{ij} measured in reference to both reference groups. In the upper panels, the host society culture effect is estimated using all observations. In order to address the concern that unobservable factors might become more important with a growing distance to the language border, the host society culture effect is estimated again in the lower panels using only observations located in bilingual cantons adjacent to the language border.

In this setting, host society culture is confirmed to have a significant causal role in determining the level of wage discrimination endured by migrants. Leaving LA, AS and SCA migrants aside in table 11, coefficients related to P_c are all negative and significant, most strongly for AF men (-16'527 francs). Non-Western migrants suffer more from the inward-looking culture prevailing in the German region than Western migrants (-9558 for NW, -5'576 for WE, -8'121 for SE). Interestingly, table 12 shows that the host society culture effect for Western European becomes insignificant when one single wage structure is used as reference to compute UDW_{ij} in both regions. This reveals the results are sensitive to the reference group that is used. It also hints to the fact that WE are not more discriminated in the German region, which is consistent with the fact that they are not perceived as a threat anymore in the political debate. The picture for other migrants, however, does not change. The magnitude of the host society culture decreases but remains negative, substantial and significant for most groups. For non-Western migrants host society effect still represents a loss of 4'205 francs in annual income.

This effect remains significant for most groups even after the sample is limited to individuals living in bilingual cantons (7'518 for non-Western migrants), in line with the intuition conveyed by the spatial representations of UDW_{ij} that there is a structural break occurring at the language border. Although the break in the economic outcome (migrant wage discrimination) is less pronounced than the one observed when examining political preferences on issues related to migration, asylum and naturalization of foreigners, both are consistent. This supports the idea that culture, by shaping prior beliefs and political preferences, does influence economic outcomes. Even if emotional impulses inherent to political issues may be tempered by rational considerations when actors move from a context where they can express their opinion freely and

[22] UDW_{ij} for LA and AS men in the German and SCA migrants in the Latin region were computed based on coefficients estimated using the two-step estimator. As is made visible by the larger 95% confidence interval in the graphs, the variance of UDW_{ij} is higher for these population groups.

anonymously (democratic votes) to a context where they are bound by profit-maximizing constraints (labor market), host society culture can still influence economic outcomes, and affect the level of wage discrimination endured by migrants. In a situation where economic actors would be perfectly rational, wage discrimination would not exist and it would be impossible to observe systematic differences in migrant wage discrimination across different cultural regions of the same labor market.

There is less support for the hypothesis that discrimination increases/decreases with distance to the language border, i.e., that the cultural border is permeable in relation to this issue. Many coefficients for D_c (split into two components, *distlatin* and *distgerman*) are insignificant, mostly when using the same reference group.

In table 11, the coefficient associated with policies to fight xenophobia is positive in the regression pooling all observation, revealing that individuals living in cantons pursuing active policies actually have smaller unexplained wage losses (-2'088 francs). When using the same reference wage structure, this effect is slightly stronger (-2'412). In regressions limited to individuals living in bilingual cantons, it is mostly negative when it is significant, but it is never significant in regressions on NW and NE migrants. Policies to fight xenophobia thus appear to reduce migrant wage discrimination, but more so for Western than non-Western migrants.

In the regression pooling several groups or all migrants, skin color interestingly has the expected positive and significant effect, confirming that individuals originating from darker skin population groups are more discriminated in the labor market. As the skin color scale goes form 1 to 8, the effect of belonging to a population group of dark skin color (AF has skin color equal to 7 out of 8) and coefficients associated to this variable vary between 401 and 3661, it appears that skin color can have a large effect on the unexplained part of the wage differential, and significantly reduce the annual wage. According to these results, migrants of dark skin color working in the German region are likely to endure the highest degree of wage discrimination on the Swiss labor market.

F-tests allow rejecting the null hypothesis that all coefficients are equal to zero with a 1% level of confidence, with the exception of some regression run on LA, AS and SCA men. Those groups are those where the host culture coefficient effect is not significant or those for which the dependent variable was predicted using the two-step estimator. Other results are robust to the F-test.

Before turning to the conclusion, it is worth mentioning that alternative methods could be used to identify regional differences in the level of migrant wage discrimination and the existence of a host society culture effect. Propensity score matching could notably be used to compare the wage of migrants and natives and estimate the effect of being "treated" as a native. Such an approach does not focus on differences in returns to factors, but rather on matching migrants and natives sharing common characteristics. Although it is not the purpose of this study to present in details results obtained based on the propensity score matching approach, it should be noted that both approaches yield similar results. Using determinants of wage as matching factors,[23] the effect of being treated as a native makes a difference that is larger in the German region compared to the same effect in the Latin region of the Swiss labor market. As an example, and according to this alternative way of approximating the host society culture effect, the effect of being treated as a native makes a statistically significant difference that is larger in the German region by 6'127 and 4'325 francs for NW and NE migrants respectively. When using nearest neighbor as a matching algorithm instead of local linear regression, the difference is of 9'486 and 1'999 francs of the same groups. These numbers are of course different, but they are comparable to the estimates of the host society culture effect presented in detail in this study.

6 Discussion

This paper investigates whether host society cultures do affect migrant wage discrimination, i.e., whether migrant wage discrimination is more intense in host societies where culture is more inward-looking. The empirical results obtained using Swiss data seem to support the hypothesis that there a link between the fact that (i) political preferences on issues related to migration, asylum and naturalization of foreigners are markedly more conservative in the German region, and (ii) that average wage differences between migrants and natives are larger in the German region. In other words, the degree of openness of the culture prevailing in the host society does affect the level of wage discrimination endured by migrants.

Comparing the returns to factors of migrants and natives leads to several interesting findings. It first appears that Western and Southern European migrants have returns that are closer to those of natives, than non-Western migrants. As an example, whereas the earnings of the former are more strongly and positively influenced by age, the latter are best rewarded for their experience on the job. Secondly, predicted wage differentials between natives and migrants are larger in the German region. The same is true for the unexplained component of the wage differential, especially for migrants from Turkey, the Mideast and the Maghreb. If discrimination were to disappear and returns to factors equalize with natives, migrants would make larger gains in the German region. The mapping of unexplained wage differentials against distance to the cultural border shows there is a structural break occurring on the Roestigraben. The final step establishes

[23] The determinants of wage are the same as those used earlier, i.e., those in vector X of equation 1.

the significance of the causal link between the more inward-looking host society culture prevailing in the German region and the higher level of wage discrimination endured by migrants in that region. While the effect of active cantonal policy to fight against xenophobia is sometimes uncertain, darker skin color strongly affects the intensity of wage discrimination.

The evidence provided in this paper is interesting in relation to two ongoing debates. First, in the context of the debate on the rationality of economic actors, this study supports the notion that culture, by shaping prior beliefs and political preferences, does influence economic outcomes. Even if emotional impulses inherent to political issues may be somewhat tempered by rational considerations when actors move from a context where they can express their opinion freely and anonymously (democratic votes) to a context where they are bound by profit-maximizing constraints (labor market), host society culture keeps influencing economic outcomes. In a situation where economic actors are perfectly rational, wage discrimination would not exist and and it would be impossible to observe systematic differences in migrant wage discrimination across different cultural regions of the same labor market.

Secondly, in the context of the current migration debate in Switzerland, much emphasis is often put on how different migrants are from Swiss citizens. It is widely accepted that migrants need to go through a cultural integration process before they can be naturalized and become an integral part of the Swiss people. Much less attention is paid to the conditions under which this process is supposed to occur. If cultural integration of migrants is hampered by economic discrimination exerted by natives, then the evidence provided in this paper would partly explain why the integration of migrants seems to be more problematic in the German region of Switzerland, where a more inward-looking culture, and a higher degree of wage discrimination prevail. Higher levels of wage discrimination do matter for cultural integration not only because they negatively affect the possibility to lessen the emotional distance existing between a migrant and the culture of a society that is originally not her own. It also matters because higher levels of wage discrimination lower the earnings of migrants, thus impacting on their consumption patterns (buying clothes, movies, books, etc.) and investment decisions, notably decisions concerning the education of their children. More generally, wage discrimination limits the economic capacity of migrants to imitate the behaviors of natives as well as their access to the culture of the host society.

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Tables and figures

Table 1: Political preferences and attitudes of natives only (by mother tongue)

	Year	Survey question	Latin	German	All	Δ
1	1999-2007	Political position (from 0 to 10, 0 being the radical left)	4.57	4.88	4.8	**0.31**
2	1999-2007	**EU**				
		in favour of joining	61.69	42.36	47.82	**19**
		neither	5.63	5.96	5.88	1
		in favour of staying outside	32.68	51.68	46.3	**20**
3	1999	**Openess**				
		in favour of opening towards other countries	72.25	61.34	64.5	**11**
		neither	12.03	15.7	14.61	4
		in favour of defending traditions	15.73	22.96	20.89	**7**

Source: Swiss Household Panel. *Sample*: natives only.

Table 2: Voting results on matters of naturalization, migration and asylum (by linguistic region)

	Year	Votation	% Yes Latin	% Yes German	% Yes All	Δ
1	2002	Popular initiative against abuses in the area of asylum	47	57	54	**10**
2	2004	Federal order facilitating the naturalization of third generation migrants	62	43	48	**19**
3	2004	Federal order facilitating naturalization and fast track naturalization	57	38	43	**19**
4	2006	Law harshening the conditions relative to the settlement and residence of foreigners	58	72	68	**13**
5	2006	Harshening of the law on asylum	61	71	68	**10**
6	2008	Popular initiative for "democratic naturalization" by the people	24	41	36	**17**
7	2009	Popular initiative banning the construction of minarets	51	60	57	**9**

Source: OFS. Note: only since 2000.

Table 3: Sample

Region of origin	Men	Women		
Natives	69 857	89 798		
Immigrants	72 389	76 302		
Of which	1st generation		2nd generation	
	Men	Women	Men	Women
WE	18101	21560	2780	3308
SE	19821	17666	8586	7925
EE	12751	14477	760	743
AF	1436	1551	60	59
TMM	3367	2622	691	507
LA	1385	2953	76	61
AS	737	1590	44	64
SCA	1589	1020	57	43

Source: Swiss Labor Force Survey (2003-2008).

Table 4: Average full time wages (in CHF 000)

	Latin			German			
	N	Wage	Δ	N	Wage	Δ	ΔΔ
Natives	9,868	95.19	0	23,167	98.11	0	0
WE	3,352	123.33	-28.14	6,699	118.23	-20.12	-8.02
SE	6,265	75.98	19.21	4,768	74.02	24.09	-4.88
EE	1,498	66.71	28.48	5,651	68.86	29.25	-0.77
AF	464	80.83	14.36	293	84.99	13.12	1.24
TMM	648	81.72	13.47	1,183	67.82	30.29	-16.82
LA	434	87.58	7.61	355	101.47	-3.36	10.97
AS	142	98.14	-2.95	250	85.89	12.22	-15.17
SCA	184	105.66	-10.47	826	74.35	23.76	-34.23

Source: SLFS. *Sample*: only men aged 16-65 with full time job.

Table 5: Descriptive statistics

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA
				Men in the German region					
wage (mean)	93320	111960	73153	67311	76851	64477	92504	80168	71039
wage (median)	78000	86450	65000	59032	48100	54000	63700	60000	54600
yearsed	13.62	15.55	10.06	11.38	12.81	11.21	14.27	13.91	12.06
age	42.24	42.25	44.38	36.2	37.01	36.42	37.32	39.55	37.99
married	0.54	0.59	0.78	0.78	0.75	0.81	0.66	0.62	0.81
experience	22.09	17.51	22.88	13.53	11.4	11.88	12.87	14.32	12.47
supervision	3.06	3.68	1.81	1.71	2.45	1.73	2.48	1.79	1.94
management	0.36	0.35	0.21	0.13	0.2	0.21	0.26	0.21	0.21
hours	42.35	41.47	41.83	41.84	39.7	41.66	40.12	40.23	41.01
business size	10.3	11.48	11.28	11.16	11.3	10.97	11.38	11.63	11.41
residence	0	11.9	22.53	13.12	8.07	13.19	8.95	10.88	12.41
				Men in the Latin region					
wage (mean)	89547	116677	74186	64315	71485	77034	79451	89188	97080
wage (median)	75000	83200	61483	53963	50110	52144	58480	62932	52650
yearsed	13.56	15.23	10.93	11.87	13.07	13.14	13.71	14.62	13.21
age	42.4	42.71	43.34	36.96	38.8	40.65	37.05	37.84	39.63
married	0.56	0.62	0.74	0.75	0.67	0.78	0.59	0.64	0.73
experience	21.42	17.64	21.12	13.72	11.79	14.22	12.19	14.41	12.61
supervision	3.14	3.81	2.15	1.49	2.38	2.25	2.12	2.36	2.92
management	0.45	0.45	0.31	0.18	0.22	0.33	0.24	0.34	0.41
hours	41.64	41.39	41.59	41.55	39.37	40.97	39.27	40.08	40.46
business size	9.8	10.61	10.19	10.43	11.16	10.5	10.83	10.24	10.9
residence	0	12.79	19.98	12.32	11.09	11.96	10.32	10.04	11.74

Source: SLFS. *Sample*: all wage-earning men aged 16-65.

Table 6: Returns to factors (German region)

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
VARIABLES	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)
yearsed	0.044***	0.048***	0.030***	0.037***	0.049***	0.026***	0.056***	0.025**	0.050***	0.037***	0.034***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.008)	(0.003)	(0.016)	(0.010)	(0.004)	(0.001)	(0.002)
age	0.066***	0.057***	0.035***	0.037***	0.058**	0.035***	0.084***	0.061**	0.027**	0.020***	0.020***
	(0.002)	(0.004)	(0.004)	(0.004)	(0.029)	(0.011)	(0.024)	(0.031)	(0.013)	(0.003)	(0.007)
age2	-0.00***	-0.0006***	-0.0004***	-0.0005***	-0.0006*	-0.0004**	-0.0009***	-0.0005	-0.0003	-0.0002***	-0.0001
	(3.02e-05)	(5.70e-05)	(4.73e-05)	(5.16e-05)	(0.0003)	(0.0001)	(0.0003)	(0.0003)	(0.0001)	(4.68e-05)	(9.78e-05)
married	0.086***	0.080***	0.044***	0.085***	0.024	0.038	0.096	0.157	0.037	0.044***	0.014
	(0.007)	(0.012)	(0.012)	(0.016)	(0.069)	(0.038)	(0.065)	(0.101)	(0.049)	(0.014)	(0.025)
experience	0.012***	0.019***	0.008***	0.015***	0.028***	0.021***	0.002	0.026**	0.015***	0.017***	0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.009)	(0.004)	(0.009)	(0.010)	(0.004)	(0.001)	(0.002)
experience2	-0.0002***	-0.0004***	-9.59e-05***	-0.0002***	-0.0004	-0.0004***	0.0002	-0.0005*	-0.0002**	-0.0003***	-0.0003***
	(2.23e-05)	(4.07e-05)	(3.54e-05)	(4.71e-05)	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(9.98e-05)	(3.78e-05)	(6.73e-05)
supervision	0.019***	0.023***	0.016***	0.012***	0.024***	0.023***	0.026***	0.030***	0.014***	0.017***	0.024***
	(0.0008)	(0.001)	(0.001)	(0.001)	(0.007)	(0.004)	(0.007)	(0.010)	(0.004)	(0.001)	(0.002)
management	0.169***	0.195***	0.111***	0.144***	0.271***	0.095**	0.254***	0.234**	0.165***	0.179***	0.169***
	(0.007)	(0.014)	(0.013)	(0.016)	(0.078)	(0.039)	(0.066)	(0.095)	(0.039)	(0.013)	(0.023)
busize	0.015***	0.025***	0.011***	0.006***	0.015*	0.024***	0.045***	0.012	0.006	0.009***	0.015***
	(0.0008)	(0.001)	(0.001)	(0.001)	(0.008)	(0.003)	(0.007)	(0.011)	(0.004)	(0.001)	(0.002)
residence		-0.002***	-0.0005	0.0006	0.005	0.0006	-0.002	-0.009	-0.007***	-0.001*	-0.003**
		(0.0005)	(0.0005)	(0.0008)	(0.003)	(0.001)	(0.003)	(0.006)	(0.002)	(0.0007)	(0.001)
constant	8.514***	8.166***	9.582***	9.550***	8.401***	9.232***	8.042***	6.922***	9.440***	9.933***	9.642***
	(0.051)	(0.125)	(0.091)	(0.079)	(0.647)	(0.264)	(0.671)	(0.746)	(0.277)	(0.073)	(0.178)
Observations	30337	8888	5687	7192	472	1665	476	332	1019	11180	3988
N_cens	4590	1498	917	1524	147	423	79	67	166	2425	901
ll	-30297	-8791	-3860	-6104	-478.2	-1692	2-STEP	2-STEP	-853.1	-10173	-3980
Lambda	-0.462	0.006	0.016	0.005	0.103	0.052	-0.224	0.034	-0.424	-0.407	-0.517
seLambda	0.004	0.044	0.024	0.025	0.094	0.044	-0.224	0.034	0.021	0.006	0.011

Source: SLFS, 2003-2008; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 7: Returns to factors (Latin region)

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
VARIABLES	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)	ln(wage)
yearsed	0.050***	0.043***	0.033***	0.031***	0.005	0.024***	0.032***	0.041***	0.046***	0.027***	0.026***
	(0.002)	(0.003)	(0.001)	(0.004)	(0.007)	(0.005)	(0.007)	(0.013)	(0.008)	(0.002)	(0.003)
age	0.062***	0.074***	0.045***	0.036***	-0.049**	0.054***	0.066***	0.102***	0.184***	0.027***	0.034***
	(0.003)	(0.008)	(0.004)	(0.010)	(0.023)	(0.016)	(0.018)	(0.035)	(0.043)	(0.006)	(0.009)
age2	-0.0006***	-0.0007***	-0.0005***	-0.0004***	0.0007**	-0.0005**	-0.0007***	-0.001**	-0.002***	-0.0002***	-0.0003**
	(4.51e-05)	(9.37e-05)	(5.01e-05)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0004)	(0.0005)	(8.67e-05)	(0.0001)
married	0.089***	0.083***	0.041***	0.011	0.107*	-0.105*	0.112**	0.156	0.096	0.040*	0.050
	(0.011)	(0.019)	(0.013)	(0.038)	(0.064)	(0.054)	(0.051)	(0.108)	(0.089)	(0.023)	(0.030)
experience	0.019***	0.019***	0.014***	0.0081**	0.022***	0.012**	0.050***	0.021	-0.013	0.018***	0.022***
	(0.001)	(0.002)	(0.001)	(0.003)	(0.007)	(0.005)	(0.008)	(0.013)	(0.011)	(0.002)	(0.003)
experience2	-0.0003***	-0.0003***	-0.0002***	-2.36e-05	-0.0004*	-0.0001	-0.001***	-0.0006	0.0006**	-0.0003***	-0.0004***
	(3.51e-05)	(6.51e-05)	(3.60e-05)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0003)	(0.0003)	(7.04e-05)	(9.62e-05)
supervision	0.020***	0.023***	0.020***	0.026***	0.036***	0.025***	0.021***	0.015	0.020**	0.029***	0.026***
	(0.001)	(0.002)	(0.001)	(0.003)	(0.007)	(0.005)	(0.007)	(0.010)	(0.008)	(0.002)	(0.003)
management	0.132***	0.179***	0.116***	0.113***	0.327***	0.163***	0.287***	0.238**	0.305***	0.204***	0.247***
	(0.012)	(0.021)	(0.013)	(0.031)	(0.070)	(0.048)	(0.065)	(0.114)	(0.082)	(0.022)	(0.030)
busize	0.024***	0.027***	0.011***	0.007***	0.023***	0.027***	0.017***	0.047***	0.013	0.015***	0.022***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.007)	(0.004)	(0.006)	(0.010)	(0.008)	(0.002)	(0.002)
residence		-0.006***	0.0004	-0.002	0.001	-0.003	0.002	-0.008*	-0.002	-0.0009	-0.0006
		(0.0008)	(0.0004)	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)	(0.005)	(0.001)	(0.001)
constant	8.359***	8.329***	9.332***	9.600***	11.31***	9.001***	8.387***	7.553***	5.631***	9.630***	9.395***
	(0.078)	(0.190)	(0.090)	(0.194)	(0.518)	(0.571)	(0.460)	(0.800)	(1.065)	(0.150)	(0.256)
Observations	12499	4186	7559	1921	672	888	602	177	250	4520	2599
N_cens	1581	635	1175	403	167	216	110	27	57	988	585
ll	-12257	-4408	-6321	-1784	-707.3	-903.0	-607.0	-142.6	2-STEP	-4613	-2752
Lambda	-0.430	-0.364	-0.241	-0.456	-0.531	-0.464	0.048	0.338	-0.142	-0.488	-0.503
seLambda	0.007	0.023	0.015	0.016	0.040	0.032	0.106	0.087	-0.142	0.012	0.018

Source: SLFS, 2003-2008; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 8: Wage differential and its decomposition (reference group: native men of the region)

	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
Wage differential in the German region										
$Prediction_1$	11.42***	11.42***	11.42***	11.42***	11.42***	11.42***	11.42***	11.42***	11.42***	11.42***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
$Prediction_2$	11.58***	11.18***	11.16***	11.06***	11.17***	11.38***	11.26***	11.15***	11.18***	11.23***
	(0.007)	(0.006)	(0.006)	(0.072)	(0.017)	(0.155)	(0.157)	(0.021)	(0.006)	(0.012)
Difference	-0.155***	0.245***	0.267***	0.369***	0.256***	0.0460	0.164	0.274***	0.240***	0.194***
	(0.008)	(0.008)	(0.007)	(0.072)	(0.017)	(0.155)	(0.157)	(0.021)	(0.007)	(0.012)
Wage differential decomposition in the German region										
Endowments	-0.0641***	0.169***	0.202***	0.288***	0.253***	0.092	0.167	0.352***	0.246***	0.285***
	(0.011)	(0.014)	(0.017)	(0.059)	(0.039)	(0.069)	(0.116)	(0.048)	(0.013)	(0.023)
Coefficients	-0.0580***	0.035***	0.043***	0.225***	0.014	0.025	0.069	0.076***	0.033***	0.016
	(0.008)	(0.009)	(0.008)	(0.069)	(0.017)	(0.153)	(0.155)	(0.019)	(0.008)	(0.012)
Interaction	-0.0330***	0.040***	0.021	-0.143***	-0.010	-0.072	-0.072	-0.155***	-0.038***	-0.107***
	(0.010)	(0.015)	(0.018)	(0.054)	(0.039)	(0.065)	(0.114)	(0.047)	(0.014)	(0.023)
Observations	33137	30517	31415	26072	26989	26144	26012	26600	34502	28834
Wage differential in the Latin region										
$Prediction_1$	11.35***	11.35***	11.35***	11.35***	11.35***	11.35***	11.35***	11.35***	11.35***	11.35***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
$Prediction_2$	11.57***	11.18***	11.12***	11.18***	11.27***	11.26***	11.12***	11.57***	11.21***	11.27***
	(0.012)	(0.006)	(0.014)	(0.035)	(0.027)	(0.033)	(0.062)	(0.244)	(0.011)	(0.016)
Difference	-0.222***	0.172***	0.226***	0.168***	0.0813***	0.0879***	0.225***	-0.222	0.140***	0.0793***
	(0.014)	(0.009)	(0.016)	(0.035)	(0.028)	(0.033)	(0.063)	(0.244)	(0.013)	(0.018)
Wage differential decomposition in the Latin region										
Endowments	-0.012	0.135***	0.254***	0.177***	0.195***	0.301***	0.175**	0.047	0.236***	0.204***
	(0.016)	(0.012)	(0.034)	(0.057)	(0.044)	(0.054)	(0.083)	(0.198)	(0.020)	(0.026)
Coefficients	-0.125***	-0.015	-0.013	0.052	-0.008	-0.016	0.180***	-0.273	-0.015	-0.013
	(0.012)	(0.010)	(0.016)	(0.032)	(0.025)	(0.029)	(0.048)	(0.242)	(0.013)	(0.016)
Interaction	-0.085***	0.052***	-0.014	-0.061	-0.104**	-0.196***	-0.131*	0.004	-0.080***	-0.111***
	(0.015)	(0.013)	(0.034)	(0.055)	(0.042)	(0.051)	(0.073)	(0.195)	(0.020)	(0.024)
Observations	14469	17302	12436	11423	11590	11410	11068	11111	14450	12932
$AD_g - AD_l$	0.07	0.07	0.04	0.2	0.17	-0.04	-0.06	0.5	0.1	0.11
$AD_g - AD_l > 0$	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No	No	**Yes**	**Yes**	**Yes**
$UD_g - UD_l$	0.067	0.051	0.056	0.172	0.023	0.042	-0.110	0.349	0.048	0.029
$UD_g - UD_l > 0$	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**	**Yes**

Source: SLFS, 2003-2008; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 9: Observed wages and exponentiated predictions (in CHF)

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
Men in the German region											
Observed	93320	111960	73153	67311	76851	64477	92504	80168	71039	69273	72693
Prediction	91126	106938	71682	70263	63577	70969	87553	77653	69564	71682	75358
Δ	2194	5022	1471	-2952	13274	-6492	4951	2515	1475	-2409	-2665
Men in the Latin region											
Observed	89547	116677	74186	64315	71485	77034	79475	89188	97080	73009	79431
Prediction	84965	105873	71682	67508	71682	78433	77653	67508	105873	73865	78433
Δ	4582	10804	2504	-3193	-197	-1399	1822	21680	-8793	-856	998
Regional differences											
$\Delta_g - \Delta_l$	-2388	-5782	-1033	241	13471	-5093	3129	-19165	10268	-1553	-3663
$\Delta_g > \Delta_l$	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No

Table 10: Exponentiated predictions and unexplained wage differentials (in CHF)

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
Men in the German region											
Prediction	91126	106938	71682	70263	63577	70969	87553	77653	69564	71682	75358
if $UD_j = 0$	91126	100912	74288	73357	79618	71977	89814	83241	75087	74087	76588
Loss/gain due to UD_j	0	6026	-2606	-3094	-16041	-1008	-2261	-5588	-5523	-2405	-1230
Men in the Latin region											
Prediction	84965	105873	71682	67508	71682	78433	77653	67508	105873	73865	78433
if $UD_j = 0$	84965	93433	70580	66603	75569	77738	76351	80822	80580	72700	77374
Loss/gain due to UD_j	0	12440	1102	905	-3887	695	1302	-13314	25293	1165	1059
Regional differences											
$UD_g - UD_l$		-6414	-3708	-3999	-12154	-1703	-3563	7726	-30816	-3570	-2289
Loss due to $UD_g > UD_l$		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Table 11: The host society culture effect (reference group: native men of the region)

	ALL	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage
All cantons											
Latin	-5201***	-5576***	-8121***	-10958***	-16527***	-15006***	9624**	-7936	-1872	-9558***	-8128***
	(351.4)	(627.4)	(465.6)	(734.0)	(3080)	(1477)	(3797)	(5510)	(5042)	(682.1)	(1197)
DistLatin	22.43***	76.00***	-29.77***	-23.28*	-9.309	38.06	-25.18	77.33	102.7	-8.526	1.686
	(4.90)	(9.245)	(4.42)	(12.40)	(36.32)	(23.27)	(19.53)	(53.76)	(78.99)	(10.85)	(16.23)
DistGerman	19.13***	20.16***	6.119	0.744	-61.65*	12.12	67.69	-107.9*	-6.871	-1.061	-5.688
	(3.86)	(5.31)	(6.77)	(6.83)	(33.80)	(14.40)	(55.03)	(55.92)	(18.83)	(6.079)	(11.51)
Pol_xeno	-2088***	-262.5	-894.5***	570.4**	-281.3	3058***	-2488*	3518	-3340***	216.7	-364.6
	(159.8)	(272.2)	(216.4)	(283.0)	(1816)	(663.8)	(1474)	(2355)	(957.3)	(262.9)	(532.4)
Skin	3495***									401.4***	1040***
	(74.57)									(88.51)	(213.2)
constant	-996.5***	-4493***	10650***	11646***	19946***	14313***	2123	18023***	8620***	10680***	7413***
	(261.8)	(282.3)	(366.7)	(378.6)	(1485)	(702.3)	(3443)	(3415)	(992.5)	(424.5)	(1238)
Observations	34204	10916	11106	7097	829	1909	889	413	1045	12182	5085
R-squared	0.149	0.137	0.100	0.113	0.096	0.239	0.040	0.032	0.046	0.072	0.050
Bilingual cantons only											
Latin	-8182***	-3878***	-5364***	-14284***	-16453***	-19910***	-4592**	-6082	-17177	-14268***	-13057***
	(747.3)	(1124)	(1053)	(1656)	(5059)	(4184)	(2170)	(14011)	(11041)	(1558)	(3118)
DistLatin	7.51	145.9***	-3.774	-59.56	-10.79	-399.4**	67.15	-1564***	-341.3*	-66.63	-79.62
	(28.45)	(51.22)	(31.77)	(62.26)	(270.4)	(182.0)	(90.71)	(474.4)	(175.1)	(62.91)	(122.7)
DistGerman	-18.54	-49.03*	69.72**	-8.338	-333.2***	64.18	127.5	-120.8	125.0	-21.69	-55.15
	(21.21)	(28.50)	(33.19)	(37.44)	(106.9)	(106.2)	(191.1)	(781.8)	(122.9)	(34.04)	(65.68)
Pol_xeno	-660.9	-30.95	-2775***	749.3	-8543***	-1099	-2944	-12632	5838	99.60	-2082
	(551.2)	(803.3)	(708.0)	(1123)	(3247)	(3743)	(3924)	(21925)	(9938)	(1043)	(2543)
Skin	3661***									781.1***	436.5
	(200.6)									(239.2)	(483.0)
constant	-910.6	-4150***	8844***	12859***	25925***	17008***	15476***	19218	7201**	11819***	14496***
	(685.7)	(701.0)	(858.7)	(954.5)	(2803)	(2178)	(4386)	(21120)	(3214)	(1143)	(2902)
Observations	4175	1340	1407	839	123	220	66	33	147	1428	589
R-squared	0.217	0.054	0.208	0.214	0.187	0.285	0.244	0.043	0.033	0.179	0.139

Source: SLFS, 2003-2008; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 12: The host society culture effect (reference group: native men of the German region)

	ALL	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage	Δpwage
					All cantons						
Latin	498.8	-7.962	-2306***	-5674***	-10522**	-9073***	15579***	-4144	3589	-4205***	-2474*
	(356.5)	(673.8)	(764.9)	(1015)	(4375)	(2176)	(5976)	(6904)	(6533)	(670.3)	(1276)
DistLatin	21.42***	81.77***	-36.73***	-19.71	-6.466	34.67	-18.04	49.15	104.3	-8.232	1.585
	(5.110)	(10.27)	(6.585)	(16.19)	(54.06)	(35.08)	(27.13)	(74.98)	(104.5)	(8.684)	(14.09)
DistGerman	21.87***	21.76***	10.51	0.264	-52.72	14.32	71.25	-109.7	-7.818	-0.873	-3.630
	(3.87)	(5.35)	(11.28)	(10.37)	(45.45)	(20.69)	(86.65)	(68.77)	(28.50)	(6.956)	(14.42)
Pol_xeno	-2412***	-441.4	-1426***	635.8	-1066	2770***	-2800	3669	-3230**	197.4	-590.0
	(160.2)	(280.9)	(338.3)	(420.3)	(2577)	(975.1)	(2379)	(2740)	(1401)	(290.9)	(616.6)
Skin	3517***									426.5***	1030***
	(76.74)									(82.92)	(199.8)
Constant	-1017***	-4485***	10704***	11639***	19936***	14349***	2113	18036***	8606***	10605***	7478***
	(264.7)	(282.4)	(622.4)	(566.6)	(1861)	(996.5)	(5470)	(4343)	(1639)	(452.3)	(1205)
Observations	34204	10916	11106	7097	829	1909	889	413	1045	12182	5085
R-squared	0.101	0.045	0.012	0.030	0.038	0.109	0.109	0.011	0.017	0.013	0.009
					Bilingual cantons only						
Latin	-2851***	-129.5	612.9	-6630***	-10442	-13478**	-2243	262.8	-7994	-7518***	-7763**
	(749.9)	(1139)	(1570)	(2216)	(7313)	(5639)	(2538)	(15472)	(11691)	(1659)	(3549)
DistLatin	2.692	50.19	21.52	30.33	65.65	-233.9	-139.4	-1362**	-256.7	-4.197	-44.47
	(28.16)	(53.76)	(48.04)	(72.34)	(418.5)	(306.4)	(124.5)	(627.1)	(204.6)	(57.09)	(103.6)
DistGerman	-16.95	-46.99*	70.17	-7.248	-328.7***	72.85	127.5	-120.8	125.0	-20.37	-51.55
	(21.21)	(28.46)	(50.80)	(50.38)	(120.2)	(136.9)	(225.7)	(895.7)	(176.9)	(37.83)	(73.02)
Pol_xeno	-385.5	289.0	-2692***	967.9	-7884*	336.6	-2944	-12632	5838	290.7	-1448
	(545.5)	(780.0)	(966.7)	(1650)	(4395)	(4719)	(4502)	(25204)	(10333)	(1233)	(3280)
Skin	3640***									673.6***	407.1
	(203.0)									(196.1)	(497.2)
Constant	-932.0	-4231***	8823***	12807***	25786***	16776***	15476***	19218	7201	12108***	14532***
	(688.1)	(699.1)	(1393)	(1269)	(3252)	(2950)	(5012)	(25278)	(4473)	(1116)	(3009)
Observations	4175	1340	1407	839	123	220	66	33	147	1428	589
R-squared	0.146	0.003	0.049	0.067	0.108	0.142	0.092	0.033	0.016	0.062	0.050

Source: SLFS, 2003-2008; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

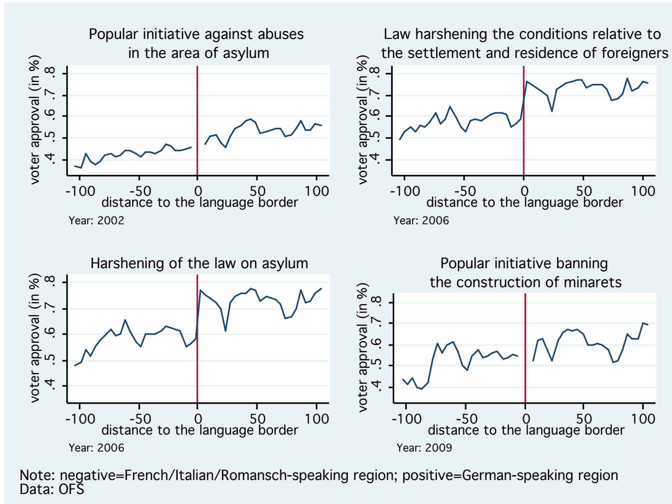


Figure 1: Votations on migration and asylum (distribution across the Roestigraben)

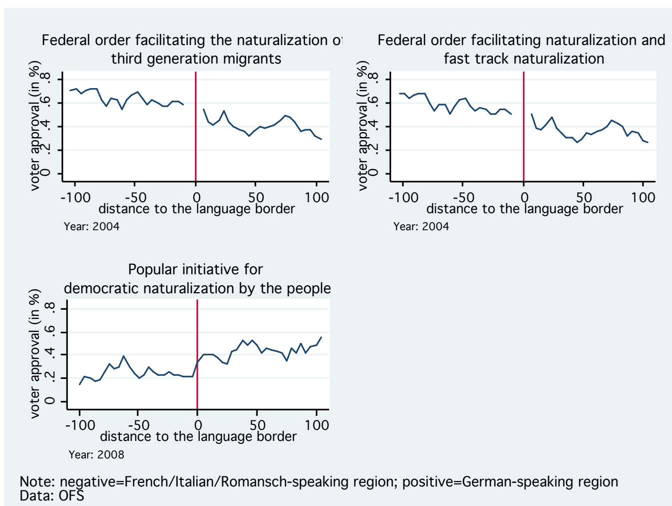
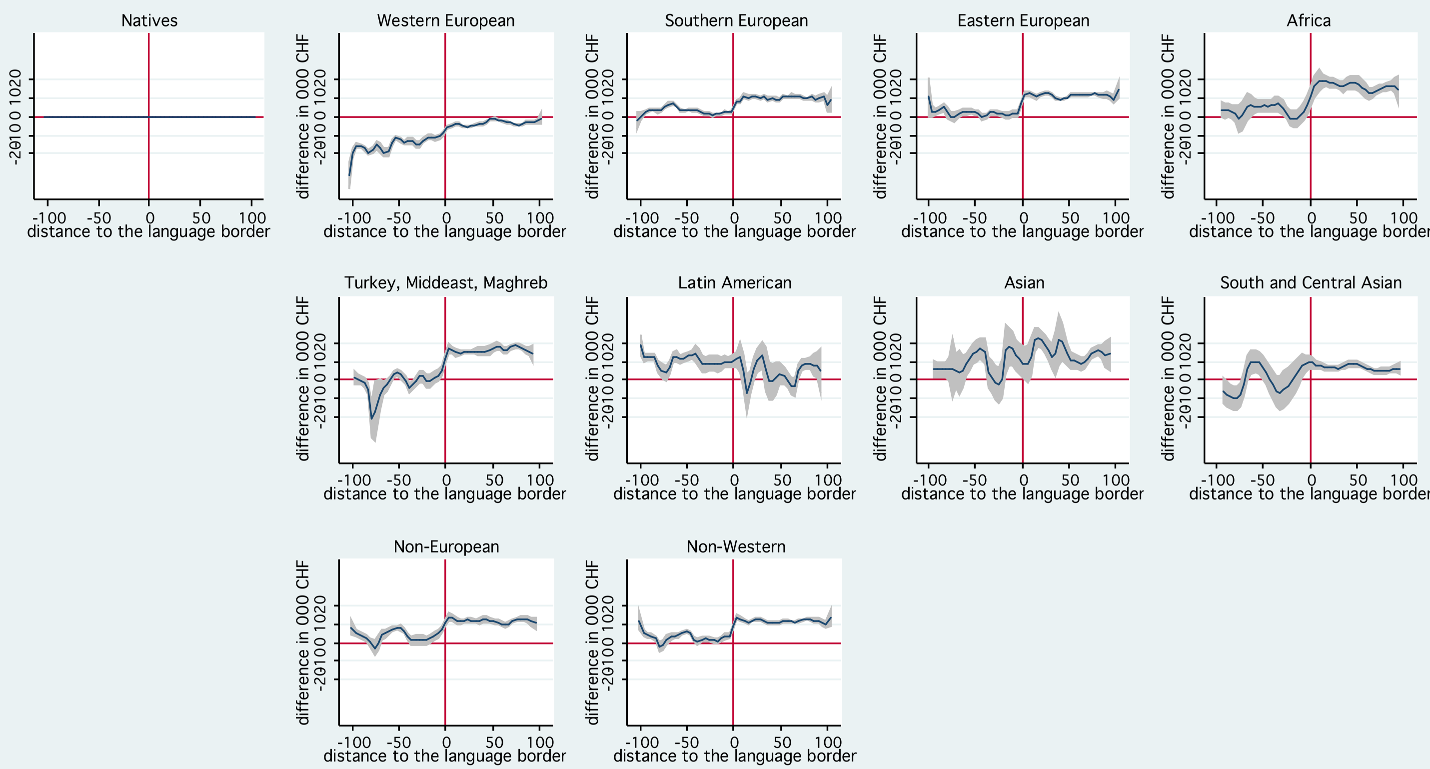


Figure 2: Votations on access to citizenship (distribution across the Roestigraben)



Note: negative=French/Italian/Romansch-speaking region; positive=German-speaking region
Data: Swiss Labor Survey (2003-2007)

Figure 3: Unexplained wage differences (in CHF 000): wage structure of native men living in the region as reference

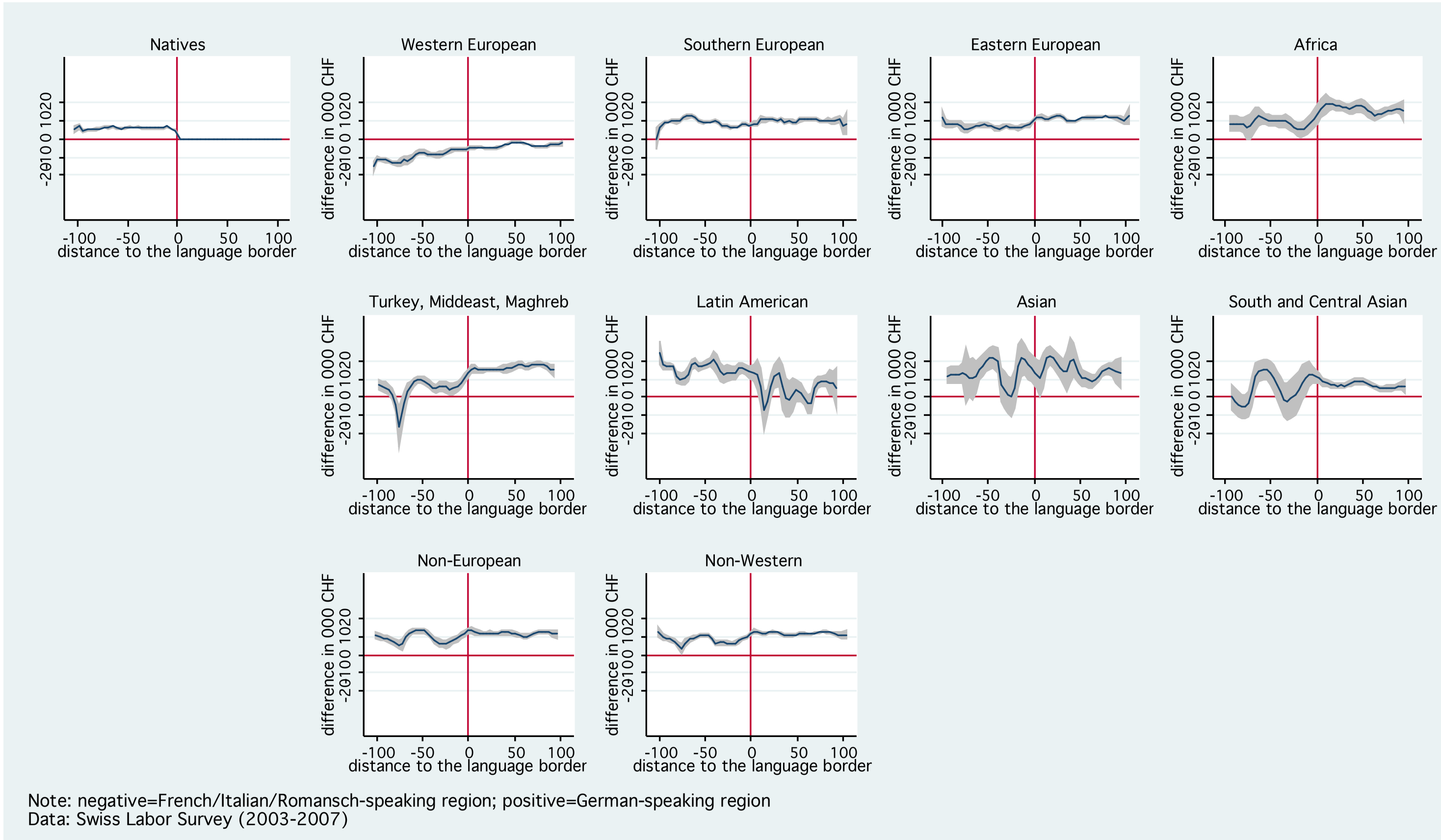


Figure 4: Unexplained wage differences (in CHF 000): wage structure of native men living in the German region as reference

Figure 5: The Roestigraben (illustrated by Igor Kravarik)

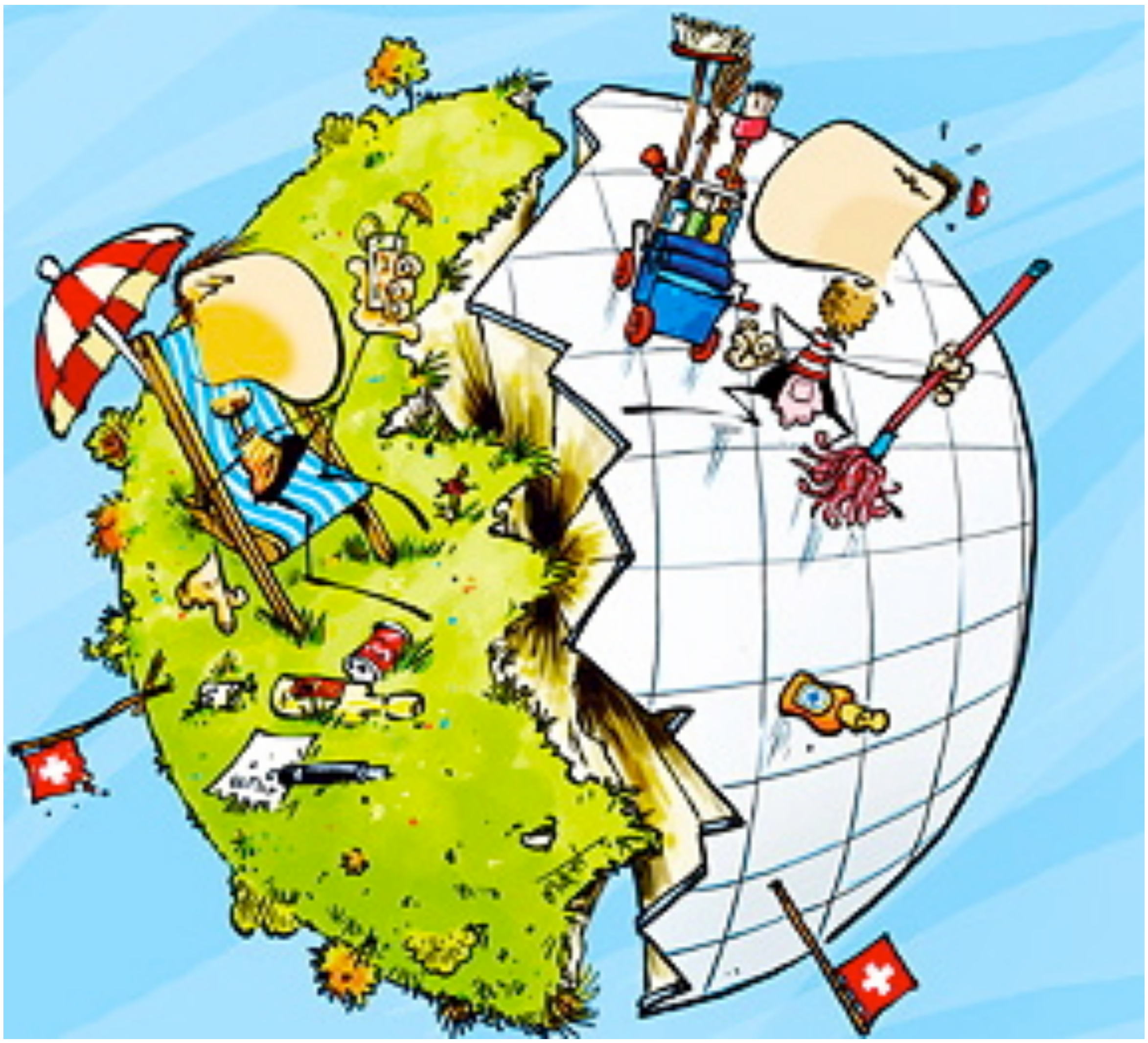


Figure 6: The Roestigraben (illustrated by Mix et Remix)