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**Three Essays on the Economic and  
Cultural Integration of Migrants in  
Switzerland: Putting into Perspective  
the Influence of Economic Discrimination  
and of Host Society Culture**

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UNIVERSITÉ DE GENÈVE  
INSTITUT DE HAUTES ETUDES INTERNATIONALES  
ET DU DÉVELOPPEMENT

**Three Essays on the Economic and Cultural  
Integration of Migrants in Switzerland**

Putting into Perspective the Influence of Economic  
Discrimination and of Host Society Culture

**THÈSE**

Présentée à l'Université de Genève  
pour l'obtention du grade de  
Docteur en relations internationales  
(économie internationale)

par

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To Ivan S.



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## EXECUTIVE SUMMARY

The present thesis consists of three essays 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.

The introduction starts from the political controversy about migration and integration issues, which is currently unfolding in many European countries, and highlights its relevance for broader societal and political debates. After defining the concept of migrant integration, it outlines the research questions that are explored in detail in the dissertation. The introduction also provides a review of immigration history and policy in Switzerland as well as some critical comments about limitations to this research.

Chapter 1 includes the first essay of the dissertation: “The Cultural Integration of Migrants in Switzerland: The Evolution of Behaviours and Attitudes from the First to the Second Generation”. This essay was part of a project of the Center for Economic Research and its Applications (CEPREMAP) on the cultural integration of migrants in Europe published at Oxford University Press. It explores the cultural integration paths of eight migrant groups by tracing the evolution of selected behaviours and attitudes, which are taken as indicative of cultural integration. In order to deepen the analysis beyond changes across generations, this evolution is further examined across cohorts (older vs. younger migrants) and across types of couples (individuals in endogamous

vs. mixed couples). To what extent are behaviours and attitudes of migrants diverging from or converging with those of natives? The findings of chapter 1 show that cultural integration is at work across all migrant groups, although at different paces. They also confirm the intuition that attitudes may change faster than actual behaviors, notably in relation to gender issues, and that certain migrant groups tend to preserve more traditional household structures than natives, especially those with low intermarriage rates.

Chapter 2 is entitled “Employment Discrimination, Cultural Distance, and the Swiss Minaret: Assessing Opposed Discourses Explaining Migrant Integration in Socio-Economic vs. Ethno-Cultural Terms”. It examines the causes of integration failures or, more precisely, how economic and cultural barriers to integration reinforce each other. Are cultural differences preventing the successful integration of migrants or does the root of integration failures lie in unequal economic opportunities and discrimination? Developing an empirical method to build indices of economic discrimination and cultural differences (“cultural distance”), the findings of chapter 2 show that, at the aggregate level, population groups facing higher employment discrimination are culturally more distant from the natives. Muslim communities, which currently often lie at the center of this debate, are no different in this regard: their specificity resides more in the stronger discrimination they face in the labour market than in cultural differences separating them from natives. Using an instrumental variable approach, evidence at the individual level reveals that there is an asymmetric causal relationship between economic discrimination and “cultural distance”, the former clearly dominating the latter. It also shows that the

asymmetry is at least twice as acute for second-generation compared to first-generation migrants.

Chapter 3, “The Effect of Host Society Culture on Migrant Wage Discrimination: Approaching the Roestigraben”, investigates whether migrant wage discrimination is more intense in host societies where the culture is more “inward-looking”. Do the markedly more conservative political preferences on issues related to migration and asylum of voters in the German-speaking region of Switzerland affect outcomes in the labour market, or are economic interactions immune from tensions developing in the society at large? Using a human capital model of wage determination, results show that returns to factors of wage-earning migrants are lower compared to natives in Switzerland, but more so in the German region. An analysis of unexplained wage differentials also supports the hypothesis that wage discrimination is more pronounced in the German region. Finally, results of the regression discontinuity design approach confirm that host society culture is a significant determinant of migrant wage discrimination.

The conclusion summarizes the main results and contributions of this thesis to the existing literature. It also stresses the importance of developing interdisciplinary approaches, which are able to account for interactions between the multiple dimensions of migrant integration and the influence of the broader social context. Finally, it proposes ideas for future research.



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# Introduction

Ivan S. is an anonymous character. Description: white man, unfriendly, even threatening. Actually he is a migrant, probably from Eastern Europe. How many of them? There is only one certainty: they are rapists, and they are on the verge of obtaining Swiss citizenship! Who wants to invite rapists to their home? On 28 November 2010, 52.9% of population voted to expel Ivan S. and his accomplices from Switzerland.



Figure 0.1: An anonymous migrant (as imagined by the Swiss People's Party)

The appeal of the populist right wing discourse relies on a simple logic explaining the integration of migrants in purely cultural terms: because their culture is different (if not inferior), migrants are simply different. As a tautological consequence, they cannot and should not be integrated. Discourses of moderate political parties



usually emphasize economic considerations like the need to proceed to a cost-benefit analysis of migration or the merits of selective migration to pick out the most educated and productive migrants. The liberal analysis<sup>1</sup> thematizing economic discrimination as an obstacle to migrant integration is left to academia and external observers like the International Labour Organization, which don't need the support of the majority. Even without evoking this taboo, moderate political discourses experience declining support among voters in many developed countries, especially in Europe. The rise of the National Front in France, the Party for Freedom in Austria and in the Netherlands, the Anti-Islam Party in Germany illustrate the far-reaching nature of this trend.

The purpose of this thesis is not to comment on the ads of populist parties or on any political discourse about migration in particular. This thesis, however, is part of a public debate on migration and integration that is increasingly dominated by the imagery and discourse of the populist right wing.

This debate is especially tense in Switzerland, where the share of foreigners in the population is around 23% and where the Swiss People's Party has become a major political force (D'Amato, 2008). The aggressive tone of the political debate about migration and integration<sup>2</sup> is clearly problematic for social cohesion between natives and migrants, but it is also problematic for social cohesion among natives themselves (i.e.,

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<sup>1</sup>"Liberal" is meant in the sense of supporting political, social and religious change, not in the economic sense.

<sup>2</sup>See figures 0.3 to 0.6 in appendix. Those political ads from the Swiss People's Party are emblematic of the emotional and aggressive way right wing populist parties thematize migration and integration issues. The fearmongering rhetoric and imagery are common to most European right wing populist parties, which sometimes even share campaign ads across borders (e.g., following the successful popular initiative to ban the construction of minarets in Switzerland, the add conceived by the Swiss People's Party (see figure 0.5) has been used in other countries).

between richer and poorer social classes) because it affects the willingness of the population to pay taxes to support social programmes and the provision of public goods by the welfare state in general (Alesina et al., 1999; Shayo, 2009). Developing a better understanding of the dynamics at work in the integration process of migrants may therefore shed some light on broader societal and political issues.

## **A definition of integration and three related research questions**

To enable informed policy decisions, social scientists are investigating integration processes. The literature proposes several definitions of migrant integration that could serve as a starting point to articulate research questions on that issue. A definition that is often used in the Swiss context defines the integration of migrants as individual and collective processes happening after migration occurred. Those can be classified into three general categories, which are not mutually exclusive. Economic integration encompasses the transition of a migrant across social classes. Legal integration covers changes of a migrant's status and its implications for her conditions of stay. Cultural integration concerns the evolution of behaviors, attitudes, daily life habits, beliefs, etc. (Wanner et al., 2002).

The purpose of this thesis is to examine the cultural and economic integration of migrants in Switzerland, in order to better understand how they influence each other and the extent to which the context in which these processes occur matters. Whereas

the first chapter focuses on the cultural integration of migrants from the first generation to the second, chapters 2 and 3 look at how the cultural differences between migrants and natives (“cultural distance”) are influenced by economic discrimination (and vice versa) and whether host society culture has an effect on economic discrimination.<sup>3</sup>

These issues are highly complex and would ideally require an interdisciplinary approach, including face to face interviews with migrants as is done in other social sciences. However, as part of the debate touches upon their traditional field of study, economists should be able to provide new insight if they exercise the necessary caution in extending their quantitative approach to the study of cultural integration. This includes accepting the fact that the modeling of complex processes such as economic or cultural integration and attempting to measure them requires an ongoing debate and special care from the person interpreting the results.

The remainder of this section briefly presents what is at stake in each chapter of this thesis and how these issues relate to one other.

### **(i) How problematic is the cultural integration of migrants?**

As mentioned above, cultural integration concerns the evolution of behaviors, attitudes, daily life habits, beliefs, etc. (Wanner et al., 2002). Cultural integration processes happen in migrant communities as well as among natives, but minority groups bear the bulk of it. Many qualitative studies have documented various dimensions of

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<sup>3</sup>The definition of important concepts used in this thesis (e.g., “cultural distance”, employment and wage discrimination, host society culture) is postponed to the chapters where the empirical method implemented to measure them is simultaneously described.

the cultural integration patterns of specific communities residing in Switzerland (Wicker et al., 2003) and generated a rather encouraging knowledge base. However, despite the evidence gathered and analysis produced by social scientists, the claim that migrants (or certain migrant groups) don't integrate culturally into Swiss society has easily made its way into public debate and is being accepted by many as well founded.

This claim is appealing to many voters for several reasons. First of all, the successful cultural integration of migrants in general doesn't preclude individual or group variations. It also doesn't preclude individual integration failures. However, as most individuals don't interact with such migrants, what matters most is the importance given to them in the public discourse. While it is a challenging task to monitor how news media are covering issues related to migration and integration,<sup>4</sup> the political exploitation of such issues and the role of right wing populist political parties in fostering the perception that there is a dramatic cultural integration problem (for certain population groups) in Switzerland is public knowledge.<sup>5</sup>

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<sup>4</sup>Several studies have documented the predominantly negative media coverage granted to Muslim migrants in particular, as well as the use of clichés lumping together Muslims, terrorism, fundamentalism, etc. (Ettinger, 2010; Gianni, 2010). It might be possible to examine the existence of a media bias against migrants in general, but this would be a demanding task.

<sup>5</sup>The main political source of anti-migrant feelings in Switzerland is the Swiss People's Party as is illustrated by the series of referenda it has successfully launched asking for harsher laws ruling the status of migrants and asylum seekers (in 1999, 2002, 2004, 2006 and again 2008) and for a constitutional ban of minaret construction (in 2009). This right wing populist party is also the main beneficiary of the instrumentalization of these feelings as is illustrated by the growing share of representatives of the Swiss People's Party in the federal Parliament (11,1% in 1991; 22,5 % in 1999; 29% in 2007).

A second and indirect source of anti-migrant feelings is the conservative majority. Although it has been the first victim of the rise of a strong right wing populist party, the conservative majority has contributed to legitimizing the arguments of the Swiss People's Party. While the moderate conservative discourse traditionally emphasizes economic considerations including the need to proceed to a cost-benefit analysis of migration or the merits of selective migration (as opposed to the threat migration represents to the native culture), it has been converging and blending with the populist right wing discourse in support of more stringent migration and asylum rules. An example of their political complementarity is the adoption by the Swiss administration of the concept of "cultural distance" in the formulation of the three "circles" policy during the 1990s. This policy aiming at restricting certain types of migration by

In this context where the analysis of social scientists and the public discourse often diverge, the first chapter of this thesis contributes to the ongoing debate by specifically exploring the cultural integration paths of eight migrant groups from the first to the second generation. It traces the evolution of selected behaviors and attitudes, which are taken as indicative of cultural integration. Different perspectives are proposed to deepen the analysis of these evolutions. First, differences across cohorts are used to investigate change and continuity over time (Georgiadis and Manning, 2011) and see if younger migrants depart from behaviors and attitudes of the first generation more than older migrants do. Second, to explore the role of intermarriage as a factor (and not only an outcome) of integration (Waldis, 2008), differences across individuals in endogamous and mixed couples are examined. Looking at integration patterns, the objective of the first chapter is to highlight convergences and remaining differences across a series of indicators.

**(ii) Are the causes of migrant integration failures primarily cultural or economic?**

The second chapter of this thesis proposes to look at the causes of integration failures or, more precisely, at how cultural and economic barriers to integration reinforce each other. In the contemporary political arena where perception is key, various discourses are competing to explain integration issues in ethno-cultural vs. socio-economic

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granting foreigners different rights to migrate to Switzerland according to their origin was inspired by the Arbenz report, which stated that migrants from some countries “don’t belong to the same culture marked by European ideas in the broad sense” and that, as a consequence, “they cannot be integrated” (CFR, 1996).

terms. As mentioned above, in recent years the populist right wing narrative, which argues that “cultural distance” prevents the successful integration of migrants, has gained ground against the other narratives, including the liberal analysis, which considers that the root of integration failures lies in unequal economic opportunities and discrimination.

Chapter 2 assesses the relevance of these opposed narratives<sup>6</sup> by investigating the endogenous relationship between economic discrimination and “cultural distance”. Both factors certainly reinforce each other negatively, hindering the integration of migrants in the host society, but is there a way to determine which of the two narratives is more relevant in the Swiss context? How legitimate are claims arguing that migrants are economically discriminated against because they don’t integrate culturally compared to claims that migrants don’t integrate because they are discriminated against? A series of articles inspired by Battu et al. (2003) found evidence of the former without examining the latter. The contribution of the second chapter is to examine both sides of the argument at once. Given the current strong focus on Muslim migrants in the integration debate in Switzerland and other Western countries, the situation of this minority is looked at more closely.

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<sup>6</sup>Moderate discourses would emphasize purely economic factors, especially differences in human capital endowments between migrants and natives, to explain integration failures. This point of view is dealt with in chapter 2 and 3, when examining human capital factors and returns to human capital factors in the analysis of employment and wage, which is an intermediary step required to estimate economic discrimination.

### (iii) Speaking of culture, what about host societies?

Finally, looking at the integration of migrants in its full context, the focus shifts from the migrants to the natives. If culture does affect economic outcomes, then how does the culture of the host society influence the way migrants fare in the economy?

The third chapter investigates whether host society cultures do affect migrant wage discrimination in Switzerland, i.e., if migrant wage discrimination is more intense in the region where host society culture is most “inward-looking”. Cultural differences between the German and Latin region of Switzerland are supposedly so important that there is a special word for it: the “Roestigraben.”<sup>7</sup> While the “Roestigraben” lumps together cultural traits that are largely imaginary, some of them are reflected in the political preferences of Swiss voters. On issues concerning migration, asylum and naturalization, preferences of voters are markedly more conservative in the German region than in the rest of the country.<sup>8</sup> Is such a difference likely to affect migrant wage discrimination?

This research question, together with the one investigated in chapter 2, is important to improve the understanding of the conditions under which migrant integration

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<sup>7</sup> 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. This term (referring to the way to prepare potatoes in the German regions of Switzerland, Röstli) has become a metaphor for the general cultural divide within the country. The cliché is that German-Swiss are hard working, historically used to Spartan living conditions, being proud of their independence and deriving their identity from the founding myth of the Swiss federation. In contrast, Latin-Swiss are bon-vivants enjoying the fruits of their temperate climate and, being a minority in their own country, are much more outward-oriented (towards France and Italy, and the EU as a whole). See Brügger et al. (2009) and Büchi (2003).

<sup>8</sup> Christophe Büchi recently pointed out that differences in political preferences between regions in Switzerland are most intense on issues of social and migration policy. See *Neue Zürcher Zeitung*, “Wie tief ist der Roestigraben eigentlich? Vor allem SVP-Themen und die Sozialpolitik trennen Romands und Deutschschweizer,” 8 January 2011.

can be successful. Indeed, if the cultural integration of migrants is considered to be problematic, it is especially important to understand what factors are influencing it and the context in which it is occurring. This systemic approach leads to the formulation of questions that have no simple answers. Hopefully, the investigation of these three research questions will provide further input for thought on nascent integration policies.

In order to better frame the questions investigated in this thesis, this introduction further proposes a short historical review of immigration and integration policies in Switzerland. Since the end of the nineteenth century when Switzerland turned from being an emigration country to being an immigration country, there have been many difficult episodes in the relationship between Switzerland and its migrants. As history sometimes stutters, it is worth putting the current debate on migration and integration into perspective with historical reference points.

## **Immigration history and policy: “Ueberfremdung” and its shadow**

For centuries, Switzerland was a country of emigration before becoming a country of immigration. In 1850, migrants were almost non-existent in Switzerland, except for the Huguenots (Henry et al., 1995). The construction of infrastructure necessary for the unfolding industrial revolution created an excess demand for manpower. At that time, foreigners were welcome and perceived as indispensable. The Swiss government signed recruitment agreements with neighboring countries, granting migrants the same



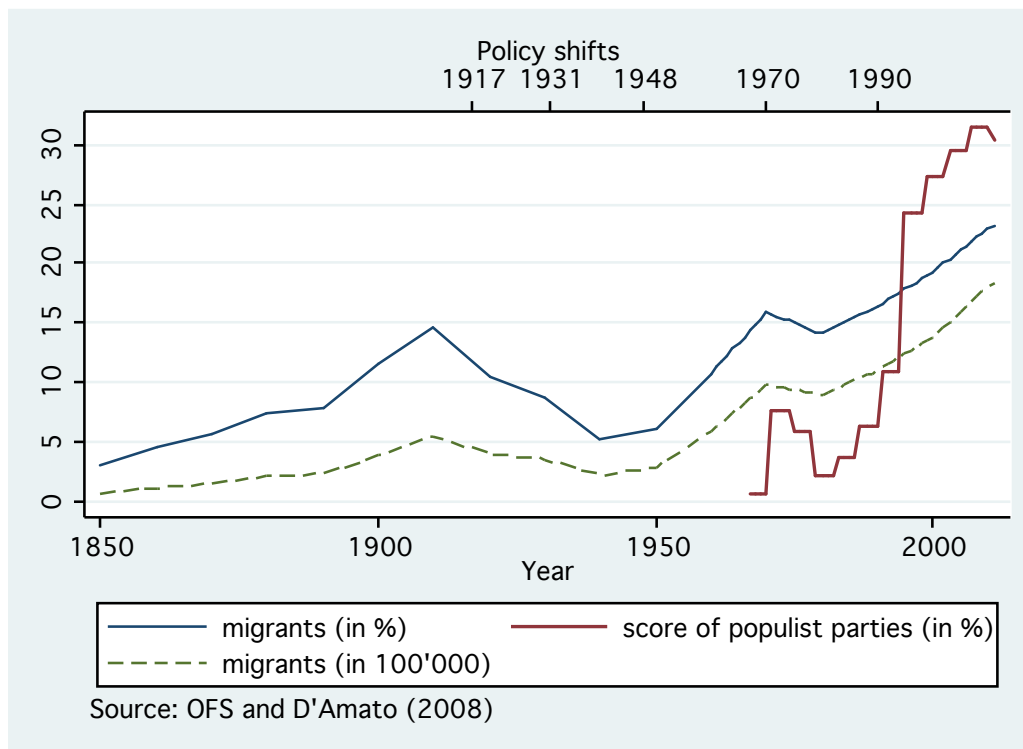


Figure 0.2: Migrant population and right wing populist parties in Switzerland (1850-2011)

rights as nationals. Two years of residence were sufficient to acquire Swiss citizenship. This policy was in line with the belief that naturalization was the most suitable way to assimilate migrants (Wicker, 2003). Figure 0.2 shows that the share of foreigners living in Switzerland progressively rose and reached 15% in 1910, one of the highest rates in Europe.

The outbreak of the First World War signaled the beginning of a lasting change in the perception of migrants as a threat to Swiss culture. Conservative circles brought into the political debate the idea of “Ueberfremdung,” the fear that Swiss identity would be dissolved with the inflow of too many foreigners. In 1917, the Central Office for Aliens

Police was created in order to better monitor migrant population. In 1931, the Federal Law on the Settlement and Residence of Foreigners engraved in law the transmutation of “migrants” into “foreigners” (Wicker, 2003). It also made residence and naturalization more difficult. In the 1930s, a more malleable version of the “Ueberfremdung” idea, the “Geistige Landesverteidigung”, literally the spiritual national defense, insisted on the duty of individuals to defend typical Swiss values. With Nazi and fascist regimes at the border, liberal circles progressively rallied conservatives around the flag to promote “Swiss” values such as cultural diversity, democracy or technological progress. This episode of Swiss history is important because the national “culture of threat” that developed in Switzerland and the representation of foreigners as a danger to Swiss identity had a lasting impact on Swiss collective identity and immigration policy (Riano and Wastl-Walter, 2006). During that period, the proportion of migrant population dropped sharply and reached 5% on the eve of World War II.

In the second half of the 20th century, three successive waves of immigration brought different types of migrants to Switzerland. The defensive attitude inherited from the previous period still weighted on policy decisions. While the government attempted to create conditions supporting the provision of cheap labour to the economy, it always had to pay attention to underlying xenophobic feelings that could burst onto the political scene. Like other countries, Switzerland opted for a “Gastarbeiter” system. The first recruitment agreement was signed with Italy in 1948 and was followed by an inflow of Italian manpower. Spaniards came soon after. Despite a quota system, immigration kept rising. In 1970, the Schwarzenbach initiative, which proposed to expel one third of

migrants and impose harsher quotas, was rejected by only 54% in one of the highest voter turnouts in Swiss history. The federal government reacted by imposing more restrictive quotas, but it was mostly the non-renewal of permits that drove out migrants. This was also a convenient way for Switzerland to export its unemployment. During the economic crisis of the 1970s, 67% of the 340,000 workers who lost their jobs were migrants (Mahnig and Piguet, 2003). As the economy recovered in the 1980s, the second wave of migration followed a different pattern. Portuguese, Yugoslav and Turkish workers, as well as refugees from Sri-Lanka, Vietnam and the Middle East also brought their families with them. After a decline in the 1970s, migrant population again exceeded 15% in 1990.

Pressure from European countries for the improvement of conditions for their nationals drove Swiss authorities to reconsider their immigration policy. The idea of creating a point system or implementing a “three circles” policy based on the concept of “cultural distance” of migrants were debated as a means to satisfy Switzerland’s neighbors without alienating xenophobic voters. In the 1990s, Switzerland started to apply a “three circles” policy, defining an inner circle and outer circles, and creating a hierarchy favoring individuals from EU/EFTA countries over those from the US and the rest of the world. Through bilateral agreements, EU/EFTA citizens are granted the same living and working rights as the Swiss (Mahnig and Piguet, 2003), while, for other countries, immigration is restricted to highly-qualified individuals only. Beyond the pragmatism of Swiss authorities, this political move also hints at the shift of symbolic barriers and a change in how Swiss define foreigners and themselves (Wicker, 2003). However, this new policy could not prevent unwanted migrants from coming to Switzerland. During

this period, the third wave of migrants was mostly composed of refugees from former Yugoslavia, but also from Africa, as well as highly qualified workers, mainly from neighboring countries.

The 1990s also coincided with the rise of the Swiss People's Party, which became the strongest political party in the federal parliament. Right wing populist parties have a long history in Switzerland, but never before had they succeeded in obtaining politically significant electoral scores. This spectacular rise changed the Swiss political landscape. It partly reshaped the political debate by forcing other parties to explicitly address migration and integration as major issues. Right wing populist parties also influenced policy-making in those areas.<sup>9</sup>

Despite different restrictive policies, the migrant population continued to rise and the proportion of foreigners officially reached 22.9% in 2009 (OFS).<sup>10</sup> As it became obvious that many migrants would never return to their home countries, politicians could no longer escape the question of migrant integration. Some cantons had started to use their autonomy in matters of education, religious matters and the attribution of local civic rights to deal with integration-related issues, but their practices still are heterogeneous and resources very limited (Cataccin and Bühlent, 2005). The legal basis for a coherent federal policy was only set up in 1998 when the integration of migrants became an item on the Swiss political agenda and the Federal Law on the Settlement and Residence of Foreigners was once more amended to allow the government to subsidize

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<sup>9</sup>D'Amato (2008) proposes a detailed analysis of the factors that favoured the rise of right wing populist parties in Switzerland as well as of their influence in policy-making in the areas of migration and integration.

<sup>10</sup> [www.bfs.admin.ch](http://www.bfs.admin.ch)

the integration of foreigners. In 2001, a budget of around 10 million Swiss francs was accepted and has barely increased since (OFM, 2006). The previous year, an order of the government defined the objectives of integration and the tasks of the Federal Commission for Foreigners. The Central Office for Aliens Police was changed into the Federal Migration Office (Wicker, 2003).

For a majority of the Swiss population, Western and Southern European migrants may be considered as economic competitors, but not as a threat to the Swiss identity. This empathy, however, does not extend to “non-European” migrants. In 2005, a new Federal Law on Foreigners passed defining in depth the objectives and principles of integration policy as well as the competence of the government (OFM, 2006). The fact that a conservative government has initiated such changes during a period where the populist right wing has risen to become the strongest political force in the federal parliament indicates that the design of an integration strategy is politically costly but indispensable. As in other countries, many voters are caught between the fear that the country they know may change and the necessity to adapt to a globalizing economy and society.

## **Migrant groups definition and composition**

Before investigating the three research questions, it is necessary to provide detailed information about how migrants and migrant groups are defined. As mentioned earlier, migrants are individuals of foreign descent born abroad (first generation) or in

Switzerland (second generation). Migrant population is divided in eight groups according to their origin, and this categorization is kept unchanged throughout this thesis.<sup>11</sup> The remainder of this section presents the definition and composition of these population groups.

Table 0.1 shows that in 2000 when the last census was conducted in Switzerland, 29% of the population was of foreign descent and more than 20% were foreigners. As mentioned earlier, these proportions have slightly increased during the last decade. First-generation migrants are born abroad, whereas second-generation migrants are born in Switzerland but are of foreign origin. The proportion of second-generation compared to first-generation migrants is a rough indicator of the length of stay of a particular group in Switzerland.

Table 0.1: Migrants living in Switzerland in 2000 by region of origin and generation

Region of origin	All	1st generation	2nd generation
Natives (%)	70.78		
Immigrants (%)	29.22	20.07	9.14
Of which (%)			
WE	27.34	28.12	25.65
SE	34.79	28.62	48.35
EE	21.05	24.06	14.44
AF	2.03	2.51	0.98
TMM	6.84	6.99	6.49
SA	2.82	3.44	1.47
AS	2.52	3.29	0.80
SCA	2.61	2.98	1.82

*Source:* Swiss census, 2000

Groups of migrants presented in table 0.1 are based on an aggregated United

<sup>11</sup>Besides the Swiss census of 2000, two other datasets are used in these three chapters: the Swiss Household Panel (SHP) and the Swiss Labor Force Survey (SLFS). In all three datasets, it is possible to group migrants into identical origin categories.

Nations typology and correspond to broad regions of origin. Besides natives, eight groups of migrants are formed: Western Europe and Anglo-Saxon countries (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).<sup>12</sup>

The first three European groups are significantly larger than the five remaining ones and represent 83% of the migrant population in Switzerland. The first group gathers Western and Northern Europeans as well as Anglo-Saxons. Three quarters are from neighboring Germany (37%), France (26%) and Austria (12%) and are not part of any specific wave of migration. Italians dominate the Southern European group (65%); Spaniards (19%) and Portuguese (14%) are also sizeable communities. The group of Eastern Europeans is largely dominated by former Yugoslavia (85%), but remains heterogeneous. Migrants from this country first came as economic migrants in the 1980s, and then massively as refugees fleeing the civil war after 1991. The largest community

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<sup>12</sup>The categories include the following countries: (1) WE: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Liechtenstein, Luxembourg, Monaco, New Zealand, Norway, Sweden, the Netherlands, United Kingdom, United States (2) SE: Andorra, Greece, Italy, Malta, Portugal, San Marino, Spain, the Vatican (3) EE: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Macedonia, Moldova, Poland, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Ukraine (4) AF: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Brazzaville), Congo (Kinshasa), Ivory Coast, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Maurice, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe (5) TMM: Algeria, Armenia, Azerbaijan, Bahrain, Cyprus, Egypt, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Turkey, United Arab Emirates, Western Sahara, Yemen (6) LA: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Dominique, Ecuador, El Salvador, Grenade, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Vincent and the Grenadines, St. Lucia, Suriname, Trinidad and Tobago, Uruguay, Venezuela (7) AS: Brunei Darussalam, Cambodia, China, China (Taiwan), Fiji, Indonesia, Japan, Korea (North), Korea (South), Laos, Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand, Tonga, Vanuatu, Vietnam (8) SCA: Afghanistan, Bangladesh, Bhutan, India, Iran, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan, Uzbekistan.

comes from former Serbia-Montenegro (48%), with half of them being Muslims from Kosovo. Bosnia and Herzegovina (13%), Macedonia (12%) and Croatia (9%) follow in terms of size.

Immigration from Africa (excluding Maghreb) is more recent and very diverse. The three largest communities come from Angola (13%), Congo (10%) and Somalia (10%). Many are political refugees. The Middle East generated a significant number of political refugees too, but most migrants of the sixth group are workers from Turkey (66%) or Maghreb (20%). Latin Americans mostly come from Brazil (29%) and the Dominican Republic, Colombia and Chile (10% each). The Asian group is similarly heterogeneous, with economic migrants from Thailand (20%), the Philippines (17%), China (15%) and Japan (10%), and political refugees from Vietnam (19%) and Cambodia (4%). The final group of South and Central Asia is clearly dominated by political refugees from Sri-Lanka (59%). Indians (17%) and Iranians (12%) are also sizeable communities.

The same classification of population groups is kept throughout the thesis for the sake of simplicity and transparency.

## **Limitations and issues**

There are several limitations to the research presented in this thesis. One is directly related to the classification of migrants into broad and static population groups discussed in the previous section. This classification is arbitrary to some extent and can be the subject of a debate because there are different ways to group migrants. Is it still



relevant to distinguish between Southern, Western and Central Europe? Should Turkey be considered part of Eastern Europe as Russia is? Or should the focus be on national communities only? There is no clear-cut solution to such issues and the answer depends on the question that is investigated. One reason for lumping national communities into broad categories is that the Swiss political discourse is often articulated at such an aggregate level. It is however necessary to keep in mind the composition of the different groups when analyzing results in the next three chapters.

The difficulty in defining relevant population groups is even more acute in fast changing societies. Classifying and mapping differences across population groups has a long and problematic tradition in social sciences (Winlow, 2006). Like maps, graphs and figures are powerful communication tools that transmit information without explicitly addressing the assumptions that lie behind their construction. They therefore bear the danger of contributing to the crystallizing of differences and, eventually, to sharpening antagonisms. However, the sequence of questions raised in this thesis and the shifting nature of their focus (i.e., alternatively highlighting migrants and natives) shows that differences are omnipresent in modern societies and that the multi-dimensional and complex integration process involves both migrants and natives. Taken unilaterally and out of context, some of the results of this research could foster polemic and sterile debate, which is not the purpose of this thesis.

Another limitation relates to the problem of matching concepts and methods in social sciences when using a quantitative approach. The concept of culture is not explicitly defined in this thesis. Instead, it is implicitly assumed that culture and the

cultural dimension of integration can be captured by certain indicators whose availability is constrained by existing data. This bottom-up approach is an ad hoc approach that lacks the conceptual coherence that prevails in other social sciences relying on more qualitative approaches and less on data, thereby limiting the scope of what can be described and analyzed.

This criticism applies especially to the concept of “cultural distance”, which is defined and measured for different population groups in the second chapter. Using this term is legitimate to a certain extent, because it appears in official Swiss policy documents and because the dissimilarity index proposed to capture cultural differences technically measures a distance. It does, however, not follow that this measure is adequate to fully or satisfactorily describe cultural differences between migrants and natives, and how migrants integrate culturally. The concept should therefore not be considered as more than an artifact relevant in the context of the specific question investigated in the second chapter.

With this introduction, forewarned readers will be able to better assess and put into perspective the merits and shortcomings of this empirical research.

## Appendix

### Political campaign adds



Figure 0.3: Campaign to expel criminal foreigners



Figure 0.4: Campaign against naturalization



Figure 0.5: Campaign to ban minaret construction



Figure 0.6: Campaign against Roma begging





## Chapter 1

# The Cultural Integration of Migrants in Switzerland: The Evolution of Behaviours and Attitudes from the First to the Second Generation





## 1.1 Introduction

As mentioned in the brief section on migration history and policy, there have been many difficult episodes in the relationship between Switzerland and its migrants since the end of the nineteenth century. Despite the impossibility of an accepted definition of (the Swiss) national identity, some political parties have managed to instrumentalize successive waves of immigration to strengthen the fear that Switzerland may lose its identity to migrants unable to integrate culturally in its society. The repeated failures of anti-migrant popular initiatives in the past may have tempered their political significance, but recent successes stress the many open questions that remain concerning the handling of cultural integration issues in Switzerland.

Cultural integration can be defined as the evolution of behaviours, attitudes, daily life habits, beliefs, etc. (Wanner et al., 2002). Different schools of thought exist in cultural integration literature. Assimilation theory assumes cultural differences progressively level out whereas multiculturalism insists on their persistence over time (Alba and Nee, 1997). Proponents of de-constructivism and system theories have criticized “groupist” approaches arguing groups are a product of social processes or discourse and do not exist a priori. However, empirical observation tends to hint that none of these theories are adequate and that the relation between ethnicity, identity, behaviours and attitudes is a complex multi-level evolutionary phenomenon (Wimmer 2008). As an example, a study conducted in three Swiss migrant neighborhoods shows that even if migrants do not primarily define themselves in ethnic terms, the majority of their

social interactions occur within the group they belong to (Wimmer, 2004). Cultural integration may affect behaviours and attitudes in different ways. Such evidence calls for further research on the stability of group boundaries and their transformation, so as to better understand the evolutionary nature of group formation and how groups insert themselves in the host society. Qualitative studies have generated knowledge over the cultural integration patterns of specific communities residing in Switzerland. Only few quantitative studies, however, have been conducted on that subject.

This chapter contributes to this debate by specifically exploring the cultural integration paths of eight migrant groups from the first to the second generation. It traces the evolution of selected behaviours and attitudes, which are taken as indicative of cultural integration. Different perspectives are proposed to deepen the analysis and look beyond their evolution across generations. First, differences across cohorts are used to investigate change and continuity over time (Georgiadis and Manning, 2011) and see if younger migrants depart from behaviours and attitudes of older migrants.<sup>1</sup> Second, to explore the role of intermarriage as a factor (and not only an outcome) of integration (Waldis, 2008), differences across individuals in endogamous and mixed couples are examined. Can significant patterns be identified? And what is the impact of education? These are some of the questions explored in this chapter. Special attention is given to migrant women, as they play a key role in the transmission of cultural traits and in the socialization process of the second generation on whom most policy efforts are targeted.

This chapter is structured as follows. After reviewing some of the related

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<sup>1</sup>Migrants born before 1970 are labelled as “old” and those born after 1970 as “young.”

quantitative studies in the next section, section 1.3 presents the datasets used in the empirical investigation. Section 1.4 proposes a list of indicators of cultural integration as well as the empirical model. Section 1.5 then explores objective behaviours of migrants by examining their position at school (educational achievement and gender education gap), in the couple (marriage, intermarriage, age and education gap between partners, early marriage, cohabitation, fertility, divorce) and in the labour market (labor force participation). This section also covers subjective attitudes of migrants by examining their use of national languages, their feelings towards Switzerland as well as their gender, religious and political attitudes. The last section concludes by summarizing key findings and proposes recommendations for future cultural integration policies.

## 1.2 Related literature

The findings of the few existing quantitative studies relevant for this investigation are briefly presented below, with some of the results referred to later, as necessary.<sup>2</sup> Qualitative studies are not presented here, but the results of some of them will be mentioned when interpreting the results.

Bauer and Riphahn (2005) investigated the performance of migrants at school through the study of intergenerational patterns of educational attainment. Fibbi et al. (2005) looked at statistical differences across gender and between naturalized and non-naturalized second-generation migrants. They also proposed an analysis of the prob-

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<sup>2</sup>International economic literature on cultural integration has rapidly grown in recent years and it is not possible to review it entirely. In Switzerland, sociologists and demographers were the first to conduct cultural integration studies based on larger datasets as they became available. By contrast, economists mainly focused on the economic integration of migrants in the labour market.

ability to have a weak education level, to be in the labour force, to be unemployed and to acquire Swiss citizenship by regressing independent variables on a set of origin dummies (Germany, France, Italy, Spain, Portugal, Turkey, and six former Yugoslavian provinces) and other controls. Wanner et al. (2003, 2005b) prepared a comprehensive study on female labour force participation. Other reports proposed statistics only on socio-professional and household characteristics of migrants (Wanner, 2004), on migrants, the use of language and religion (OFS, 2005) or on migrant families, highlighting their specificity and their role in the migration and integration process (Fibbi et al. 2005b).

Quantitative studies on subjective attitudes of migrants are even less numerous and, as surveys containing such data are costly to conduct, they usually rely on small samples. Wanner et al. (2002) investigate determinants of the values and beliefs of migrants based on data from the first two waves (1999 and 2000) of the Swiss Household Panel (SHP). They regressed many indicators on origin dummies (Swiss, Italian, Spanish/Portuguese, other European Economic Community/European Free Trade Association, other Europe, rest of the world) and controlled whether respondents have one or two parents of foreign origin.

This study is the first to systematically examine the evolution of the behaviours and attitudes of migrants to better understand their cultural integration paths from the first to the second generation. Previous articles either only focused on the second-generation or attributed a common factor to the second-generation when considering all migrants. It also differs from existing literature in the way migrant groups are defined.

Although European migrants form the bulk of migrant population in Switzerland, the focus is not on European national communities, but on a limited number of broadly defined migrant categories that are geographically more balanced.

### 1.3 Data

Two datasets are used to investigate the cultural integration of migrants in Switzerland: the 2000 Swiss census and the Swiss Household Panel (SHP). As mentioned in the introduction to this thesis (see Table 0.1), the census covers the 7 million individuals living in Switzerland in 2000. It provides information about the country of birth of an individual, his first and second nationality, and whether he is Swiss by birth or not. Individuals born in Switzerland and Swiss by birth are defined as natives. First-generation migrants are born abroad. A second-generation migrant is an individual born in Switzerland, but whose first or second nationality is foreign.<sup>3</sup>

The SHP started in 1999 with 7'799 individuals answering a detailed questionnaire. New observations from the European Survey on Income and Living Conditions (SILC) were added in 2004 and 2005 and increased the total number of observations by wave to 11'565. The SHP indicates whether an individual is born in Switzerland or not, and contains information on the first, second and even third nationality, as well as on the first and second nationality of both parents. An individual is defined as a second-generation migrant if he is born in Switzerland and one of his nationalities or one of his

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<sup>3</sup>A small fraction of second-generation migrants are included in the native group as some of them only have the Swiss nationality by birth. Those who are only Swiss, but are naturalized and are of unknown origin, are not included in either category.

parents' nationalities is foreign. If parents are both of foreign origin, the nationality of the father prevails. Table 1.1 shows the origin and composition of the population in both the census and the SHP. The sample of first-generation migrants is smaller in the SHP than in the census, probably because survey questions are more difficult and lengthier to answer than survey questions. The proportion of migrants from Eastern Europe is also smaller in the SHP compared to the census, but other population groups are of comparable importance in both datasets.

## **1.4 Methods and specifications**

### **1.4.1 List of cultural integration indicators**

The census conducted in 2000 and the SHP allow examining certain objective behaviours and subjective attitudes, which are assumed to reflect the cultural dimension of integration. Integration processes cannot be localized geographically or institutionally, but some units of analysis are especially relevant. School is the first place where all second-generation migrants are exposed to natives and native culture, and school is an important integration mechanism. Secondly, as many adults spend most of their life in the couple (or family), it is of particular interest to observe behaviours in the couple, especially differing patterns of integration between individuals in endogamous couples and partners of mixed couples, where cultural accommodations and compromises are a necessity. Finally, the labour market is the most important mechanism stimulating contacts between natives and migrants outside the household. The list of selected indicators

also includes information about the main language of migrants and their attitudes with respect to Switzerland, gender, religious and political issues. Descriptive statistics for natives, first-generation and second-generation migrants are displayed in table 1.2.

- **Educational attainment:** the number of years of education;<sup>4</sup> the sample is limited to individuals aged 25 years or more.
- **Marriage:** a dummy equals 1 if an individual is married; the sample is composed of all women aged 18 years or more. Widows are excluded.
- **Mixed couple:** a dummy equals 1 if a Swiss individual has a partner from a different country of origin; the sample is limited to individuals in a couple, aged 18 years or more. Mixed couples where neither of the partners is Swiss are excluded.
- **Age gap between partners:** the age difference between the male and female partners; the sample is limited to individuals in a couple, aged 18 years or more.
- **Education gap between partners:** the difference in number of years of education between the male and female partners; the sample is limited to individuals in a couple, aged 18 years or more.
- **Early marriage:** a dummy equals 1 if an individual is married; the sample is limited to women aged between 18 and 25 years. Widows are excluded.
- **Cohabitation:** a dummy equals 1 if an individual lives in cohabitation; the sample is limited to individuals married or living in cohabitation.

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<sup>4</sup>In the census as well as in the SHP, the available educational variable is categorical. De Coulon et al. (2003) proposed a scale to compute the number of years of education.



- **Fertility:** the number of children of women aged 40 years or more.
- **Divorce:** a dummy equals 1 if an individual is divorced; the sample is composed of married and divorced women only, aged 18 years or more.
- **Female labour force participation:** a dummy equals 1 if a woman is in the labour force; the sample is limited to women aged between 25 and 62 years.
- **Main language:** a dummy equals 1 if an individual uses one of the four Swiss national languages (French, German, Italian, Romansh) as his main language.
- **Feelings towards Switzerland** (i) *In favor of more equality between Swiss and foreigners*<sup>5</sup>: a dummy equals 1 if the respondent declares to be in favor of more equality. (ii) *In favor of opening Swiss traditions*<sup>6</sup>: a dummy equals 1 if the respondent declares to be in favor of opening Swiss traditions to the world.
- **Gender attitudes:** (i) *Child suffers if mother is working*<sup>7</sup>: 0 if the respondent does not agree at all with the statement, 10 if she totally agrees; the sample is limited to women. (ii) *Women penalized in general*<sup>8</sup>: 0 if the respondent does not agree at all with the statement, 10 if he totally agrees; the sample is limited to

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<sup>5</sup>Original question: Are you in favour of Switzerland offering foreigners the same opportunities as those offered to Swiss citizens, or in favour of Switzerland offering Swiss citizens better opportunities? Possible choices: in favour of equality of opportunities, neither, in favour of better opportunities for Swiss citizens.

<sup>6</sup>Original question: Are you in favour of Switzerland opening towards other countries, or in favour of Switzerland defending its traditions? Possible choices: opening towards other countries, neither, defending traditions.

<sup>7</sup>Original question: Please tell me how far you would agree with the statements I am going to read to you now, if 0 means "I completely disagree" and 10 "I completely agree". A pre-school child suffers, if his or her mother works for pay.

<sup>8</sup>Original question: Do you have the feeling that in Switzerland women are penalized compared with men in certain areas, if 0 means "not at all penalized" and 10 "strongly penalized" ?

men.

- **Religious attitudes:** (i) *Participation in religious services*<sup>9</sup>: a dummy equals 1 if the respondent declares she participates in religious services at least occasionally (not only on special occasions). (ii) *Prayers*<sup>10</sup>: a dummy equals 1 if the respondent declares he prays at least occasionally.
- **Political attitudes:** (i) *Political affiliation*<sup>11</sup>: 0 if a respondent declares to have extreme left political views, 10 if extreme right. (ii) *Satisfaction with Swiss democracy*<sup>12</sup>: 0 if a respondent does not agree at all with the statement, 10 if he totally agrees.

#### 1.4.2 Specifications

To investigate the evolution of those indicators, two main specifications are used. The first specification compares the outcomes between first and second-generation migrants:

$$\begin{aligned}
 Outcome_i &= \sum_j \beta_j Origin_j * 1stGeneration \\
 &+ \sum_j \gamma_j Origin_j * 2ndGeneration \\
 &+ \alpha X'_i + \varepsilon_i.
 \end{aligned} \tag{1.1}$$

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<sup>9</sup>Original question: How frequently do you take part in religious services? In the beginning, no answer is proposed by the interviewer.

<sup>10</sup>Original question: How frequently do you pray apart from at church or within a religious community? In the beginning, no answer is proposed by the interviewer.

<sup>11</sup>Original question: When they talk about politics, people mention left and right. Personally, where do you position yourself, 0 means “left” and 10 “right” ?

<sup>12</sup>Original question: Overall, how satisfied are you with the way in which democracy works in our country, if 0 means “not at all satisfied” and 10 “completely satisfied” ?

$\beta_j$  and  $\gamma_j$  catch the effect of being a first or second-generation migrant of origin  $j$  compared to being a native. The difference between  $\beta_j$  and  $\gamma_j$  indicate if the second generation rather tends to reproduce behaviours and attitudes of the first generation or to adapt to those of natives. This first specification implicitly assumes that other factors are common among all observed individuals.

The second specification allows deepening the analysis by introducing additional distinctions. First, as there is no reason to believe that trends in behaviours and attitudes are equally shared among migrants of different origin, outcomes are compared across birth cohorts (born before vs. born after 1970). Second, to investigate if the composition of the couple has an effect on behaviours and attitudes, and if this effect is similar across origin groups, outcomes are compared across types of couples (endogamous vs. mixed couples). Finally, gender differences are also carefully examined using the same specification:

$$\begin{aligned}
 Outcome_i &= \sum_j \sum_k \beta_j Origin_j * Cohort/Couple/Gender_k * 1stGeneration \\
 &+ \sum_j \sum_k \gamma_j Origin_j * Cohort/Couple/Gender_k * 2ndGeneration \\
 &+ \alpha X'_i + \varepsilon_i.
 \end{aligned} \tag{1.2}$$

An OLS estimator is used with continuous indicators and a probit when the outcome is binary. Standard errors are robust. Vector  $X$  includes the following controls: age, age squared and the number of years of education. With SHP data,  $X$  additionally includes year dummies. With census data,  $X$  also controls for four linguistic regions,

16 economic regions and four types of communes. In order not to arbitrarily truncate the sample when looking at specific effects tied to intermarriage on a variable that is observable on individuals whether they are in a couple or not (fertility, labour force participation, language), three civil status dummies are included to keep non-married individuals in the sample.<sup>13</sup> Finally, whereas a gender dummy is generally included in the analysis of attitudes, most regressions looking at behaviours focus strictly on women.

## 1.5 Results

### 1.5.1 Objective behaviours

#### (i) At school

According to recent studies, migrants fare rather well in the Swiss educational system. Focusing on a sample of second-generation Italian and Spanish migrants in the cantons of Geneva and Basel, Bolzman and Fibbi (2003) observed that their educational achievements are as good as those of natives. Using 2000 census data on 17 year-old individuals still in the parental household to analyze intergenerational transmission of educational attainment, Bauer and Riphahn (2007) found evidence of higher intergenerational mobility among second-generation migrants. They also found that their achievements or failures are less dependent on their parents' level of education. Fibbi et al. (2005) observed that naturalized migrants are less likely to have a low education level, but this is not the case of non-naturalized first and second-generation migrants (except

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<sup>13</sup>Married natives are the reference group.

for Spaniards and Germans). How does the picture change if the scope of the analysis is enlarged to further include non-European migrants?

Table 1.3 shows the average number of years of education across migrant groups and the gender education gap. This table confirms the impressive educational success of second-generation migrants from Southern Europe that has been documented in previous studies. African women are in a similar situation. However, results also show that the educational achievements of “Secundas” and “Secundos”<sup>14</sup> are not characteristic of all second-generation migrants. Such an outcome might be partly explained by the fact that first-generation migrants are self-selected among the most motivated and capable individuals or by the lack of specific knowledge among migrant parents about the Swiss education system.

Despite the observed negative trend, the gender education gap common to all first-generation groups is reverted among second-generation migrants, with the exception of Western Europeans and Latin Americans, who have the highest average education levels, and Southern European women, who make the largest progress from the first to the second generation.

Results in table 1.4 (plotted in figure 1.1) confirm that migrant women progress more at school than their male counterparts. It seems that second-generation men from South and Central Asia, Turkey, the Middle East and Maghreb and Eastern Europe remain in a low education equilibrium. The better performance of Western Europeans is not very surprising given the very high education level of the first generation, but the

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<sup>14</sup>In reference to the title of the study of Bolzmann and Fibbi (2003) about second-generation migrants from Southern Europe.

impressive results of second-generation Latin Americans, Africans and the tremendous progress of Southern Europeans support the idea that individuals with a mother tongue close to one of the Swiss national languages (in this case Latin languages) fare better at school.

Table 1.5 provides more detailed information about cohort effects for both genders (plotted in figures 1.2 and 1.3). A striking result is that the educational level of first-generation migrants is generally declining. Another interesting trend is that second-generation men from Turkey, the Middle East, Maghreb and Eastern Europe that are born after 1970 fare better than those born before 1970.

## **(ii) The couples**

Previous studies (Wanner and Fibbi, 2002; Wanner et al., 2005a) looked at the role of family in the migration and integration process. They observed that compared to natives, second-generation migrants tend to remain in the parental household for a longer period and get married after a much shorter cohabitation period with their partner. The overall marriage rate, however, is converging across migrant groups. In their qualitative study on binational couples, Ossipow and Waldis (2003) analyzed the interests and strategies of both intermarried partners. Noticing homogamy and heterogamy exist across many dimensions in any couple, they point to the existence of complementary exchanges in each couple.

In this chapter, the analysis is extended to examine the position of women in mixed as well as in endogamous couples. To what extent does origin matter in matching

partners? Are women from some groups more likely to contract early marriage and have many children? It is often assumed that migrants from poorer countries are more inclined to form traditional unions with a clear distribution of roles within the household, but to what extent are these clichés supported by facts and do such behaviours persist among second-generation migrants? Also, if some traditional behaviours seem more deeply rooted in specific communities, how do women of these communities behave in mixed couples?

**Marriage:** Results in table 1.5 (plotted in figure 1.4) show the marginal effect of origin dummies on the probability of getting married. First-generation women are much more likely to be married than natives. Differences among migrant groups hint to the existence of distinct cultural patterns. Western Europeans display the lowest propensity to be married. The decrease in the probability to be married of second-generation women to the level of native women points to at least two possible hypotheses. Either cultural differences in the decision to marry disappear or there are other strong incentives (e.g., legal incentives) for first-generation migrants to get married, which do not exist for the second generation. Looking at differences across cohorts reveals that young first-generation migrants are more likely to get married compared to natives, whereas the opposite is true for the second generation. This might be due to more stringent legal conditions for entering Switzerland happening in parallel to a cultural trend to marry less that is not migrant-specific. This is true even for women of Central and South Asia, who remain in a very robust and much more traditional equilibrium characterized by a high probability to be married for first as well as second-generation

migrants.

**Mixed couples:** Intermarriages differ from endogamous marriages because, through the partner and his social network, a migrant is exposed to the native culture in a way that is not possible in an endogamous relationship. Table 1.7 shows the distribution of endogamous and mixed couples across migrant groups. “Other” couples are composed of partners from different origins, but none of them Swiss. First-generation women intermarry more than their male counterparts. Only women from Turkey, the Middle East, Maghreb, and South and Central Asia do not, and more surprisingly, this is accentuated for second-generation women belonging to these groups. The intermarriage rate of second-generation Western European, Latin American and African women also decreases a lot, but from a very high initial level. Asian women remain in the highest equilibrium despite a slight decrease; Eastern and Southern European second-generation women are the only groups which enter mixed unions more than their mothers.

The marginal effect of origin dummies on the probability to be in a mixed couple reported in table 1.8 (plotted in figure 1.5) confirm the intuition conveyed by statistics in table 1.7. First-generation migrant women from Latin America, Asia, Western Europe and Africa are around 50% more likely than natives to enter a mixed union. Asian women are more likely to choose a Swiss partner than their male counterpart. Women originating from South and Central Asia and Turkey, the Middle East and Maghreb are exceptions in this regard and, more surprisingly, the marginal effect for second-generation women of these groups is negative. Eastern and Southern European women also have a low probability to enter a mixed couple, but it increases for the second generation. It is



also interesting to notice that whereas the propensity to choose a native partner rather decreases for second-generation women, it is less the case for men.

This trend also evolves slowly over time: young second-generation female migrants tend to have a lower probability to have a relationship with a native man compared to their mothers, but this probability is equal or higher for women born after 1970. The same is true for male migrants, and the magnitude of the change is even higher (figures 1.6 and 1.7). The only exceptions are again women originating from South and Central Asia and Turkey, the Middle East and Maghreb. It is surprising to see that their probability to intermarry decreases for second-generation and younger migrants. This strong preference for endogamy contrasts with trends in other groups.

**Different couples - early marriage vs. cohabitation:** How do couples form? Early marriage is often associated with a traditional gender role distribution between husband and wife, whereas cohabitating couples are supposedly more fragile, and consist of more independent partners. Table 1.8 shows most migrant groups (across cohorts and types of couples) have a higher propensity for early marriage compared to natives, especially women from Eastern Europe, Turkey, the Middle East, Maghreb, Central and South Asia. However, this tendency diminishes for all second-generation groups. It seems that migrant groups with the highest probability to get married also do so at a younger age.

Cohabitation is a rather recent phenomenon that has developed as more women started to become economically independent and politically empowered. It is not surprising that first-generation migrants are less likely to choose cohabitation over marriage.

However, this propensity increases for the second generation, more so for women from Europe, Latin America and Asia. The coefficients of the post-1970 cohort in table 1.9 also clearly indicate that there is a cohort-specific change in behaviours concerning cohabitation. Whereas migrants born before 1970 behave more or less alike across generations, second-generation migrants born after 1970 converge to the native baseline, although less rapidly for women of Central and South Asia, Turkey, the Middle East and Maghreb. Mixed couples are much more likely to cohabit than endogamous couples (figure 9). This supports the hypothesis that individuals living as mixed couples may be more liberal, but that legal incentives for first-generation migrants to improve their conditions of stay (or that of their partner) are strong enough to influence the decision to get married.

**Partners' differences - age and education gap:** Waldis (2008) stresses that heterogamy/homogamy in the couple is not limited to its ethnic dimension, and that complementary/symmetric exchanges happen at different levels in any couple. Table 1.9 shows three clear trends in relation to the role of age and education as matching factors in the couple. First there seems to be a difference between European women, who are usually slightly younger than their partner, and non-European women, who display larger age gaps. More striking is the fact that non-European first-generation women born after 1970 are significantly younger than their partner (figure 1.9). Age gaps might be explained by the fact that men who migrated alone only find a partner later on in their life. Some of them return home to choose a younger partner and then bring them back to Switzerland (Wanner et al., 2005a). The age asymmetry is stronger

among migrants born after 1970. However, age gaps in mixed couples are even larger for non-EU first-generation migrants, which supports the hypothesis that access to a permit or citizenship might be part of complementary exchanges happening in mixed couples (Ossipow and Waldis, 2003).

However, the age asymmetry observed in mixed couples is balanced by the fact that partners have almost the same education level. Whereas education seems to only have a small impact on the probability to intermarry, women who intermarry least (from South and Central Asia, Turkey, the Middle East and Maghreb) also have the highest education gaps in endogamous couples. One likely reason for them to intermarry could be to live with a partner that has a similar level of education. In any case, it seems that having similar education levels is a factor in matching partners of different origins, and that education represents an important common ground between individuals coming from different horizons (table 1.11 and figure 1.10).

**Fertility:** Table 1.12 reports the marginal effect of origin dummies on fertility. Migrant women generally have more children than natives. Differences tend to be smaller for the second generation. Women from Switzerland, Western and Southern Europe, Latin America and Asia have lower fertility rates than Eastern European women, and women from Turkey, the Middle East and Maghreb, Africa or South and Central Asia have the highest fertility rate. The coefficient of second-generation Asian women is not significant, but they seem to have a fertility pattern that is different from other non-European migrant groups. Second-generation women from the Middle East, Maghreb and Turkey still display the largest differential, but the drop in their fertility rate is also

the largest. As expected, the number of years of education has a negative and significant effect on the completed fertility rate.

Although coefficients of the second generation are not significant, columns 3 to 6 in table 1.12 (figure 1.11) indicate that the fertility rate of women in mixed couples is similar to that of natives. In endogamous couples, first-generation migrants from Africa, Turkey, the Middle East and Maghreb have the most children.

**Divorce:** Differences in the probability of getting divorced varies across migrant groups, but the groups that tend to be more traditional in marriage also divorce less. Second-generation migrants have a higher divorce rate, but as was observed in cohabitation, it seems that the cultural trend facilitating divorce is not origin-specific, but cohort-specific (table 1.6 and figure 1.12).

### **(iii) In the labour market**

Wanner et al. (2003) conducted a thorough analysis of factors impacting female labour force participation. They notice three factors specifically influence migrant women's behaviour in this regard: gender roles imported from the origin country, household income and the fact that some permits are related to a pre-existing work contract. Although they are more likely to be active in the labour market compared to native women, migrant women originating from some countries display a significantly lower labour force participation rate. Fibbi et al. (2005) also propose an analysis of the probability to be out of the labour force, focusing on individuals aged 23 to 34 years. They do not find evidence of lower labour force participation of migrants compared to natives.

Their results do not support the hypothesis that women from “culturally distant” populations have a lower propensity to participate in the labour force. As mentioned before, their report focuses on European migrants, but how does the picture change when the scope of the analysis is enlarged to include non-European migrant women?

Table 1.13 shows that although there may be cultural differences among first-generation women that lead to varying labour force participation rates, second-generation women almost behave like natives. Migrants from South and Central Asia, Turkey, the Middle East and Maghreb as well as Asia remain least likely to be active in the labour market, sticking to a more traditional gender role distribution.

Looking at cohorts reveals that women originating from Western and Southern Europe are more likely to enter the labour force, especially women born after 1970. This is partly due to the combination of better qualifications and lower fertility rates that were observed earlier. Regression results also show that first-generation women in mixed couples behave like natives in this regard (table 1.14 and figure 1.13).

### **1.5.2 Subjective attitudes**

Besides influencing behaviours, integration processes also affect daily habits, attitudes, values and beliefs of migrants. This section explores the evolution of migrants’ use of national languages, of their feelings towards Switzerland, and of their attitudes concerning gender, religious and political issues. SHP data (except for language) is used to investigate cultural integration paths in these subjective dimensions. The smaller sample size reduces the significance of the results obtained. The analysis is

therefore mostly limited to the evolution from the first to the second generation. Gender differences are considered only when examining gender attitudes.

**Language:** Knowledge of one of the four national languages is fundamental not only to succeed at school and in the labour market, but also to understand native culture and develop enriching relationships in the host society. It is therefore not surprising that a substantial part of the federal budget devoted to cultural integration was spent on subsidizing organization offering language courses for migrants (OFM, 2006), that mastering one of the national languages is often viewed as a prerequisite for naturalization or that partners in mixed couples often consider it as a fundamental external sign of successful integration (Ossipow and Waldis, 2003).

Results in table 1.15 (plotted in figure 1.14) show that second-generation migrants are much more likely to declare one of the national languages as their main language. Surprisingly, young second-generation migrants do so more than those born before 1970, whereas no such trend is detectable among first-generation migrants. Different hypotheses could explain this. It might be that the methods to teach languages that are used at Swiss schools have become more effective or that younger second-generation migrants are more willing to adopt a national language as their own.

As expected, differences across migrant groups remain. Western and Southern Europeans are always more likely to adopt a national language of Switzerland as their own, Asians and South and Central Asians display lower probabilities to do so, but it is striking to observe a similarly low probability for Latin Americans, who seem to be much

more attached to their mother tongue than Latin migrants from Southern Europe.<sup>15</sup>

First-generation migrants with a Swiss partner have a slightly higher probability to adopt a national language as their own than those in endogamous couples. However, the picture is more blurred for second-generation migrants, as African and Latin American migrants are visibly rather keen to keeping their mother tongue.

**Feelings towards Switzerland:** One could assume that in a non-discriminatory society, no one would request more equality between natives and foreigners. Table 1.16 shows that all migrants living in Switzerland are in favor of more equality compared to natives. This trend is stronger among first-generation than among second-generation migrants, except for those likely to have darker skin color or those likely to be identified as Muslims (South and Central Asians, Africans and individuals originating from Turkey, the Middle East and Maghreb), who feel more could be done to facilitate their integration in the Swiss society. Interestingly, migrants of the younger cohort have a more pronounced opinion than those born before 1970. When asked whether they are in favor of opening Swiss traditions to world influence, results look similar (table 1.17 and figure 1.15).

**Gender attitudes:** In relation to gender attitudes, it appears that more conservative behaviours of first-generation migrants are in line with their more conservative subjective attitudes. Results in table 1.18 show how women internalize the traditional role of mothers. Compared to natives, migrant women are likely to believe children suffer when the mother is working. Western European women are the only exception. It might

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<sup>15</sup>As Italian is a national language, the author tested this by keeping migrants of Italian origin out of the sample. Results are available upon request.

also be that as more migrant women live in precarious conditions, they feel strongly that working would harm their children (e.g., because they cannot afford to leave their children in a private day-nursery) Results in table 1.19 (plotted in figure 1.16) show how sensitive men are to the specific discriminations women are suffering from. Male migrants from Western, Southern Europe and Latin America are the only ones to be more sensitive to this issue than native men. Looking at the second generation, it is difficult to identify meaningful differences. It might be that attitudes of second-generation migrants concerning gender issues converge relatively fast with the Swiss average, while behaviours need more time to change.<sup>16</sup>

**Religious attitudes:** Religious attitudes are also losing their intensity over time. Table 1.20 shows that first-generation migrants are more likely to visit places of worship than natives. More assiduous attendance of religious offices could be explained by the fact that it is a social act strengthening the cohesion of communities. The hypothesis that religion fulfills a social rather than a spiritual function in migrant communities is supported by the fact that migrants are not more inclined to pray than natives (table 1.21 and figure 1.17), and that second-generation migrants are not more religious than natives. Interestingly, migrants from Turkey, the Middle East and Maghreb are very close to natives in terms of their propensity to attend religious offices or to pray. The qualitative study of Gianni et al. (2005) on Muslims in Switzerland draws similar conclusions.

**Political attitudes:** Finally, the analysis of political attitudes shows that all

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<sup>16</sup>See results on behaviours in the couple, and the findings of Wimmer (2004) that were cited above.



migrants are more leaning to the left than the more conservative Swiss majority, except for second-generation Asian and African migrants (table 1.22). Their coefficients, however, are not significant. It also appears that migrants from countries with democratic traditions (Western and Southern Europeans, Latin Americans) are less likely to express satisfaction with the Swiss democracy than migrants coming from regions where political regimes are mostly undemocratic (table 1.23 and figure 1.18). Natives seem to be the most critical of their own political system.

## 1.6 Discussion

The main findings of this first chapter can be summarized as follows:

- The evolution of selected indicators from the first to the second generation clearly shows that cultural integration processes are at work in all migrant communities. However, significant differences remain between behaviours and attitudes across migrant groups:
  - At school, men from South and Central Asia, Turkey, the Middle East and Maghreb and Eastern Europe seem stuck in a low educational equilibrium. Young second-generation migrants, however, have improved their performances and the gender gap is declining, due to the progresses made by second-generation women. Differences across groups are especially obvious when looking at the position of women in the couple. Migrant women from South and Central Asia, Turkey, the Middle East and Maghreb are least likely to

intermarry, even less than their male counterparts, and they display more traditional behaviours in most of the indicators examined. In the labour market, migrant women are slightly less likely to be active, but this difference disappears in the second generation, except for Asian migrants.

- Patterns of migrants’ subjective attitudes are more difficult to identify. Results show “linguistically distant” migrants are less likely to declare one of the four national languages as their main language. Migrants’ feelings toward Switzerland show that they perceive discriminations more strongly in comparison to natives, particularly migrants likely to have darker skin color or those likely to be identified as Muslims. The more conservative behaviours of first-generation migrants in the couple are in line with their more conservative subjective gender attitudes. It might be that attitudes evolve more rapidly in a new social environment than behaviours do. Minor differences in religious attitudes vanish at the second generation, which supports the hypothesis that religious office attendance fulfils a social (and to some extent an economic) function rather than a spiritual function. Concerning political attitudes, migrants seem to be more satisfied with Swiss democracy, and they lean more to the left than natives.
- The general convergence pattern observed from the first to the second generation has no match across cohorts. Only a few cohort-specific cultural trends could be identified (see section on cohabitation or divorce). It is therefore not possible to claim that younger migrants integrate better or worse than migrants born before

1970.

- Convergence is particularly at work in mixed couples, where first-generation women of all origin already adopt native behaviours (including women from South and Central Asia, from Turkey, the Middle East and Maghreb), stressing the weakness of the “cultural distance” argument. First and second-generation migrants in endogamous couples reproduce more traditional behaviours. Although it is not possible to capture individual traits that impact on the partner choice, this analysis leads to the conclusion that the interplay between household members (given the characteristics of individuals, of the household and of their social environment) or “household dynamics” has an important role in integration processes.
- Education always has the expected significant effect on examined indicators. Its impact is non-negligible on fertility, but it is modest for most other indicators.

The review of the selected indicators reveals that cultural integration processes, which are at work in various ways in the different groups, contribute to overall convergence. The most striking and lasting differences that are observed across groups do not pertain to educational achievement, religious or political attitudes, but to gender-related attitudes and even more to gender-related behaviours. Differences are more pronounced in endogamous couples in general, specifically for women from South and Central Asia, Turkey, the Middle East and Maghreb.

As such, the decision to marry at an early age or to live in cohabitation, age and education gaps between partners, the preferred number of children and opinions on

gender issues are private matters. However, they also influence the position women have in the household and in society. Previous studies called to focus less on individuals in migration studies and more on families, as they are key in socializing second-generation migrants on whom most policy efforts are targeted (Wanner and Fibbi, 2002). Others observed that some migrant groups are more inclined to reproduce traditional family structures and relationships (Moret et al., 2007) and have very pronounced gender attitudes that may be exacerbated by the destabilizing effect of migration on families (Gianni et al., 2005).

The findings presented in this chapter lead to the recommendation to better take into account migration-related gender issues and migration-specific “household dynamics” in the design of future cultural integration policies. It is on purpose that term “household dynamics” is preferred over “family.” First, the term family evokes the image of married couples with children, whereas a household is not associated with any particular structure (traditional or not). Secondly, implicitly or explicitly insisting on the unity and intergenerational solidarity existing in (migrant) families conceals the fact that migrant households may be confronted by specific problems. Constraints imposed by migration require specific household arrangements, which facilitate the division of labour among household members and a clearer distribution of gender roles within the couple. Those constraints can intensify gender issues, which also exist, although to a different degree, among native couples. Education, labour market and other policies can and should be used to influence the integration of migrants in Swiss society, but more targeted programmes (next to existing language courses, civic and other programmes) and

policies could be designed to address gender issues, which arise out of or are exacerbated by migration and migration-specific dynamics developing in migrant households.

Such programmes should not so much aim at informing migrants about what is considered in conformity with Swiss values concerning gender or family, but about informing them of their individual rights. Moreover, programmes should support associations and organizations which contribute to empower migrants in general (when confronted by the precariousness of their legal situation, the diminished job security, discrimination, etc.) and migrant women in particular (when confronted by situations of domestic violence, forced marriage, etc.) to exercise their rights. Given the ease with which extremist parties exploit such problems and the disproportionate emphasis cultural integration issues are given in the public debate, it is important that decent financial support is granted by lawmakers to actors involved in such work. Finally, the challenging situation that some migrant women face should not conceal that, although gender equality is claimed to be a fundamental value of Western societies, it is a relatively recent “acquis,” particularly in Switzerland,<sup>17</sup> and that much remains to be done.

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<sup>17</sup>The emancipation of women is particularly recent in Switzerland. The fact that Switzerland was not militarily involved in any of the World Wars of the last century delayed the entry of women in the labour market and their access to economic independence compared to other industrialized countries. This and other factors in turn slowed down the acquisition of the voting rights for women, who obtained this political right only in 1971 at the federal level. In 1990, the Swiss federal court finally ruled that the exclusion of women in cantonal polls in Appenzell Inner Rhodes was unconstitutional.

## Tables and figures<sup>18</sup>

Table 1.1: Census and Swiss Household Panel samples composition

	Census			Swiss Household Panel		
	All	1st generation	2nd generation	All	1st generation	2nd generation
Natives (%)	70.78			73.62		
Immigrants (%)	29.22	20.07	9.14	26.38	14.36	12.02
Of which (%)						
WE	27.34	28.12	25.65	39.40	38.03	41.05
SE	34.79	28.62	48.35	38.89	33.92	44.83
EE	21.05	24.06	14.44	9.19	11.99	5.84
AF	2.03	2.51	0.98	1.53	2.18	0.76
TMM	6.84	6.99	6.49	4.49	4.64	4.31
SA	2.82	3.44	1.47	3.62	5.10	1.84
AS	2.52	3.29	0.8	1.35	1.98	0.59
SCA	2.61	2.98	1.82	1.53	2.15	0.79

*Source:* Census, 2000; SHP, 1999-2007.

<sup>18</sup>In all the **regression tables**, “R2” stands for “R-squared”. When a probit estimator is used instead of an OLS estimator, a Pseudo R-squared (“PR2”) is reported instead as well as a log likelihood statistics (“ll”). In all the **figures**, a value represents the average difference between a migrant group and the natives. The dotted lines that are visible in some graphs represent standard deviations.

Table 1.2: Descriptive statistics

	Year	Natives Mean	Std. Dev.	1st generation Mean	Std. Dev.	2nd generation Mean	Std. Dev.
WOMEN							
CENSUS							
Educational attainment	2000	11.71	2.34	11.26	3.38	11.58	2.68
Mixed couple	2000	0.12	0.32	0.34	0.47	0.38	0.49
Marriage	2000	0.55	0.50	0.72	0.45	0.42	0.49
Age gap	2000	-2.17	4.34	-2.71	5.10	-2.39	4.21
Education gap	2000	-3.13	6.87	-2.22	7.36	-0.94	7.34
Cohabitation	2000	0.13	0.34	0.06	0.24	0.16	0.37
Fertility	2000	1.83	1.26	1.84	1.21	1.68	1.20
Divorce	2000	0.13	0.33	0.10	0.30	0.10	0.29
Labor force participation	2000	0.76	0.43	0.73	0.44	0.85	0.36
Main language	2000	1.00	0.03	0.60	0.49	0.95	0.22
SHP							
Feelings (i)	1999-2007	0.50	0.00	0.75	0.44	0.57	0.50
Feelings (ii)	1999	2.40	1.26	2.07	1.18	2.33	1.20
Gender (i)	2002-7	5.52	3.38	5.61	3.44	5.52	3.35
Gender (ii)	2000-2007	5.50	2.58	5.70	2.77	5.54	2.50
Religion (i)	1999-2007	0.33	0.47	0.32	0.47	0.35	0.48
Religion (ii)	1999-2007	0.40	0.49	0.37	0.48	0.41	0.49
Policy (i)	1999-2007	4.58	2.07	4.24	2.14	4.67	1.98
Policy (ii)	1999-2007	5.79	1.90	6.00	2.05	5.81	1.84
MEN							
CENSUS							
Educational attainment	2000	12.64	2.72	11.60	3.52	11.93	2.91
Mixed couple	2000	0.16	0.36	0.24	0.43	0.46	0.50
Main language	2000	1.00	0.04	0.62	0.49	0.95	0.21
SHP							
Feelings (i)	1999-2007	0.63	0.48	0.80	0.40	0.64	0.48
Feelings (ii)	1999	2.27	1.22	2.11	1.16	2.22	1.17
Gender (i)	2002-7	6.58	3.09	6.27	3.26	6.57	3.09
Gender (ii)	2000-2007	5.08	2.65	4.98	3.02	5.17	2.65
Religion (i)	1999-2007	0.27	0.44	0.25	0.44	0.26	0.44
Religion (ii)	1999-2007	0.24	0.42	0.21	0.41	0.24	0.42
Policy (i)	1999-2007	5.06	2.18	4.39	2.22	4.97	2.14
Policy (ii)	1999-2007	6.03	2.01	6.38	2.18	6.19	1.93

Source: Census, 2000; SHP, 1999-2007.

Table 1.3: Group averages: educational attainment and the gender education gap (in years of education)

Origin	Years of education			Men			Gender education gap (Women -men)	
	Born abroad	Born CH	(2nd-1st)	Born abroad	Born CH	(2nd-1st)	Born abroad	Born CH
Natives		11.56			12.85			-1.29
WE	12.67	12.99	0.32	14.34	13.83	-0.52	-1.67	-0.84
SE	9.63	12.03	2.4	10.23	12.7	2.47	-0.59	-0.66
EE	10.99	11.19	0.19	11.41	11.53	0.12	-0.42	-0.34
AF	11.1	12.77	1.67	12.33	13.15	0.82	-1.23	-0.38
TMM	10.36	11.51	1.15	11.39	11.65	0.26	-1.03	-0.14
SA	12.03	12.5	0.47	13.12	13.78	0.66	-1.1	-1.28
AS	11.62	11.24	-0.38	12.59	12.28	-0.3	-0.97	-1.04
SCA	11.17	11.26	0.1	11.14	10.62	-0.52	0.02	0.64
Total	11.28	12.29	1	11.85	12.95	1.1	-0.57	-0.67

Source: Swiss census, 2000



Table 1.4: Educational attainment (I)

Origin	Women		Men	
	1st	2nd	1st	2nd
WE	0.928*** (0.006)	0.815*** (0.014)	1.235*** (0.007)	0.367*** (0.015)
SE	-2.304*** (0.007)	-0.255*** (0.010)	-2.973*** (0.006)	-0.856*** (0.010)
EE	-1.041*** (0.008)	-1.076*** (0.040)	-1.796*** (0.008)	-1.902*** (0.040)
AF	-1.266*** (0.024)	0.412*** (0.141)	-1.304*** (0.025)	-0.266* (0.160)
TMM	-1.855*** (0.015)	-0.828*** (0.051)	-2.036*** (0.013)	-1.910*** (0.054)
LA	-0.311*** (0.016)	0.272** (0.108)	-0.468*** (0.026)	0.473*** (0.119)
AS	-0.607*** (0.016)	-1.031*** (0.160)	-0.844*** (0.026)	-1.171*** (0.202)
SCA	-1.150*** (0.025)	-0.983*** (0.132)	-2.324*** (0.020)	-2.983*** (0.147)
Gender	-1.202*** (0.002)			
Observations	4460422			
R2	0.18			

Source: Swiss census, 2000; Standard errors in parentheses;  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 1.5: Educational attainment (II)

Origin	Women				Men			
	Pre-1970		Post-1970		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
WE	0.926*** (0.006)	0.716*** (0.016)	1.069*** (0.020)	0.533*** (0.029)	1.299*** (0.008)	0.621*** (0.019)	0.933*** (0.025)	0.294*** (0.033)
SE	-2.330*** (0.007)	-0.424*** (0.012)	-2.458*** (0.023)	-0.555*** (0.018)	-2.948*** (0.007)	-0.621*** (0.014)	-2.876*** (0.025)	-0.801*** (0.019)
EE	-0.979*** (0.008)	-1.822*** (0.052)	-1.771*** (0.019)	-0.676*** (0.062)	-1.592*** (0.009)	-2.196*** (0.056)	-2.569*** (0.024)	-1.110*** (0.073)
AF	-1.274*** (0.025)	0.269* (0.158)	-2.114*** (0.050)	0.163 (0.277)	-0.829*** (0.029)	-0.0861 (0.203)	-2.279*** (0.062)	-0.0242 (0.346)
TMM	-1.905*** (0.016)	-0.840*** (0.064)	-2.424*** (0.034)	-1.347*** (0.083)	-1.820*** (0.015)	-2.018*** (0.084)	-2.516*** (0.035)	-1.440*** (0.089)
LA	-0.208*** (0.017)	0.111 (0.118)	-1.541*** (0.037)	0.368* (0.222)	-0.0217 (0.031)	0.678*** (0.144)	-1.472*** (0.067)	0.333 (0.308)
AS	-0.611*** (0.017)	-1.263*** (0.178)	-1.325*** (0.038)	-0.998*** (0.319)	-0.705*** (0.030)	-1.607*** (0.267)	-0.889*** (0.067)	0.215 (0.395)
SCA	-0.948*** (0.027)	-0.764*** (0.136)	-2.444*** (0.050)	-2.911*** (0.344)	-2.032*** (0.023)	-2.846*** (0.191)	-3.172*** (0.051)	-3.046*** (0.294)
Observations	2255991				2120707			
R2	0.17				0.13			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 1.6: Marriage and divorce

Origin	Marriage		Divorce			
	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	0.0573*** (0.001)	-0.0218*** (0.002)	0.00793*** (0.001)	-0.0504*** (0.002)	0.0196*** (0.002)	-0.0301*** (0.005)
SE	0.195*** (0.001)	0.0825*** (0.001)	-0.0582*** (0.001)	-0.0677*** (0.002)	-0.0288*** (0.001)	-0.0342*** (0.002)
EE	0.252*** (0.001)	0.127*** (0.005)	-0.0292*** (0.001)	-0.0730*** (0.001)	-0.0530*** (0.005)	-0.0343*** (0.008)
AF	0.179*** (0.003)	0.102*** (0.020)	-0.00420 (0.003)	-0.0601*** (0.004)	-0.00989 (0.020)	-0.0859*** (0.023)
TMM	0.253*** (0.001)	0.151*** (0.005)	-0.0347*** (0.001)	-0.0608*** (0.002)	-0.00561 (0.008)	-0.0101 (0.010)
LA	0.230*** (0.001)	0.0532*** (0.016)	-0.0102*** (0.002)	-0.0567*** (0.003)	0.0271 (0.017)	-0.0469 (0.030)
AS	0.201*** (0.002)	0.0680*** (0.023)	-0.0232*** (0.002)	-0.0627*** (0.003)	-0.0394** (0.019)	-0.0722* (0.037)
SCA	0.274*** (0.002)	0.250*** (0.012)	-0.0721*** (0.002)	-0.0988*** (0.002)	-0.0894*** (0.007)	-0.0908*** (0.01)
Education	-0.010*** (0.0001)		-4.72e-05 (0.0001)			
Observations	2276316		1655090			
PR2	0.18		0.035			
ll	-1.217e+06		-585480			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.7: Group averages: mixed couples (in %)

Origin	Women						Men					
	Born abroad			(2nd-1st)			Born abroad			(2nd-1st)		
	Endo	Inter	Other	Endo	Inter	Other	Endo	Inter	Other	Endo	Inter	Other
Natives	90.8	9.2					86.76	13.24				
WE	36.6	53.6	9.8	9.6	-10.6	1	49.5	39.8	10.6	-2.5	0.4	2.1
SE	79.6	15.6	4.9	-13.1	10	3.1	76.5	15.6	7.9	-27.8	22.7	5.1
EE	82.1	12.2	5.8	-2.3	1.4	0.9	87	8	5	-2	1.7	0.3
AF	36.6	43.7	19.7	25.3	-18.7	-6.6	44.1	32.7	23.2	17.4	-7.2	-10.2
TMM	78.9	13.1	8	6.3	-5.3	-1	67	20.2	12.8	7.2	-6.9	-0.3
SA	19.9	57.6	22.6	18.4	-17	-1.4	38.8	37.4	23.8	20.2	-12.3	-7.9
AS	30.3	57	12.7	2.9	-5.6	2.7	73.8	16.4	9.8	-9.1	4.2	4.9
SCA	85.5	8.6	5.9	7.7	-4	-3.7	78.3	12.4	9.3	10.6	-5.9	-4.7
Total	61.5	30.4	8.2				70.6	20.5	8.9			

Source: Swiss census, 2000.

Table 1.8: Mixed couples

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
	0.513*** (0.001)	0.389*** (0.003)	0.528*** (0.001)	0.376*** (0.005)	0.342*** (0.004)	0.555*** (0.007)
SE	0.091*** (0.001)	0.176*** (0.002)	0.105*** (0.001)	-0.010*** (0.003)	0.167*** (0.002)	0.179*** (0.004)
EE	0.049*** (0.001)	0.096*** (0.008)	0.066*** (0.001)	-0.005** (0.002)	0.078*** (0.011)	0.095*** (0.011)
AF	0.487*** (0.006)	0.186*** (0.036)	0.514*** (0.006)	0.388*** (0.012)	0.125*** (0.040)	0.302*** (0.068)
TMM	0.060*** (0.002)	-0.023*** (0.007)	0.094*** (0.003)	-0.028*** (0.004)	-0.017 (0.011)	-0.039*** (0.009)
LA	0.646*** (0.003)	0.423*** (0.029)	0.649*** (0.003)	0.622*** (0.007)	0.389*** (0.033)	0.521*** (0.059)
AS	0.589*** (0.003)	0.574*** (0.035)	0.592*** (0.003)	0.560*** (0.008)	0.589*** (0.040)	0.507*** (0.074)
SCA	-0.002 (0.004)	-0.061*** (0.016)	0.023*** (0.005)	-0.062*** (0.005)	-0.066*** (0.018)	-0.052 (0.035)
Education	0.007*** (0.001)		0.007*** (0.001)			
Observations	1492037		1492037			
PR2	0.18		0.18			
ll	-548027		-546437			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.9: Early marriage vs. cohabitation

Origin	Early marriage		Cohabitation		Pre-1970		Post-1970	
	All		All		1st	2nd	1st	2nd
WE	0.124*** (0.004)	-0.0170*** (0.002)	-0.0240*** (0.001)	0.00376** (0.001)	-0.0200*** (0.0007)	-0.0125*** (0.002)	-0.0403*** (0.001)	0.0375*** (0.004)
SE	0.291*** (0.005)	0.046*** (0.002)	-0.060*** (0.001)	-0.034*** (0.001)	-0.054*** (0.001)	-0.041*** (0.001)	-0.072*** (0.001)	-0.030*** (0.001)
EE	0.522*** (0.004)	0.191*** (0.009)	-0.079*** (0.0003)	-0.055*** (0.001)	-0.065*** (0.001)	-0.054*** (0.003)	-0.083*** (0.0002)	-0.059*** (0.002)
AF	0.273*** (0.011)	0.123*** (0.039)	-0.060*** (0.001)	-0.063*** (0.006)	-0.052*** (0.002)	-0.075*** (0.005)	-0.071*** (0.001)	-0.052*** (0.012)
TMM	0.532*** (0.007)	0.232*** (0.011)	-0.077*** (0.0003)	-0.072*** (0.001)	-0.069*** (0.0007)	-0.064*** (0.003)	-0.082*** (0.0002)	-0.076*** (0.001)
LA	0.403*** (0.009)	0.064*** (0.024)	-0.066*** (0.0006)	-0.045*** (0.007)	-0.058*** (0.001)	-0.044*** (0.010)	-0.075*** (0.0006)	-0.052*** (0.010)
AS	0.250*** (0.009)	-0.020 (0.023)	-0.062*** (0.0007)	-0.049*** (0.009)	-0.055*** (0.001)	-0.072*** (0.006)	-0.074*** (0.0007)	-0.011 (0.024)
SCA	0.432*** (0.012)	0.313*** (0.057)	-0.077*** (0.0004)	-0.075*** (0.002)	-0.074*** (0.0008)	-0.077*** (0.003)	-0.079*** (0.0004)	-0.076*** (0.003)
Education	-0.018*** (0.0002)		0.002*** (9.92e-05)		0.002*** (9.97e-05)			
Observations	281477		1531937		1531937			
PR2	0.30		0.13		0.13			
ll	-79229		-454518		-452617			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.10: Age gap between partners

Origin	All		Endo		Inter	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.070*** (0.015)	0.101*** (0.038)	-0.152*** (0.024)	-0.123** (0.055)	-0.073*** (0.020)	0.254*** (0.057)
SE	0.118*** (0.017)	0.444*** (0.026)	-0.060*** (0.019)	0.238*** (0.031)	0.695*** (0.039)	0.740*** (0.049)
EE	-0.424*** (0.018)	0.301*** (0.092)	-0.026 (0.020)	0.321*** (0.108)	-2.102*** (0.048)	0.235 (0.221)
AF	-2.645*** (0.058)	-0.174 (0.366)	-2.280*** (0.100)	1.465*** (0.471)	-3.648*** (0.086)	-3.991*** (0.729)
TMM	-1.174*** (0.034)	0.099 (0.116)	-0.797*** (0.039)	0.335*** (0.126)	-2.618*** (0.090)	-1.410*** (0.396)
LA	-1.334*** (0.039)	-0.676** (0.275)	-0.115 (0.087)	-0.380 (0.440)	-1.734*** (0.050)	-0.892** (0.432)
AS	-1.799*** (0.039)	-1.547*** (0.380)	-0.704*** (0.072)	-0.223 (0.695)	-2.457*** (0.051)	-1.866*** (0.510)
SCA	-1.559*** (0.055)	-1.485*** (0.299)	-1.597*** (0.060)	-1.662*** (0.312)	-1.359*** (0.175)	1.578 (1.262)
Education	0.072*** (0.001)		0.077*** (0.001)			
Observations	1532692		1532692			
R2	0.03		0.03			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.11: Education gap between partners

Origin	Pre-1970		Post-1970		Endo		Inter	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
WE	-0.213*** (0.007)	-0.260*** (0.019)	0.100*** (0.023)	0.062* (0.035)	-0.728*** (0.011)	-0.381*** (0.024)	-0.014 (0.009)	-0.214*** (0.025)
SE	1.481*** (0.008)	0.870*** (0.013)	1.421*** (0.021)	0.889*** (0.021)	1.941*** (0.008)	1.285*** (0.014)	-0.241*** (0.017)	-0.115*** (0.022)
EE	0.960*** (0.009)	1.079*** (0.057)	1.030*** (0.016)	0.888*** (0.059)	1.133*** (0.009)	1.312*** (0.047)	0.351*** (0.021)	-0.035 (0.098)
AF	-0.076** (0.030)	-0.027 (0.196)	-0.105** (0.050)	1.138*** (0.295)	0.223*** (0.044)	0.514** (0.209)	-0.518*** (0.038)	0.020 (0.323)
TMM	1.066*** (0.018)	0.938*** (0.073)	1.042*** (0.029)	1.166*** (0.072)	1.405*** (0.017)	1.220*** (0.056)	-0.153*** (0.040)	-0.167 (0.175)
LA	0.077*** (0.020)	-0.054 (0.142)	-0.293*** (0.034)	-0.007 (0.246)	0.355*** (0.038)	-0.086 (0.195)	-0.331*** (0.022)	-0.225 (0.191)
AS	0.034* (0.019)	0.443** (0.199)	-0.307*** (0.038)	0.025 (0.325)	0.669*** (0.032)	1.070*** (0.308)	-0.325*** (0.022)	0.084 (0.226)
SCA	0.968*** (0.030)	-0.005 (0.150)	1.572*** (0.043)	1.135*** (0.291)	1.467*** (0.026)	0.301** (0.138)	-0.339*** (0.077)	-0.195 (0.559)
Education	0.425*** (0.0008)				0.444*** (0.0008)			
Observations	1532692				1532692			
R2	0.17				0.18			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.12: Completed fertility rate

Origin	All		Endo		Inter	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.122*** (0.003)	-0.056*** (0.011)	-0.180*** (0.007)	-0.074*** (0.016)	-0.195*** (0.005)	-0.047* (0.025)
SE	0.076*** (0.004)	0.061*** (0.010)	0.012** (0.005)	-0.026** (0.012)	-0.189*** (0.011)	-0.070** (0.027)
EE	0.200*** (0.006)	0.226*** (0.042)	0.273*** (0.007)	0.189*** (0.046)	-0.443*** (0.016)	-0.202 (0.137)
AF	0.396*** (0.020)	0.325*** (0.126)	0.862*** (0.042)	0.219 (0.173)	-0.093*** (0.031)	-0.354 (0.356)
TMM	0.560*** (0.012)	0.339*** (0.054)	0.702*** (0.015)	0.242*** (0.061)	-0.173*** (0.031)	-0.077 (0.252)
LA	0.167*** (0.013)	0.088 (0.085)	0.271*** (0.032)	0.038 (0.136)	-0.200*** (0.019)	-0.091 (0.175)
AS	0.031** (0.013)	-0.183 (0.154)	0.375*** (0.025)	0.022 (0.283)	-0.417*** (0.019)	-0.432* (0.225)
SCA	0.410*** (0.022)	0.300*** (0.102)	0.351*** (0.028)	0.026 (0.109)	-0.193*** (0.060)	0.372 (0.552)
Education	-0.058*** (0.0004)		-0.041*** (0.0004)			
Observations	1512842		1512842			
R2	0.08		0.23			

*Source:* Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.13: Group averages: female labour force participation (in %)

	Natives	WE	SE	EE	AF	TMM	SA	AS	SCA	Total
Born in Switzerland	75.4	81.9	84.1	82.1	82.6	82.9	78.3	71.4	77.5	76
Married	67	73.3	76.7	76.5	78.5	77.3	70.4	66	76.9	67.6
Single	88.7	90.6	93.3	90.9	89.1	90.8	88.2	78.7	81.3	89
Foreign born		72.1	74.6	74.8	75.1	69.3	70.6	68.8	70.3	73
Married		65.2	72.4	73	73.4	67.3	67.4	64.6	68.8	69.6
Single		86.1	83.2	83.2	78.8	78.1	82.1	83.2	77.5	83.8

Source: Swiss census, 2000

Table 1.14: Female labour force participation

Origin	Pre-1970		Post-1970		Endo		Inter	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
WE	-0.041*** (0.001)	0.010*** (0.003)	-0.009*** (0.003)	0.040*** (0.004)	-0.086*** (0.002)	0.029*** (0.004)	-0.020*** (0.001)	-0.015*** (0.005)
SE	0.039*** (0.001)	0.019*** (0.002)	0.068*** (0.003)	0.086*** (0.002)	0.092*** (0.001)	0.064*** (0.002)	-0.008** (0.003)	0.001 (0.004)
EE	-0.007*** (0.001)	0.008 (0.009)	-0.043*** (0.002)	0.057*** (0.008)	0.048*** (0.001)	0.088*** (0.006)	-0.013*** (0.004)	0.003 (0.019)
AF	-0.009** (0.004)	0.036 (0.028)	-0.055*** (0.008)	-0.031 (0.043)	0.048*** (0.006)	0.080*** (0.029)	-0.013* (0.006)	-0.138* (0.071)
TMM	-0.078*** (0.003)	-0.003 (0.012)	-0.075*** (0.005)	0.030*** (0.010)	-0.001 (0.002)	0.062*** (0.008)	-0.030*** (0.007)	0.046 (0.031)
LA	-0.088*** (0.003)	-0.006 (0.022)	-0.143*** (0.006)	-0.026 (0.032)	0.004 (0.006)	0.012 (0.034)	-0.095*** (0.004)	-0.040 (0.036)
AS	-0.095*** (0.003)	-0.127*** (0.036)	-0.187*** (0.007)	-0.124** (0.048)	-0.011** (0.005)	0.006 (0.053)	-0.107*** (0.004)	-0.108** (0.046)
SCA	-0.076*** (0.005)	-0.011 (0.025)	-0.151*** (0.008)	-0.008 (0.052)	-0.011** (0.004)	0.043** (0.021)	-0.091*** (0.016)	-0.033 (0.112)
Education	0.017*** (0.0001)				0.017*** (0.0001)			
Observations	1795117				1795117			
PR2	0.05				0.09			
ll	-934436				-888678			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 1.15: Main language

Origin	All		Pre-1970		Post-1970		Endo		Inter	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
WE	-0.29*** (0.001)	-0.061*** (0.001)	-0.24*** (0.001)	-0.071 (-0.001)	-0.34*** (-0.002)	-0.046*** (-0.001)	-0.10*** (0.0004)	0.017*** (0.001)	-0.068*** (0.0004)	0.024*** (0.001)
SE	-0.41*** (0.001)	-0.05*** (0.0008)	-0.33*** (0.001)	-0.05*** (-0.001)	-0.52*** (-0.002)	-0.04*** (-0.001)	-0.24*** (0.001)	0.01*** (0.0007)	-0.13*** (0.002)	0.03*** (0.0004)
EE	-0.73*** (0.001)	-0.34*** (0.004)	-0.70*** (0.001)	-0.49*** (-0.008)	-0.70*** (-0.002)	-0.23*** (-0.005)	-0.19*** (0.0004)	-0.28*** (0.006)	-0.44*** (0.003)	-0.017** (0.007)
AF	-0.61*** (0.003)	-0.23*** (0.018)	-0.54*** (0.003)	-0.28*** (-0.027)	-0.57*** (-0.005)	-0.17*** (-0.022)	-0.12*** (0.001)	-0.04** (0.019)	-0.38*** (0.006)	-0.16*** (0.044)
TMM	-0.72*** (0.001)	-0.30*** (0.005)	-0.65*** (0.002)	-0.39*** (-0.011)	-0.68*** (-0.003)	-0.23*** (-0.006)	-0.18*** (0.0007)	-0.19*** (0.007)	-0.41*** (0.005)	-0.08*** (0.016)
LA	-0.84*** (0.001)	-0.35*** (0.013)	-0.80*** (0.002)	-0.45*** (-0.020)	-0.78*** (-0.003)	-0.23*** (-0.017)	-0.21*** (0.001)	-0.13*** (0.022)	-0.75*** (0.003)	-0.34*** (0.033)
AS	-0.84*** (0.001)	-0.37*** (0.020)	-0.80*** (0.002)	-0.60*** (-0.029)	-0.77*** (-0.003)	-0.17*** (-0.022)	-0.20*** (0.001)	-0.32*** (0.048)	-0.74*** (0.003)	-0.43*** (0.045)
SCA	-0.83*** (0.001)	-0.45*** (0.018)	-0.78*** (0.002)	-0.49*** (-0.023)	-0.78*** (-0.004)	-0.37*** (-0.028)	-0.21*** (0.001)	-0.30*** (0.023)	-0.60*** (0.009)	-0.19** (0.0756)
Education	0.0004*** (8.30e-06)		0.001*** (1.68e-05)				0.004*** (3.25e-05)			
Obs.	4942902		4942902				4942902			
PR2	0.53		0.53				0.33			
ll	-671042		-668672				-950499			

Source: Swiss census, 2000; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



Table 1.16: In favor of more equality between Swiss and foreigners

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	0.153*** (0.008)	0.055*** (0.010)	0.155*** (0.009)	0.036*** (0.013)	0.136*** (0.022)	0.086*** (0.016)
SE	0.207*** (0.008)	0.103*** (0.010)	0.206*** (0.009)	0.103*** (0.012)	0.199*** (0.021)	0.102*** (0.015)
EE	0.104*** (0.019)	0.087*** (0.029)	0.088*** (0.024)	0.014 (0.044)	0.133*** (0.030)	0.165*** (0.037)
AF	0.023 (0.053)	0.069 (0.086)	-0.075 (0.068)	0.052 (0.104)	0.221*** (0.065)	0.107 (0.153)
TMM	0.005 (0.037)	0.137*** (0.030)	-0.023 (0.047)	0.099** (0.045)	0.060 (0.060)	0.174*** (0.039)
LA	0.186*** (0.027)	0.031 (0.054)	0.193*** (0.032)	0.036 (0.068)	0.171*** (0.047)	0.022 (0.091)
AS	0.050 (0.062)	-0.212* (0.111)	0.011 (0.079)	-0.217* (0.128)	0.130 (0.099)	-0.202 (0.225)
SCA	0.027 (0.057)	0.104 (0.076)	0.044 (0.070)	0.065 (0.097)	-0.003 (0.099)	0.182 (0.115)
Education	0.026*** (0.001)		0.026*** (0.001)			
Observations	40692		40692			
PR2	0.038		0.039			
ll	-25581		-25568			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.17: In favor of opening Swiss traditions

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	0.137*** (0.009)	0.063*** (0.010)	0.266*** (0.045)	0.032 (0.056)	-0.350*** (0.103)	-0.125* (0.071)
SE	0.170*** (0.009)	0.096*** (0.010)	0.073 (0.053)	-0.043 (0.056)	-0.665*** (0.117)	-0.214*** (0.069)
EE	0.067*** (0.020)	0.109*** (0.028)	0.964*** (0.107)	0.095 (0.177)	0.975*** (0.144)	0.473*** (0.183)
AF	-0.011 (0.053)	-0.043 (0.093)	0.953*** (0.258)	0.246 (0.438)	0.343 (0.343)	1.330** (0.636)
TMM	0.037 (0.036)	0.131*** (0.030)	1.188*** (0.188)	-0.057 (0.201)	0.516** (0.249)	0.519*** (0.195)
LA	0.155*** (0.028)	-0.0002 (0.055)	0.309* (0.171)	0.549** (0.276)	-0.559** (0.249)	0.041 (0.390)
AS	0.033 (0.063)	-0.101 (0.109)	0.656** (0.323)	-0.141 (0.477)	0.489 (0.510)	-0.460 (0.854)
SCA	-0.014 (0.059)	0.042 (0.081)	1.300*** (0.268)	0.047 (0.417)	0.955** (0.390)	1.029 (0.636)
Education	0.025*** (0.0009)		0.071*** (0.003)			
Observations	40985		40985			
PR2	0.034		0.031			
ll	-25598		-84619			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.18: Child suffers from working mother

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.215*	-0.189	-0.302**	-0.054	0.333	-0.367*
	(0.113)	(0.122)	(0.121)	(0.158)	(0.295)	(0.189)
SE	0.768***	-0.126	0.681***	-0.129	1.104***	-0.111
	(0.142)	(0.119)	(0.159)	(0.153)	(0.315)	(0.186)
EE	0.805***	0.238	0.773***	1.195**	0.872**	-0.796
	(0.223)	(0.394)	(0.280)	(0.544)	(0.365)	(0.569)
AF	0.981*	-1.392	1.551**	-0.998	0.355	-1.850
	(0.559)	(0.982)	(0.768)	(1.329)	(0.816)	(1.456)
TMM	2.495***	-0.421	2.364***	-0.807	2.719***	-0.101
	(0.492)	(0.333)	(0.627)	(0.498)	(0.791)	(0.446)
LA	1.019***	0.0389	0.324	-0.950	2.280***	1.041
	(0.336)	(0.617)	(0.418)	(0.871)	(0.560)	(0.872)
AS	1.686**	1.254	1.909***	1.031	0.561	1.490
	(0.665)	(1.329)	(0.729)	(1.879)	(1.627)	(1.879)
SCA	3.307***	-1.094	3.342***	-1.504	3.250**	-0.670
	(0.870)	(1.152)	(1.085)	(1.628)	(1.456)	(1.628)
Education	-0.229***		-0.231***			
	(0.0103)		(0.0103)			
Observations	15482		15482			
R2	0.069		0.071			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.19: Women penalized in general

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	0.405***	0.258***	0.454***	0.121	-0.314*	0.006
	(0.091)	(0.097)	(0.075)	(0.108)	(0.179)	(0.127)
SE	0.162	-0.017	-0.121	0.393***	0.037	0.284**
	(0.101)	(0.092)	(0.099)	(0.103)	(0.209)	(0.119)
EE	-1.145***	-0.346	-0.581***	0.564	-0.682***	-0.008
	(0.190)	(0.261)	(0.185)	(0.395)	(0.239)	(0.386)
AF	-0.982**	0.565	0.989*	-1.196	0.191	1.370
	(0.434)	(0.761)	(0.505)	(1.029)	(0.565)	(1.030)
TMM	-0.996***	-0.183	0.423	-0.034	-0.026	-0.513
	(0.249)	(0.370)	(0.415)	(0.344)	(0.505)	(0.315)
LA	0.192	0.869*	0.148	-0.456	-0.176	0.981
	(0.359)	(0.459)	(0.246)	(0.674)	(0.305)	(0.613)
AS	-0.818	-0.562	-0.693	1.479	1.113	2.900**
	(0.590)	(1.076)	(0.461)	(1.456)	(1.128)	(1.456)
SCA	-1.282***	-1.402*	-0.372	0.795	-0.015	-0.015
	(0.356)	(0.795)	(0.841)	(1.261)	(0.892)	(1.261)
Education	0.072***		0.101***			
	(0.007)		(0.006)			
Observations	19449		19449			
R2	0.064		0.064			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.20: Probability to participate to religious offices more than for special occasions

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.110*** (0.009)	-0.031*** (0.011)	-0.086*** (0.010)	-0.012 (0.014)	-0.194*** (0.019)	-0.073*** (0.016)
SE	0.042*** (0.013)	0.023* (0.012)	0.060*** (0.013)	0.040*** (0.015)	-0.014 (0.030)	-0.006 (0.017)
EE	0.079*** (0.024)	-0.033 (0.033)	0.036 (0.028)	-0.032 (0.045)	0.123*** (0.037)	-0.051 (0.044)
AF	0.176*** (0.054)	0.006 (0.096)	0.224*** (0.063)	-0.059 (0.111)	0.064 (0.079)	0.239 (0.151)
TMM	0.033 (0.039)	-0.145*** (0.029)	0.102** (0.045)	-0.116*** (0.044)	-0.146*** (0.049)	-0.139*** (0.038)
LA	0.112*** (0.038)	0.0135 (0.063)	0.158*** (0.044)	0.079 (0.078)	0.101* (0.060)	-0.196*** (0.073)
AS	0.084 (0.071)	-0.023 (0.108)	0.138* (0.080)	0.068 (0.136)	0.002 (0.110)	
SCA	0.261*** (0.057)	0.044 (0.092)	0.328*** (0.062)	0.041 (0.106)	0.171* (0.092)	0.018 (0.180)
Education	-0.012*** (0.0009)		-0.014*** (0.0009)			
Observations	32887		32887			
PR2	0.034		0.033			
ll	-19718		-22640			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.21: Probability to pray at least occasionally

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.123*** (0.010)	-0.041*** (0.010)	-0.088*** (0.010)	-0.031** (0.013)	-0.197*** (0.024)	-0.064*** (0.015)
SE	0.060*** (0.010)	0.050*** (0.009)	0.044*** (0.011)	0.037*** (0.012)	0.084*** (0.022)	0.060*** (0.013)
EE	0.021 (0.019)	-0.068** (0.031)	0.012 (0.022)	-0.035 (0.044)	0.063** (0.026)	-0.103** (0.043)
AF	0.138*** (0.036)	-0.153 (0.097)	0.182*** (0.038)	-0.244** (0.118)	0.084 (0.058)	0.011 (0.137)
TMM	-0.052 (0.035)	-0.052 (0.034)	-0.072* (0.042)	-0.010 (0.048)	-0.067 (0.056)	-0.029 (0.042)
LA	0.098*** (0.028)	0.112*** (0.042)	0.143*** (0.029)	0.140*** (0.053)	0.123*** (0.040)	0.065 (0.070)
AS	0.011 (0.059)	-0.070 (0.105)	-0.018 (0.072)	0.028 (0.113)	0.106 (0.071)	-0.216 (0.179)
SCA	0.131*** (0.038)	0.100 (0.068)	0.161*** (0.041)	0.040 (0.098)	0.069 (0.071)	0.170* (0.090)
Education	-0.006*** (0.0008)		-0.011*** (0.0007)			
Observations	41601		41601			
PR2	0.047		0.029			
ll	-24118		-28654			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.22: Political affiliation

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	-0.541*** (0.073)	-0.215*** (0.078)	-0.244*** (0.048)	-0.199*** (0.063)	-0.408*** (0.107)	-0.261*** (0.079)
SE	-2.080*** (0.086)	-0.826*** (0.078)	-0.699*** (0.065)	-0.311*** (0.064)	-0.236 (0.149)	-0.696*** (0.076)
EE	-1.875*** (0.153)	-0.281 (0.226)	-0.040 (0.129)	0.246 (0.204)	-0.859*** (0.174)	-0.766*** (0.207)
AF	-2.546*** (0.366)	0.622 (0.641)	-1.400*** (0.310)	0.003 (0.496)	-1.421*** (0.448)	-0.067 (0.665)
TMM	-1.193*** (0.266)	-0.584** (0.248)	-0.023 (0.206)	-0.098 (0.228)	-1.091*** (0.263)	-0.841*** (0.229)
LA	-1.716*** (0.250)	-0.830** (0.400)	-0.868*** (0.187)	-0.450 (0.307)	-0.411 (0.257)	-1.206*** (0.421)
AS	-1.212** (0.484)	0.396 (0.740)	-0.290 (0.355)	0.0140 (0.543)	-1.118** (0.510)	-0.600 (0.940)
SCA	-2.182*** (0.392)	-0.298 (0.619)	-0.394 (0.355)	-0.068 (0.482)	0.257 (0.448)	-1.721** (0.701)
Education	0.092*** (0.006)		-0.054*** (0.003)			
Observations	40985		40985			
R2	0.053		0.036			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1.23: Satisfaction with Swiss democracy

Origin	All		Pre-1970		Post-1970	
	1st	2nd	1st	2nd	1st	2nd
WE	0.168*** (0.041)	-0.017 (0.044)	0.266*** (0.045)	0.032 (0.056)	-0.350*** (0.103)	-0.125* (0.071)
SE	-0.053 (0.048)	-0.102** (0.044)	0.073 (0.053)	-0.043 (0.056)	-0.665*** (0.117)	-0.214*** (0.069)
EE	0.975*** (0.086)	0.293** (0.127)	0.964*** (0.107)	0.095 (0.177)	0.975*** (0.144)	0.473*** (0.183)
AF	0.744*** (0.206)	0.598* (0.361)	0.953*** (0.258)	0.246 (0.438)	0.343 (0.343)	1.330** (0.636)
TMM	0.950*** (0.150)	0.257* (0.140)	1.188*** (0.188)	-0.057 (0.201)	0.516** (0.249)	0.519*** (0.195)
LA	0.038 (0.141)	0.390* (0.226)	0.309* (0.171)	0.549** (0.276)	-0.559** (0.249)	0.041 (0.390)
AS	0.608** (0.273)	-0.212 (0.417)	0.656** (0.323)	-0.141 (0.477)	0.489 (0.510)	-0.460 (0.854)
SCA	1.192*** (0.221)	0.348 (0.349)	1.300*** (0.268)	0.047 (0.417)	0.955** (0.390)	1.029 (0.636)
Education	0.069*** (0.003)		0.071*** (0.003)			
Observations	40985		40985			
R2	0.029		0.031			

Source: SHP, 1999-2007; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

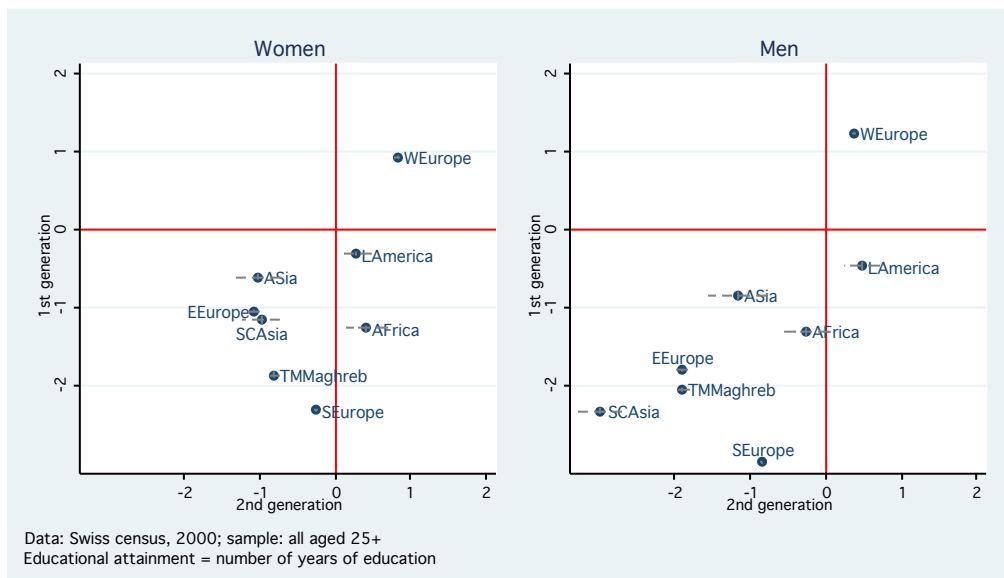


Figure 1.1: Educational attainment

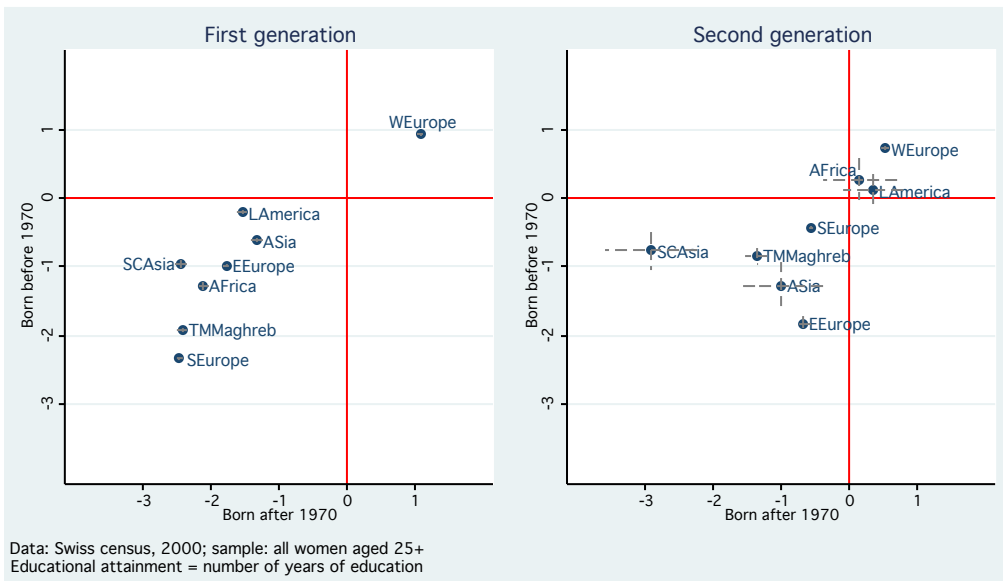


Figure 1.2: Female educational attainment

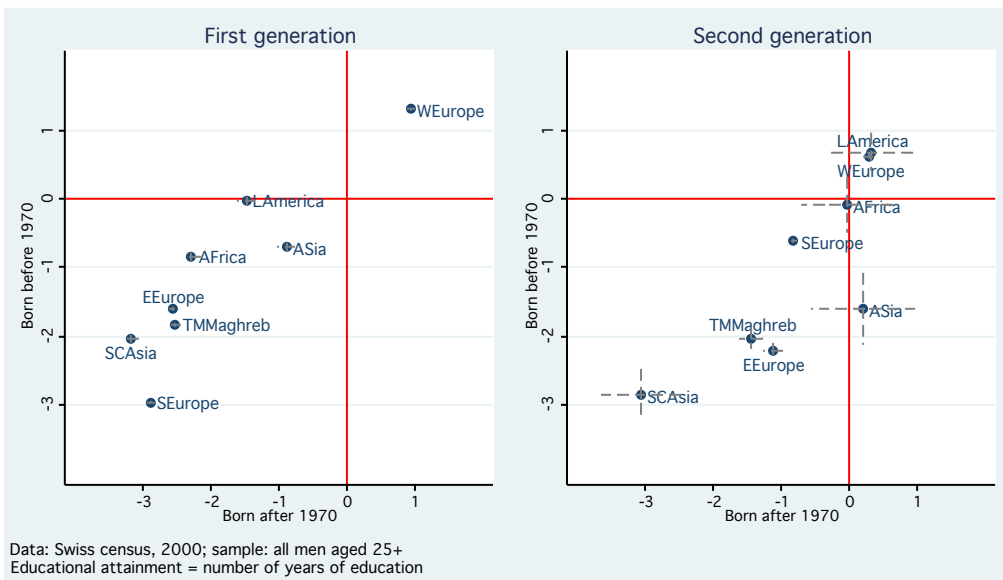


Figure 1.3: Male educational attainment

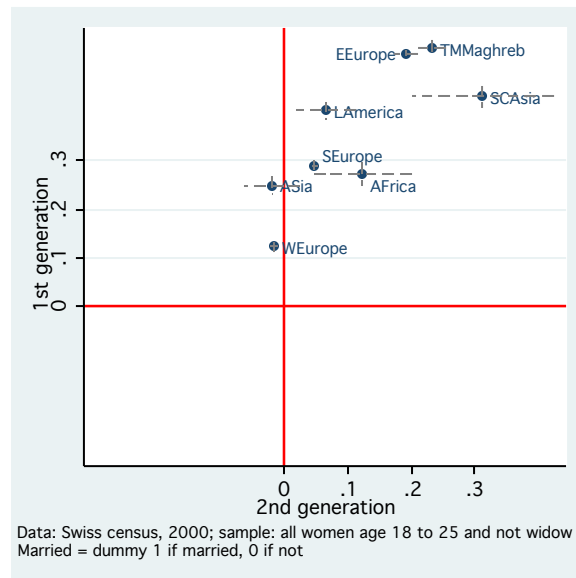


Figure 1.4: Marriage

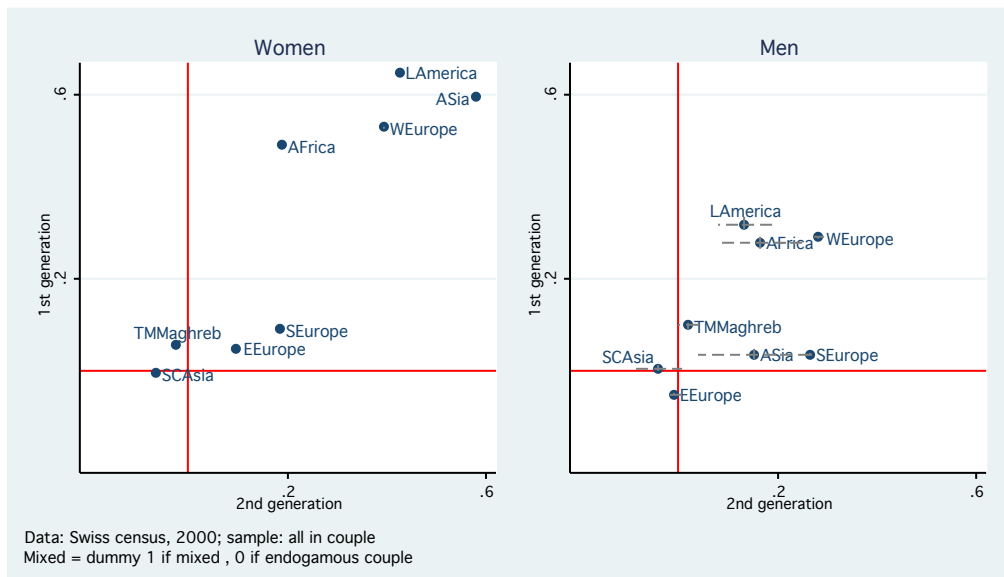


Figure 1.5: Mixed couple

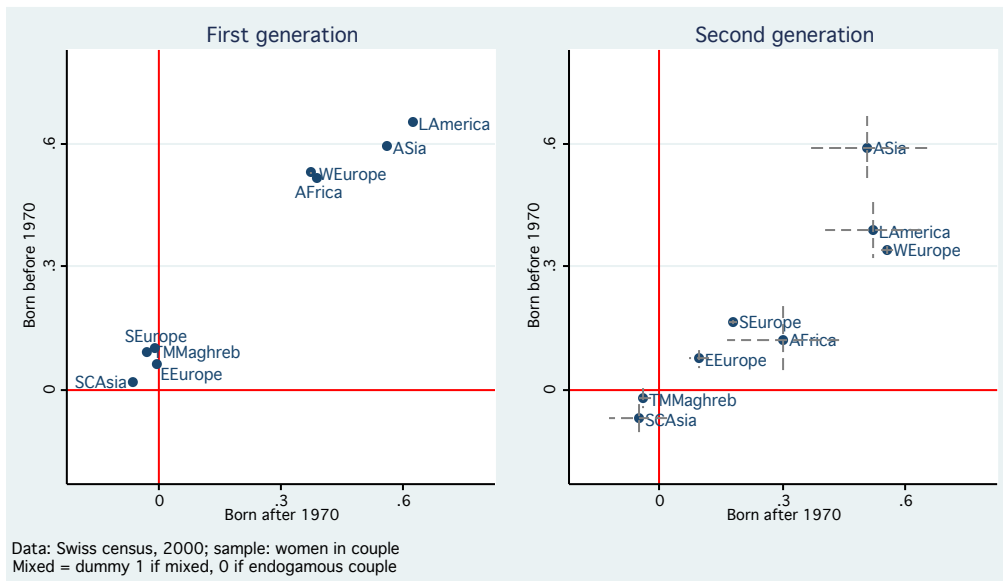


Figure 1.6: Women in mixed couples

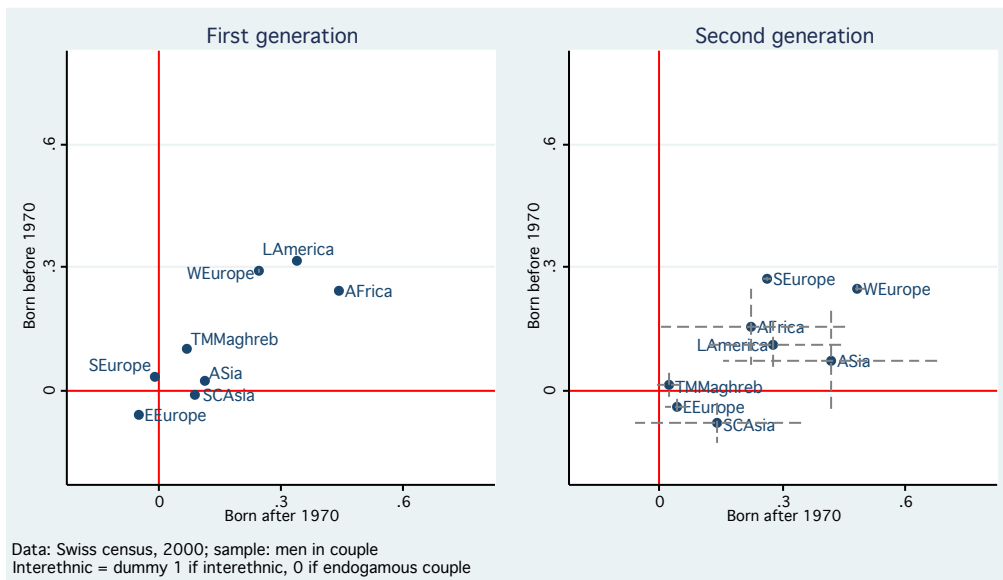


Figure 1.7: Men in mixed couples



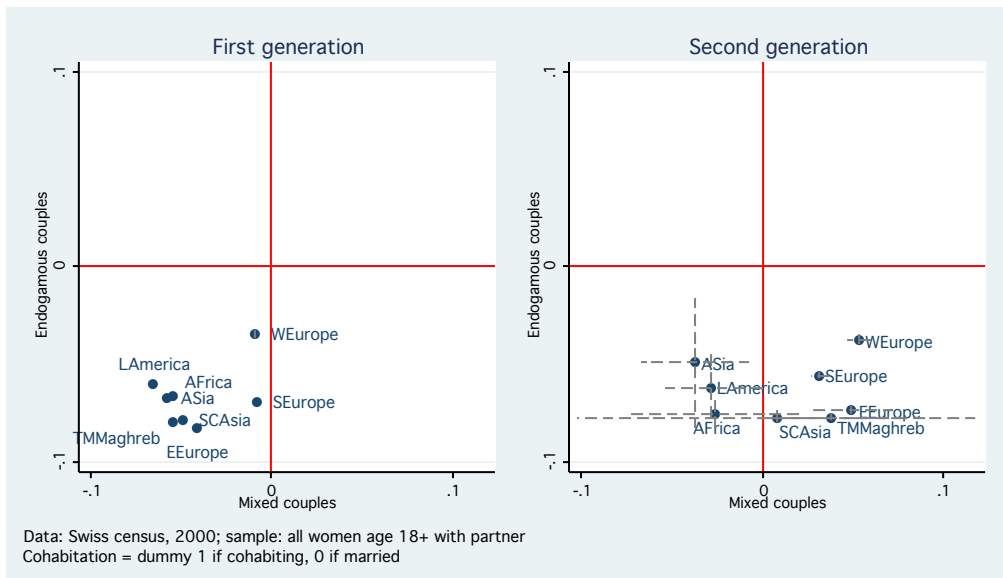


Figure 1.8: Cohabitation

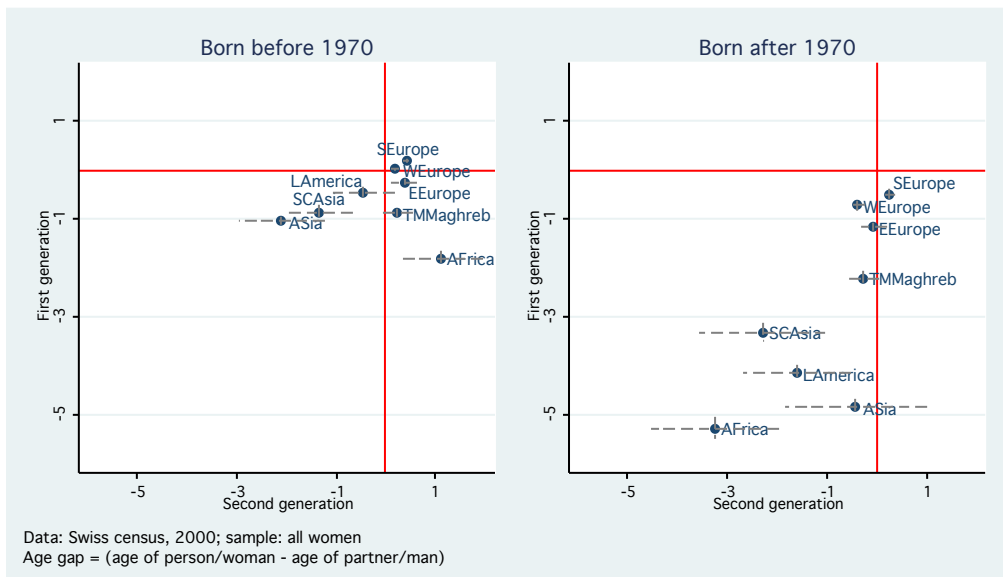


Figure 1.9: Age gap between partners

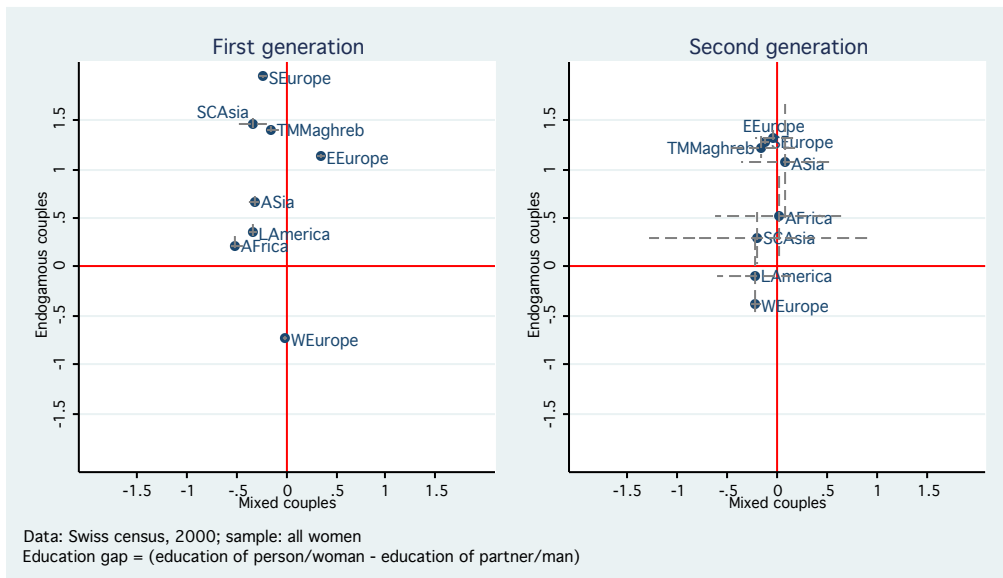


Figure 1.10: Education gap between partners

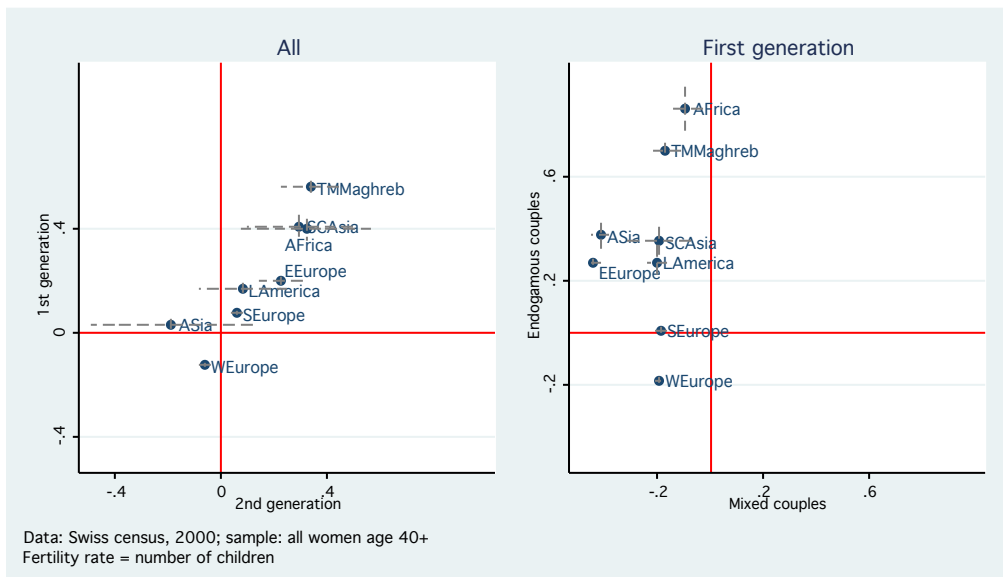


Figure 1.11: Completed fertility rate

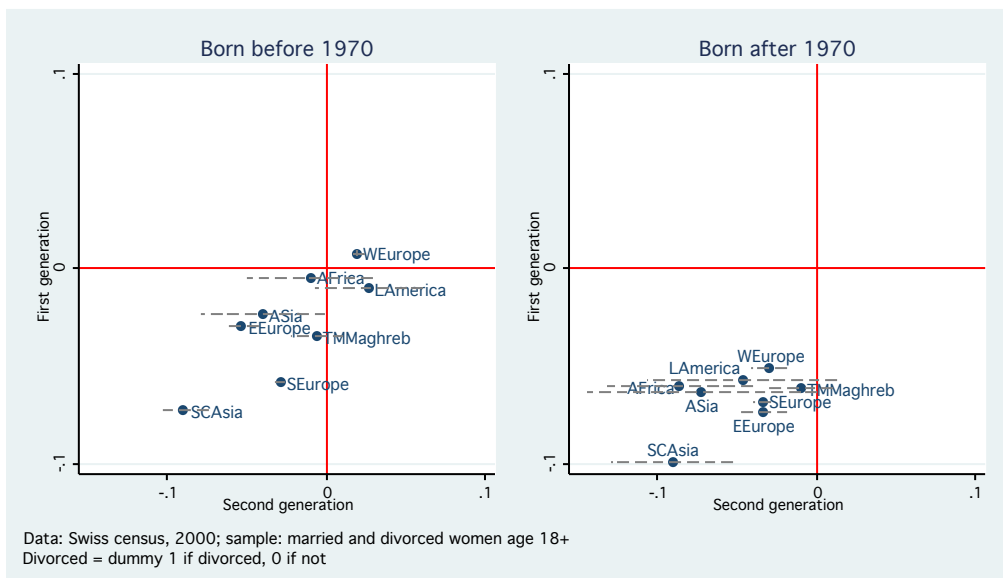


Figure 1.12: Divorce

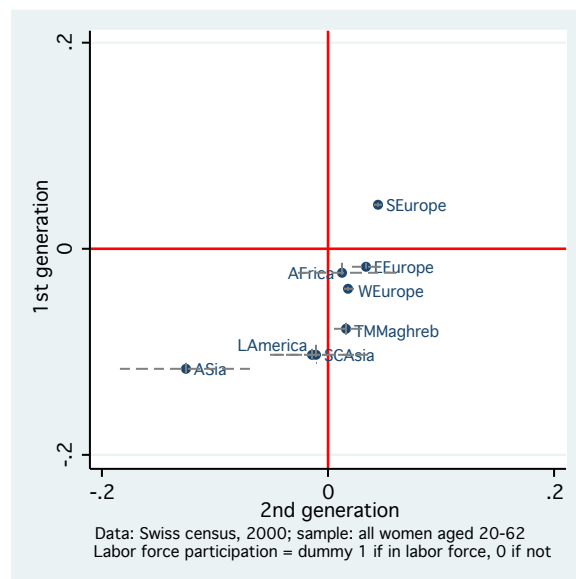


Figure 1.13: Female labour force participation

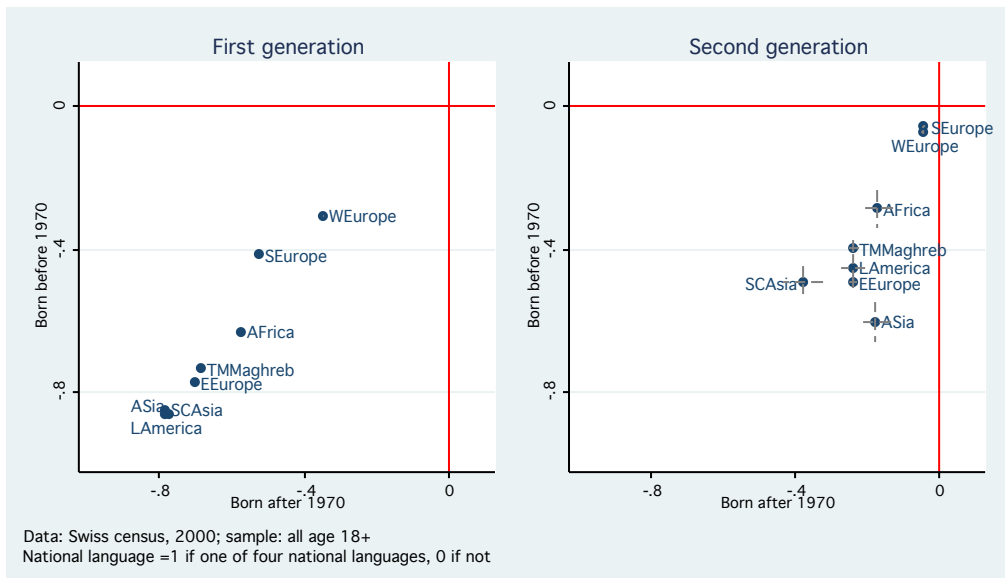


Figure 1.14: Main language

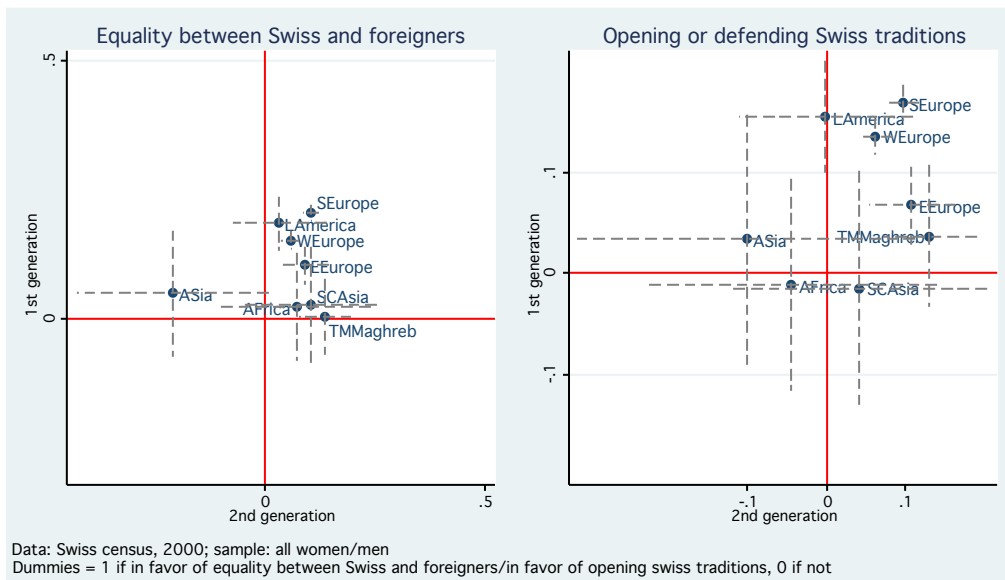


Figure 1.15: Feelings towards Switzerland



Figure 1.16: Gender attitudes

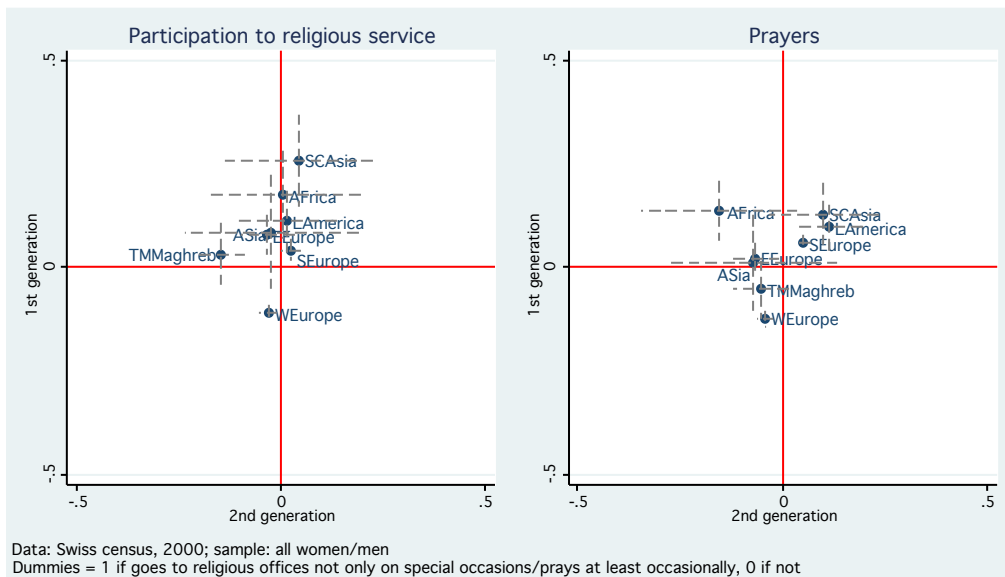


Figure 1.17: Religious attitudes

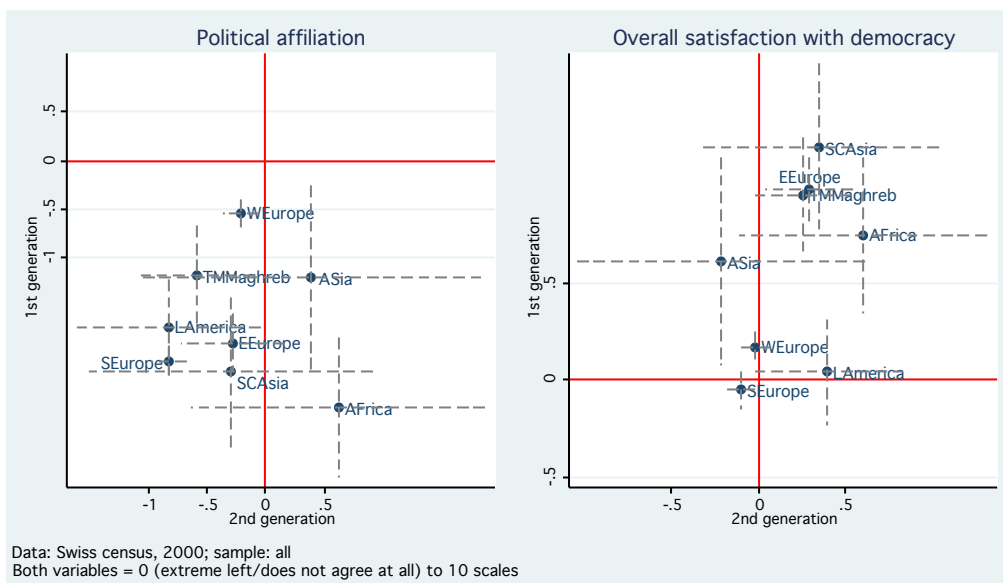


Figure 1.18: Political attitudes



## Chapter 2

# Employment Discrimination, “Cultural Distance”, and the Swiss Minaret: Assessing Opposed Discourses Explaining Migrant Integration in Socio-Economic vs. Ethno-Cultural Terms





## 2.1 Introduction

During the last decade, the debate about migration and integration has been growing in many Western societies including Switzerland. Facing new kinds of migration flows from more distant regions, Swiss policy-makers seem unable to address the concern of many voters that recently arrived migrants don't integrate in the host country. Although such a concern is not new and doesn't reflect the evidence gathered and analysis produced by social scientists in Switzerland (Wicker et al., 2003), the argument that migrants (or certain migrant groups) don't integrate culturally has easily made its way into public debate and is being accepted by many as commonplace. In the contemporary political arena where perception is key, various discourses are competing to explain integration issues in ethno-cultural vs. socio-economic terms. In recent years, the populist right wing narrative, which argues that “cultural distance”<sup>1</sup> prevents the successful integration of migrants, has gained ground against the liberal narrative, which considers that the root of integration failures lies in unequal economic opportunities and discrimination.<sup>2</sup>

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<sup>1</sup>See the last section of the general introduction for some critical comments about that concept, which is placed in quotations marks in the introduction and conclusion of this chapter in order to remind the reader about its inherent limitations.

<sup>2</sup>The populist right wing discourse sometimes merges with a third discourse, the moderate conservative discourse. While the latter traditionally emphasizes economic considerations, like the need to proceed to a cost-benefit analysis of migration or the merits of selective migration to pick out the most educated and productive migrants, the former emphasizes the threat migration represents to the native culture and the argument that cultural differences represent an insurmountable obstacle to the integration of migrants. In the political arena, however, they usually converge and blend in support of more stringent migration and asylum rules. An example of their political complementarity is the integration by the Swiss administration of the concept of “cultural distance” in the formulation of the “three circles” policy during the 1990s. This policy aims at restricting certain types of migration by granting individuals a different right to migrate to Switzerland according to their origin, creating a hierarchy favoring individuals from EU/EFTA countries over those from the US and the rest of the world (Mahnig and Piguet, 2003). Over the last decade, the right wing rhetoric became increasingly appealing to voters. As a consequence, the conservative/right wing narrative not only became more radical, it also gained

This chapter assesses the relevance of these opposed narratives by investigating the endogenous relationship between economic discrimination and “cultural distance”. Both factors certainly reinforce each other negatively, hindering the integration of migrants in the host society, but is there a way to determine which of the two narratives is more relevant in the Swiss context? How legitimate are claims arguing that migrants are economically discriminated because they don’t integrate culturally compared to claims that migrants don’t integrate because they are discriminated? A series of articles inspired by Battu et al (2007) found evidence of the former without examining the latter. The contribution of this study is to examine both sides of the coin at once. Given the current strong focus on Muslim migrants in the integration debate in Switzerland and other Western countries, the situation of this minority is examined more closely. Indeed, as Muslim migration has become a controversial especially in regard of their cultural integration, it is of particular interest to examine these communities when looking at the reciprocal influence between “cultural distance” and economic discrimination. Furthermore, by using data from the year 2000, it is possible to shed some light on the situation prevailing prior to the anti-minaret initiative and even prior to 9/11, at a time when the cultural integration of Muslims had yet gotten as much attention as it currently does.

Before proceeding further, it is necessary to define the concepts at stake as well as give a hint about the way they are approached empirically in this study, in order to

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ground against the liberal narrative. These two shifts are illustrated by the growing share of far right representatives in the Swiss Parliament, mostly to the detriment of conservative political parties (11,1% in 1991; 22,5 % in 1999; 29% in 2007), and by a series of successfully launched referenda asking for harsher laws ruling the status of migrants and asylum seekers (in 1999, 2002, 2004, 2006 and again 2008). In 2009, the right wing alone succeeded in convincing Swiss voters to approve a constitutional ban of minaret construction, singling out Muslim migrants.

better frame the debate and stress the scope of this study. Integration can be defined as individual and collective processes happening after migration occurred. Those can be classified into different categories, which are not mutually exclusive. Economic processes encompass moves of a migrant across a society's classes. Cultural processes cover the evolutions happening in behaviors, attitudes, daily life habits, beliefs, etc. (Wanner et al., 2002).<sup>3</sup> In this framework, barriers to economic processes may affect cultural processes, and vice versa, impeding the integration of migrants.

The empirical approach comprises two steps. The first consists in finding acceptable proxies for the barriers to integration put forward in both narratives (economic discrimination and “cultural distance”). As employment is at the heart of economic processes, employment discrimination is probably the most crippling economic barrier to integrate the host society. Employment discrimination is therefore used as a proxy for economic discrimination, and both terms are sometimes used as substitutes in this chapter. It is measured using a decomposition of the probability to be employed. Cultural distance is a multidimensional and diffuse concept that is difficult to approach empirically. In the present context, the best feasible way to proxy for “cultural distance” is to build a dissimilarity index based on cultural indicators that, according to previous studies, potentially distinguishes migrants from natives. The second step consists in finding appropriate instruments to avoid the endogeneity bias when estimating how economic discrimination and “cultural distance” affect each other. The empirical approach is presented in more details under the methodology section.

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<sup>3</sup>The reference mentioned also includes a legal dimension of integration that is left aside in this study.

Endogeneity certainly makes it difficult to understand the extent to which barriers to integration reinforce each other, but ideology is a reason why voters, policy-makers, as well as intellectuals and social scientists can develop strongly opposed views on whether the root of integration failures is economic or cultural.<sup>4</sup> After all, did Max Weber not show that the beliefs and behaviors considered as desirable in certain cultures are more conducive to work than others?<sup>5</sup> And does employment discrimination not affect migrants' income, which in turn influences their consumption patterns (buying clothes, movies, books, etc.) as well as their investment decisions (notably decisions concerning the education of their children; see Djajic, 2003), thus limiting the economic capacity of migrants to imitate the behaviors of natives and their access to the culture of the host society? The debate about the causes generating integration failures is loaded, and new evidence may help assess the relevance of existing arguments and put in them perspective.

The next section provides a brief review of the literature on economic discrimination and cultural integration, including Switzerland as a particular case. Section 2.3 presents the data and descriptive statistics. Section 2.4 introduces the empirical strat-

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<sup>4</sup>This opposition is illustrated by the polemic that followed the riots in French suburbs in 2005. While some conservative intellectuals (Alain Finkielkraut, etc.) pointed to the cultural stickiness of (Muslim) migrants from the second or third-generation migrants in order to blame their alleged unwillingness to integrate into French society, other social scientists (Dominique Vidal, Emmanuel Todd, etc.) portrayed the outbreak of violence as a new version of the class struggle opposing the economically oppressed to the social order established by the well-to-do, which has closed its doors upon them. Although this polemic is anchored in the French context, the clichés used in this debate and the rationale justifying the analysis of integration failures in ethno-cultural vs. socio-economic terms are similar in the Swiss political debate. As a starting point, see Dominique Vidal, "Alain Finkielkraut, bouffon du roi," *Le Monde Diplomatique*, 8 January 2007.

<sup>5</sup>In the political arena, this subtle analysis often boils down to a deterministic argument claiming that the higher unemployment rate of migrants is culturally determined, culture being itself a product of climatic (Montesquieu) or genetic (Gobineau) factors.

egy, which consists of (i) measuring employment discrimination faced by migrants of different origin in the labour market (ii) computing an index of “cultural distance” to the natives (iii) using an instrumental variable approach to deal with endogeneity in order to estimate the effect of employment discrimination on “cultural distance” and vice versa. Section 2.5 describes the results at the aggregate level for eight groups of migrants, distinguishing across gender, between first and second-generation migrants as well as between Muslim and non-Muslim individuals; it then presents the results obtained at the individual level using the instrumental variable approach. The last section concludes.

## **2.2 Related literature**

### **2.2.1 A barrier to integration (I): employment discrimination**

As mentioned previously, the economic integration of migrants encompasses their moves across a society’s classes. Economic discrimination represents a barrier to those moves and thus hinders their economic integration. With the development of empirical investigation methods in social sciences, sociologists and economists found evidence of employment, wage and other kinds of economic discrimination in many countries. In the labour market, migrant workers are usually more likely to be unemployed than natives, they earn less and occupy positions with lower social prestige. Penalties faced by migrants can be explained by observable individual characteristics, but they are also caused by unobservable factors like discrimination.

As employment is at the heart of economic processes, employment discrimi-

nation is the most crippling economic barrier to integrate the host society. In most countries, the unemployment rate of migrants is above that of natives (Wanner et al., 2004). In Switzerland, practice testing results show that second-generation non-EU migrants have lower chances to be invited to a job interview, and that discrimination is more severe in the Swiss German part of Switzerland (Fibbi et al., 2006). The estimates of discrimination these authors obtained through practice testing will later be put in perspective with those obtained through a decomposition of the probability to be employed. Widmer (2005) already implemented the latter method in the Swiss context. Using data from the census 2000, his findings show returns to factors are lower for migrants. Comparing the unexplained residuals of different national groups, he argues that although the non-transferability of human capital acquired abroad and unobserved differences in human capital may partly explain these residuals, a substantial part of them can be attributed to discrimination.

Few studies have examined the situation of Muslim migrants. Berthoud and Blekesaune (2007) look at the British labour market. They first observe that unemployment rates among majority Muslim ethnic communities (Pakistani, Bangladeshi) are much higher than among non-Muslim migrant groups. Analyzing the probability to be employed, they find a significant negative effect for being Muslim, which supports their claim that discrimination is at work on the British labour market, not only along ethnic, but also along religious lines. The Open Society Institute (2009) also finds evidence of religious discrimination, which, together with other kinds of discrimination (origin, skin color, gender) and factors (lower human capital endowment, individual preferences, etc.)

explain the poor integration of Muslim workers into the mainstream labour market.

### **2.2.2 A barrier to integration (II): cultural distance**

As a subcategory of integration, cultural integration concerns the evolution of behaviors, attitudes, daily life habits, beliefs, etc. (Wanner et al., 2002). These processes occur in migrant communities as well as among natives, but minority groups bear the bulk of it. The larger the initial differences in behaviours and attitudes, the more intense will be the process of cultural integration. In this sense, cultural distance can be seen as a barrier to cultural integration. Cultural integration is a rather novel field of study in economics. Economists started to investigate the phenomenon of cultural integration more than a decade ago, developing theoretical models on identity (Akerlof and Kranton, 2000) or cultural transmission (Bisin and Verdier, 2000) choices. The field of research is expanding rapidly. However, in addition to disagreements on definitions and modeling techniques, researchers also face constraints imposed by data when it comes to capturing a multidimensional phenomenon like cultural integration. The articles surveyed in this section illustrate the variety of existing theoretical and empirical approaches.

When studying migrant cultural integration using a quantitative approach, several questions need to be considered. First, what dimensions does cultural integration encompass? And how can it be measured? Some economists chose to build indices of cultural integration or cultural distance to the natives. Zimmermann et al. (2006), for instance, propose a weighted index (“ethnosizer”) that captures a person’s ethnic identity. This index is a function of individual characteristics and behaviors related to 1)



language 2) culture 3) ethnic self-identification 4) ethnic interaction 5) migration history. Vigdor (2009) proposes another way to measure cultural integration. His index encompasses the following individual characteristics: 1) language 2) intermarriage 3) fertility 4) marital status, but it can easily be expanded as weights are “naturally” attributed through the estimation of the probability to be born abroad. Instead of building indices, other economists have used single variables on self-declared ethnic identity or information considered to reveal the attachment of the interviewed migrant to a particular culture (e.g., attitude towards intermarriage). Another issue is how to deal with the phenomenon of multiple identities? Acknowledging individuals can belong to several cultures and instrumentalize their ethnic identities in specific contexts, some economists have made attempts to go beyond the one-dimensional trade-off between cultures/identities, which is assumed in theoretical models. Inspired by acculturation theories of Berry (1980), the two-dimensional ethnosizer of Zimmermann et al. (2006) takes into account both the attachment to the origin and host country in order to distinguish between 1) separated 2) integrated 3) assimilated and 4) marginalized migrants. The choices made to empirically define the four categories are however a bit arbitrary and can be subject of a debate.<sup>6</sup> A third important question concerns the time dimension and how should it be integrated in theoretical models and empirical investigations? Data usually enables the distinction between first and second-generation migrants, and some datasets include information about the time spent in the host country, but even using this information

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<sup>6</sup>The variables taken to proxy for the five dimensions mentioned above are a bit thin on the ground. As an example, the third dimension, culture, is only proxied by one indicator that is the preferred media. This dimension is however given the same weight as other dimensions that may actually be more informative about the attachment of a migrant to his home and host country.

in the analysis of migrant integration is only a rough way to account for the complex adaptation processes migrants are undergoing over time.

Quantitative studies about the cultural integration of migrants in Switzerland are very few. The first chapter of this thesis reviews some of the literature and provides an analysis of the cultural integration paths of 8 migrant groups. This study specifically analyzes the evolution of objective behaviors and subjective attitudes from the first to the second generation, looking at this evolution from different perspectives: across cohorts (older vs. younger migrants) and across types of couples (individuals in endogamous vs. mixed couples). The findings show that there is overall convergence in all examined indicators.

Empirical studies on the cultural integration of Muslim migrants are also few in numbers. Bisin et al. (2006) builds a theoretical model of ethnic identity formation focusing on how identity choices are affected by cultural transmission and socialization within the family, peer pressure and social interactions. Using data from the UK, they look at the determinants of identity choices, as proxied by 1) the importance of religion 2) the attitude towards intermarriage 3) the importance of the racial composition of schools attended by the children of the surveyed individuals. The authors find that the main determinants are past experience of discrimination, language spoken at home and with friends, quality of housing and structure of the family. Using the same framework and data, Bisin et al. (2007) analyze the possibility of a distinct integration pattern for Muslims. In their results Muslims appear to have a stronger feeling of identity than non-Muslims. Higher household incomes as well as better qualification do not temper this

phenomenon. Arai et al. (2008) however challenge the validity of the findings of Bisin et al. (2007) claiming that replicated results turn out to be non-significant. Other studies temper these findings. Georgiadis and Manning (2011) show evidence that behaviors of individuals belonging to the two largest Muslim communities in Britain (Pakistani, Bangladeshi) may be somewhat different, but that they converge towards the native baseline on many cultural integration indicators. In another article (2009) they explore the correlations between various measures of identity and indicators that commentators have argued to be important determinants of identity (e.g., experience of discrimination, frequency and intensity of interaction with natives). When looking at the significance of Muslim religion compared to other religions as a determinant of cultural integration, they don't find evidence justifying a binary categorization of Islam vs. other religions.

### **2.2.3 The relationship between employment discrimination and cultural distance**

In theory, the causality in the relation between economic discrimination and cultural distance goes both ways: while economically discriminated individuals may themselves reject the cultural codes of the majority group and find a refuge in their ethnic community, it is also true that individuals stemming from a foreign culture may find it more difficult to understand and adapt to professional codes in the host country in order to find (and keep) a job. Empirically, causality in this relationship is difficult to estimate.

Battu et al. (2003) develops a model having in mind the United States and the

relationship between whites and non-whites, but the mechanism it tries to capture is relevant to the relationship between natives and migrants in other countries. Repeating in other words the summary the authors make of their own one-dimensional identity model, migrants must decide to adopt the natives' culture or to reject it anticipating the implications of this choice on their labour market outcomes. The model shows that the cultural integration of migrants increases their probability of getting a job, because interacting with undiscriminated natives offers them access to more performing social networks. It is therefore rational to integrate culturally. However, if utility from following ethnic peer pressure is higher than utility derived from the access to a more performing social network, migrants have an incentive not to integrate even if it results in a lower probability of finding a job. Empirical evidence of Battu et al. (2010) confirms the existence of a trade-off for ethnic minorities between sticking to their own roots and labour market success. They find that the social environment of individuals and attachments to the culture of origin has a strong association with identity choice, and that migrants, who have preferences that accord with being "oppositional" do experience an employment penalty. A small number of other empirical studies examines the relationship between ethnic identity, cultural integration and economic outcomes.<sup>7</sup> Pendakur and Pendakur (2005), Constant and Zimmermann (2008), Nekby and Rödén (2007) also find evidence of the effect of cultural integration on labour market outcomes in Canada, Germany and Sweden.

The studies mentioned here focus on the choice migrants make to integrate cul-

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<sup>7</sup>Most of the research looking at identity and outcomes tends to be in the field of education and focuses on the academic achievement of African American youths.

turally or not, and on the effect of cultural integration on labour market outcomes. Yet, in their model Battu et al. (2003) assume that native social networks are more performing because natives aren't discriminated against, and in other studies there is evidence that economic discrimination is one of the main determinants of identity formation and cultural integration.<sup>8</sup> It is therefore surprising that these studies did not examine in more detail the effect that economic discrimination may have on cultural integration.

The contribution of this study is to examine both sides of the coin at once. In order to better understand how barriers to integration reinforce each other, this study proposes to examine the endogenous relationship between economic discrimination and cultural distance with the objective of assessing causality both ways and at the same time.

## 2.3 Data

### 2.3.1 Data and sample

The census covers 7 million individuals living in Switzerland in 2000. Sample size decreases once individuals aged less than 18 or more than 65 years old,<sup>9</sup> and observations with missing information on key characteristics listed in the descriptive statistics part are discarded. Table 2.1 shows the number of observations for natives and eight ethnic groups: Western Europe (WE), Southern Europe (SE), Eastern Europe (EE), Africa

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<sup>8</sup>Bisin et al. (2007) find such evidence. In this study, the variable capturing discrimination is a dummy variable taking value one if the respondent had been refused a job at least once or had been treated unfairly at work with regard to promotion or a move to a better position for has been attacked or insulted in the last year for reasons to do with race or color, or religious or cultural background.

<sup>9</sup>The reasons for limiting the sample are explained below.

(AF), Turkey, the Middle-East and Maghreb (TMM), Latin America (LA), Asia (AS) and South and Central Asia (SCA).<sup>10</sup> Additionally, the split up is refined across gender, between Muslim and non-Muslim and first and second-generation migrants. Natives are defined as individuals born in Switzerland and Swiss since birth. First generation migrants are born abroad. An individual born in Switzerland, but whose first or second nationality is foreign is defined as a second-generation migrant.<sup>11</sup>

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 extra-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 were 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.

Turning to the religious distinction, it appears migrants declaring to be Muslim are a minority in most migrant communities, except TMM. The Muslim community from Eastern Europe, mostly from Kosovo and Bosnia-Herzegovina is also sizeable. The number of second-generation Latin American and Asian Muslim migrants, and to a lesser extent of African migrants, is irrelevant for any analysis. The size of some other Muslim groups (first-generation LA, second-generation WE, SE, AF or SCA) could be considered problematic too, but these groups are not excluded from the analysis.

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<sup>10</sup>See the general introduction for more details.

<sup>11</sup>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. Those who are only Swiss, but were naturalized and are of unknown origin are not included in either category.

### 2.3.2 Descriptive statistics

Table 2.2 presents descriptive statistics about the variables used in this chapter. These numbers already reveal differences between population groups. Looking at the economic status of migrants, it first appears that unemployment slightly decreases for second-generation migrants compared to first-generation migrants. Men are generally more likely to be active in the labour market and to have a job, while more women are inactive. However, the pool of inactive women decreases by about 10% from the first to the second generation. Muslim migrants are on average more likely to be inactive or unemployed. As the sample covers individuals aged 15 to 65, these differences in economic status might be partly due to the lower average age of the Muslim population. It might also be related to differences in types of residence permits (see below).

Turning to education, it appears the average number of years of education is higher for men than for women.<sup>12</sup> Second-generation migrants are more educated compared to first-generation migrants, and come closer to the native average (12.63 years of education). Here again, age might partly explain the fact that Muslim migrants have the lowest average number of years of education, and second-generation men perform worse (9.72 years) than the first generation (10.23 years).

While 66% of first-generation and 96% of second-generation migrant men declare to speak a national language as their main language, these proportions fall to 38% and 78% among Muslim migrants. They are slightly lower for women than for men.

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<sup>12</sup>In the census, the available educational variable is categorical, but de Coulon et al. (2003) propose a scale to compute the number of years of education.

For first-generation migrants, the fact that Muslim migrants are less likely to have one of the national languages as their main language compared to non-Muslim migrants is related to the fact that a vast majority of non-Muslim migrants come from neighboring countries and have as their mother tongue one of the Swiss national languages. This factor might partly explain the persisting difference among second-generation migrants. The proportions of migrants that speak the language of the linguistic region they are living in as their main language is slightly lower. As natives are mobile across linguistic regions in Switzerland, the proportion of natives having the language of the region they are living in as their main language is above 90%, but not 100%.

Turning to civil status and household characteristics, it appears 53% of native men (55% women) are married, a large majority of them (44%) to native women (48% for women). First-generation migrants have higher marriage rates, but these rates drop at the second generation, although less so for women than for men. Muslim migrants are more likely to be married, despite the lower average age of this population group. The rate of intermarriage with a native is 13% among first-generation men (19% for women) and slightly decreases at the second-generation (11% and 12%). It is of 7% for first-generation Muslim men, and as low as 3% for women. It is most surprising that less than 2% of second-generation Muslim migrants intermarry with natives given the high propensity of this population group to marry, even at a young age. It should also be noted that the highest divorce rates are observed among native Muslims (6% for men and 10% for women), but migrant Muslim have the lowest separation rates (1 to 3%). On average, Muslims also have more children, except for native Muslim men.



The proportion of permit holders is higher among male than female migrants, and higher among Muslim than among non-Muslim migrants. This indicates that women are more often naturalized than men, and that Muslim migration is a more recent phenomenon, which is also reflected in the lower average age of Muslim population groups.

## 2.4 Methods and specifications

Using the dataset described above, the empirical strategy to estimate the endogenous relationship between employment discrimination and cultural distance in order to assess the relevance of opposed discourses explaining migrant integration in socio-economic vs. ethno-cultural terms consists of three steps (i) measuring employment discrimination faced by Muslim and non-Muslim migrants of different origin compared to the natives (ii) computing an index of cultural distance to the natives (iii) using an instrumental variable approach to deal with endogeneity and measurement errors in order to estimate the reinforcing effect existing between economic and cultural barriers to integration.

### 2.4.1 Employment discrimination

Employment outcomes are analyzed using a simple logistic regression:

$$E_i^* = X_i' \alpha + \varepsilon_i \quad (2.1)$$

where  $E_i^*$  is the latent variable associated with being employed in a professional occupation. The vector  $X$ , includes the following individual characteristics: education (the

number of years of education), age, age squared, number of children, as well as dummies taking a value of one if an individual is married (married), if married to a Swiss spouse (native spouse), if his main language is the language of the region where he lives (language of the region), dummies for permit types (C, B and Other), as well as the cantonal unemployment rate. The effects of these factors on employment are easy to guess. Whereas education, age and language of the region are expected to increase the probability to be employed, holding a permit and cantonal unemployment should have a negative effect. Having a Swiss spouse should positively influence the probability to be employed as it provides access to a larger social network, but being married and having children usually has a different effect across gender: positive for men and negative for women. The choice of determinants is inspired by the analysis of migrant unemployment that Widmer (2005) made using the same data, but additionally includes information on language and nationality of the spouse.  $\alpha$  is a vector of coefficients and  $\varepsilon$  is a vector of independent and identically distributed error terms. The probability to be employed can be expressed as

$$\begin{aligned} \text{Prob}(E_i^* > 0) &= \text{Prob}(\varepsilon_i > -X_i'\alpha) \\ &= \Phi(X_i'\alpha), \end{aligned} \tag{2.2}$$

where  $\Phi(\bullet)$  is the standard normal cumulative distributive function (C.D.F.). In order to obtain a measure of employment discrimination, the probability to be employed is predicted twice for every individual, using the coefficients estimated for the natives (the

reference group) and those estimated for his group. The difference in the probability to be employed of individual  $i$  predicted using the coefficients estimated for the reference group and those estimated for his ethnic group  $j$  is not explained by endowments, but by differences in returns to factors. This unexplained part of the differential in the probability to be employed,

$$UDE_{ij} = Prob(E_i^* > 0 | X_i', \alpha_{reference}) - Prob(E_i^* > 0 | X_i', \alpha_j), \quad (2.3)$$

is used as proxy for employment discrimination. For unemployed individuals, this measure can be interpreted as realized discrimination, whereas for employed individuals it rather represents the additional effort they needed to make to get a job compared to a native having the exact same endowments.

To estimate  $\alpha_j$  and compute  $UDE_{ij}$ , separate regression are run over subsamples defined by generation, gender, origin and religion. Whereas differences in discrimination according to generation, gender and origin are commonly acknowledged, it remains to be seen if employment discrimination as measured by the decomposition of the probability to be employed is different for Muslim and non-Muslims. As mentioned in the literature review, evidence of religion-based discrimination has been found in other countries. No study has so far confirmed the existence of such a bias in Switzerland, but the acceptance by a majority of voters of the minaret ban in 2009 hints to the existence of strong anti-Muslim feelings. It would be surprising if interactions in the labour market were fully immune of such a strong and socially widespread phenomenon. The analysis excludes individuals that don't participate in the labour force, individuals aged less than

15 years (youngest age to work in Switzerland) are excluded, as well as men aged over 65 and women aged over 62 years (pension age in Switzerland in 2000).

### 2.4.2 Cultural distance

As mentioned in the introduction, the concept of cultural distance has been used in the formulation of Swiss migration policy in order to classify entire countries as more or less culturally distant from Switzerland. This may be useful from a political or administrative point of view, but is not suited to examine the research question. The literature review emphasized the lack of consensus about the way to define and empirically measure cultural distance, as well as the variety of proposals advanced so far. All of them can be the subject of a debate. The first step in building the dissimilarity index chosen for this study consists in a simple logistic regression

$$B_i^* = Y_i' \beta + \mu_i \quad (2.4)$$

where  $B_i^*$  is the latent variable associated with being born in the host country, i.e., Switzerland. Following Vigdor (2009), the vector  $Y$  includes factors, which are considered as marking a cultural difference between migrants and natives in social sciences: ability to speak the national language, being married to a native, number of children and marital status. While adopting the language of the host country as one's main language is a prerequisite for cultural integration, and being married to a native represents the incorporation of an individual into a native social network, the role of the two last factors as a catalyst for cultural integration is less obvious. However, like the two first factors,

they remain potential markers differentiating individuals born in Switzerland from those born abroad. Vector  $Y$  also includes information on age and gender.

There are several reasons for including objective indicators only in the measure of cultural distance, and excluding information on subjective attitudes. First, this is the solution that Vigdor (2009) proposes. Secondly, the census 2000 only contains information on objective indicators. The third reason is more complex and related to the tentative of setting a reference point when defining/measuring cultural distance. As illustrated by the political debate around the preparative text (Arbenz report) that led to the definition of the three circles migration policy, defining differences between cultures in terms of values often can easily lead to a “clash of cultures” worldview sometimes bordering on racism. As an example, the Arbenz report considered that migrants from some countries “don’t belong to the same culture marked by European ideas in the broad sense” and that, as a consequence, “they cannot be integrated.” The Federal Commission against Racism (CFR, 1996) made a thorough criticism of implicit assumption that the European culture is more advanced, creating impassable barriers between different cultures. This commission also stressed the religious bias against countries majoritarily populated by Muslims that had slipped into the definition of the circles, asking why all of them were relegated into the third circle although some of them were located in Europe. Furthermore, concrete issues occur when trying to set a reference point for a cultural distance index. As an example, such an index may easily integrate information on values regarding gender equality, because, as has been shown by Gianni et al. (2005) or in the first chapter of this thesis, migrants living in Switzerland seem to have more

conservative attitudes in this regard. However, it also appears that many of them are more attached to democracy or human rights than the natives are. If information about such attitudes was included in the measure of cultural distance, would it make sense to consider an individual whose attachment to democracy is higher than the native average as culturally more distant? Such a paradoxical situation illustrates that although the measure of cultural distance proposed by Vigdor does attribute less weight to indicators that do not significantly distinguish migrants from natives, it is not an inherently neutral measure, and the meaning of the measure is a function of the variables included in the index. As a consequence, it may be better to avoid using information about subjective attitudes in such a measure.

Only one regression is run over the sample of individuals aged 25 to 65, with different coefficients allowed across gender for certain variables. The sample is thus different from the sample used to estimate employment discrimination: it includes inactive individuals that are not in the labour market; and it excludes individuals aged between 15 and 25 years old. The higher minimum age that is proposed by Vigdor (2009) can be justified by the possibly yet incomplete socialization process of young individuals still living with their family. For instance, a second-generation migrant living with his parents may be more inclined to declare that his main language is the language spoken at home, although this may change in his adult life.

In a situation where the age and gender composition of the migrant population would be very different and have a strong effect in distinguishing individuals born abroad from those born in Switzerland, it would be possible to implement a procedure to net-

out the effect those factors have on the estimated probability. A transformation of the estimated probability allowing to net-out such effects is derived in appendix.<sup>13</sup>  $\mu$  is a vector of independent and identically distributed error terms. The probability to be born in Switzerland can be expressed as

$$\begin{aligned} Prob(B_i^* > 0) &= Prob(\mu_i > -Y_i'\beta) \\ &= \Phi(Y_i'\beta), \end{aligned} \tag{2.5}$$

where  $\Phi(\bullet)$  is the standard normal cumulative distributive function (C.D.F.). In order to obtain a measure of cultural distance, the probability to be born in Switzerland is predicted for each individual using the same coefficients. This predicted probability is then subtracted from the average predicted probability of natives to be born in Switzerland. Let  $S_i$  be a dummy taking a value 1 if individual  $i$  is a Swiss native, so that

$$CD_i = \frac{\sum_{i=1}^n Prob(B_i^* > 0 | S_i = 1)}{\sum_{i=1}^n S_i} - Prob(B_i^* > 0 | Y_i'), \tag{2.6}$$

can be used as a proxy for the cultural distance to the natives of individual  $i$ . Following Vigdor (2009), the sample used to estimate  $CD_i$  includes all individuals aged 25 to 65.

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<sup>13</sup>In the section presenting the results, it will appear that the effect of age and gender is not strong enough to justify implementing the alternative procedure.

### 2.4.3 Employment discrimination and cultural distance: an instrumental variable approach

Once employment discrimination and cultural distance are estimated, it is possible to examine how the group averages of these two measures correlate at the aggregate level. A correlation analysis can provide a first hint about the relationship between these two variables, but it needs to be confirmed or invalidated by evidence at the individual level.

As causation is reverse between employment discrimination and cultural distance, an ordinary least square (OLS) estimator will be biased. One solution to obtain a non-biased estimator of the effect of employment discrimination on cultural distance and vice-versa is to use the instrumental variable (IV) approach. The intuition is that in a model where  $y_i = \beta x_i + \epsilon_i$ , if the regressors are correlated with the error term, then the OLS estimator will be biased.<sup>14</sup> However, if there exists a variable  $z$  that is (i) correlated with the endogenous regressor  $x$ , but (ii) not with the independent variable  $y$ , it is possible to net out the part of  $x$  that is caused by  $y$  by using the value of  $x$  predicted using  $z$  instead of the actual value of  $x$  in the initial model in order to obtain a non-biased IV estimator.<sup>15</sup> The instrumental variable approach thus provides non-biased estimates in the presence of endogeneity, which can arise from omitted variables, measurement errors in the covariates or reverse causation.<sup>16</sup>

Instrumenting for the endogenous regressors in the context of this study, the

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<sup>14</sup>Formally, if  $E[x'\epsilon] \neq 0$ , then  $\hat{\beta}_{OLS} = \frac{x'y}{x'x} = \frac{x'(x\beta + \epsilon)}{x'x} = \beta + \frac{x'\epsilon}{x'x}$  and  $\hat{\beta}_{OLS} \neq \beta$ .

<sup>15</sup>If  $z'\epsilon = 0$  by assumption, then  $\hat{\beta}_{IV} = \frac{z'y}{z'x} = \beta + \frac{z'\epsilon}{z'x}$ .

<sup>16</sup>This is the intuition behind the two-stage least squares instrumental variable method. See Greene (2003) for more details and extensions.



two following equations are estimated:

$$CD_i = \delta * UDE_{ij} + \lambda * Z1'_i + \nu_i \quad (2.7)$$

$$UDE_{ij} = \kappa * CD_i + \theta * Z2'_i + \omega_i \quad (2.8)$$

where  $\delta$  represents the effect employment discrimination on cultural distance, and  $\kappa$  captures the effect of cultural distance on employment discrimination. The vector of exogenous regressors  $Z1_i$  and  $Z2_i$  contain a limited set of common variables, including linguistic region dummies and the proportion of same-origin-group individuals in the canton. Variables used to instrument for employment discrimination are also included in vector  $Z1_i$  in the regression where employment discrimination is the dependent variable.<sup>17</sup> The same applies to  $Z2_i$  the regression on cultural distance.  $\lambda$  and  $\theta$  are coefficient vectors.  $\nu$  and  $\omega$  are error vectors.<sup>18</sup>

The instrumental variable method requires only one instrument per endogenous regressor. However, at least two instruments are necessary to conduct tests confirming the exogeneity of the instruments (Sargan/Hansen tests). Two instruments are therefore proposed for each endogenous regressors. For all four instruments, it is necessary to verify that it is (i) influencing the endogenous regressor (ii) without directly influencing the dependent variable. Furthermore, in order to be a perfect instrument, the indirect influence of the instrument on the independent variable should be channeled entirely

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<sup>17</sup>Instruments are presented below.

<sup>18</sup>It should be noted that, alternatively, equations 2.7 and 2.8 could be estimated as a system. Results of the simultaneous estimation of both equations provide very similar results to the ones presented in this chapter. Each equation is estimated separately, because it is then possible to conduct various tests to assess the quality of the proposed instruments.

through the endogenous regressor.

### **Instrumenting for employment discrimination**

**Skin color:** (i) Skin color is an obvious marker likely to influence employment discrimination. In many societies, dark skin individuals have been and still are discriminated. Switzerland is no exception. Results of the decomposition of the probability to be employed (see results section) will confirm that individuals with darker skin color still face more intense discrimination in the Swiss labor market. (ii) Skin color, however, has no direct impact on cultural distance. The genetic factors determining the skin color of a migrant do not determine his ability to adopt a certain language as her main language or to intermarry with a native. As a matter of fact, African migrants living in Switzerland are more likely to speak one of the national languages as their main language or to intermarry with natives than other migrants (see first chapter). It could be argued that skin color also indirectly affects cultural distance, but through other channels. It is true that dark skin individuals might get rebuffed when attempting to enter a night club, but looking at the big picture, only two (non-family) institutions really matter for the socialization of individuals: school and the labour market. Whereas skin color-based discrimination is at best a marginal issue in the former environment that is usually considered as progressive (and only concerns second-generation migrants), it is acknowledged to be a problem in the latter (for all migrants). It therefore seems the effect of skin color is channeled to cultural integration through economic discrimination only. 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.<sup>19</sup> It is averaged for each of the eight origin regions. The value associated with the skin color of each individual is thus a function of his origin.<sup>20</sup>

**Cantonal policy to fight against xenophobia:** (i) Policies to fight against xenophobia target the natives in order to foster a better understanding among communities and attenuate existing discriminations. This in turn facilitates the integration of migrants in the host society. (ii) As policies to fight against xenophobia do not directly target migrants, they do not directly affect the measure of cultural distance. As for the previous instrument, it is possible to imagine a situation where such policies could affect cultural distance by reducing other kinds of discrimination than economic discrimination. For example, if a migrant is barred from entering a night club, he might develop bad feelings against natives or an "oppositional" attitude against their culture. It is however important to keep in mind the big picture that was mentioned in relation to the previous instrument and how cultural distance is measured. After all, do most couples not meet at the workplace? And are most daily conversations not held at the workplace? Employment discrimination is therefore again considered to be the only channel through which such policies affect cultural distance. More importantly, it remains to be seen if such policies have an impact at all. This policy variable is built using the typology developed by Cattacin and Kaya (2001). In their comparative study of integration policies at the

<sup>19</sup>The map is available in Barsh (2003).

<sup>20</sup>The measurement and mapping differences between human population groups began in the 19th century, with the work of anthropologists and geographers often inspired by racists ideologies (Winlow, 2006). The use of a skin color scale variable in the context of this thesis is an artifact, and is not intended to legitimate this tradition of thought.

local level in Switzerland. The authors classify the 26 Swiss cantons in two categories: active/passive in “leading campaigns to sensitize 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.

### **Instrumenting for cultural distance**

**Official language in the origin country:** (i) If the origin country of a migrant and Switzerland share a common official language, it is likely he has been exposed or has learned this language. As a consequence, this variable is likely to directly influence the measure of cultural distance. (ii) However, the fact that the origin country of a migrant and Switzerland share a common official language, even if it may improve the probability that an individual is employed, does not influence employment discrimination, i.e., differences in returns to factors determining the probability to be employed. This variable is built using publicly available information about official national languages across the world.<sup>21</sup>

**Cantonal policy on naturalization:** (i) Academic research has found evidence that facilitated naturalization procedures positively influence attitudes of migrants towards the host country as well as their cultural integration (Fibbi et al., 2005; Mey and Rorato, 2010). It is therefore plausible that an individual that is offered the opportunity to

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<sup>21</sup>German and Italian are official languages in only a handful of countries. For French, see <http://www.francophonie.org>.

acquire the nationality of the host country is more likely to adopt the official language of that country as his main language than an individual who is deprived from this perspective. Variations in cantonal naturalization policies may thus have a positive impact on the proposed measure of cultural distance. (ii) Such policies do however not directly influence how migrants are discriminated when looking for a job. 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 according to their liberal/restrictive naturalization policy. This categorization is based on the assessment of five binary criteria (i) the existence of a fast-track procedure (ii) the possibility to challenge the official decision (iii) the fact that naturalization is considered a right (iv) whether the duration of residence in the canton is short and (v) whether the criteria used in the naturalization procedure are stringent or not.

### **Three estimators**

Three different estimators are used to estimate parameters in equations 2.7 and 2.8: OLS, IV two-stage least squares (2SLS) and IV general methods of moments (GMM) allowing for clustered errors within origin groups. Allowing for clustered standard errors might address potential issues arising from the fact that origin is used in measuring employment discrimination and in building the skin color variable. Four sets of separate regressions are run on women and men of the first and second generation.

Ideally, a model to investigate the relationship between economic discrimination

and cultural distance would allow non-linear effects and estimate causality over time. While it is possible to add squared endogenous regressors in equation 2.7 and 2.8, cross-sectional evidence about the effect of employment discrimination on cultural distance (and vice-versa) is the best that can be obtained with census data.

## 2.5 Results

### 2.5.1 Employment discrimination

Tables 2.3 to 2.6 show the results of the estimation of the probability to be employed (equation 2.1) for men and women of different generation, origin and religion. Human capital is taken into account and has a positive effect on it. For most groups, education raises the probability to be employed. In comparison to natives, the magnitude of the effect is often stronger for first-generation migrants, but weaker for second-generation migrants. These results seem to weaken the argument about the non-transferability of human capital and strengthen the claim that employment discrimination is at work on the Swiss labor market. Indeed, if human capital was non-transferable across countries, returns to education of first-generation should be lower. And if there were no discrimination, second-generation should experience similar returns to education as natives. Widmer (2005) draws the same conclusion. The fact that he uses three dummies for categories of educational achievement instead of a continuous variable allows him to go into a more detailed analysis. The other human capital characteristic, speaking the language of the region as one's main language, has a positive effect too.

For men, being married and having children increases the probability of being

employed, while the opposite is true for women. However, being married to a native increases the likelihood of having a job, which supports the hypothesis that the integration in a native family and tapping into its social network facilitates the mobilization of resources when it comes to looking for a job. First and second-generation migrants who have received the Swiss nationality have better chance to be employed than those still holding a permit.<sup>22</sup> Finally, a higher proportion of unemployed individuals in the canton negatively affects the probability to be employed. These results are also consistent with those obtained by Widmer (2005). They are displayed for the sake of transparency, but not commented further here, as the number of groups considered is large and the focus of this section is the unexplained part of the probability to be employed.

Table 2.7 reports summary statistics of all the regressions. Since the purpose is not to compare the goodness-of-fit of different specification for a given sample, the pseudo R-squared of these logistic regressions can't be compared to each other and only have an indicative value. The chi-squared statistic allows to test whether the model proposed is better than a random walk. The p-values of F tests indicate that the null hypothesis that all coefficients in the model are simultaneously zero can be rejected in most cases with a high level of confidence. However, the iterative estimation process could not converge for several small samples (second-generation Muslim women from WE, AF, LA, AS and SCA as well as second-generation Muslim men from SE, LA and AS) or many determinants dropped due to collinearity (second-generation Muslim WE and SCA men, second-generation Muslim).<sup>23</sup> Furthermore, the null hypothesis cannot

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<sup>22</sup>Permit C is a permanent residence permit, permit B is an annual work permit.

<sup>23</sup>Summary statistics are shown for these groups, but regression results are not shown in table 2.4

be rejected with a 1% level of confidence for some other groups for which the procedure did converge (native Muslim women, first-generation Muslim women from WE, LA and AS; second-generation women from LA and second-generation Muslim women from SE; first-generation Muslim men from LA; second-generation men from AF, TMM, LA and second-generation Muslim men from WE and AF).

Based on these estimations, table 2.8 reports the average value of the unexplained part of the probability to be employed for each population group. Average  $UDE_{ij}$  for each group  $j$  are also graphically represented in figure 2.1. According to these estimates, migrants seem to be at a disadvantage in the labour market, and Muslim migrants seem to be doubly disadvantaged for their origin and for their religion. A first-generation female African migrant, for instance, has -13.1% chance of being employed compared to a native with similar characteristics, and if she were also Muslim, the employment probability gap grows to -24.3%.

It is true that census data doesn't provide information on the number of years spent by an individual in Switzerland, and that this matters in the labour market. This is an important issue as Muslim migration is a rather recent phenomenon. The more intense employment discrimination faced by Muslim migrants, however doesn't disappear in the second generation. The only exception concerns second-generation males from TMM. For this group, the discrimination related to origin still exists, but not the one related to being a Muslim. One possible explanation could be that, facing difficult circumstances in the labour market, young Muslims turn to self-employment working for small family 

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and they don't appear in figure 2.1.



businesses (restaurants, grocery shops, etc.) as has been observed in Germany (Constant and Zimmermann, 2006).

The stronger discrimination faced by female migrants could be explained by the fact that their decision to migrate is more often related to family reunion. As a consequence, many of them have to look for a job once they are in Switzerland. In contrast, male migration is more often triggered by a concrete job opportunity. A higher number of men therefore have a job when they arrive in Switzerland and don't have to look for one. This interpretation is also consistent with the fact that differences across gender dampen among second-generation migrants.

There are other ways to estimate employment discrimination faced by migrants and it is interesting to compare different measures of discrimination. An alternative method is to include origin dummies in a regression estimating the probability to be employed of all individuals active in the labour market. As this method does not measure differences in returns to factors, but the effect of origin on the probability to be employed after controlling for individual characteristics, it is more relevant to call this measure "employment penalty" rather than "employment discrimination." Results of this method applied to the same sample are graphically represented in figure 2.2. Although there are differences, both approaches provide estimates that are quite close and lead to a conclusion that migrants are discriminated in the labour market, along ethnic as well as religious lines.

Practice testing is yet another method to estimate employment discrimination. This method consists in having two fictitious candidates, who differ only in their name

and country of origin, send two letters of application for job vacancies advertised in the newspapers. Qualifications, experience, sex, age, and all the employability criteria are identical. There is inequality of treatment when one candidate is refused and the other invited to a job interview. Fibbi et al. (2005) conducted such a study for a limited number of second-generation male migrants living in Switzerland and found much higher estimates of employment discrimination.<sup>24</sup> Portuguese and Turks migrants are respectively 9.6%, 30.1% less likely be invited to a job interview than a native. Migrants from former Yugoslavia face a discrimination level of 23.5% in the Latin region and to 59.4% in the German region. In table 2.8, estimates of employment discrimination for second-generation Southern European, Turks and Eastern Europeans are much lower: 0.7%, 7.2% and 3.7% respectively. The ordering, however, is respected. The difference in the magnitude of the estimated level of employment discrimination is caused by the fact that most migrants facing employment discrimination will prefer to accept a job involving less prestige and a lower pay rather than remain unemployed, resulting in a kind of forced "self-selection" of migrants into lower category occupations. A decomposition of the probability to be employed is blind to this phenomenon. As a consequence, the method used in this study provides a very conservative measure of employment discrimination.

### 2.5.2 Cultural distance

Table 2.9 shows the results of the estimation of the probability to be born in Switzerland. Language is the strongest predictor. Having a national language as

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<sup>24</sup>In the ILO methodology used in their study, employment discrimination is defined as the ratio between the number of positive answers given to the foreign applicant minus the number of positive answers given to the Swiss candidate and the number of total valid observations.

one's main language increases by 79% the probability to be born in Switzerland. Being married increases by about 40% the probability to be a first-generation migrant, while being married to a native decreases it by 40%. First-generation migrants are more likely to be divorced or widowed than individuals born in Switzerland by about 10%. The effect related to the number of children is very weak. The strongly negative log likelihood statistics confirms the relevance of the model.

The cultural dissimilarity measure proposed by Vigdor (2009) has the advantage of not arbitrarily weighting factors composing it. As a consequence, the cultural distance index,  $CD_i$ , is dominated by language and intermarriage. The influence of other factors is comparatively marginal. On the one hand, the dominance of these two factors is interesting as it reveals the marginality of other variables in distinguishing individuals born in Switzerland from those born abroad. On the other hand, the limitations it implies for the meaning of the cultural distance measure should be kept in mind when interpreting the results.

The average cultural distance of each population group is displayed in table 2.10 and represented graphically in figure 2.3. Among first generation migrant men, WE migrants are closest to natives, followed by SE, AF and TMM migrants. EE, LA, AS, and SCA migrants have lower average index values. First-generation female migrants are similar, but the ordering is different, as AF and TMM migrants have higher index values than SE migrant women. In all origin groups, Muslim migrants are slightly more distant from natives than other migrants, except for the other SCA migrants, who happen to also have the largest average cultural distance among all groups.

Second-generation migrants all progress compared to the first generation. The average index value of those most distant from the natives at the first generation generally increases most. Among non-Muslim migrants, distance shrinks most for Eastern Europeans migrants and, among Muslim migrants, all non-European groups progress even more. Overall, migrant women seem to be culturally slightly stickier than men. Furthermore, although the cultural distance to the natives shrinks for second-generation migrants in comparison to the first generation, the gap between Muslims and non-Muslims migrants slightly increases, especially for Muslim women. As an example and in contrast to non-Muslim Eastern European migrants, Muslim women from this region have the worst score among all second-generation migrants and progress relatively little compared to the first generation. While such differences in outcome may partly be explained by cultural factors, it might also be caused by other factors, including economic discrimination as will be shown later.<sup>25</sup>

### **2.5.3 Employment discrimination and cultural distance: an endogenous and asymmetric relationship**

#### **(i) At the aggregate level**

Figure 2.4 represents the correlation between average employment discrimination and cultural distance measured in the two previous sections.<sup>26</sup> The trends and confidence intervals are set without taking natives into account. As the employment

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<sup>25</sup>The outlier in the fourth panel of figure 2.3 (Muslim AS women) can be explained by the very small size of this group (3 observations, see table 2.1). In such a small sample, it can occur that the characteristics pushing up the average index score (in this case, the fact of being married with a native) are more concentrated than in the native population itself.

<sup>26</sup>In figure 2.4, Muslim origin labels are in minor case appended with “*m.*”

penalty of natives is null and their average cultural distance index value is naturally the highest, the reference group is an outlier that shouldn't be included.

Several patterns appear in the distribution of correlation points in figure 2.4. First, most correlation points belonging to Muslim groups lie below the correlation trend line in all four panels of figure 2.4. This should not come as a surprise as it directly derives from results obtained in the two previous sections: in comparison to a non-Muslim migrant with the same cultural distance score, a Muslim migrant faces higher employment discrimination in the Swiss labor market.

Secondly, correlation points of the first generation are more dispersed than those of the second-generation. The same is observable for men with respect to women. The fact that most correlation points lie within the 95% confidence intervals in the panel for second-generation women indicates that the relationship between employment discrimination and cultural distance may be statistically most consistent for this particular population group.

Finally, the slope of the trend lines may provide an intuition about the elasticity of cultural distance with respect to employment discrimination (and vice versa). Overall, it seems that a small reduction in employment discrimination is matched by a larger change in cultural distance. Furthermore, the steeper slopes observed in female panels hint to the possibility that the cultural integration of women is less influenced by the intensity of employment discrimination than it is the case for men, whose cultural integration is more dependent on fair access to jobs. Keeping in mind how the measure of cultural distance is constructed, this might also be related to the higher intermarriage

rate of female migrants in comparison to men. In any case, given the endogeneity of the relationship, such a hypothesis needs to be verified at the individual level using an instrumental variable approach.

**(ii) At the individual level**

Tables 2.12 and 2.13 contain results of the instrumental variable approach used to estimate the endogenous relationship between economic discrimination and cultural distance. Table 2.12 presents the results of the estimated effect of employment discrimination on cultural distance, and table 2.13 the results of the estimated effect of cultural distance on employment discrimination. Both contain two panels: Panel A with structural (second-stage) coefficients associated with the endogenous regressor and Panel B with reduced form (first-stage) coefficients associated to instruments. In each panel, results are shown separately for men and women of the first and the second generation in order to enable comparison. Three different estimators are presented for each relationship: OLS, IV 2SLS and IV GMM allowing for clustered errors within origin groups.

Summary statistics report the number of observations, a goodness of fit measure (R-squared) and an assessment of the relevance of the model against a random walk (F test). Additional statistics are reported in order to gauge the relevance of the proposed instrumental approach and of the instruments: the p-value of the Sargan/Hansen overidentification test of all instruments; the weak identification Cragg-Donald Wald F statistic/Kleibergen-Paap rk Wald F statistic together with a benchmark (i.e the critical

values established by Stock and Yogo). Other complementary results like the value of the F test of excluded instruments and its p-value as well as the p-value of an underidentification test are commented in the text, but not reported in order to avoid overloading results tables.

The steps followed to assess results of the instrumental variable approach consist in first looking at the F test of excluded instruments, which is a test of weak identification of endogenous regressors. It is constructed by partialling-out linear projections of the remaining endogenous regressors. Like other F tests, it allows to reject (or accept) the null hypothesis that including the instruments in the model does not lead to a better statistical fit. A rule of thumb is that if the value of the F test is larger than 10, then instruments are good.

The Sargan/Hansen test is a test of overidentifying restrictions. The joint null hypothesis is that the instruments are valid instruments, i.e., uncorrelated with the error term, and that the excluded instruments are correctly excluded from the estimated equation. A rejection casts doubt on the validity of the instruments. It is therefore desirable that the null hypothesis can't be rejected with a high level of confidence. A p-value > 0.1 is usually considered satisfactory.

Finally, even when the Sargan/Hansen test is passed successfully, it might be that the estimated equation is underidentified or that weak instruments introduce a bias in the estimation of the effect of the endogenous regressor. The first issue is addressed through a Lagrange Multiplier (LM) test of the null hypothesis that the equation is underidentified, i.e., that the excluded instruments are not relevant, meaning not corre-

lated with the endogenous regressors. Stock and Yogo (2002) have developed a method to address the second problem. By comparing the Cragg-Donald Wald F statistic or the Kleibergen-Paap Wald rk F statistic to the critical values calculated by Stock and Yogo, it is possible to estimate the bias that might be introduced by weak instruments. The critical values they established for one endogenous regressor and two instruments are the following:

10% IV size bias = 19.93;

15% IV size bias = 11.59;

20% IV size bias = 8.75;

25% IV size bias = 7.25.

As an example, even if the first-stage F test of excluded instruments is strong, a Cragg-Donald Wald F statistic of 15 is still introducing a bias of 10% to 15% in the measure of the effect of the endogenous regressor.

**Reduced form:** Looking at first-stage results (Panel B in both tables), it appears that variables proposed to instrument for employment discrimination (skin color, cantonal policy to fight against xenophobia) and cultural distance (official language in origin country, cantonal naturalization policy) all have the expected sign. Cantonal policy variables are more often statistically not different from zero than the two other instruments. This is not surprising as cantonal policy variables can only be expected to have a weak effect through the difference in proportions of well/weakly integrated or more/less discriminated migrants living in Swiss cantons.

Instrument coefficient variations across generations and gender also provide



some insights. The effect of skin color as a determinant of employment discrimination is stronger for female compared to male migrants, but it plays a lesser role for second-generation migrants. The same can be observed for cantonal policy to fight xenophobia. These decreasing effects could mean that those variables matter less for men or for second-generation migrants, but it is also because measured employment discrimination is smaller for men and second-generation migrants that the estimated effect is smaller. That said, while the effect of the cantonal policy to fight xenophobia is indeed positive but infinitesimal, being of dark skin color remains a strong factor of discrimination among second-generation migrants. Concretely, it increases the unexplained employment probability gap by 9.66% for women, and by 3.42% for men.<sup>27</sup>

Turning to variables used to instrument for cultural distance, it appears that the cultural distance score of a migrant improves if Switzerland and his origin country share a common official language. While, this factor matters less for second-generation migrants, the effect of cantonal naturalization policy is more important for them. This variable remains a feable determinant of cultural distance, but it is remarkable that its effect increases when the dependent variable (cultural distance) is on average smaller for second-generation compared to first-generation migrants. As both independent variables are dummies and the measure of cultural distance in this last part is normalized (see table 2.11), coefficients can be readily interpreted.<sup>28</sup> As an example, if a second-generation

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<sup>27</sup>As the skin color scale goes from 1 to 8, and the highest value attributed to AF and SCA migrants is 7, multiplying the coefficients estimated for skin color (in panel B of table 2.12) by 7 provides an estimate of the employment discrimination increase due to skin color.

<sup>28</sup>Once normalized, an increase by one unit in cultural distance can be interpreted as the difference existing between the individual that is culturally most distant from the average non-Muslim Swiss national (an individual in an endogamous couple who doesn't speak one of the official Swiss language as her main language) and the individual that displays the exact same cultural characteristics as an average

female migrant (see regression 12 in table 2.13) originally comes from a francophone country, this reduces the cultural distance separating her from natives by 12.4%. If the canton in which she resides has a liberal naturalization procedure, this reduces the cultural distance by 1.42%.

Common factors (not reported here for the sake of simplicity) also provide an interesting insight. Dummies for the French and Italian-speaking regions have a positive and significant effect on both cultural distance and employment penalty. This seems to indicate that migrants are better integrated and less discriminated in the Latin parts of Switzerland. While it might be argued that the learning the Swiss German dialect represents a bigger hurdle to cultural integration than learning French or Italian, it is difficult to find such an argument to explain the seemingly higher employment discrimination in the German-speaking region. Other practice testing studies have also found that discrimination according to origin is higher in the German part of Switzerland (Fibbi et al., 2006), but this study is not designed to address this question. The proportion of same-origin individuals in the canton also has a positive and generally significant effect on employment discrimination, and a negative effect on cultural distance. This could mean that while ethnic networks might be helpful in searching for a job, a stronger density of same-origin migrants also reinforces intra-group interactions, including the preservation of origin country language and endogamous marriage.

**Structural form:** Several observations can be made when comparing the results of OLS with the second-stage of the IV 2SLS and IV GMM estimations in the representative belonging to the reference group.

upper panels. First, while IV estimates seem to converge, OLS estimates vary more in magnitude and sometimes even have the wrong sign, which indicates that there is a bias caused by endogeneity.<sup>29</sup> Second, in comparison to robust standard errors, allowing for robust and clustered standard errors within origin groups (IV GMM) weakens the statistical significance of estimated coefficients.

As is readily visible, most tests don't pose any problem in table 2.13, whereas test results are less clear-cut in table 2.12. It appears second-generation women are the only group for which the statistical significance of the estimated coefficient and the relevance of the proposed instrumental approach can be established both ways (regressions 11, 12, 23, 24).

Starting with second-generation women in table 2.12, it appears that all tests are fine in regression 11. When error terms are clustered in regression 12, the p-value of the F test of excluded instruments remains good (0.01), the p-value of the under-identification test is a bit high (0.13), and the value of the Kleibergen-Paap Wald rk F statistic (7.36) indicates there is a bias in the estimated coefficient of about 25%. Even with this bias, the IV estimate remains informative as the coefficient (3.693) is about twice as large as the one estimated by OLS (1.824).

For other groups, the IV estimate is also larger than the OLS estimate (for second-generation men, the estimated effect even turns from negative to positive), but one of the tests always fails. In regressions 3, 6 and 9 the coefficients are insignificant. In regressions 2 and 5 allowing for clustered errors, the Hansen test is not good, but it

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<sup>29</sup>See the negative coefficients in the regressions made on second-generation male samples.

is close to pass in regression 8 for second-generation men.

These mixed results could be interpreted as a challenge to the claim that employment discrimination influences cultural distance, but it is more likely to reflect the difficulty of finding a perfect instrument in this context to obtain a non-biased estimate using the instrumental variable approach. A strict interpretation of tests results would be that employment discrimination hinders the cultural integration of second-generation women, but not of second-generation men. There is however no reason to believe that the existence of such an effect is gender-specific. In this situation, it is more realistic to point out the limitations of the proposed method, than to assume that results faithfully mirror a complex reality, which remains difficult to approach with quantitative tools.

The magnitude of the IV estimates should be interpreted as local average treatment effects rather than average treatment effects (Imbens and Angrist, 1994). In other words, an IV estimate only reveals the effect for the subpopulations that are most affected by observed changes in the instrument. As a consequence, the estimated effect of employment discrimination on cultural distance is only revealed for dark skin subpopulations.

Table 2.14 shows the results of a simple comparative statics exercise were  $UDE_j$  or  $CD_j$  to vanish or to increase by one standard deviation  $SD$ . The first part of table 2.14 shows that the cultural distance score of representative individuals from dark color skin groups first-generation migrants would be only moderately affected, were employment discrimination to disappear ( $UDE_j = 0$ ). Most second-generation migrants would, however, reach a score of about 2 and close the cultural gap. For several groups

(second-generation Muslim men) the disappearance of employment discrimination leads the cultural distance score to exceed the maximum value of 2. Such unrealistic outcomes can easily occur in simple linear models. For comparison, the last column illustrates a less dramatic scenario were  $UDE_j$  would not disappear, but change by one standard deviation.

Turning to estimates of the effect of cultural distance on employment discrimination in table 2.13, it appears that the significance of the effect is established in all regressions without clustered errors. When clusters are introduced, the p-value of underidentification tests increases above 0.1, except for first-generation women. The value of the F test of excluded instruments however remains above 10 for all groups, and the estimate of the effect for second-generation men is the only to suffer from a weak instrument bias (of 15%).

As the main instrument is a dummy taking a value of 1 when the origin country of the migrant shares a common official language with Switzerland, no population group is more affected by a change in the instrument than any other group. The comparative statics exercise in table 2.14 shows the change in employment discrimination if cultural distance were to vanish ( $CD_i = 0$ ). As the average measured employment discrimination is already very low, most groups end up with positive employment discrimination. First-generation Muslim migrants are the only exceptions. This unrealistic outcome again highlights the limitations of this simple linear model and the caution necessary when interpreting the results. In the last column, the more moderate scenario of a one standard deviation increase in cultural distance provides more reasonable results.

After having looked separately at results in tables 2.12 and 2.13, it is possible to make several comments about the magnitude of estimated coefficients across tables. Firstly, given that the measures of employment discrimination and cultural distance both span over a space of approximately 1 (see table 2.11), the effect of employment discrimination on cultural distance (that is estimated to range from 1.07 to 5.745) seems larger than the reverse effect (that is estimated to range from 0.0261 to 0.192). However, as already mentioned, IV estimates can be interpreted as local average treatment effect, not as average treatment effects, and they are non-biased only for the subpopulation most affected by changes in the instrument, not for the whole sample. In the current context, these results for instance indicate that, for second-generation African women, the negative effect of employment discrimination on cultural distance is stronger than the reverse effect. In that sense, economic discrimination is a stronger impediment to their integration than cultural distance is. But the specificity of the instrumental variable approach doesn't allow to consider this explanation as valid for the whole sample or for subpopulations that do not experience any change in the instruments (for instance EE migrants).

Secondly, table 2.11 also shows that, although the measures of employment discrimination and cultural distance both span over a space of approximately 1, observations are more densely regrouped in the former, which has a smaller standard error. As mentioned previously, the method employed to measure employment discrimination is very conservative, because it is blind to the channeling of migrants (or "self-selection" of migrants) into lower-pay or lower-prestige occupations. As a result, measured em-

ployment discrimination is low for many migrant groups. With a measurement method considering the self-selection of migrants into lower-pay and lower-prestige occupations as part of employment discrimination, the distribution of the employment discrimination would be more dispersed. With a less conservative measure of employment discrimination, the estimated effect on cultural distance would probably be less pronounced.

Despite the limitations of the methodology proposed in this study, the results obtained through the instrumental variable approach allow several observations that are interesting from a policy point of view. First, the relationship between employment discrimination and cultural distance is indeed endogenous, and it is necessary to take reverse causation into account when discussing it. Secondly, the reinforcing effects between employment discrimination and cultural distance are stronger for second-generation migrants in comparison for first-generation migrants. Finally, it seems that the effect of employment discrimination on cultural distance is dominating the one cultural distance exerts on employment discrimination, at least for subpopulations for which the IV estimates can be interpreted. These findings are interesting as they indicate that a policy aiming at integrating migrants should pay special attention to achieve a level playing field and uphold equal employment opportunities for migrants, especially second-generation migrants.

It should be noted that these findings are robust to changes in the measure of employment discrimination and cultural distance as well as changes in sample composition. Similar results not shown here can be obtained using a measure of employment

penalty<sup>30</sup> or an alternate measure of cultural distance.<sup>31</sup> Excluding groups for which the p-value of the F test in table 2.7  $> 0.01$  from the sample doesn't affect the results significantly. Neither does excluding from the sample migrants originating from neighbouring countries. Ideally, different instruments and covariates should be included in order to test various specifications. However, it is very difficult to make an argument for including further covariates available in the census in the proposed specification. Furthermore, it is difficult to find instruments satisfying the required conditions in a context where instruments, endogenous regressors and independent variables are linked in a complex web of relationships.

## 2.6 Discussion

The main findings of this investigation into the relationship between economic discrimination and cultural integration of migrants in Switzerland can be summarized as follows:

- Evidence at the aggregate level
  - Population groups facing higher employment penalties are culturally more distant from the natives.
  - Muslim communities are no different in this regard: their specificity relies

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<sup>30</sup>As mentioned earlier, employment penalties can be estimated by including origin dummies in a regression in the whole sample rather than comparing returns to factors across subsamples. As a consequence, all migrants belonging to one group suffer the same employment penalty.

<sup>31</sup>As mentioned above and detailed in the appendix, it is possible to net-out the effect of non-cultural factors like age or gender from the cultural distance index. However, if these effects are negligible, it is more intuitive to keep it simple and avoid transforming an index that still requires careful interpretation.



more in the stronger discrimination they face in the labour market than in the “cultural distance” separating them from natives.

- Evidence at the individual level
  - The relationship between economic discrimination (as proxied by employment discrimination) and cultural integration (as proxied by “cultural distance”) is indeed endogenous, and it is necessary to take reverse causation into account when discussing it.
  - The reinforcing effects between employment discrimination and “cultural distance” are stronger for second-generation migrants in comparison for first-generation migrants.
  - The effect of employment discrimination on “cultural distance” is dominating the one “cultural distance” exerts on employment discrimination, at least for subpopulations for which the IV estimates can be interpreted.
- Other findings are that skin color does indeed play a significant role in explaining economic discrimination, and that originating from a country that shares a common official language with Switzerland facilitates cultural integration. Additionally, liberal cantonal naturalization policies seem to facilitate the cultural integration of second-generation migrants.

The findings of this study rely on a methodology constrained by the difficulty of measuring complex concepts. As a consequence, the measure of employment discrimination and cultural integration are rather conservative or restrictive. The approach is also

constrained by the structure of census data and the absence of a time horizon. Despite these limitations, cross-section data provides convincing evidence.

In the context of the current migration and integration debate unfolding in Switzerland and in many other Western countries, and the strong focus on Muslim migrants, the findings summarized above stress the importance of equal economic opportunities for the integration of migrants, especially second-generation migrants. It is of course possible to argue that migrants who don't adopt the language of the host country and don't mix with the natives are a cause of integration failures, but evidence gathered here doesn't support the argument that cultural factors are dominant in the integration process. Overall, without prejudging whether/the extent to which diversity is desirable for the Swiss society, these findings tend to stress the relevance of the liberal narrative as opposed to the conservative/right wing narrative, and promote the analysis of integration processes in socio-economic rather than in ethno-cultural terms.

Finally, several recommendations can be derived from this investigation of the reinforcing effects existing between economic and cultural barriers to integration. First, it appears that policy-makers concerned with migration and integration issues should support further research on that topic to enhance the understanding of migrant integration processes, which is required for an informed public debate and policy decisions. Second, in designing successful integration policies, policy-makers should fully take into account the need to provide economic opportunities to migrants, and especially make additional efforts to ensure equal economic opportunities are granted to second-generation

migrants of all origins.<sup>32</sup> Tolerating or being indifferent to discriminations against individuals born in Switzerland bears undesirable consequences that can be prevented. As supported by evidence presented in this chapter, offering migrants the perspective of fully integrating the Swiss society as a citizen through liberal naturalization policies has a positive impact on their cultural integration. Other policies might need to be modified or strengthened, like the policy to fight against xenophobia, whose effectiveness in reducing discrimination couldn't be clearly established. Most importantly, policy-makers who insist on the dominance of ethno-cultural factors in determining the outcome of integration processes should be asked to provide more than anecdotal evidence in support of their arguments.

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<sup>32</sup>It may well be that Italian and Spanish second-generation migrants are show cases for integration (Bolzmann and Fibbi, 2003), but results obtained in this study, which confirm the successful integration of Southern European second-generation migrants, also show other migrants have a harder time integrating the labour market and that this hinders their integration.

## Tables and figures

Table 2.1: Sample

	MEN		WOMEN	
	Other	Muslim	Other	Muslim
CH	1557425	1430	1522658	1584
1st generation				
WE	123171	712	166045	887
SE	166218	179	132397	154
EE	68110	46609	80093	37597
AF	9748	2073	11515	1384
TMM	12830	28941	10204	21403
LA	11217	46	26009	59
AS	10711	281	24728	506
SCA	13274	3360	10382	1880
All 1st	415279	82201	461373	63870
2nd generation				
WE	13734	53	13656	49
SE	67427	67	58042	101
EE	5379	1700	5322	1475
AF	199	19	215	20
TMM	971	3906	900	3336
LA	256	0	398	3
AS	290	5	349	3
SCA	327	79	265	42
All 2nd	88583	5829	79147	5029
ALL	2061287	89460	2063178	70483

*Source:* Swiss census, 2000

Note: Sample limited to individuals aged 18 to 65 with non-missing information on variables of interest.

Table 2.2: Descriptive statistics

VARIABLE		MEN		WOMEN		DESCRIPTION
		Other	Muslim	Other	Muslim	
employed	Natives	0.860	0.790	0.682	0.623	1 if employed
	1st gen	0.843	0.767	0.635	0.486	
	2nd gen	0.834	0.712	0.736	0.567	
unemployed	Natives	0.016	0.042	0.019	0.059	1 if unemployed
	1st gen	0.036	0.087	0.056	0.152	
	2nd gen	0.034	0.067	0.038	0.102	
inactive	Natives	0.122	0.166	0.298	0.316	1 if inactive
	1st gen	0.120	0.144	0.307	0.361	
	2nd gen	0.130	0.219	0.224	0.330	
yearsed	Natives	12.63	12.07	11.71	11.51	number of years of education
	1st gen	11.86	10.23	11.53	9.24	
	2nd gen	12.07	9.72	11.72	9.27	
lang	Natives	0.99	0.97	0.99	0.99	1 if main language is a national language
	1st gen	0.66	0.38	0.63	0.32	
	2nd gen	0.96	0.78	0.96	0.73	
langreg	Natives	0.94	0.87	0.93	0.89	1 if main language is that of the region
	1st gen	0.47	0.36	0.49	0.31	
	2nd gen	0.82	0.76	0.82	0.71	
single	Natives	0.39	0.36	0.33	0.22	1 if single
	1st gen	0.22	0.21	0.16	0.16	
	2nd gen	0.61	0.63	0.52	0.53	
married	Natives	0.53	0.55	0.55	0.65	1 if married
	1st gen	0.70	0.75	0.71	0.78	
	2nd gen	0.34	0.34	0.42	0.44	
widow	Natives	0.006	0.005	0.026	0.017	1 if widow
	1st gen	0.007	0.002	0.031	0.017	
	2nd gen	0.001	0.001	0.004	0.003	
separated	Natives	0.059	0.068	0.079	0.104	1 if separated/divorced
	1st gen	0.060	0.031	0.086	0.031	
	2nd gen	0.034	0.012	0.046	0.021	
spouse	Natives	0.448	0.197	0.482	0.153	1 if married to a native spouse
	1st gen	0.130	0.074	0.198	0.036	
	2nd gen	0.112	0.014	0.121	0.011	
children	Natives	1.13	1.04	1.27	1.41	number of children
	1st gen	1.35	1.65	1.39	1.83	
	2nd gen	0.54	0.68	0.68	0.81	
permisC	Natives	0	0	0	0	1 if holder of a permis C
	1st gen	0.57	0.51	0.40	0.46	
	2nd gen	0.71	0.74	0.58	0.64	
permisB	Natives	0	0	0	0	1 if holder of a permis B
	1st gen	0.18	0.29	0.19	0.37	
	2nd gen	0.014	0.078	0.016	0.124	
permisO	Natives	0	0	0	0	1 if holder of another typer of permit
	1st gen	0.057	0.086	0.037	0.073	
	2nd gen	0.006	0.019	0.005	0.016	
age	Natives	39.9	37.2	40.0	36.4	age
	1st gen	42.1	34.8	41.7	33.3	
	2nd gen	30.2	25.7	29.9	25.1	

Source: Swiss census, 2000.

Table 2.3: Probability to be employed (men, first generation)

	CH	WE	SE	EE	AF	TMM	LA	SA	SCA
NON-MUSLIM									
VARIABLES	empl	empl	empl	empl	empl	empl	empl	empl	empl
yearseducation	0.001*** (3.86e-05)	0.003*** (0.000154)	0.001*** (0.0001)	0.002*** (0.0002)	0.003*** (0.0009)	0.004*** (0.0007)	0.006*** (0.0008)	0.004*** (0.0006)	0.0006 (0.0005)
age	0.0005*** (4.61e-05)	0.002*** (0.0002)	0.004*** (0.0002)	0.004*** (0.0005)	0.008*** (0.002)	-0.0008 (0.001)	0.008*** (0.001)	0.007*** (0.001)	0.005*** (0.001)
age2	-1.14e-05*** (5.71e-07)	-3.41e-05*** (3.01e-06)	-5.73e-05*** (2.67e-06)	-7.26e-05*** (5.99e-06)	-0.0001*** (2.85e-05)	3.02e-06 (2.00e-05)	-0.0001*** (2.09e-05)	-0.0001*** (1.71e-05)	-8.34e-05*** (1.62e-05)
married	0.007*** (0.0003)	0.010*** (0.001)	0.024*** (0.001)	0.031*** (0.003)	0.037*** (0.009)	0.045*** (0.008)	0.020** (0.007)	0.020*** (0.007)	0.030*** (0.006)
spouse	0.013*** (0.0003)	0.001 (0.001)	-0.0009 (0.001)	-0.010** (0.004)	-0.034*** (0.011)	-0.007 (0.009)	-0.007 (0.008)	0.006 (0.009)	-0.023** (0.011)
nenf	0.002*** (0.0001)	0.002*** (0.0004)	0.0007 (0.0004)	0.002*** (0.0009)	-0.002 (0.002)	0.001 (0.002)	0.002 (0.002)	0.0006 (0.002)	-0.001 (0.002)
langreg	0.001*** (0.0004)	0.005*** (0.001)	-0.003*** (0.0009)	0.003** (0.001)	0.009 (0.007)	0.026*** (0.006)	0.007 (0.006)	0.005 (0.005)	0.008* (0.004)
permisC		-0.004*** (0.001)	-0.006*** (0.001)	-0.019*** (0.002)	-0.021* (0.011)	-0.040*** (0.007)	-0.0003 (0.007)	-0.030*** (0.006)	-0.028*** (0.010)
permisB		-0.0002 (0.001)	-0.019*** (0.003)	-0.031*** (0.003)	-0.079*** (0.012)	-0.086*** (0.0109)	-0.042*** (0.009)	-0.019** (0.008)	-0.004 (0.007)
permisOther		0.017*** (0.001)	0.023*** (0.001)	-0.158*** (0.012)	-0.228*** (0.020)	-0.253*** (0.023)	0.006 (0.014)	-0.030* (0.016)	-0.028*** (0.008)
can_unemployment	-0.505*** (0.010)	-0.620*** (0.039)	-0.396*** (0.040)	-1.015*** (0.095)	-0.173 (0.324)	0.092 (0.259)	-1.187*** (0.266)	-0.279 (0.242)	-0.799*** (0.209)
MUSLIM									
yearseducation	0.0005 (0.001)	0.012*** (0.002)		0.0001 (0.0004)	0.003 (0.003)	0.002*** (0.0006)	0.296 (0.233)	0.007* (0.004)	0.001 (0.001)
age	0.006*** (0.002)	-0.001 (0.005)		0.014*** (0.0008)	0.017*** (0.006)	0.004*** (0.001)	0.392 (0.396)	-0.008 (0.008)	0.008* (0.004)
age2	-9.48e-05*** (3.22e-05)	3.24e-05 (7.24e-05)		-0.0002*** (1.08e-05)	-0.0002** (8.36e-05)	-8.40e-05*** (1.60e-05)	-0.005 (0.005)	0.0001 (0.0001)	-0.0001** (5.07e-05)
married	0.049*** (0.017)	0.037 (0.026)		0.010** (0.004)	0.034 (0.030)	0.046*** (0.006)	-0.456 (0.594)	-0.018 (0.019)	0.055*** (0.019)
spouse	0.029** (0.012)	0.014 (0.032)		-0.037*** (0.008)	-0.036 (0.034)	-0.038*** (0.007)		-0.009 (0.022)	0.023 (0.023)
nenf	-0.002 (0.005)	0.013 (0.010)		0.001 (0.001)	-0.013 (0.008)	-0.002 (0.001)	-0.502 (0.387)	0.020 (0.014)	-0.008 (0.005)
langreg	-0.0005 (0.016)	0.010 (0.019)		0.014*** (0.002)	0.103*** (0.023)	0.032*** (0.004)		0.016 (0.018)	0.032** (0.015)
permisC		-0.002 (0.026)		-0.024*** (0.007)	-0.090* (0.053)	-0.023*** (0.006)		0.021 (0.028)	-0.108*** (0.025)
permisB		0.028 (0.025)		-0.044*** (0.009)	-0.143*** (0.046)	-0.091*** (0.008)		0.017 (0.029)	-0.090*** (0.025)
permisOther		0.026 (0.026)		-0.384*** (0.024)	-0.265*** (0.046)	-0.364*** (0.017)	0.756 (0.484)	-0.025 (0.061)	-0.285*** (0.033)
can_unemployment	-0.838* (0.506)	-2.404*** (0.760)		-0.623*** (0.151)	-0.206 (1.087)	-0.520** (0.204)	-92.59 (91.59)	-0.157 (0.780)	-0.690 (0.686)

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.4: Probability to be employed (men, second generation)

	CH	WE	SE	EE	AF	TMM	LA	SA	SCA
NON-MUSLIM									
VARIABLES	empl	empl	empl	empl	empl	empl	empl	empl	empl
yearseducation	0.005*** (0.0006)	0.004*** (0.0002)	0.004*** (0.001)	-0.005 (0.005)	0.009** (0.004)	0.017 (0.011)	0.008 (0.008)	-0.007** (0.003)	
age	0.002** (0.0009)	0.0008** (0.0003)	0.001 (0.002)	-0.013 (0.010)	0.003 (0.007)	-0.008 (0.018)	0.032*** (0.011)	0.014** (0.006)	
age2	-3.50e-05*** (1.25e-05)	-1.97e-05*** (5.29e-06)	-3.44e-05 (3.20e-05)	0.0001 (0.0001)	-8.85e-05 (0.0001)	6.69e-05 (0.0002)	-0.0004*** (0.0001)	-0.0001** (9.05e-05)	
married	0.0264*** (0.005)	0.030*** (0.001)	0.042*** (0.011)	-0.001 (0.040)	0.045 (0.031)	0.121 (0.081)	-0.042 (0.082)	0.085* (0.049)	
spouse	0.005 (0.006)	0.006** (0.002)	-0.056 (0.037)	0.015 (0.035)		-0.174 (0.183)			
nenf	0.005** (0.002)	0.002** (0.001)	0.007 (0.006)	0.047** (0.022)	-0.002 (0.018)	-0.027 (0.039)	0.068* (0.040)	0.002 (0.015)	
langreg	0.017** (0.007)	0.002 (0.001)	0.012 (0.010)	-0.059* (0.030)	0.019 (0.032)	-0.122** (0.048)	0.079 (0.062)	0.020 (0.026)	
permisC	-0.008** (0.003)	-0.007*** (0.001)	-0.030*** (0.008)	0.008 (0.035)	-0.034 (0.025)	-0.019 (0.055)	0.047 (0.065)	0.017 (0.020)	
permisB	-0.048** (0.019)	-0.032** (0.012)	-0.064** (0.028)	-0.238 (0.169)	-0.027 (0.063)	-0.136 (0.289)	-0.147 (0.153)	0.002 (0.031)	
permisOther	0.013 (0.014)	0.011 (0.007)	-0.137* (0.077)	-0.224 (0.158)	-0.103 (0.202)			0.022 (0.026)	
can_unemployment	-1.472*** (0.155)	-0.742*** (0.064)	-0.752 (0.473)	0.857 (1.316)	-2.600** (1.177)	0.522 (2.486)	-3.183 (1.987)	-0.994 (1.101)	
MUSLIM									
yearseducation				0.0001 (0.002)	-0.0005 (12.68)	0.009*** (0.001)			
age				0.015*** (0.004)	-0.002 (48.89)	0.006** (0.003)			
age2				-0.0002*** (6.24e-05)	6.61e-05 (1.075)	-0.0001** (4.70e-05)			
married				0.012 (0.028)	1.000 (9.083)	0.046*** (0.013)			
spouse				-0.047 (0.108)		-0.133** (0.066)			
nenf				-0.002 (0.007)	-0.005 (97.08)	0.001 (0.007)			
langreg				-0.007 (0.016)	1.000 (5.728)	0.024* (0.013)			
permisC				-0.024 (0.031)	-1.000*** (0.0001)	-0.024** (0.012)			
permisB				0.004 (0.039)	-1*** (0)	-0.042 (0.038)			
permisOther				-0.522*** (0.112)	-1*** (0)	-0.263** (0.126)			
can_unemployment				0.825 (1.020)	-1.418 (24.512)	-0.829 (0.615)			

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.5: Probability to be employed (women, first generation)

	CH	WE	SE	EE	AF	TMM	LA	SA	SCA
NON-MUSLIM									
VARIABLES	empl	empl	empl	empl	empl	empl	empl	empl	empl
yearseducation	0.002*** (7.14e-05)	0.003*** (0.0002)	0.0006** (0.0003)	0.0001 (0.0004)	0.007*** (0.0013)	0.003*** (0.0012)	0.004*** (0.0008)	0.006*** (0.0006)	0.005*** (0.0013)
age	-0.0004*** (8.65e-05)	-8.48e-05 (0.0004)	0.007*** (0.0004)	0.011*** (0.0007)	0.004 (0.003)	-0.003 (0.002)	0.005*** (0.002)	0.006*** (0.001)	0.009*** (0.003)
age2	8.31e-06*** (1.09e-06)	4.56e-06 (5.00e-06)	-8.02e-05*** (5.79e-06)	-0.0001*** (9.99e-06)	-1.80e-05 (4.02e-05)	5.47e-05 (3.39e-05)	-3.46e-05 (2.77e-05)	-6.56e-05*** (2.36e-05)	-0.0001** (4.82e-05)
married	-0.005*** (0.0005)	-0.016*** (0.001)	-0.001 (0.002)	-0.028*** (0.003)	-0.002 (0.010)	-0.011 (0.010)	-0.025*** (0.007)	-0.025*** (0.006)	-0.070*** (0.012)
spouse	0.014*** (0.0005)	0.015*** (0.001)	0.002 (0.003)	-0.017*** (0.004)	-0.001 (0.011)	0.018 (0.013)	0.002 (0.006)	0.006 (0.005)	0.045** (0.021)
nenf	-0.001*** (0.0001)	-0.005*** (0.0006)	-0.010*** (0.0009)	-0.010*** (0.001)	-0.027*** (0.003)	-0.013*** (0.003)	-0.019*** (0.002)	-0.013*** (0.002)	-0.005 (0.005)
langreg	0.003*** (0.0006)	0.011*** (0.001)	0.008*** (0.001)	0.024*** (0.002)	0.024*** (0.008)	0.063*** (0.009)	0.047*** (0.006)	0.036*** (0.005)	0.049*** (0.010)
permisC		0.0009 (0.001)	-0.002 (0.002)	-0.022*** (0.003)	0.004 (0.012)	-0.044*** (0.011)	-0.025*** (0.008)	-0.035*** (0.007)	-0.008 (0.020)
permisB		-0.029*** (0.002)	-0.066*** (0.005)	-0.098*** (0.004)	-0.115*** (0.013)	-0.094*** (0.015)	-0.109*** (0.008)	-0.127*** (0.009)	-0.106*** (0.017)
permisOther		0.023*** (0.002)	0.023*** (0.004)	-0.235*** (0.015)	-0.222*** (0.020)	-0.233*** (0.032)	-0.033* (0.019)	-0.055*** (0.018)	-0.234*** (0.022)
can_unemployment	-0.592*** (0.017)	-0.681*** (0.057)	-0.550*** (0.073)	-0.925*** (0.132)	0.291 (0.385)	0.035 (0.389)	-0.715*** (0.277)	-0.317 (0.253)	-1.678*** (0.485)
MUSLIM									
yearseducation	0.007* (0.003)	0.012** (0.005)	0.012 (0.015)	0.008*** (0.001)	0.006 (0.004)	0.001 (0.001)	0.034 (0.035)	0.016** (0.007)	0.0002 (0.004)
age	0.004 (0.005)	0.022** (0.009)	-0.068** (0.032)	0.032*** (0.002)	0.012 (0.011)	0.018*** (0.002)	0.096 (0.115)	0.002 (0.019)	0.017* (0.009)
age2	-4.99e-05 (6.72e-05)	-0.0002** (0.0001)	0.0009** (0.0004)	-0.0004*** (3.02e-05)	-0.0001 (0.0001)	-0.0002*** (3.38e-05)	-0.001 (0.001)	5.49e-05 (0.0002)	-0.0001 (0.0001)
married	-0.008 (0.020)	-0.026 (0.035)	0.091 (0.116)	-0.093*** (0.008)	-0.058 (0.039)	-0.065*** (0.009)	0.265 (0.379)	-0.064 (0.058)	-0.069** (0.033)
spouse	0.009 (0.025)	-0.044 (0.063)		0.079*** (0.028)	0.012 (0.048)	0.006 (0.014)		0.069 (0.054)	0.090* (0.052)
nenf	-0.017** (0.007)	-0.027* (0.015)	0.003 (0.035)	-0.038*** (0.002)	-0.007 (0.010)	-0.028*** (0.003)	-0.139 (0.179)	-0.016 (0.023)	-0.039*** (0.012)
langreg	0.0008 (0.027)	0.054* (0.032)	0.124 (0.090)	0.060*** (0.006)	0.085** (0.034)	0.043*** (0.007)	-0.0009 (0.164)	-0.068 (0.072)	0.054* (0.030)
permisC		-0.071 (0.049)	-0.006 (0.102)	-0.049*** (0.018)	-0.054 (0.064)	-0.018 (0.011)	0.070 (0.115)	0.113** (0.050)	-0.166*** (0.046)
permisB		-0.160*** (0.055)	0.113 (0.086)	-0.160*** (0.019)	-0.173*** (0.054)	-0.163*** (0.013)	0.117 (0.152)	0.013 (0.062)	-0.161*** (0.046)
permisOther		0.031 (0.071)		-0.485*** (0.023)	-0.244*** (0.057)	-0.348*** (0.029)	-0.377 (1.263)	-0.091 (0.149)	-0.415*** (0.056)
can_unemployment	-2.112*** (0.812)	-5.059*** (1.421)	-6.760* (3.701)	-0.222 (0.349)	2.586* (1.486)	-1.297*** (0.357)	1.053 (6.105)	0.171 (2.484)	1.908 (1.315)

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



Table 2.6: Probability to be employed (women, second generation)

	CH	WE	SE	EE	AF	TMM	LA	SA	SCA
NON-MUSLIM									
VARIABLES	empl	empl	empl	empl	empl	empl	empl	empl	empl
yearseducation	0.0003 (0.0008)	0.003*** (0.0004)	0.001 (0.001)	0.004 (0.010)	0.016*** (0.004)	0.0005 (0.005)	0.026*** (0.008)	0.011 (0.009)	
age	0.003*** (0.001)	0.002*** (0.0006)	0.001 (0.002)	0.011 (0.019)	-0.019** (0.009)	-0.031** (0.014)	0.025 (0.016)	0.007 (0.024)	
age2	-3.38e-05* (1.78e-05)	-2.27e-05** (9.88e-06)	-3.79e-06 (3.85e-05)	-9.56e-05 (0.0002)	0.0002** (0.0001)	0.0004** (0.0002)	-0.0003 (0.0002)	-0.0002 (0.0003)	
married	0.005 (0.006)	0.009*** (0.002)	-0.005 (0.011)	0.072 (0.096)	0.013 (0.028)	0.092 (0.057)	-0.012 (0.090)	-0.021 (0.086)	
spouse	0.004 (0.006)	0.004 (0.003)	0.001 (0.021)	-0.459** (0.189)	0.0006 (0.057)	-0.027 (0.057)	-0.095 (0.098)		
nenf	-0.009*** (0.002)	-0.014*** (0.001)	-0.007 (0.005)	-0.085** (0.034)	-0.019 (0.014)	-0.009 (0.020)	0.012 (0.032)	-0.004 (0.027)	
langreg	-0.002 (0.007)	0.011*** (0.002)	0.017* (0.010)	0.118 (0.107)	0.034 (0.035)	0.031 (0.044)	0.018 (0.062)	0.145** (0.067)	
permisC	-0.008* (0.004)	-0.007*** (0.002)	-0.060*** (0.009)	-0.165* (0.093)	-0.031 (0.026)	-0.135** (0.062)	-0.033 (0.064)	0.187*** (0.050)	
permisB	-0.020 (0.021)	-0.097*** (0.020)	-0.128*** (0.029)	-0.088 (0.114)	-0.084 (0.070)	-0.254*** (0.089)	-0.093 (0.103)	0.172* (0.092)	
permisOther	-0.013 (0.025)	0.026** (0.011)	-0.271** (0.127)	-0.485* (0.266)		-0.268 (0.303)	-0.076 (0.196)	0.059 (0.091)	
can_unemployment	-1.153*** (0.183)	-0.959*** (0.094)	-1.321*** (0.463)	-3.312 (3.064)	-0.856 (1.174)	0.385 (1.769)	-8.376*** (2.718)	-3.154 (2.997)	
MUSLIM									
yearseducation			0.008 (0.026)	0.011** (0.004)		0.010*** (0.002)			
age			-0.021 (0.079)	0.021** (0.010)		0.019*** (0.005)			
age2			0.0006 (0.001)	-0.0003** (0.0001)		-0.0002*** (8.26e-05)			
married			0.057 (0.174)	-0.121*** (0.036)		-0.036* (0.019)			
spouse						-0.020 (0.056)			
nenf			-0.122 (0.093)	-0.003 (0.012)		-0.029*** (0.010)			
langreg			-9.978 (7.641)	0.084*** (0.028)		0.074*** (0.018)			
permisC				-0.083 (0.068)		-0.039** (0.015)			
permisB			0.244 (0.087)	-0.210** (0.087)		-0.137*** (0.048)			
permisOther			7.837 (12.12)	-0.662*** (0.089)		-0.171 (0.170)			
can_unemployment			-9.978 (7.641)	0.888 (1.812)		-4.057*** (0.786)			

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.7: Summary statistics of the probability to be employed

	Natives	WE	SE	EE	AF	TMM	LA	AS	SCA
<b>MEN</b>									
1ST GENERATION									
MUSLIM									
Observations	1,366,047	109,175	146,497	59,555	8,533	11,052	9,497	8,842	12,154
Pseudo R-squared	0.066	0.049	0.044	0.041	0.064	0.060	0.035	0.040	0.026
Chi2	17383	1315	1860	1050	407.7	438.5	200.6	165.9	136.2
Chi p	0	0	0	0	0	0	0	0	0
MUSLIM									
Observations	1,192	595	139	39,896	1,666	24,889	11	219	2,842
Pseudo R-squared	0.086	0.133	1	0.098	0.077	0.067	0.212	0.247	0.083
Chi2	41.75	42.45	36.27	2216	144.4	1248	3.05	30.80	212.4
Chi p	0	0	0.0001	0	0	0	0.87	0	0
2ND GENERATION									
NON-MUSLIM									
Observations		11,172	60,084	4,244	134	723	157	187	231
Pseudo R-squared		0.069	0.058	0.030	0.265	0.037	0.080	0.216	0.277
Chi2		293.2	1083	63.71	21.44	18.07	9.665	30.89	39.04
Chi p		0	0	0	0.029	0.053	0.470	0	0
MUSLIM									
Observations		7		1,324	12	3,082			29
Pseudo R-squared		1		0.11	1	0.049			1
Chi2		8.376		90.17	15.28	87.63			23.27
Chi p		0.078		0	0.12	0			0
<b>WOMEN</b>									
1ST GENERATION									
NON-MUSLIM									
Observations	1,068,374	110,150	92,798	60,831	8,437	6,911	17,350	15,863	7,066
Pseudo R-squared	0.013	0.026	0.020	0.042	0.062	0.061	0.039	0.062	0.0808
Chi2	3667	1092	875.3	1746	489.8	346.3	642.6	728.8	550.5
Chi p	0	0	0	0	0	0	0	0	0
MUSLIM									
Observations	1,083	628	99	23,832	871	14,013	27	262	1,052
Pseudo R-squared	0.026	0.089	0.092	0.077	0.060	0.050	0.571	0.064	0.109
Chi2	17.15	52.13	8.666	2069	63.78	744.9	17.66	16.08	134.7
Chi p	0.028	0.46	0	0	0	0	0.061	0.13	0
2ND GENERATION									
NON-MUSLIM									
Observations		9,822	46,127	4,010	127	644	250	202	167
Pseudo R-squared		0.021	0.026	0.053	0.22	0.11	0.13	0.12	0.18
Chi2		77.52	465.5	108.7	25.65	46.09	24.99	23.41	28.91
Chi p		0	0	0	0	0	0	0.015	0
MUSLIM									
Observations			35	990		2,259			
Pseudo R-squared			0.24	0.105		0.096			
Chi2			7.83	107.3		165.1			
Chi p			0.25	0		0			

Table 2.8: Employment discrimination: average by group

origine	MEN		WOMEN	
	1st gen	2nd gen	1st gen	2nd gen
Other				
CH	0	0	0	0
WE	-0.004	-0.02	-0.017	-0.013
SE	0.003	-0.007	-0.008	-0.009
EE	-0.03	-0.037	-0.064	-0.033
AF	-0.093	<i>-0.055</i>	-0.131	-0.122
TMM	-0.072	<i>-0.072</i>	-0.097	-0.058
LA	-0.061	<i>-0.092</i>	-0.134	-0.083
AS	-0.034	-0.095	-0.08	-0.13
SCA	-0.025	-0.057	-0.138	-0.126
Muslim				
ch_m	-0.026	-0.026	<i>-0.049</i>	<i>-0.049</i>
we_m	-0.049	<i>-0.233</i>	<i>-0.136</i>	
se_m	0.007		-0.126	<i>-0.123</i>
ee_m	-0.056	-0.064	-0.192	-0.16
af_m	-0.213	<i>-0.296</i>	-0.243	
tmm_m	-0.095	-0.052	-0.167	-0.084
la_m	<i>-0.327</i>		<i>-0.208</i>	
as_m	-0.059		<i>-0.144</i>	
sca_m	-0.139	-0.1	-0.227	

Source: Swiss census, 2000.

**Note:** Values in italic produced by a model with a F test value < 0.01.

Table 2.9: Probability to be born in Switzerland

VARIABLES	Born in Switzerland	
	Women	Men
widow	-0.133*** (0.002)	-0.106*** (0.004)
divorced	-0.117*** (0.001)	-0.097*** (0.001)
married	-0.420*** (0.001)	-0.393*** (0.001)
sexe	-0.005*** (0.001)	
age		-0.002*** (2.66e-05)
spouse		0.405*** (0.0005)
nenf		0.007*** (0.0002)
lang		0.793*** (0.0005)
Observations		3609095
Pseudo R-squared		0.38
ll		-1.262e+06

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.10: Cultural distance: average by group

origine	MEN		WOMEN	
	1st gen	2nd gen	1st gen	2nd gen
Other				
CH	0.003	0.003	-0.003	-0.003
WE	-0.249	-0.056	-0.249	-0.068
SE	-0.396	-0.07	-0.441	-0.118
EE	-0.564	-0.158	-0.567	-0.175
AF	-0.423	-0.124	-0.403	-0.167
TMM	-0.436	-0.131	-0.444	-0.133
LA	-0.514	-0.191	-0.623	-0.307
AS	-0.551	-0.151	-0.623	-0.287
SCA	-0.644	-0.327	-0.623	-0.426
Muslim				
ch_m	-0.121	-0.121	-0.185	-0.185
we_m	-0.354	-0.128	-0.377	-0.174
se_m	-0.431	-0.145	-0.45	-0.275
ee_m	-0.601	-0.34	-0.659	-0.443
af_m	-0.49	-0.168	-0.539	-0.256
tmm_m	-0.579	-0.176	-0.636	-0.234
la_m	-0.613		-0.585	-0.264
as_m	-0.642	-0.219	-0.701	0.037
sca_m	-0.588	-0.173	-0.612	-0.21

*Source:* Swiss census, 2000.

Table 2.11: Descriptive statistics of constructed variables

Variable	Obs	Mean	Std. Dev.	Min	Max
employment discrimination	828239	-0.031	0.062	-0.992	0.141
cultural distance (normalized)	1031628	1.348	0.331	1	2

*Source:* Swiss census, 2000; sample: migrants only.

**Note:** higher values represent an improvement. A higher value for employment discrimination reflects a weaker discrimination on the labour market, and a higher value for cultural distance reflects migrants are culturally closer to natives. Positive employment discrimination mainly concerns low-qualified SE and high-qualified WE migrants.

Table 2.12: Effect of employment discrimination on cultural distance

**PANEL A: Structural coefficients (effect of endogenous regressor on dependent variable)**

ENDOGENOUS REGRESSOR	DEPENDENT VARIABLE: CD					
	Men			Women		
	1st generation			2nd generation		
	OLS (1)	IV (2)	IV cluster (3)	OLS (4)	IV (5)	IV cluster (6)
<b>UDE</b>	0.561*** (0.013)	1.070*** (0.024)	1.070 (1.130)	1.446*** (0.008)	1.824*** (0.021)	1.824 (1.113)
N	395409	395409	395409	321472	321472	321472
R2/uncentered R2	0.059	0.955	0.955	0.147	0.953	0.953
F	4137	21635	85.89	9220	14719	184.9
Sargan/Hansen test		0.002	0.571		0.024	0.691
Weak identification stat		51316	10.23		22922	14.22
Stock & Yogo critical value at 20%		8.75	8.75		8.75	8.75
	1st generation			2nd generation		
	(7)	(8)	(9)	(10)	(11)	(12)
<b>UDE</b>	-0.678*** (0.038)	5.745*** (0.696)	5.745 (5.711)	1.352*** (0.028)	3.693*** (0.194)	3.693* (2.032)
N	61791	61791	61791	47426	47426	47426
R2/uncentered R2	0.035	0.976	0.976	0.092	0.979	0.979
F	371.5	317.1	177.0	796.2	351.9	5.456
Sargan/Hansen test		0.050	0.387		0.145	0.259
Weak identification stat		49.11	1.198		202.4	7.360
Stock & Yogo critical value at 20%		8.75	8.75		8.75	8.75

**PANEL B: Reduced-form coefficients (effect of instruments on endogenous regressor)**

INSTRUMENTS	Men			Women		
	1st generation			2nd generation		
	(1)	(2)	(3)	(4)	(5)	(6)
<b>skin color</b>		-0.015*** (0.00004)	-0.015*** (0.003)		-0.018*** (0.00008)	-0.018*** (0.006)
<b>policy xenophobia</b>		0.0007*** (0.0001)	0.0007 (0.0006)		0.002*** (0.0003)	0.002* (0.001)
	(7)	(8)	(9)	(10)	(11)	(12)
<b>skin color</b>		-0.004*** (0.0001)	-0.004 (0.004)		-0.013*** (0.0002)	-0.013** (0.004)
<b>policy xenophobia</b>		0.0003 (0.0002)	0.0003 (0.0005)		0.0001 (0.0004)	0.0001 (0.0008)

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.13: Effect of cultural distance on employment discrimination

ENDOGENOUS REGRESSOR		DEPENDENT VARIABLE: UDE					
		Men 1st generation			Women		
		OLS (13)	IV (14)	IV cluster (15)	OLS (16)	IV (17)	IV cluster (18)
<b>CD</b>		0.007*** (0.0001)	0.026*** (0.0004)	0.026 (0.018)	0.057*** (0.0003)	0.097*** (0.0008)	0.097* (0.057)
	N	395409	395409	395409	321472	321472	321472
	R2/uncentered R2	0.259	0.354	0.354	0.253	0.457	0.457
	F	23046	22868	9.301	18151	14790	6.166
	Sargan/Hansen test		0.002	0.44		0.28	0.86
	Weak identification stat		51261	65.80		28428	41.91
	Stock & Yogo critical value at 20%		8.75	8.75		8.75	8.75
		<b>2nd generation</b>					
		(19)	(20)	(21)	(22)	(23)	(24)
<b>CD</b>		-0.007*** (0.0004)	0.072*** (0.002)	0.072*** (0.021)	0.033*** (0.0007)	0.192*** (0.006)	0.192*** (0.072)
	N	61791	61791	61791	47426	47426	47426
	R2/uncentered R2	0.045	-0.29	-0.29	0.14	-0.59	-0.59
	F	486.8	159.7	5.340	1334	276.3	5.759
	Sargan/Hansen test		0.813	0.918		0.406	0.647
	Weak identification stat		1014	11.45		542.0	24.43
	Stock & Yogo critical value at 20%		8.75	8.75		8.75	8.75

INSTRUMENTS		Men 1st generation			Women		
		OLS (13)	IV (14)	IV cluster (15)	OLS (16)	IV (17)	IV cluster (18)
<b>official language in origin country</b>			0.346*** (0.001)	0.346*** (0.035)		0.300*** (0.001)	0.300*** (0.034)
<b>easy naturalization</b>			0.006*** (0.001)	0.006 (0.008)		0.004*** (0.001)	0.004 (0.008)
		<b>2nd generation</b>					
		(19)	(20)	(21)	(22)	(23)	(24)
<b>official language in origin country</b>			0.155*** (0.002)	0.155*** (0.033)		0.124*** (0.002)	0.124*** (0.034)
<b>easy naturalization</b>			0.009*** (0.002)	0.009** (0.003)		0.014*** (0.002)	0.014*** (0.002)

Source: Swiss census, 2000; S.E in parenthesis, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.14: Comparative statics

Groups most affected by change in instrument

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**Individuals with darkest skin color**

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	Average $CD_j$	...if $UDE_j = 0$	...if $\Delta^+ UDE_j = \overline{SD}$
1st AF men	1.44	1.54	1.51
1st AF Muslim men	1.38	1.61	1.45
1st SCA men	1.2	1.23	1.27
1st SCA Muslim men	1.27	1.42	1.34
2nd AF men	1.68	1.99	2.06
2nd AF Muslim men	1.63	3.33	2.01
2nd SCA men	1.55	1.88	1.93
2nd SCA Muslim men	1.45	2.03	1.83
1st AF women	1.3	1.54	1.42
1st AF Muslim women	1.46	1.9	1.58
1st SCA women	1.23	1.48	1.35
1st SCA Muslim women	1.19	1.6	1.31
2nd AF women	1.45	1.9	1.69
2nd AF Muslim women	1.59		
2nd SCA women	1.53	1.99	1.77
2nd SCA Muslim women	1.28		

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Individuals whose origin country doesn't share a common official language with Switzerland

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	Average $UDE_j$	...if $CD_j = 0$	...if $\Delta^+ CD_j = \overline{SD}$
1st men	-0.01	0.02	0
1st Muslim men	-0.07	-0.03	-0.06
2nd men	-0.01	0.11	0.01
2nd Muslim men	-0.04	0.07	-0.02
1st women	-0.04	0.09	-0.01
1st Muslim women	-0.17	-0.05	-0.14
2nd women	-0.02	0.3	0.04
2nd Muslim women	-0.11	0.17	-0.05

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Calculations of the author.



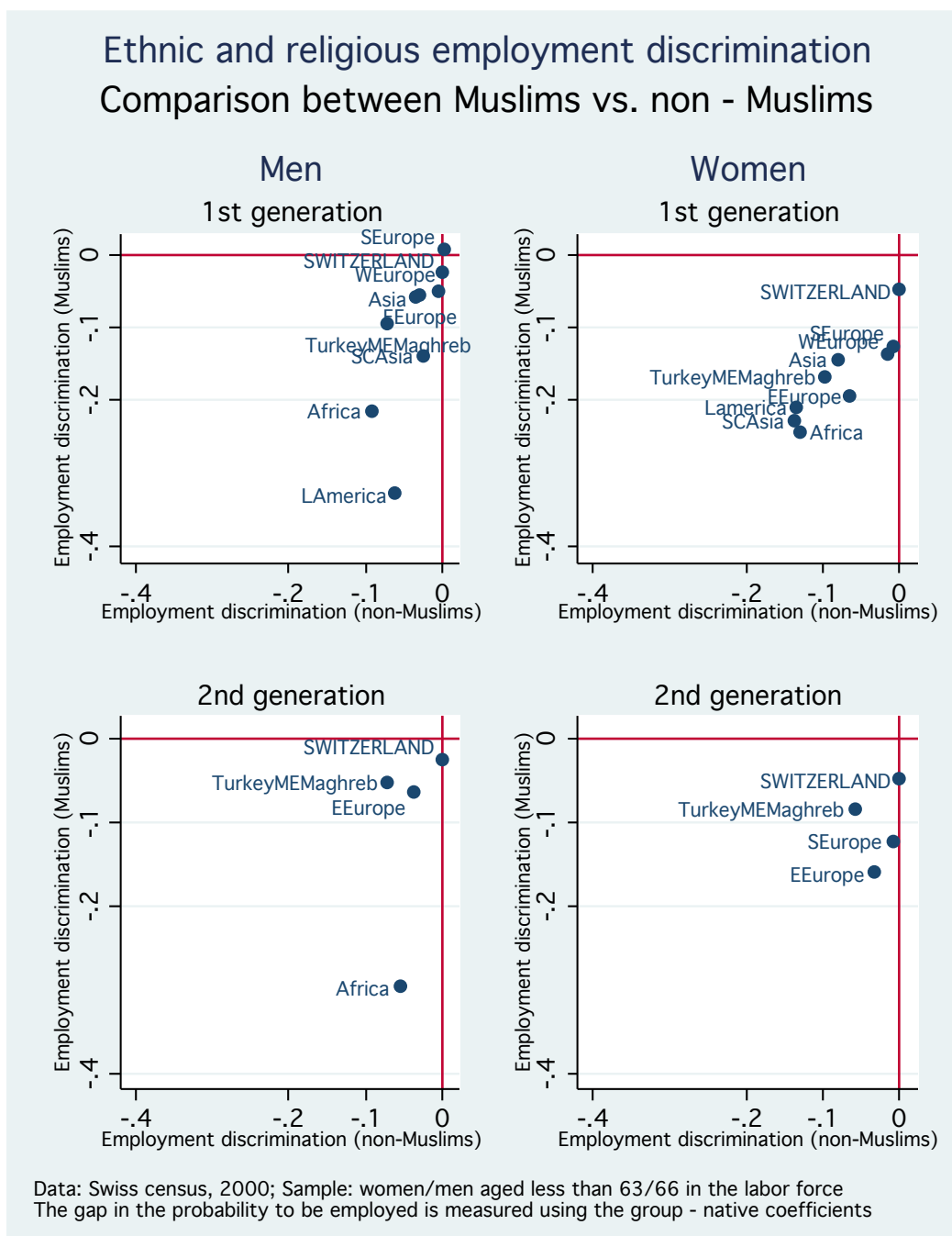


Figure 2.1: Economic barrier to integration (employment discrimination)

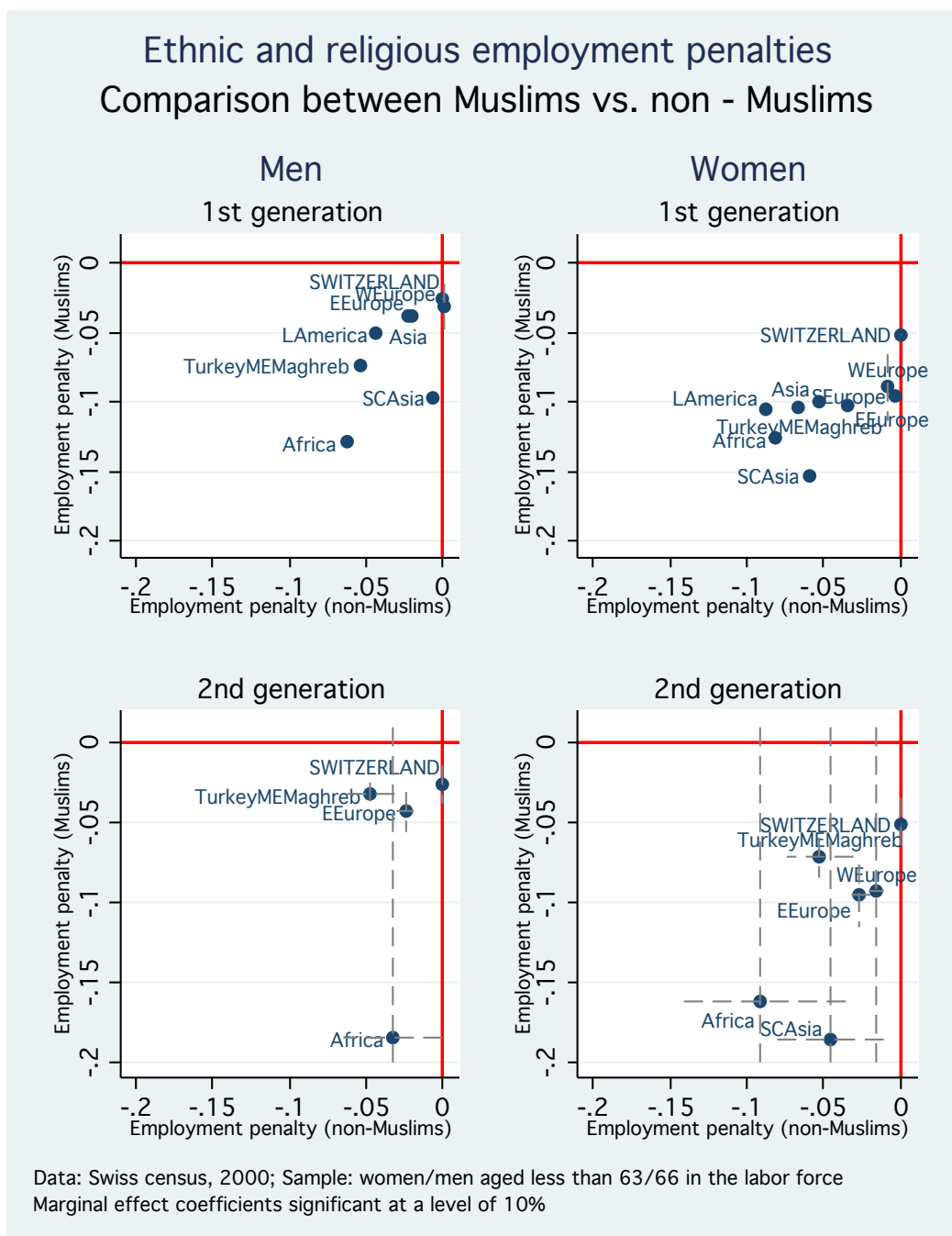


Figure 2.2: Economic barrier to integration (employment penalties)

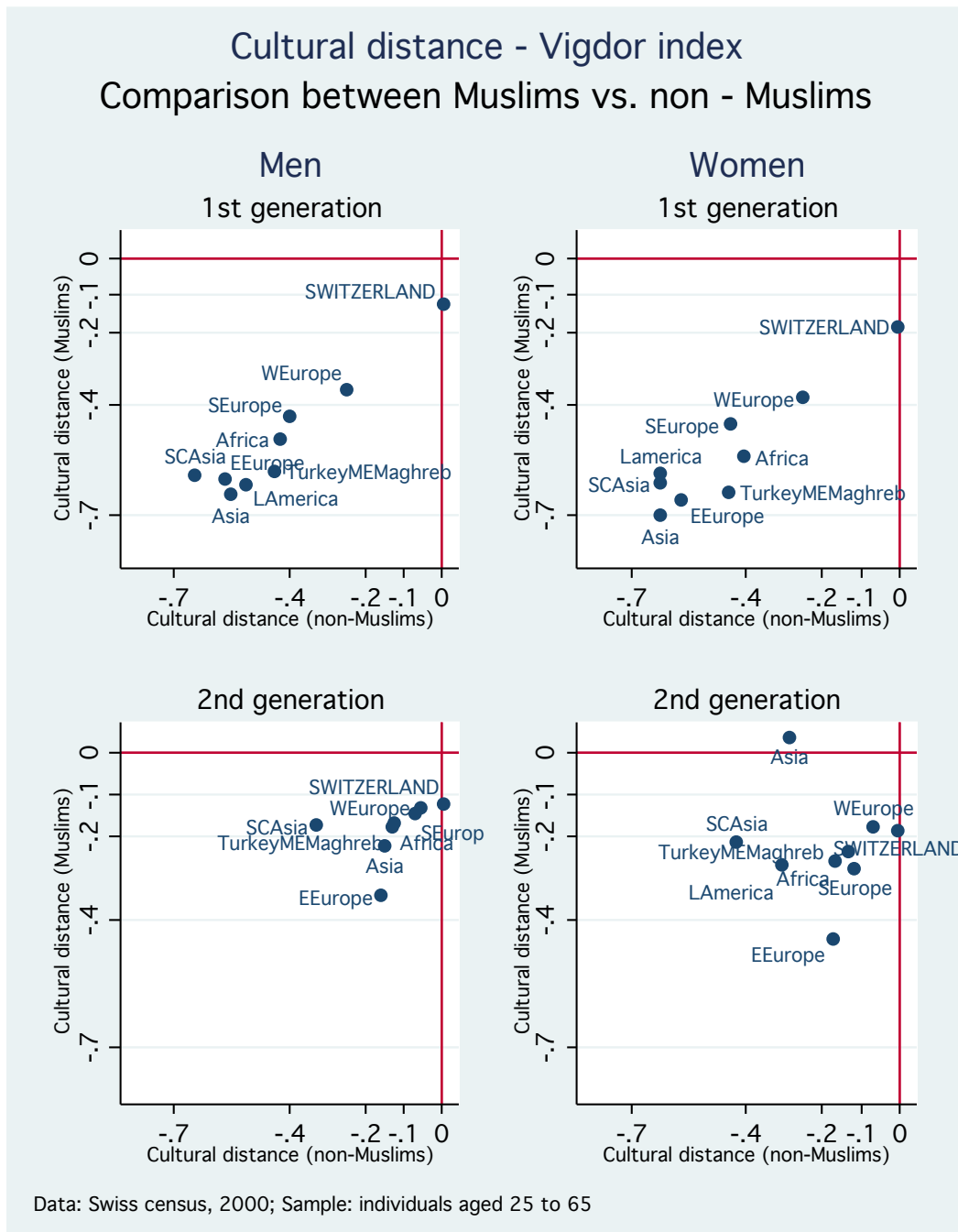


Figure 2.3: Cultural barrier to integration (cultural distance)

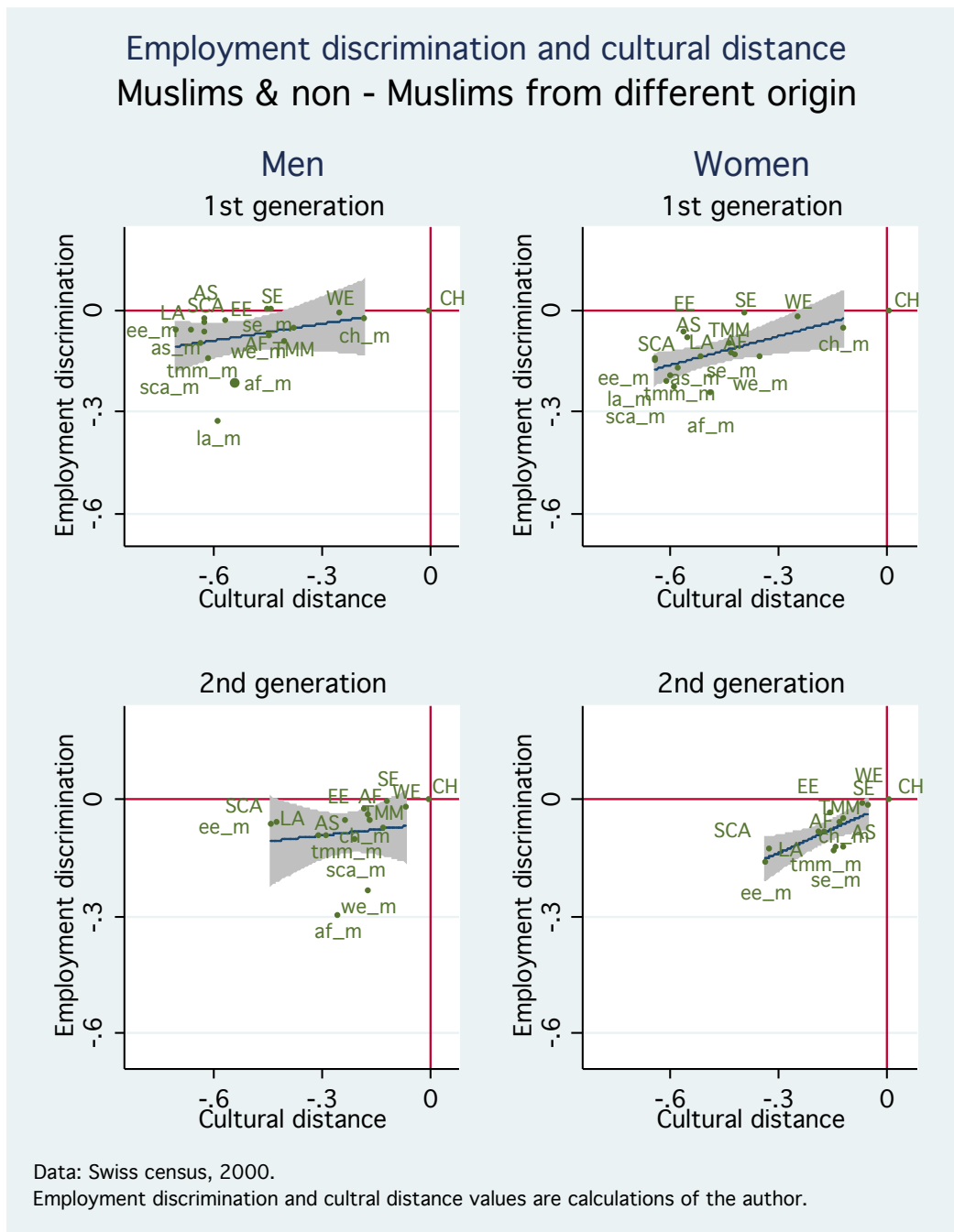


Figure 2.4: Correlations between employment discrimination and cultural distance

## Appendix

### Formal derivation of the Vigdor index<sup>33</sup>

Define  $D$  as a binary variable taking the value 0 if an individual is a native, 1 if he is an migrant. Further define  $f_0(x)$  as the density function of individual characteristics  $x$  among natives and  $f_1(x)$  as the density function of  $x$  among migrants, and suppose that the proportion of migrants in the population is  $p$ . If migrants are fully assimilated (i.e. migrants and natives have the same distribution of  $x$ ), it follows that the ratio of density function  $g(x) = \frac{f_0(x)}{f_1(x)}$  is equal to 1. The mean value of  $g(x)$  across natives must be equal to 1, and the mean value of  $1/g$  across migrants must be one.

The dissimilarity index of Vigdor (2009) is based on the estimation of the probability to be born in/out of the host country. He estimates a model for

$$Prob(D = 1|x) = \frac{pf_1(x)}{pf_1(x) + (1-p)f_0(x)} = \frac{pf_1(x)}{f(x)} = \rho(x).$$

Vigdor assumes this is a probit function, but this is an arbitrary assumption. Obviously the average value across the population must be equal to  $p$ . Vigdor derives his index for a value of  $p = 0.5$  only, but it is natural to think about what it should be for different values of  $p$ . The following generalization retains the property that it should be between 0 and 1 is:

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<sup>33</sup>Derivation done by Allan Manning.

$$I = \frac{\int [1-\rho(x)]f_1(x)dx}{1-p} = \int \frac{f_0(x)f_1(x)}{f(x)} dx.$$

If migrants and natives have the same density  $f_1(x) = f_0(x) = f(x)$ , then this takes the value 1. If they are completely distinct and  $f_1(x)f_0(x) = 0 \forall x$ , then it takes the value 0. However, this formulation lacks the desirable properties normally required of segregation e.g. it is not composition-invariant. An composition-invariant alternative is:

$$I = 2 \int \frac{f_0(x)f_1}{f_0(x)+f_1} dx = \int \frac{1}{1+g(x)} f_1(x) dx.$$

This way it is possible to estimate  $g(x)$  using the probit equation as the mechanism to do that. However, there are other segregation indices, which can also be written as functions of  $g(x)$ . For example, the Duncan dissimilarity index:

$$I = \int |f_1(x) - f_0(x)| dx = \int \left| 1 - \frac{1}{g(x)} \right| f_1(x) dx.$$

This is probably true for other indices. As a consequence, the Vigdor approach should simply be viewed as a convenient way to estimate  $g(x)$  when  $x$  is multi-dimensional and possibly a continuous random variable.



## Chapter 3

### The Effect of Host Society

### Culture on Migrant Wage

### Discrimination: Approaching the

### Roestigraben





### 3.1 Introduction

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 chapter 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.<sup>1</sup> The motivation for conducting this investigation in the Swiss context stems from two stylized facts showing that

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<sup>1</sup>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.

(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,<sup>2</sup> 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 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

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<sup>2</sup>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 3.5 and 3.6 in appendix to this chapter.

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 chapter 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 3.3 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 3.4 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 3.5 presents the results. The last section concludes.

## **3.2 Related literature**

### **3.2.1 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, because 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<sup>3</sup> 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.

### 3.2.2 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 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

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<sup>3</sup>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.

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).<sup>4</sup> 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 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

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<sup>4</sup>It should be noted that these definitions of natives and non-natives differ from those used in this chapter, which are explained in the section presenting the data.



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).<sup>5</sup>

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 Yugoslavia. 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-Yugoslavia, the probability to be refused a job interview is substantially higher in the German region.<sup>6</sup>

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

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<sup>5</sup>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.

<sup>6</sup>More details on this research can be found in the second chapter of this thesis.

### 3.3 Stylized facts and data

#### 3.3.1 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 “Roes-tigraben.” SHP data in table 3.1 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 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 separat-

ing 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 3.1 and 3.2 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)<sup>7</sup> in order to appeal to the fear and hatred of voters. Such campaigns have been systematically more successful in the German part of Switzerland.

### 3.3.2 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 3.4 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.

### 3.3.3 Data and sample

The second stylized fact is based on SLFS data, which is used in the empirical part of this chapter. Until 2002, the SLFS surveyed at most 15'000 individuals without over-sampling foreigners. As around 20% of the population is of foreign nationality,

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<sup>7</sup>See the political ads of the Swiss People's Party in appendix to the general introduction to this thesis.

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,<sup>8</sup> 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). Natives 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.<sup>9</sup>

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

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<sup>8</sup>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.

<sup>9</sup>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.

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 were 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.

### **3.3.4 Descriptive statistics**

Descriptive statistics presented in table 3.5 are based on all income-earning individuals (unlike those of table 3.4 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.

### 3.4 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.

#### 3.4.1 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:

$$Y_i = X_i' \beta + \mu_i \quad (3.1)$$

$$E_i^* = H_i' \gamma + \varepsilon_i \quad (3.2)$$

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),<sup>10</sup> age;

<sup>10</sup>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

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.<sup>11</sup>

$H_i$  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<sup>12</sup> 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

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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 losing 80% of the observations.

<sup>11</sup>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.

<sup>12</sup> The inverse Mills'ratio is defined as the ratio of the probability density function to the cumulative distribution function of a distribution. It is labelled  $\lambda$  in the formulas and tables of this chapter.



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.

$\beta$  and  $\gamma$  are the associated parameter vectors, and  $\varepsilon_i$  and  $\mu_i$  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

$$\begin{aligned} Prob(E_i^* > 0) &= Prob(\varepsilon_i > -H_i'\gamma) \\ &= \Phi(H_i'\gamma), \end{aligned} \tag{3.3}$$

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

$$\begin{aligned} E(Y_i | E_i^* > 0) &= X_i'\beta + E(\mu_i | \varepsilon > -H_i'\gamma) \\ &= X_i'\beta + \theta\lambda_i, \end{aligned} \tag{3.4}$$

where  $\theta = \rho\sigma_\mu$ ,  $\lambda_i = \frac{\phi(H_i'\gamma)}{\Phi(H_i'\gamma)}$  and  $\phi$  is the standard normal density function. The

estimating equation for employed professionals may be expressed as

$$Y_i | E_i^* > 0 = X_i' \beta + \theta \lambda_i + \text{error}. \quad (3.5)$$

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  $\bar{Y}_n - \bar{Y}_j = (\bar{X}'_n \hat{\beta}_n - \bar{\theta}_n \hat{\lambda}_n) - (\bar{X}'_j \hat{\beta}_j - \bar{\theta}_j \hat{\lambda}_j)$ , where the 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:

$$\bar{Y}_n - \bar{Y}_j = \bar{X}_n (\hat{\beta}_n - \hat{\beta}^*) + \bar{X}_j (\hat{\beta}^* - \hat{\beta}_j) + (\bar{X}'_n - \bar{X}'_j) \hat{\beta}^* + (\hat{\theta}_n \hat{\lambda}_n - \hat{\theta}_j \hat{\lambda}_j) \quad (3.6)$$

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 3.6 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

$$\bar{Y}_n - \bar{Y}_j = \underbrace{\bar{X}_j (\hat{\beta}_n - \hat{\beta}_j)}_{\text{discrimination}} + \underbrace{(\bar{X}'_n - \bar{X}'_j) \hat{\beta}_n}_{\text{endowments}} + \underbrace{(\hat{\theta}_n \hat{\lambda}_n - \hat{\theta}_j \hat{\lambda}_j)}_{\text{selectivity}} \quad (3.7)$$

This decomposition distinguishes the absolute migrant wage differential  $AD_j = \bar{Y}_n - \bar{Y}_j$  which is composed of a part explained by differences in endowments  $ED_j = (\bar{X}'_n - \bar{X}'_j) \hat{\beta}_n$  as well as by an unexplained part caused by differences in returns to factors that is usually

attributed to discrimination  $UD_j = \bar{X}_j(\hat{\beta}_n - \hat{\beta}_j)$ . 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  $\beta$  of equation 3.1. 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.<sup>13</sup> 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 men of the region will be displayed, but results variations are discussed accordingly.

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<sup>13</sup>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.

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.

### **3.4.2 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,<sup>14</sup> 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.<sup>15</sup>  $D_c$  is

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<sup>14</sup>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).

<sup>15</sup>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

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.,  $E_+(UDW_{ij}) \equiv \lim_{\epsilon \rightarrow 0} E(UDW_{ij} | D_c = \epsilon)$ , 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:

$$E_+(UDW_{ij}) - E_-(UDW_{ij}) = \beta [E_+(P_c) - E_-(P_c)] + \gamma [E_+(D_c) - E_-(D_c)] + [E_+(\nu_{ic}) - E_-(\nu_{ic})] \quad (3.8)$$

Equation 3.8 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  $\nu_{ic}$  is mean independent of the border between cultural regions is respected, so that equation 3.8 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

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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.

the following linear regression:

$$UDW_{ij} = \pi_0 + \pi_1 P_c + \pi_2 D_c + \delta X_{ic} + \nu_{ic} \quad (3.9)$$

where parameter  $\pi_1$  is a consistent estimate of equation 3.8.  $X_{ic}$  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 cofounders: 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.<sup>16</sup> 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 sensitize the public to cultural diversity and fight against

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<sup>16</sup>The map is available in Barsh (2003).

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.

## 3.5 Results

### 3.5.1 Returns to factors

Results of the estimation by maximum likelihood of  $\beta$  for every migrant group  $j$  in equation 3.1 are presented in tables 3.6 and 3.7.<sup>17</sup> 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.<sup>18</sup>

<sup>17</sup>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.

<sup>18</sup>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 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,



Over the last 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 3.6 and 3.7 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.

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immigration is restricted to highly qualified individuals only (Mahnig et Piguet, 2003).

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 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 3.6 and 3.7. Coefficient  $\lambda$  (lambda) take on both signs, but are negative most of the time. Since  $\lambda$  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).

### 3.5.2 Wage differentials and discrimination

The decomposition of wage differentials is presented in table 3.8. 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 3.9 predictions are exponentiated and compared to the observed wage in Swiss francs (see descriptive statistics in table 3.5). 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  $\lambda$  in tables 3.6 and 3.7, the result is reversed, and the effect is negative. In relation to the interpretation of  $\lambda$  (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 3.6 and 3.7. 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.<sup>19</sup> 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 endogenous) 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

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<sup>19</sup>Results discussed but not reported here are available upon demand.

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.

### 3.5.3 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 3.3 and 3.4 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 3.3 show there is a structural break on the Roestigraben, indicating that migrants are more discriminated in the German region. The only exceptions are LA men.<sup>20</sup> When one same group of reference (i.e., natives in the German region) is used in figure 3.4, 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 3.9. Mirroring figures 3.3 and 3.4, tables 3.11 and 3.12 present the results of the regression discontinuity design approach using  $UDW_{ij}$  mea-

<sup>20</sup> $UDW_{ij}$  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.

sured 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 3.11, 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 3.12 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 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 3.11, 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 from 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,<sup>21</sup> 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.

### 3.6 Discussion

This chapter 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

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<sup>21</sup>The determinants of wage are the same as those used earlier, i.e., those in vector  $X$  of equation 3.1.

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 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 chapter 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 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 chapter 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 pat-

terns (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.

## Tables and figures

Table 3.1: Political preferences and attitudes of natives only (by mother tongue)

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

Source: Swiss Household Panel. Sample: natives only.

Table 3.2: Voting results on matters of naturalization, migration and asylum (by linguistic region)

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

Source: OFS. Note: only since 2000.

Table 3.3: 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 3.4: Average full time wages (in CHF 000)

	Latin			German			$\Delta\Delta$
	N	Wage	$\Delta$	N	Wage	$\Delta$	
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 3.5: 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
years	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
years	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 3.6: 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*** (0.001)	0.048*** (0.002)	0.030*** (0.001)	0.037*** (0.002)	0.049*** (0.008)	0.026*** (0.003)	0.056*** (0.016)	0.025** (0.010)	0.050*** (0.004)	0.037*** (0.001)	0.034*** (0.002)
age	0.066*** (0.002)	0.057*** (0.004)	0.035*** (0.004)	0.037*** (0.004)	0.058** (0.029)	0.035*** (0.011)	0.084*** (0.024)	0.061** (0.031)	0.027** (0.013)	0.020*** (0.003)	0.020*** (0.007)
age2	-0.00*** (3.02e-05)	-0.0006*** (5.70e-05)	-0.0004*** (4.73e-05)	-0.0005*** (5.16e-05)	-0.0006* (0.0003)	-0.0004** (0.0001)	-0.0009*** (0.0003)	-0.0005 (0.0003)	-0.0003 (0.0001)	-0.0002*** (4.68e-05)	-0.0001 (9.78e-05)
married	0.086*** (0.007)	0.080*** (0.012)	0.044*** (0.012)	0.085*** (0.016)	0.024 (0.069)	0.038 (0.038)	0.096 (0.065)	0.157 (0.101)	0.037 (0.049)	0.044*** (0.014)	0.014 (0.025)
experience	0.012*** (0.001)	0.019*** (0.001)	0.008*** (0.001)	0.015*** (0.001)	0.028*** (0.009)	0.021*** (0.004)	0.002 (0.009)	0.026** (0.010)	0.015*** (0.004)	0.017*** (0.001)	0.018*** (0.002)
experience2	-0.0002*** (2.23e-05)	-0.0004*** (4.07e-05)	-9.59e-05*** (3.54e-05)	-0.0002*** (4.71e-05)	-0.0004 (0.0002)	-0.0004*** (0.0001)	0.0002 (0.0002)	-0.0005* (0.0002)	-0.0002** (9.98e-05)	-0.0003*** (3.78e-05)	-0.0003*** (6.73e-05)
supervision	0.019*** (0.0008)	0.023*** (0.001)	0.016*** (0.001)	0.012*** (0.001)	0.024*** (0.007)	0.023*** (0.004)	0.026*** (0.007)	0.030*** (0.010)	0.014*** (0.004)	0.017*** (0.001)	0.024*** (0.002)
management	0.169*** (0.007)	0.195*** (0.014)	0.111*** (0.013)	0.144*** (0.016)	0.271*** (0.078)	0.095** (0.039)	0.254*** (0.066)	0.234** (0.095)	0.165*** (0.039)	0.179*** (0.013)	0.169*** (0.023)
busize	0.015*** (0.0008)	0.025*** (0.001)	0.011*** (0.001)	0.006*** (0.001)	0.015* (0.008)	0.024*** (0.003)	0.045*** (0.007)	0.012 (0.011)	0.006 (0.004)	0.009*** (0.001)	0.015*** (0.002)
residence		-0.002*** (0.0005)	-0.0005 (0.0005)	0.0006 (0.0008)	0.005 (0.003)	0.0006 (0.001)	-0.002 (0.003)	-0.009 (0.006)	-0.007*** (0.002)	-0.001* (0.0007)	-0.003** (0.001)
constant	8.514*** (0.051)	8.166*** (0.125)	9.582*** (0.091)	9.550*** (0.079)	8.401*** (0.647)	9.232*** (0.264)	8.042*** (0.671)	6.922*** (0.746)	9.440*** (0.277)	9.933*** (0.073)	9.642*** (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 3.7: 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)
yearsied	0.050*** (0.002)	0.043*** (0.003)	0.033*** (0.001)	0.031*** (0.004)	0.005 (0.007)	0.024*** (0.005)	0.032*** (0.007)	0.041*** (0.013)	0.046*** (0.008)	0.027*** (0.002)	0.026*** (0.003)
age	0.062*** (0.003)	0.074*** (0.008)	0.045*** (0.004)	0.036*** (0.010)	-0.049** (0.023)	0.054*** (0.016)	0.066*** (0.018)	0.102*** (0.035)	0.184*** (0.043)	0.027*** (0.006)	0.034*** (0.009)
age2	-0.0006*** (4.51e-05)	-0.0007*** (9.37e-05)	-0.0005*** (5.01e-05)	-0.0004*** (0.0001)	0.0007** (0.0002)	-0.0005** (0.0001)	-0.0007*** (0.0002)	-0.001** (0.0004)	-0.002*** (0.0005)	-0.0002*** (8.67e-05)	-0.0003** (0.0001)
married	0.089*** (0.011)	0.083*** (0.019)	0.041*** (0.013)	0.011 (0.038)	0.107* (0.064)	-0.105* (0.054)	0.112** (0.051)	0.156 (0.108)	0.096 (0.089)	0.040* (0.023)	0.050 (0.030)
experience	0.019*** (0.001)	0.019*** (0.002)	0.014*** (0.001)	0.0081** (0.003)	0.022*** (0.007)	0.012** (0.005)	0.050*** (0.008)	0.021 (0.013)	-0.013 (0.011)	0.018*** (0.002)	0.022*** (0.003)
experience2	-0.0003*** (3.51e-05)	-0.0003*** (6.51e-05)	-0.0002*** (3.60e-05)	-2.36e-05 (0.0001)	-0.0004* (0.0002)	-0.0001 (0.0001)	-0.001*** (0.0002)	-0.0006 (0.0003)	0.0006** (0.0003)	-0.0003*** (7.04e-05)	-0.0004*** (9.62e-05)
supervision	0.020*** (0.001)	0.023*** (0.002)	0.020*** (0.001)	0.026*** (0.003)	0.036*** (0.007)	0.025*** (0.005)	0.021*** (0.007)	0.015 (0.010)	0.020** (0.008)	0.029*** (0.002)	0.026*** (0.003)
management	0.132*** (0.012)	0.179*** (0.021)	0.116*** (0.013)	0.113*** (0.031)	0.327*** (0.070)	0.163*** (0.048)	0.287*** (0.065)	0.238** (0.114)	0.305*** (0.082)	0.204*** (0.022)	0.247*** (0.030)
busize	0.024*** (0.001)	0.027*** (0.002)	0.011*** (0.001)	0.007*** (0.002)	0.023*** (0.007)	0.027*** (0.004)	0.017*** (0.006)	0.047*** (0.010)	0.013 (0.008)	0.015*** (0.002)	0.022*** (0.002)
residence		-0.006*** (0.0008)	0.0004 (0.0004)	-0.002 (0.001)	0.001 (0.003)	-0.003 (0.002)	0.002 (0.002)	-0.008* (0.004)	-0.002 (0.005)	-0.0009 (0.001)	-0.0006 (0.001)
constant	8.359*** (0.078)	8.329*** (0.190)	9.332*** (0.090)	9.600*** (0.194)	11.31*** (0.518)	9.001*** (0.571)	8.387*** (0.460)	7.553*** (0.800)	5.631*** (1.065)	9.630*** (0.150)	9.395*** (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 3.8: 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 <sub>1</sub>	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)	11.42*** (0.004)
Prediction <sub>2</sub>	11.58*** (0.007)	11.18*** (0.006)	11.16*** (0.006)	11.06*** (0.072)	11.17*** (0.017)	11.38*** (0.155)	11.26*** (0.157)	11.15*** (0.021)	11.18*** (0.006)	11.23*** (0.012)
Difference	-0.155*** (0.008)	0.245*** (0.008)	0.267*** (0.007)	0.369*** (0.072)	0.256*** (0.017)	0.0460 (0.155)	0.164 (0.157)	0.274*** (0.021)	0.240*** (0.007)	0.194*** (0.012)
Wage differential decomposition in the German region										
Endowments	-0.0641*** (0.011)	0.169*** (0.014)	0.202*** (0.017)	0.288*** (0.059)	0.253*** (0.039)	0.092 (0.069)	0.167 (0.116)	0.352*** (0.048)	0.246*** (0.013)	0.285*** (0.023)
Coefficients	-0.0580*** (0.008)	0.035*** (0.009)	0.043*** (0.008)	0.225*** (0.069)	0.014 (0.017)	0.025 (0.153)	0.069 (0.019)	0.076*** (0.019)	0.033*** (0.008)	0.016 (0.012)
Interaction	-0.0330*** (0.010)	0.040*** (0.015)	0.021 (0.018)	-0.143*** (0.054)	-0.010 (0.039)	-0.072 (0.065)	-0.072 (0.114)	-0.155*** (0.047)	-0.038*** (0.014)	-0.107*** (0.023)
Observations	33137	30517	31415	26072	26989	26144	26012	26600	34502	28834
Wage differential in the Latin region										
Prediction <sub>1</sub>	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)	11.35*** (0.006)
Prediction <sub>2</sub>	11.57*** (0.012)	11.18*** (0.006)	11.12*** (0.014)	11.18*** (0.035)	11.27*** (0.027)	11.26*** (0.033)	11.12*** (0.062)	11.57*** (0.244)	11.21*** (0.011)	11.27*** (0.016)
Difference	-0.222*** (0.014)	0.172*** (0.009)	0.226*** (0.016)	0.168*** (0.035)	0.0813*** (0.028)	0.0879*** (0.033)	0.225*** (0.063)	-0.222 (0.244)	0.140*** (0.013)	0.0793*** (0.018)
Wage differential decomposition in the Latin region										
Endowments	-0.012 (0.016)	0.135*** (0.012)	0.254*** (0.034)	0.177*** (0.057)	0.195*** (0.044)	0.301*** (0.054)	0.175** (0.083)	0.047 (0.198)	0.236*** (0.020)	0.204*** (0.026)
Coefficients	-0.125*** (0.012)	-0.015 (0.010)	-0.013 (0.016)	0.052 (0.032)	-0.008 (0.025)	-0.016 (0.029)	0.180*** (0.048)	-0.273 (0.242)	-0.015 (0.013)	-0.013 (0.016)
Interaction	-0.085*** (0.015)	0.052*** (0.013)	-0.014 (0.034)	-0.061 (0.055)	-0.104** (0.042)	-0.196*** (0.051)	-0.131* (0.073)	0.004 (0.195)	-0.080*** (0.020)	-0.111*** (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 3.9: 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
$\Delta$	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
$\Delta$	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 3.10: 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 3.11: The host society culture effect (reference group: native men of the region)

	ALL	WE	SE	EE	AF	TMM	LA	AS	SCA	NW	NE
	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage	$\Delta$ pwage
All cantons											
Latin	-5201*** (351.4)	-5576*** (627.4)	-8121*** (465.6)	-10958*** (734.0)	-16527*** (3080)	-15006*** (1477)	9624** (3797)	-7936 (5510)	-1872 (5042)	-9558*** (682.1)	-8128*** (1197)
DistLatin	22.43*** (4.90)	76.00*** (9.245)	-29.77*** (4.42)	-23.28* (12.40)	-9.309 (36.32)	38.06 (23.27)	-25.18 (19.53)	77.33 (53.76)	102.7 (78.99)	-8.526 (10.85)	1.686 (16.23)
DistGerman	19.13*** (3.86)	20.16*** (5.31)	6.119 (6.77)	0.744 (6.83)	-61.65* (33.80)	12.12 (14.40)	67.69 (55.03)	-107.9* (55.92)	-6.871 (18.83)	-1.061 (6.079)	-5.688 (11.51)
Pol_xeno	-2088*** (159.8)	-262.5 (272.2)	-894.5*** (216.4)	570.4** (283.0)	-281.3 (1816)	3058*** (663.8)	-2488* (1474)	3518 (2355)	-3340*** (957.3)	216.7 (262.9)	-364.6 (532.4)
Skin	3495*** (74.57)									401.4*** (88.51)	1040*** (213.2)
constant	-996.5*** (261.8)	-4493*** (282.3)	10650*** (366.7)	11646*** (378.6)	19946*** (1485)	14313*** (702.3)	2123 (3443)	18023*** (3415)	8620*** (992.5)	10680*** (424.5)	7413*** (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*** (747.3)	-3878*** (1124)	-5364*** (1053)	-14284*** (1656)	-16453*** (5059)	-19910*** (4184)	-4592** (2170)	-6082 (14011)	-17177 (11041)	-14268*** (1558)	-13057*** (3118)
DistLatin	7.51 (28.45)	145.9*** (51.22)	-3.774 (31.77)	-59.56 (62.26)	-10.79 (270.4)	-399.4** (182.0)	67.15 (90.71)	-1564*** (474.4)	-341.3* (175.1)	-66.63 (62.91)	-79.62 (122.7)
DistGerman	-18.54 (21.21)	-49.03* (28.50)	69.72** (33.19)	-8.338 (37.44)	-333.2*** (106.9)	64.18 (106.2)	127.5 (191.1)	-120.8 (781.8)	125.0 (122.9)	-21.69 (34.04)	-55.15 (65.68)
Pol_xeno	-660.9 (551.2)	-30.95 (803.3)	-2775*** (708.0)	749.3 (1123)	-8543*** (3247)	-1099 (3743)	-2944 (3924)	-12632 (21925)	5838 (9938)	99.60 (1043)	-2082 (2543)
Skin	3661*** (200.6)									781.1*** (239.2)	436.5 (483.0)
constant	-910.6 (685.7)	-4150*** (701.0)	8844*** (858.7)	12859*** (954.5)	25925*** (2803)	17008*** (2178)	15476*** (4386)	19218 (21120)	7201** (3214)	11819*** (1143)	14496*** (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 3.12: The host society culture effect (reference group: native men of the German region)

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



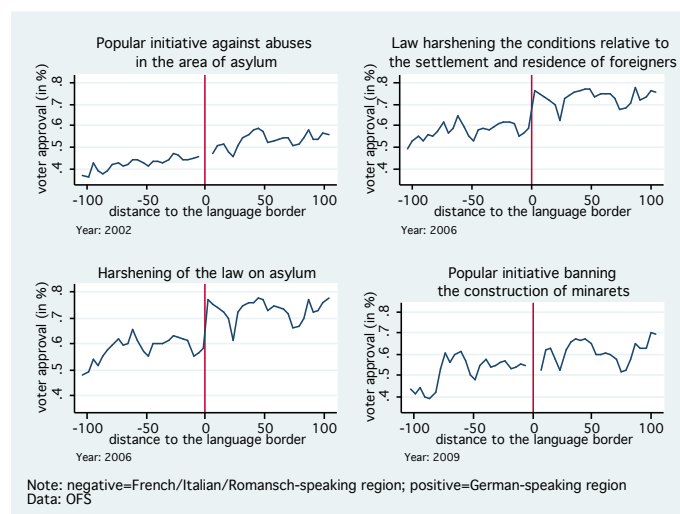


Figure 3.1: Votations on migration and asylum (distribution across the Roestigraben)

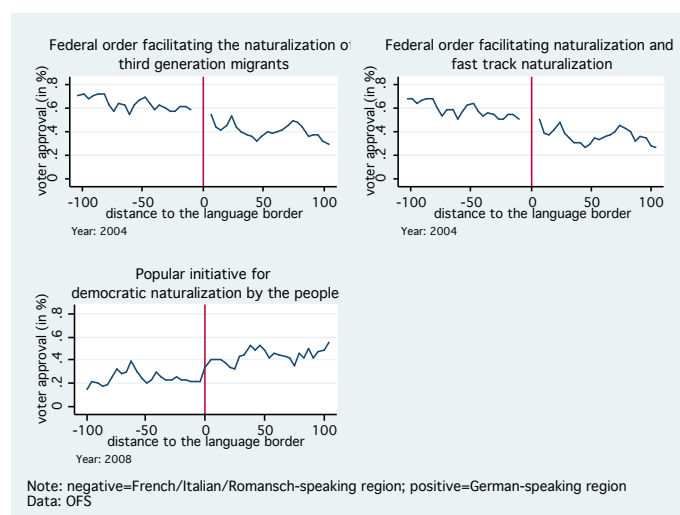


Figure 3.2: Votations on access to citizenship (distribution across the Roestigraben)

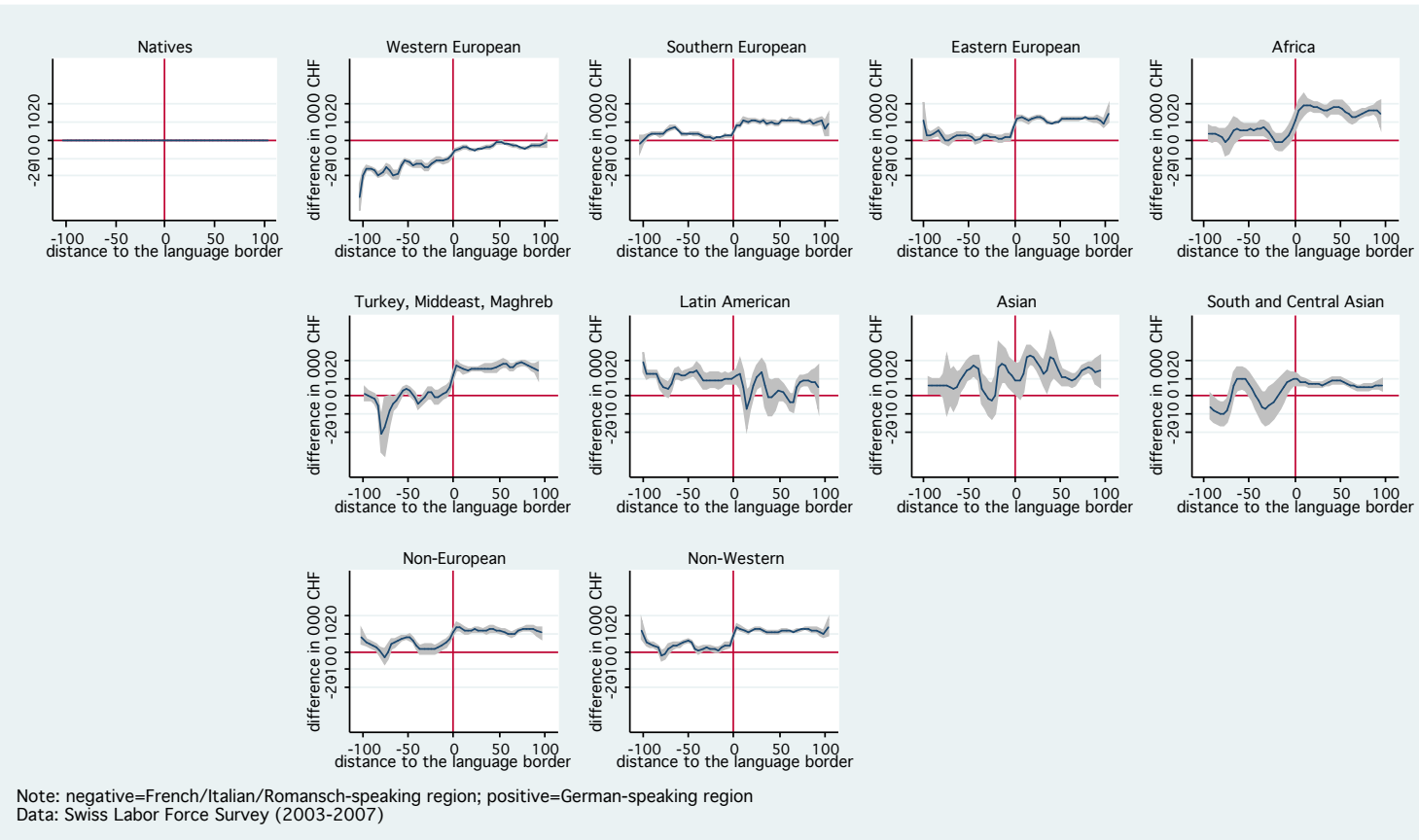


Figure 3.3: Unexplained wage differences (in CHF 000): wage structure of native men living in the region as reference

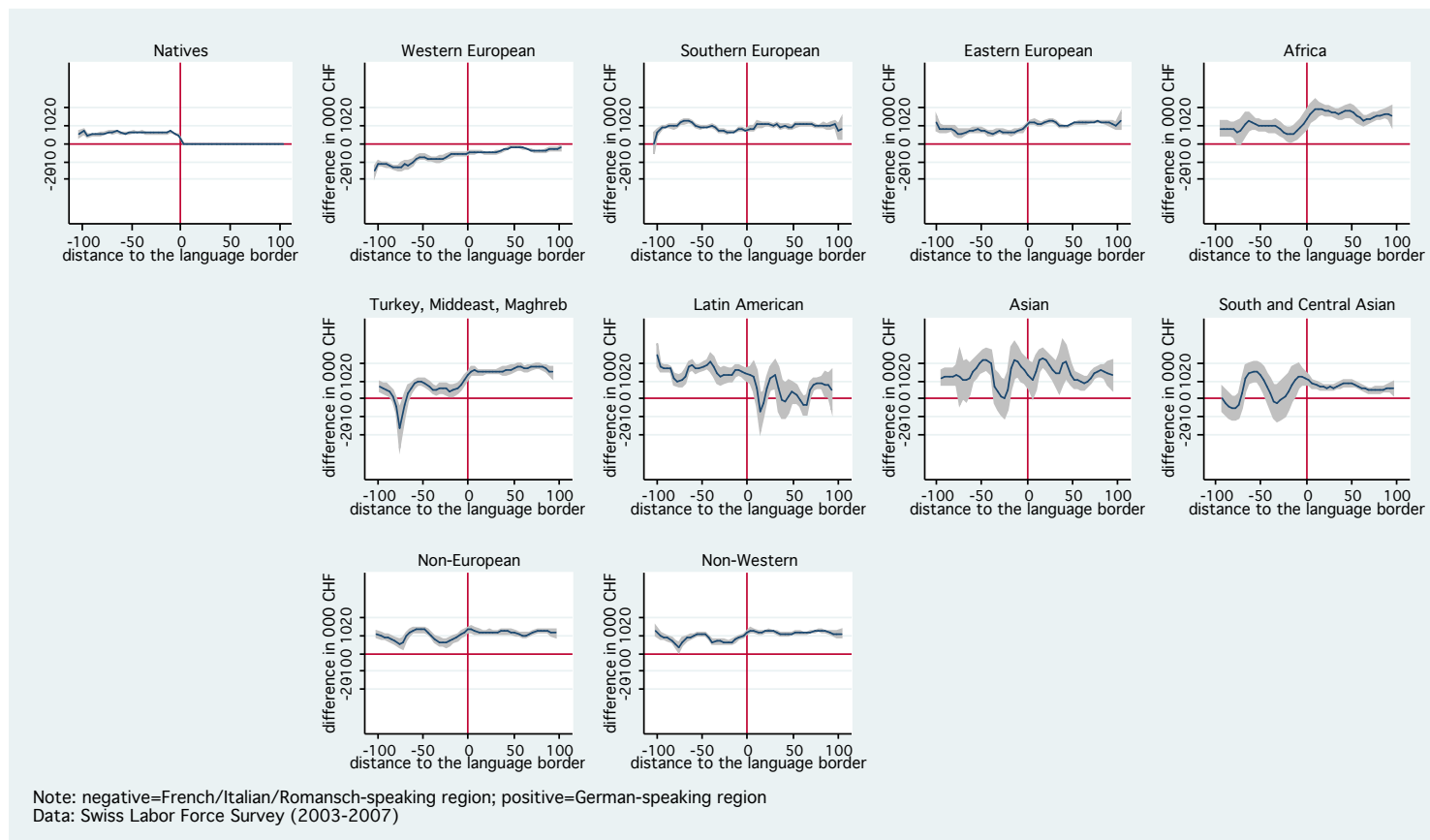


Figure 3.4: Unexplained wage differences (in CHF 000): wage structure of native men living in the German region as reference

## Appendix



Figure 3.5: The Roestigraben (illustrated by Igor Kravarik)

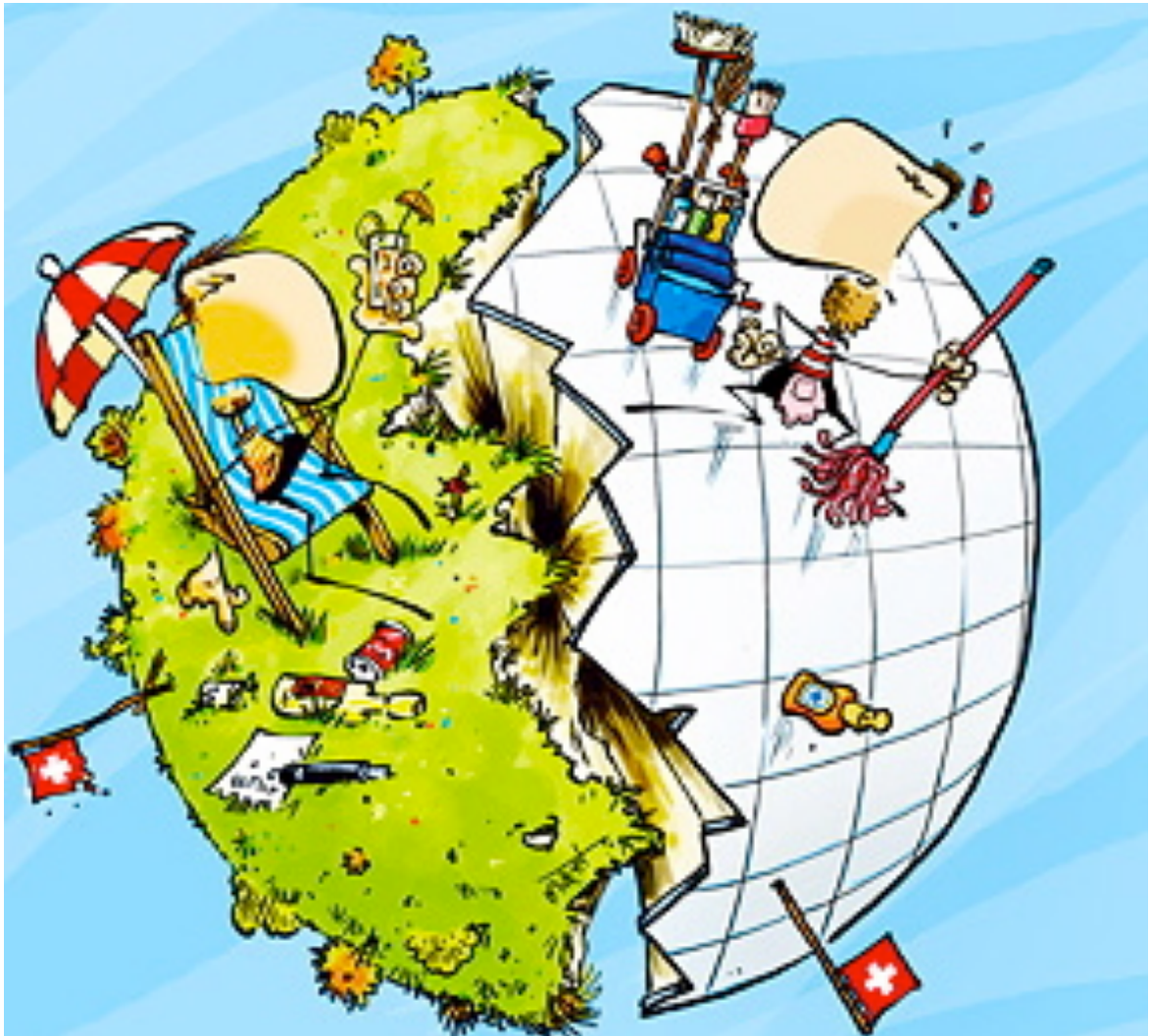


Figure 3.6: The Roestigraben (illustrated by Mix et Remix)





# Conclusion

This research partly confirms results of previous studies and makes several contributions to the literature on migrant integration. It is also subject to some limitations and opens perspectives for future research.

## Main results<sup>22</sup>

The present thesis examines the cultural and economic integration of migrants in Switzerland in order to better understand how they influence each other and the extent to which the context in which these processes occur matters. More specifically, the first chapter focuses on the cultural integration of migrants from the first generation to the second. Chapters 2 and 3 look at how the “cultural distance”<sup>23</sup> of migrants to the natives is influenced by economic discrimination (and vice versa) and whether host society culture has an effect on economic discrimination. The combined investigation of these issues is important to improve the understanding of the conditions under which migrant integration can be successful. Indeed, especially in times when the integration of migrants is rising on the political agenda, it is important to understand the factors influencing it and the context in which it is occurring.

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<sup>22</sup>More detailed results can be found in the three individual chapter conclusions.

<sup>23</sup>See the general introduction for comments about the limitations of this concept.



The findings of the first chapter are in line with those of previous studies,<sup>24</sup> confirming that cultural integration is at work across all migrant groups,<sup>25</sup> although at different paces. They also confirm the intuition that attitudes may change faster than actual behaviors, notably in relation to gender issues, and that certain migrant groups tend to preserve more traditional household structures than natives, especially those with low intermarriage rates.

The second chapter shows that there is a correlation at the aggregate level between “cultural distance” and economic discrimination, i.e., , communities that are the most discriminated against are also more culturally distant. The specificity of Muslim communities, which come under scrutiny, relies more in the stronger economic discrimination they face than in the “cultural distance” separating them from natives.

At the individual level, the relationship between “cultural distance” and economic discrimination is endogenous. On the one hand, migrants who don’t adopt the language of the host country or remain in endogamous families with limited contacts to Swiss society will have a more difficult time competing in the domestic labour market; on the other hand, economic discrimination deprives migrants from working and interacting with the natives in their professional life and from spending their money like and/or with natives during their spare time. These two phenomena tend to reinforce each. However, cross-section evidence shows that the barriers migrants face in the labour market have an effect on their private life that dominates the effect their cultural inclinations have on

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<sup>24</sup>Notably those of the Swiss National Science Foundation research programme on migration and intercultural relations, see Wicker et. al (2003).

<sup>25</sup>See the last section of the introduction of this thesis for the definition and description of the eight migrant groups examined throughout the three chapters.

their odds of getting a job. Hence, the relationship between economic discrimination and “cultural distance” is asymmetric, the former dominating the latter. Furthermore, this asymmetry is more acute for second-generation compared to first-generation migrants.

The third chapter shifts the focus in order to investigate the role of host society for the integration of migrants. It brings to light that migrant wage discrimination is influenced by host society culture, i.e., in a society that is less migrant-friendly, migrants will face more intense discrimination in the labour market. In Switzerland, returns to factors of wage-earning migrants are lower compared to natives in general, but more so in the German region. An analysis of unexplained wage differentials also support the hypothesis that wage discrimination is more pronounced in the German region. Finally, results of the regression discontinuity design approach confirm that host society culture is a significant determinant of migrant wage discrimination.

These main results strengthen the case for several policy recommendations made in previous sociological and demographical studies concerning the support that should be brought to specific groups including women, second-generation migrants or to specific policies like discrimination prevention and the use of legal incentives as a tool to promote cultural integration.

## Contributions

The findings of the three chapters sketch a multi-dimensional and complex picture of the integration process of migrants, involving not only the migrants, but also the natives. Beyond the description and analysis of the cultural and economic integration of migrants in Switzerland, this exploratory study makes two main contributions to the literature on migrant integration. First, by looking at the interaction between the economic and cultural dimensions of integration, it highlights the importance or primacy of economic factors over cultural factors in the integration process of migrants, i.e., the fact that economic discrimination is a more important obstacle to the integration of migrants than cultural differences. Secondly, by examining the influence of the context, it shows that market interactions are not immune to tensions developing in the society at large, i.e., that host society culture may affect migrant wage discrimination, thereby hindering their integration.

As a corollary, this “systemic” approach stresses the weaknesses of simple discourses disregarding the interplay between the various dimensions and actors of migrant integration. In light of the findings of this research, the assertion of populist right wing parties that cultural differences are the main determinant of differences in outcomes between migrants and natives is shown to be misleading; and the mainstream economic approach to migrant integration, which focuses narrowly on human capital factors and ignores discrimination, appears inadequate to address the complexity of social interactions that foster or hinder the integration of migrants. Cultural factors certainly play a secondary role to economic factors, but the integration of migrants is not only about

migrants, it is also about the natives and the host society at large.

## **Perspectives for future research**

The exploratory nature of this thesis leaves certain perspectives open for future research. The dynamic interaction between the various dimensions of migrant integration deserve to be studied further, especially by researchers who have the opportunity to design their own qualitative studies or who have access to suited longitudinal data.

Another interesting area of research would be to further compare policy implementation in federal countries or across countries. Like Switzerland, many developed countries face growing migration flows and integration issues that are exploited by populist parties, which represents an additional threat to the welfare state. The questions investigated in this thesis are therefore certainly relevant beyond the Swiss case. However, although some of these findings may be replicated in other national contexts, comparing integration of migrants across countries is very difficult because of specific historical and political circumstances, differences in the institutional settings, differences in how data is collected, etc. Although comparing policies and their outcomes across countries is challenging because national contexts vary greatly, comparisons across entities of a federal state are more readily feasible.

In relation to the broader debate mentioned in the introduction, it would also be interesting to observe how the intensive media coverage of migration and integration issues and their exploitation by the populist right wing affect tax preferences of natives,

and the extent to which this represents a threat to the future of the welfare state.

Finally, for the study of any complex societal issues like those just mentioned, it is relevant and necessary to combine approaches from various social sciences, even if it is complicated from a methodological point of view. The shortcomings of one-dimensional discourses about migrant integration reassert the relevance of looking at complex issues from different perspectives. Interdisciplinarity is especially important for researchers in the economic discipline, which has come under criticism for its systematic use of reductionist assumptions and excessive mathematical formalism, practices which strengthen the temptation towards the self-referential.

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