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Different origins, different outcomes, unequal opportunities? The transition to adulthood among the descendants of immigrants in Switzerland

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UNIL | Université de Lausanne

FACULTE DES SCIENCES SOCIALES ET POLITIQUES
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par

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- Philippe WANNER, Professeur à l'Université de Genève

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« Different origins, different outcomes, unequal opportunities ? The transition to adulthood among the descendants of immigrants in Switzerland »

Marie SANTIAGO DELEFOSSE
Doyenne

Lausanne, le 14 février 2020

Résumé

Cette thèse étudie l'existence (ou non) d'inégalités structurelles et leur rôle dans le processus d'intégration "réussie" des enfants immigrés en Suisse lors du passage à l'âge adulte. Je me concentre sur trois dimensions : les inégalités socio-économiques, les inégalités socio-ralationnelles et les inégalités socio-culturelles. Ces dimensions sont ensuite opérationnalisées dans quatre chapitres empiriques. Chaque chapitre, par son contenu spécifique, peut être lu indépendamment comme une contribution scientifique à l'étude des enfants d'immigrés en Suisse. Il peut également être lu comme une contribution à l'objectif global de la thèse. Dans l'ensemble, les résultats confirment l'existence d'inégalités structurelles parmi les enfants d'immigrés, en particulier pour les enfants d'immigrés avec un origine du Sud-Est de l'europe ou de la Turquie. Le premier article démontre l'existence d'inégalités structurelles dans l'insertion professionnelle des enfants d'immigrés du Kosovo. Le deuxième article explique que les réseaux d'enfants d'immigrés sont différemment constitués selon le pays de naissance de leurs parents. Les enfants d'immigrés d'origine du Sud-Est de l'europe on de la Turquie ont des réseaux qui empêchent une intégration sociale réussie. Les deux derniers chapitres se concentrent sur deux événements démographiques pour étudier la formation des familles - la naissance du premier et du deuxième enfant et la première union - montrant que la probabilité d'avoir une deuxième naissance est plus faible pour les immigrés et leurs descendants que pour les natifs suisses, et que les enfants d'immigrés des pays du Sud-Est de l'Euripe présentent des transitions plus rapides vers la cohabitation et le mariage. Au vu des résultats, de la croissance continue des enfants d'immigrés dans la société suisse et de l'intérêt de la société suisse à garantir l'intégration de toutes ses composantes, il est essentiel de continuer à produire des études ciblant les enfants d'immigrés et d'identifier les mécanismes qui permettent d'identifier l'existence d'inégalités sociales.

Summary

This thesis explores the existence (or not) of structural inequalities and their role in the process of the "successful" integration of immigrant children in Switzerland during the transition to adulthood. I focus on three dimensions: socioeconomic inequalities, social-relation inequalities, and sociocultural inequalities. These dimensions are operationalized in four empirical chapters. Each chapter can be read independently as a scientific contribution to the study of the children of immigrants in Switzerland. It can also be read as a contribution to the overall purpose of the thesis. Overall, the results confirm the existence of structural inequalities among the children of immigrants, particularly the children of immigrants with Southeastern European and Turkish origins. The first article confirms the existence of structural inequalities in professional insertion for the children of immigrants from Kosovo. The second article shows that the networks of the children of immigrants are constituted differently according to their parents' country of birth. Immigrant children with Southeastern European and Turkish origins have networks that prevent successful social integration. The last two chapters focus on two demographic events to study family formation—the births of the first child and second child, and the first union. They show that the chance of having a second birth is lower for immigrants and their descendants than it is for Swiss natives, and children of immigrants from Eastern European countries experience faster transitions into cohabitation and marriage. In view of the results, with the continuous growth of immigrant children in Swiss society, and with the interest of Swiss society in guaranteeing the integration of all of its components, it is essential to continue to produce studies targeting the children of immigrants and to identify the mechanisms that make it possible to identify the existence of social inequalities.

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[1] Carried out under the NCCR-LIVES Overcoming Vulnerability: Life Course Perspectives (2019) http://www.lives-nccr.ch/

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INTRODUCTION

1. Introduction

The life-course paradigm examines individuals' life trajectories to explain their movements between various statuses and roles (Kulu and Milewsky 2007). Trajectories lie at the heart of the analyses and are themselves shaped by events and transitions (Billari 2001). While individual life events and life-trajectory patterns are the focus of the empirical analysis, the wider sociological objective is to explain and understand social change and social phenomena (Mayer and Tuma 1990). An individual's life course is embedded in social institutions and is subject to historical forces and cohort pressures, among other factors (Elder 1985).

The transition to adulthood is a key phase of the life course: during this period, a range of decisions are made with important implications for later life (de Valk and Milewski 2011). Becoming an adult is a transition characterized by a number of events involving changes in roles, moving from those characterizing teenage life to a series of "adult roles". However, the time period around the transition to adulthood is demographically "dense"; that is, it encompasses a high density of demographic events (Rindfuss 1991). Also, most researchers agree that individual differences in terms of occupational insertion, educational attainment, and family composition are more "manifest" in the events that accompany the transition to adulthood (Billari and Liefbroer 2010; Dahinden 2005; Gauthier 2007; Settersten 2005). In the contemporary context, youth has become a very complex life stage: it is not only becoming longer but is diversifying and becoming increasingly less one-dimensional and univocal, as young people have ever more life choices to make (Ferrari and Pailhé 2017; Shanahan 2000). Today not only are the ages to become adult expanding, but also the indicators of the transitions. "The complexity of the transitory states which precede the crossing of thresholds (symbolized by starting work,

becoming a couple, leaving the parental home) and the indecision which henceforth characterizes this life stage" (Santelli 2017, p. 54).

The increasing diversity and instability of young adults' life trajectories appear to be linked to the growing insecurity that characterizes modern societies (Beck and Beck-Gernsheim 1995). In this sense, "with each event [of the transition to adulthood], new or deepened competencies [resources] that show young adults' ability to act responsibly [...] are needed. Thus, experiencing demographic markers in young adulthood is related to significant increases in drawing on exactly those competencies [resources] that are thought to constitute being an adult" (Liefbroer and Toulemon 2010, p. 54). However, the possibility of cumulating resources for the transition to adult life is also dependent on ethnic origin and social inequalities (Van de Velde 2008). For Bidart and Lavenu 2006, social origin and immigration experiences mark the differences in biographical calendars, and the representation of what it means to be "adult".

Concerning first-generation immigrants, researchers show that the cultural transformations in individual life trajectories (occupational and familial life paths, lifestyles, value systems, spoken language, religion, etc.) carried out (or not) by an immigrant population are part of social stratification and "inequalities-building" processes, which depend on the norms and values established in the host society (Canales and Zlolniski 2000; Faist 2000; Kevisto 2001; Levitt 2004; Portes 1997; 1999; Vertovec 2003). Researchers have also shown that most first-generation immigrants (e.g. Cubans, Haitians, Nicaraguans, and West Indians in U.S) face cultural adaptation and economic problems (Alba 1985; Portes 1994). Works like Portes (1997) argued that first-generation immigrants must mobilize their resources, to diversify their occupational and family life paths and overcome this situation.

Portes (1997) also showed that these life paths differed from those followed by native individuals (Bolzman, Bernardi and Le Goff, 2018; Faist 2000; Kevisto 2001; Levitt 2004).

Regarding the children of immigrants, the use of these previous explanations to study their integration has been a recurring phenomenon throughout the 20th and early 21st centuries (Algan, Bisin and Verdier 2012). Specific historical and national contexts have shaped the ideas and ideals embedded in these notions (Rumbaut 1998), and "these models therefore include elements that are descriptive and normative, empirical and ideological, ethnographic and ethnocentric" (Rumbaut 1998, p. 484). That is why they are not always unanimous.

Early research on the children of immigrants explained that difficulties in integration and inequalities among first-generation immigrants tend to disappear over generations, presenting immigration as a linear and gradual process of *assimilation* that would allow the structural integration of immigrants over generations (Alba 1985; Bolzman et al. 2018; Portes 1994). Indeed, from the point of view of classical assimilation, ethnic characteristics such as behavioral norms, language, or occupational enclaves are disadvantages: "immigrants must 'free themselves' from their former culture in order to be able to leave marginal positions" (Safi 2006, p. 5).

With the arrival of non-European immigrants to the United States who had different cultural patterns than those of first-wave immigrants, assimilation theory had to be redesigned because the "new" group of immigrants appeared to preserve their ethnic and religious identities (Algan et al. 2012; Suarez-Orozco and Suarez-Orozco 1995). Therefore, in the new assimilationist model of *segmented assimilation*, Portes and Zhou (1993) explained that the United States is a stratified

and unequal society and that therefore different “segments” of society are available to which immigrants may assimilate. This theory assumes that several factors can impact the assimilation process, specifically the quality of training (academic and occupational), the substitution of the old wave of immigration with new waves, and the economic conditions (Algan et al. 2012). Individuals can end up “ascending into the ranks of a prosperous middle class or join in large numbers the ranks of a […] permanently impoverished population at the bottom of society” (Portes, Kelly, and Haller 2005, p. 1004). This perspective then postulates that certain groups of second-generation children remain marginalized even as others are successfully integrated (Alba 2009). Here, the transition to adulthood is influenced by their parents and the host society. The family of origin defines young adults’ cultural resources. Child and adolescent socialization processes shape young adults’ aspirations, values, and attitudes and, in turn, their pathways to adulthood (Liefbroer and Elzinga 2012): “due to family socialization, specific family values and norms may persist among immigrants’ children, especially if intergenerational transmission of family values is an important issue for the immigrant group” (Ferrari and Pailhé 2017, p 35).

Over the last decades, intensive research on second-generation immigrants has surfaced in Europe, where the new approach of *multiculturalism-integration* has accompanied researchers’ reflections (Crul and Mollenkof 2012). In comparison with the assimilation model, the multiculturalism model explains that “ethnic retention” (cultural behavior preserved by populations with a migrant origin in the host country) may have positive impacts on overall group incorporation, leading to greater pluralism (Alba, Reitz and Simon 2012). This approach is based on success in school, labor markets, and family formation along with participation in political life,

which gives great strength to the structural and institutional dimensions (Bader and Fibbi 2012). We therefore begin to see approaches that present a reciprocal relationship between the immigrant society and the immigrants' characteristics. Meanwhile, *social cohesion* theory presents the objective for significant groups within society of achieving a functional complementarity with the rest of society, which does not necessarily require the society to be culturally, socially, or politically uniform with them (Alba et al. 2012). From this perspective, ethnic communities have more opportunities for recognition and success than in assimilationist or multiculturalism models, which actively seek cohesion by reducing ethnic distinctiveness (Alba et al. 2012).

With a macro socio-demographic approach, my thesis fits into the structural perspective in the sense that I analyze the existence of *structural inequalities* among second-generation immigrants entering adult life in Switzerland. More precisely it asks whether and how such structural inequalities play a role in these children immigrants' "*successful integration"* process. My interest in studying the existence of unequal opportunities among second-generation immigrants entering adult life in Switzerland is not only due to the fact that there are differentiated ways to become adult depending on ethnic origin (Van de Velde 2008), but is also a demographic interest. The great migratory waves that arrived in Switzerland led to the formation of "second-generations" composed of the children of migrants who were born and raised in Switzerland (Fibbi, Lerch and Wanner 2007; Fibbi, Topgül, Ugrina and Wanner 2015). I have a special interest in the existing heterogeneity within the category of "children of immigrants", a topic which has not been sufficiently studied (See Section 2.5 in this introduction).

This thesis will add to the literature interested in the children of immigrants in Switzerland, targeting three dimensions: socio-economic inequalities (labor-market insertion), social-relations (social capital creation and maintenance) and socio-cultural inequalities (family formation – first and second birth and first union formation). I first present each dimension I am interested in while explaining the main research questions. Here, it is important to say that I will not expand on the literature review for each chapter because this will be done in the four chapters. Then I will present the Swiss case. The next section in this introduction is concerned with the definition of second-generation immigrants and presents the levels of analysis to study them. Finally, I present the data used in this thesis. After the Introduction I present the four empirical chapters and end with a general conclusion.

2. Research questions, definitions and thesis structure

My work focuses on analyzing the existence of *structural inequalities* among second-generation immigrants entering adult life in Switzerland. It investigates whether and how such structural inequalities play a role in these immigrants' children's "successful" *integration* process. By structural inequalities I mean the inequalities deeply woven into the very fabric of a society, where institutions that make up the social structure produce and reproduce social inequalities (whether intentionally or unintentionally) (Kerbo 2000). Structural inequalities refer to the solidification of inequality through different (interrelated) dimensions in the working of social institutions such as: the educational system (Gao and Postiglione 2015; Gomensoro and Bolzman 2016), poverty (Heckmann 2006), social relations (Putnam 2000), the legitimizing influence of ideologies (Ridgeway 2001) and fertility or mortality (Boxwell and Dixon 1990). For Marger (2005), structural inequalities

refer to the persistence of positions in a hierarchy of social inequality, either over the lifetime of a birth cohort of individuals or more particularly between generations. In this sense, I conceive *social inequality* as a condition whereby individuals have unequal opportunities: unequal access to valued resources, services, and positions (Kerbo 2000), and unequal rewards according to their different social positions or statuses within society – e.g. gender, ethnicity, class (Wachter and Fleischmann 2018).

To answer my main research question, I analyze whether there are structural inequalities in Swiss society, comparing the natives[2] and the children of immigrants. More specifically, I study the existence of social inequalities between these two groups of the population at entry in adulthood. While a comprehensive measurement of all dimensions of social inequalities is beyond the scope of this work, it is important to note that, in a life-course perspective (Bernardi, Huinink and Settersten 2019), I identify social inequalities as the impossibility for children of immigrants to have *equal opportunities* in society. In my study, as read key, these social inequalities could materialize (or not) in three principal (and interdependent) dimensions (Figure 1A) :

a) *socio-economic inequalities,* which entail the impossibility of incorporation of children of immigrants into the core institutions of the host society, such as the labor market or the educational system (Heckmann 2006). Getting a job is clearly an essential element of personal autonomy. It generally enables financial independence and contributes to self-esteem and peer recognition (Avenel 2006). Labor-market insertion is a primary means of accumulating resources and reducing

[2] Throughout this thesis, we will use the term *natives*, and more specifically *Swiss natives*, to define people living in Switzerland whose two parents were born in Switzerland. We use this notion to maintain coherence with previous scientific research in Switzerland and abroad.

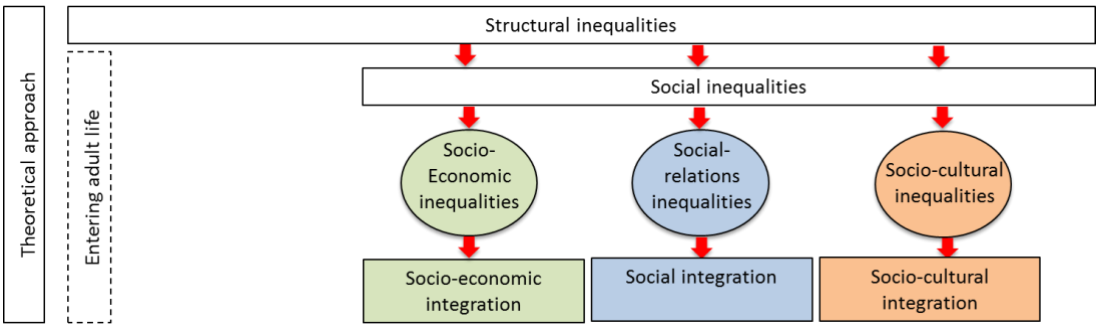
structural inequalities (Billari and Liefbroer 2010; Dahinden 2005; Gauthier 2007; Settersten 2005). For immigrant populations, socio-occupational situations are an essential indicator of successful integration (Paugam 2005) because they have repercussions not only on an individual's financial situation but also on his or her general social situation (Safi 2008). Thus, the existence of differences between the children of immigrants and the native Swiss in professional integration, will clearly demonstrate the existence of inequalities. Stronger values for the children of immigrants in terms of unemployment (controlled for socio-demographic variables) will mean the concretization / realization of social inequalities which will become evident in a slowdown in social mobility, or even a dynamic downgrading and exclusion for certains groups (Chauvel 1998).

b) *social-relations inequalities*, which involve the impossibility for children of immigrants to interact with persons in the society, form relations and networks and participate in the host society's social life (Martinovic et al. 2009) (e.g., establishment of friendships, of love or of marriage relations, or generally of membership in groups). For the children of immigrants, social capital analysis can show the means (paths) these people use to accumulate resources. Social capital can reduce the social inequalities of second-generation immigrants by providing information and access to jobs (de Valk 2011; Portes 1995). Numerous studies have demonstrated that access to diversified social relations through household or ethnic community ties increases individuals' likelihood of integrating and finding a job (e.g., Bankston and Zhou 1996).

c) *socio-cultural inequalities*, which involve the impossibility of acquisition by second-generation immigrants of knowledge, cultural standards and competences of the cultural patterns of the host society of their parents (Heckmann 2006). I

decided to talk about inequalities and not cultural differences or diversity, because the emphasis on diversity tends to hide the inequalities that exist in society. Diversity is not a presocial category but always loaded with attributed meanings. It is the perceived, evaluated form of (cultural) difference. It is thus constructed by societal agents by drawing demarcation lines between classifications with social meanings and sometimes defining certain classifications as the dominant ones. According to Faist (2010, p. 8), "we need to […] start with considering diversity in the sense of heterogeneities along the boundaries of, for example, class, gender, religion, ethnicity, age, and transnationality. This understanding will allow the tracing of the mechanisms of how differences or diversity turn into social inequalities".

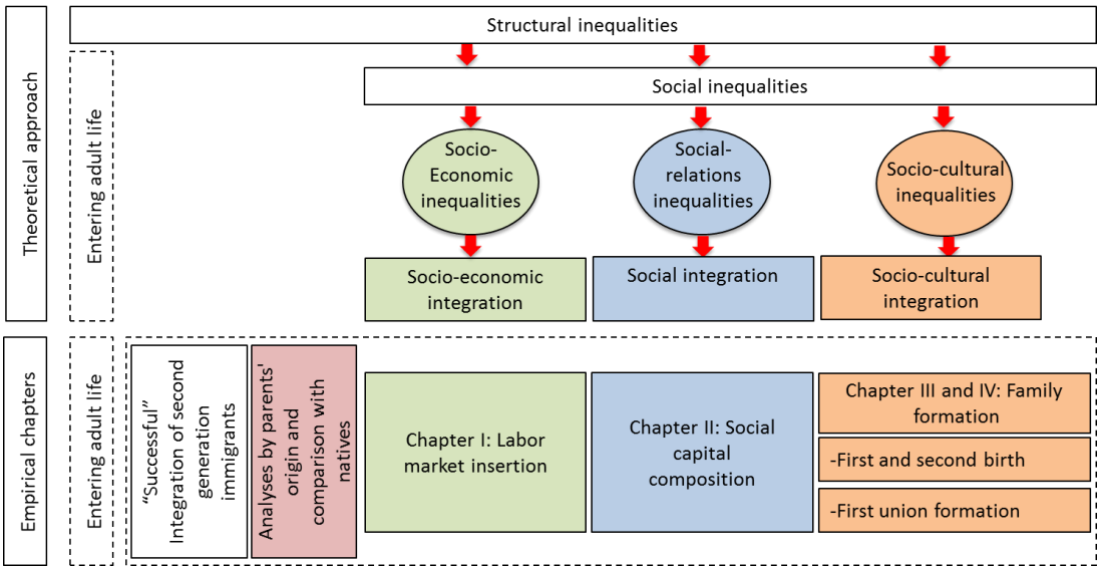
Figure 1A: Theoretical structure



For these three dimensions (socio-economic inequalities, social-relations inequalities and socio-cultural inequalities), I operationalize each dimension into an empirical chapter that investigates the presence of specific types of social inequalities for second-generation immigrants in their transitions to adulthood and their roles in the integration process. Each chapter (which takes the form of a scientific article) can be read independently as a contribution to the study of second-generation integration through its specific content but also as a contribution to the dissertation's overall aim by expanding knowledge on structural inequalities in the integration process of children of immigrants during young adulthood. Here it is

important to say that the diversity of paths among the children of immigrants led me to be attentive to this category's internal heterogeneity throughout this thesis (see Part 3.1 of this Introduction). I take into account the heterogeneity of the category second-generation immigrants, while making the comparison with the Swiss natives (Figure 1B).

Figure 1B: Empirical chapters



In the conclusion of the thesis, I interpret the results (see conclusions of the thesis) found in the three dimensions presented above, and I take into account their role in the "successful" integration process of the children of immigrants in Switzerland. Based on the fact that the existence of structural inequalities in society reinforces feelings of isolation or social exclusion and hinders a smooth "successful" integration process (Paugam 2005), I define "successful" integration as the possibility of having equal opportunities and to make choices in society. More precisely, I study the "successful" integration process of persons with immigrant backgrounds as a complex process that is a) *multidimensional*, as it allows individuals to participate and guarantees the feeling of belonging to the various

dimensions of social life (linguistically, economically, socially, culturally, politically, and religiously). This process is also b) *multilevel*, as it engages immigrants as well as members and institutions of the host society. It ensures the wellbeing of all members of society by reducing disparities and avoiding marginalization. In addition, it designates a person as "being part of" society and requires his or her will and own resources to enter to be part of the whole (integrability of the person). It also requires the will and capacity of the host society so that each individual can be a part of the whole (integrability of society). In addition, the process is c) *multi-duration* (one that can be temporary or last a lifetime).

In this sense, the models of assimilationist integration (including those of segmented assimilation) remain flawed in terms of successful integration. According to these models, through different "stages" of assimilation, society and institutions are supposed to digest newcomers and transform them into natives. The goal of these models is that populations with migrant backgrounds are no longer identifiable in the social structure, that their cultural, religious, or social specificities disappear to become similar in all respects to the natives' (Simon 2003). Even if the theoreticians of these models end up abandoning "the idea of stages," we can criticize them for projecting and promoting, despite everything, assimilation to the majority society (Beate, C. 2006). These models thus do not take into account individual paths and the "cultural" choices that individuals can make.

At the level of multicultural models and their association with the notion of integration successful, multiculturalism is presented as a factor of division. It encourages migrants to think of themselves as being separated from the dominant culture and being separated from each other according to their different national origins. "Multiculturalism essentializes group identities by reducing them to fixed,

archaic and folk forms that no longer correspond to the real evolution of the cultures of the countries of origin" (Garbaye 2014, p. 6).

Ultimately, successful integration would seem to be more in line with models linked to social cohesion, where there is mutual social enrichment among all members of society. For Crul et al. (2012), these models facilitate the inclusion of all members of society and reduce social inequalities. From this perspective, ethnic communities have more opportunities for recognition and success with these models than with assimilationist or multiculturalism models, which actively seek integration by reducing ethnic distinctiveness (Alba et al. 2012).

2.1. Labor-market insertion for children of immigrants in Switzerland[3]

This first chapter studies inequalities in the *labor-market insertion* of second-generation immigrants in Switzerland, which is traditionally regarded as one of the most salient structural inequalities (Heath, Rothon and Kilpi 2008). This analysis helps me to study whether *socio-economic inequalities* of second-generation immigrants in the core institutions of the society exist, such as insertion into the labor market (Heckmann 2006). I examine whether Swiss natives are more successful than second-generation immigrants in terms of labor-market insertion. I started from the fact that some researchers in other countries have supported the ideas that second-generation immigrants are often more disadvantaged than natives in terms of occupations and that they are at higher risk of unemployment (Heath and Cheung 2007). While some Swiss studies have approached this issue (Bolzman, Fibbi and

[3] This chapter is a reproduction of the book chapter: Guarin A., and Rousseaux E. (2018). Risk Factors of Labor-Market Insertion for Children of Immigrants in Switzerland. In: Bolzman C., Bernardi L., Le Goff JM. (eds) *Situating Children of Migrants across Borders and Origins.* Life Course Research and Social Policies, vol. 7. Springer, Dordrecht.

Vial 1997; Bolzman 2007; Fibbi, Kaya and Piguet 2004; Fibbi 2015), this chapter brings to the scientific literature innovative results based on sophisticated statistical methods using statistically reliable data from the Swiss Labour Force Survey (SLFS).

This analysis takes into account (as do all chapters in this thesis) the diversity of origins within the second-generation. I examine whether certain ethnic minorities of children of immigrants have a specific labor-market disadvantage, or ethnic penalty, as compared with natives (Crul 2008; Fibbi et al. 2004; Simon 2003; Fibbi et al. 2015). The results presented in this chapter show that significant employment difficulties and genuine structural inequalities in terms of labor-market status exist according to origins (particularly for children of immigrants with Kosovar origins).

2.2. Social capital composition and family origin among second-generation immigrants in Switzerland[4]

In the possible explanations given in the conclusion of the first chapter, I make the hypothesis that social capital analysis could provide insight into second-generation residents' accumulation of resources. By looking at the links that the second-generation has established in the host country, we can collect precious information about the behaviors, resources, information flow, and power logic that are in play when these people access the occupational world.

My second chapter studies structural inequalities in the opportunities to access specific types of *social capital (social relations)* during entry into adult life for second-generation immigrants in Switzerland. I identify qualitatively the different

[4] This chapter was submitted as an article to the *Swiss Journal of Sociology* and was given a revise-and-resubmit judgement in September 2019. Guarin A., and Elcheroth G. *Does It Matter Where Your Parents Came From? Types of Social Capital and Family Origin among Young Adults in Switzerland*.

types of social capital and explain how these could have an impact in the social resources available for reducing social inequalities (Portes 1997).

The research question in this chapter concerns the relationship between the characteristic compositions of young adults' social networks and their parents' origin in the context of contemporary Swiss society. In this chapter I bring new contributions to existing literature on the children of immigrants. More specifically, focusing on one generation that grew up in Switzerland, I introduce an approach to identify qualitatively different types of social capital within this cohort, based on the scope of respondents' regular social contacts and the social spheres in which they interact with these contacts. This analysis of network data collected as part of the first wave of the LIVES Cohort Survey, which over-represents second-generation immigrants from various backgrounds, highlights three distinct configurations of social capital. It further shows that access to these specific forms of social capital strongly depends on parents' origin: restricted networks are typically associated with a South-Eastern European or Turkish background, community networks with a Southern European background, and career networks with a North-Western or Central European background. Notably, these findings are discussed in the light of their potential contribution to explaining the relationships between collective migration histories and the (re-)production of unequal structures of social opportunities during the transition to adulthood.

In the next two chapters, I complement my first two analyses by studying whether socio-cultural inequalities exist for the children of immigrants in Switzerland in the process of family formation.

2.3. Family formation: First and second birth among immigrants and their descendants in Switzerland[5]

Regarding the last dimension, I focus on *family formation*, more specifically on two demographic events in the transition to adulthood: birth of first (and second) child (Chapter 3) and first union formation (Chapter 4). These two chapters contribute to the literature by adding to knowledge about the fertility trajectories of immigrants and their children in a context of highly diversified ethnic immigrant origins. Specifically, the research questions were used to study the differences between the first- and second-birth patterns of native Swiss people, first-generation immigrants, and children of immigrants, examining the probabilities and the timing of birth for women of reproductive age and taking their ethnic origins into account. Drawing on data from the Family and Generation Survey (FGS) collected in 2013 and using event-history analysis, I disaggregated the fertility indicators of intensity and timing of fertility by ethnic minority and birth order, controlling for a variety of demographic and socio-economic characteristics.

The results show that second-generation immigrants have a lower likelihood of first birth than their parents and Swiss natives, with the exception of second-generation immigrants of Eastern and Southern European origin, whose chances of having a first birth lie between those of the two aforementioned groups. Second-birth patterns are somewhat different, as the comparison of second-generation immigrants' fertility with that of their Swiss native counterparts diverges from what is observed in neighboring countries. In Switzerland, the children of immigrants (from all origins) delay or forego second births more often than native Swiss. The

[5] This chapter is a reproduction of the article: Guarin A., Bernardi L., Schmid F. (2018). First and second births among immigrants and their descendants in Switzerland. *Demographic Research* 35(2): 247-286. https://www.demographic-research.org/volumes/vol38/11/

chance of having a second birth is lower for immigrants and their descendants than for Swiss natives. These trends are not found in other European countries, whether or not they have immigration histories comparable to Switzerland's. Throughout Europe, migrant groups (e.g., South Asians in the United Kingdom, Turks in Germany, and Moroccans in Spain) have higher second-birth rates than natives (e.g., Kulu et al. 2017).

2.4. Family formation: First union among second-generation immigrants in Switzerland[6]

The timing and type of first union (marriage or cohabitation) can contribute to reveal the meaning attached to transitions among second-generation immigrants and how they should best fit into the life course (Elder, Johnson and Crosnoe 2003; Holland and de Valk 2013). For the children of immigrants, finding a partner is particularly crucial because they must negotiate differences between their parents' and their own preferences. While this is the case for most children, children with an immigrant background are often even more distant from their parents' viewpoints because they have grown up in a different context from that of their parents (de Valk and Milewski 2011).

I look at the timing of the transition to first union (marriage or cohabitation), comparing children of immigrants born in Switzerland with native Swiss, and specify differences by ethnic group. I contrast groups of second-generation immigrants with native Swiss, exploring whether they differ in a) the timing and the type (marriage or

[6] A first version of this work was presented at the IMISCOE 2015 conference and it can be read in the working paper: Guarin A., and Bernardi L. (2014). Union formation among immigrants and their descendants in Switzerland. *FamiliesAndSocieties*, (13), 74-97. http://www.familiesandsocieties.eu/?page_id=2370

cohabitation) of the transition to first union, b) their likelihood of experiencing first union (marriage or cohabitation), and c) the individual characteristics associated with given family and work outcomes (educational level, cohort, educational level of fathers, having children and gender). The results show that immigrants' first-union behavior does not differ much across groups, with the exception of the children of immigrants from Eastern European countries, who exhibit faster transitions into cohabitation and marriage. I used retrospective history data from the Swiss Household Panel (SHP). To answer my questions, I conducted descriptive analyses (median and mean ages at first union) and Kaplan-Meier survival estimates of entering into a first union. Then, I applied event-history analyses and Cox models to analyze first-union transitions into first cohabitation and first marriage separately; these methods allowed for estimation of the difference between the pathways of native Swiss and second-generation immigrants.

2.5. The Swiss case[7]

The Swiss case is particularly revealing because it superimposes different waves of immigration covering a large social spectrum – from "guest workers" providing a cheap labor force over more than one generation to highly mobile and specialized "expatriates" – and mingles a rich variety of specific community histories. At the end of World War II, many immigrants from Italy and Spain came to Switzerland. Bilateral agreements with these countries governed the entry and residence of these temporary guest workers and facilitated their settlement into Swiss society. Later, workforces from Portugal and the Balkans joined these immigrant groups (Bader

[7] I have added a section on Secondos in Switzerland to each chapter. The different sections may have similar information, but each provides information that could be considered complementary.

and Fibbi 2012; Fibbi et al. 2007). According to the Swiss Federal Statistical Office, in 2018, about one-third of the total population had an immigrant origin.[8] Four-fifths of those with immigrant origins were first-generation immigrants (all persons born abroad), and the remaining one-fifth were of the second-generation (persons born in Switzerland with at least one parent born abroad).

A study conducted on the children of Spanish and Italian immigrants to Switzerland mentions that, in terms of training and occupational integration, there is very little difference between young Spanish and Italian immigrants and Swiss-born people belonging to working classes or lower-middle classes (Bolzman 2007). The intergenerational relationships among those of Spanish and Italian origin were more intense than those among the Swiss lower-middle classes. Furthermore, more services were exchanged between generations within immigrant families, which became an advantage during the young people's transitions to work and family lives (Bolzman 2007). However, some other immigrant populations that are now highly represented in Switzerland, such as Turks and Yugoslavians, show different trends. Several studies have shown that second-generation residents with these origins are more likely to experience difficulties during their transitions to adulthood than children of immigrants of other nationalities or native-born residents of the Swiss lower-middle class (Fibbi, Lerch and Wanner 2005; Wanner 2004). Fibbi et al. (2004), who experimented with the "practice testing" methodology standardized by the International Labour Organization,[9] showed that employers discriminated strongly against young men with Turkish or Yugoslavian origins in job applications.

[8] http://www.bfs.admin.ch/bfs/portal/fr/index/themen/01/07/blank/key/04.html

[9] In response to job offers published in the press, two applications are sent for fictitious candidates differing only in their country of origin. The qualification, experience, gender, age and all other "employability" criteria are identical. If one of the candidates is rejected, while the other is offered a job interview, it can be concluded that this is a case of unequal treatment. A sufficient number of applications is sent to exclude the effect of chance. The difference between the number of times a

3. Defining second-generation immigrants

So far, I have discussed immigrant children without giving them a precise operational definition. The challenge of collecting data on the children of immigrants is to avoid homogenizing situations that could be completely different (Ramakrishnan 2004). The label "second-generation" next to the word "immigrants" could be considered an oxymoron. When I speak about second-generation immigrants, I am not interested in a population that has experienced a migration process but in persons who have never experienced immigration or, if they have, did not have the opportunity to decide because they were very young upon arrival in the host country. This designation continues to give the children of immigrants born in their parents' host country a connotation of *coming from elsewhere* when they never did. Even if most researchers interested in this issue do not intend to convey this idea, it is obviously essential to take it into account because, especially in our day, the word "immigrant" has been demonized. Second-generation immigrants are evidently different from their parents. They face different challenges in their parents' host societies, often legal challenges pertaining to citizenship and challenges related to broader socio-cultural processes of integration (Thomassen 2010).

Alba and Holdaway (2014) explain that the "term 'second-generation' is often taken in a broad sense to encompass children who grow up in immigrant homes, whether they are born in the receiving society or enter it at a young age […] In the more precise language of social-science research, the term is reserved for those

Swiss candidate has been preferred to that of immigrant origin and the number of times the opposite has occurred is the basis for calculating the discrimination rate of a young person of immigrant origin. (Fibbi et al 2004).

children of immigrants who are born in the host society, while the children who arrive at a young age and thus receive part or all of their schooling in the new society are called the '1.5' generation" (Alba and Holdaway 2014, p. 3). This definition implies a distinction between natives and second-generation immigrants and to study them separately. However, to do it, the researchers must build categories that can take into account the differences between the two groups (Bolzman, Fibbi and Garcia 1987; Thomassen 2010).

As in all categorizations and constructions of sociological typologies, in "real" life, representation is more complex than it is in the definitions of second-generation categories. However, these theoretical divisions make sense when one is studying social inequalities within the integration process, as they divide children into categories based on their exposure to the host country (Waters 2014). Literature on the children of immigrants differentiates among the *types* of second-generation immigrants and constructs typologies of individuals according to their "immigrant percentage" (Heath et al. 2008; Lessard-Phillips, Galandini, de Valk and Fibbi 2017). The idea is to determine what *type of immigrants* could be most "similar" to the *natives* in terms of migration processes. On the one side are natives who were born in the immigrants' host countries, and whose parents, grandparents, and great-grandparents were also born in the host country. On the opposite side are people who immigrated as adults (18 years or older) (Rumbaut 2005). Amid this native-immigrant opposition, various types of immigrants could be found, from those closest to the native population to those farthest from it. Rumbaut (2004) was the first to work on the definition of second-generation immigrants taking into account their ages at arrival. He presents second-generation immigrants as the children of immigrants born in the host countries of their parents. However, he calls those who

migrated as young children (ages 0–5) the 1.75 generation (as their experiences are closer to those of the second generation). Children who arrive between the ages of 6 and 12 are the 1.5 generation, and those who migrate during adolescence (ages 13–17) are the 1.25 generation (as their experiences are closer to those of the first generation).

Thus, depending on the age of arrival, Rumbaut (2004) has created subcategories that reflect the obstacles or resources that could accompany the children of immigrants in their integration processes. For him, the socialization of the children of immigrants would be different, for example, between children arriving very young (1.75 generation) and those arriving between 13 and 17 years of age (1.25 generation). Indeed, the school will play a key role in the transmission of the values of the host society. From this perspective, researchers also questioned whether it was necessary to be considered second-generation immigrants if both parents were born outside of the arrival country and arrived as adults (over 18 years), or if at least one parent was born outside of the host country and arrived as an adult. Researchers (McAndrew and Voas 2014; Parameshwaran 2014) use, for example, “2.5 generation” to describe individuals who were born in the host country but have one migrant parent.

However, in practice, implementing these categories is rather difficult given the large number of existing possible definitions of second-generation immigrants. This is why most researchers have decided to focus their research on one or two types of second-generation immigrants. What seems essential is that researchers take time to reflect before defining populations, to consider the “type” of second-generation immigrants and the levels of analysis in which they are interested (Lessard-Phillips et al. 2017). With their using these different criteria, the definition

of second-generation immigrant could be inclusive (i.e., including individuals with any immigrant background, including those born abroad, with at least one parent being born outside of the host county) to exclusive (i.e., including only individuals born in the survey country with two parents born abroad) (Lessard-Phillips et al. 2017).

In Switzerland, the definition of “second-generation immigrants” proposed by Bolzman and colleagues (1987) showed that this new category of second-generation immigrants entered the Swiss political debate in 1980 through a report that defined second generation children as “children of parents who migrated from abroad, as well as children who arrived in Switzerland as a result of family reunification, to the extent that they did most of their studies in Switzerland” (Federal Commission on Foreign (CFE) 1980, p. 3).

For my thesis, based on an inclusive perspective, I use a definition that accounts for the fact that the children of immigrants go through a specific process of entering adulthood in that they have been reared under the influence of both of their parents and the host society. I select three principal criteria. The first is 1) the parents’ country of origin (place of birth) and ages upon arrival, if the parents immigrated. This criterion makes us aware of the fact that in order to define children of immigrants, it is necessary to know the place of birth of both parents because the "transmission" of migrant origin will be given through that of the parents. Research shows that having at least one native parent would allow for a larger network than that of an individual whose two parents were born in another country. The second is 2) the individual’s (respondent’s) country of birth and/or age upon arrival in the parents’ host country. Arrival in the host county in childhood, during development, also plays a key role in the socialization process (Alba 1985; McAndrew and Voas

2014). The most striking example is that of learning the host country's language, which will become essential throughout the individual's life course (Portes and Schauffler 1994). The third is 3) the schooling process in the parents' host country. Numerous studies have shown that essential values and standards are transmitted through sociocultural integration among the children of immigrants via education (Heath et al. 2008; Hustinx 2002; Kao and Thompson 2003).

More precisely, I define "second-generation individuals" as those whose parents are immigrants and who were born in Switzerland or moved to Switzerland before the age of 10. I chose the upper age limit of 10 years for the age of arrival to combine the interviewees who matched these criteria with those of immigrant children who were born in Switzerland[10]. This definition has the advantage of ensuring that the population shares the fact that they were socialized in a Swiss compulsory school. Another advantage of this approach is that it does not use nationality as a discriminatory variable, thus avoiding problems related to the impossibility of identifying an individual's origins once naturalized (Wanner 2004).

Finally, I decide to use the term "second generation" (and not, for example, "1.5 generation" or "2.5 generation") to designate this population, as our previous investigations showed no significant differences between the two when distinguishing between children who had arrived in Switzerland at age 6, 10, or 15 years old and those born in Switzerland. Note that this could be explained by the small number of respondents who arrived in Switzerland at these ages. We considered that both types of respondents (natives and second-generation) share the fact that they were socialized in a Swiss obligatory school.

[10] However, in each empirical chapter, the definition I use may vary slightly depending on the available data (see the Data section and sample sections in each chapter).

3.1. Second-generation immigrants, levels of analysis and comparative studies[11]

Choosing the comparison groups and specifying the levels of analysis will enable me to answer the research questions and better structure the conclusion (Green 1994). Since one of our primary objectives is to identify structural inequalities in Switzerland, I focus the analyses on the national level (Switzerland), and the comparison group for all four chapters will be Swiss natives.[12] The interest in this topic in the Swiss context stems from the fact that Switzerland has an important history of immigration (see next section in this introduction) and how among this second-generation immigrant group is a great diversity linked to Switzerland's migration history. This led me not only to compare native with immigrant children but also to disaggregate the group of immigrant children according to their parents' origin and to compare these groups with the natives and among themselves. The goal is not to homogenize the group of immigrant children and to show the diversity of pathways by origin when entering adult life. Given that the successive massive migrations starting at the end of World War II led to the multicultural composition of Switzerland's populations, with a large and growing number of residents who are the children of immigrants, to a certain extent, these children of immigrants from various countries make up Switzerland's current social structure (Wanner 2004).

Even though I decided to investigate the national level, I am aware that benchmarking through the cities/locality/district brings information closer to the reality that these groups face, given that some countries have concentrations of

[11] Lessard-Phillips and colleagues (2017) summarised these two elements.
[12] Taking advantage of representative data for first-generation migrants, in some chapters, I also compare the first generation of immigrants with the Swiss natives. However, since I am interested in the children of immigrants, the analyses and interpretations will focus on comparing the second-generation of immigrants with natives.

ethnic groups. However, it was impossible to use smaller levels of analysis because the significance of the analysis would have disappeared due to the number of second-generation immigrants identified in the data. The national level of analysis used in my thesis remains more than relevant, as I am interested in the existing inequalities in the Swiss context; the national level gives great insights into the general situation and the potential influence of Swiss contexts (Lessard-Phillips et al. 2017).

4. Surveys used to study second-generation immigrants in the Swiss context

In this section I will present the data used in my thesis; however, I will not go into details about the construction of the variables used in the analyses. These elements are presented at length in the methodological part of each empirical chapter.

To find answers to my research questions, I use four different databases. The work done on each of the data sets to extract the necessary information and the manipulation to succeed in it was one of the most difficult challenges in this thesis. I am thinking more specifically about the construction of relevant variables to carry out my analyses. From my point of view, the use of and work done with these databases are a richness of this thesis, since the rigorous work in each chapter allows representative and confirmatory results. In this way, these databases bring new contributions to the literature on the children of immigrants.

In this section, I present the data used in each chapter to answer the research questions discussed earlier. These data sets provide robust results generalizable to the Swiss population. Despite the existence of other data of interest for studying the children of immigrants in Switzerland, they are not suited to answer my research questions, either because they do not provide the necessary information or because

of their sample characteristics. Official statistical and/or demographic official data do not have all of the necessary variables for identifying this population, including the parents' birth countries, the respondents' birth countries, age upon arrival in the host country, and parents' education levels. Researchers try to avoid these difficulties by using nationality as a proxy variable. However, doing so leads to some problems because immigrants and their children could be lost in the native population if they share the nationality of the native population.

In Chapter 1, I use the *Swiss Labour Force Survey (SLFS)* database, to analyze labor-market insertion among second-generation immigrants in Switzerland. More precisely, using SLFS I examined if second-generation immigrants are more successful than Swiss natives in terms of labor-market insertion (unemployment status and type of job). I was able to answer my question because the SLFS provided data with which to study the evolution of employment and unemployment in Switzerland. It collects data on different aspects of working conditions and the consequences of the free movement of people. The SLFS is a rotating panel that began in 1991.[13] Each year, a different module concerning specific issues was introduced. In this study, I am interested in an immigration module, with which I could identify second-generation immigrants. This module provides variables that identify the social origin (parents' education) and geographical origin of respondents and their parents. I decided to use these data not only for their wealth of questions but also because this database has two main characteristics of primary interest to second-generation immigrant research. First,

[13] From 1991 to 2009, people were interviewed once a year in the second quarter over a five-year period. Since 2010, the SLFS sample has been based on a four-wave rotating panel, with three months between the first and second interviews, nine months between the second and third interviews, and three months between the third and fourth interviews. Thus, people were interviewed four times over 15 months.

since 2003, an additional sample of foreigners has been added to the standard sample. This feature of the SLFS overcomes the problem of small sample size, which generally affects surveys of immigrant populations and minorities. Secondly, in 2009, the Federal Statistical Office included a module on further training and on the entry of young people into the labor market as a complement to the standard survey. As for census data, to identify second-generation immigrants, researchers can consider whether individuals were born in or moved to Switzerland as well as the parents' place of birth.

The LIVES Cohort Survey (2013), on which I draw in Chapter 2, provides detailed information about the integration process and the transition to adulthood of children of immigrants. I have three files from the LIVES Cohort survey with different information. The first holds the respondents' information in life course calendar, the second contains a household grid, and the third holds the data networks file. Since my research interests were to identify if there were social inequalities for the children of immigrants in terms of the composition of their social capital, I concentrated on the use of the last file, the one concerning network information. This file contains valuable information about the composition of the respondent network. The great advantage of using the LIVES Cohort Survey is that it is one of the few databases in Switzerland that specifically target children of immigrants throughout Switzerland. Three criteria defined the reference population for the cohort: a) being a Swiss resident, b) being aged 15–25 on January 1, 2013 (i.e., being born between 1988 and 1997), and c) having attended a Swiss school before the age of 10. What is more, whether naturalized or not, second-generation immigrants were overrepresented, and particular attention was paid to the offspring of low- and

middle-skilled migrants, who mainly hailed from Southern Europe or the Balkan Peninsula (Elcheroth and Antal 2013).

In Chapter 3, I used the *Survey on Families and Generations (FGS)*,[14] which the Federal Statistical Office (FSO) conducted as part of a new census of the Swiss population. Its sample included approximately 10,000 permanent residents in Switzerland between the ages of 15 and 79 (with a reference date of January 1, 2013). I used this dataset because I am interested in first and second births among immigrants and their descendants in Switzerland, and the FGS is the most recent and representative socio-demographic dataset about the family trajectories of the population in Switzerland. More precisely, the FGS aimed at providing data on the state and evolution of families and, more generally, on the relationships between generations. Given the information collected and the time period when the data were collected, the use of this database to study first and second births among children of immigrants is highly appropriate. Among other things, the survey collected information on ethnic origin, migratory status, retrospective information on partners with whom the respondent had cohabited (married or not) in the past, and retrospective information about children's births throughout life. It is also interesting to study recent (2013) statistically representative data.

The *Swiss Household Panel (SHP)*,[15] used in Chapter 4, collects longitudinal panel data on a variety of life-course dimensions like unions, family, residence, health, education, occupation, and subjective indicators of norms and values. Using official registers from the FSO, researchers collected data starting in 1999 with a sample of 5,074 households containing 12,931 individuals. In 2004, a second

[14] Federal Statistical Office (2018) https://www.bfs.admin.ch/bfs/en/home/statistics/population.gnpdetail.2014-0364.html#publication
[15] This part of the document uses the information of the Swiss House Panel (2018). https://forscenter.ch/projects/swiss-household-panel/

sample of 2,538 households with 6,569 total household members was added. The SHP also reports data from 2001 to 2002 (5,560 individuals) and biographical data from 2013 (of 9,945 individuals). In 2013, a third sample included 4,093 households and 9,945 individuals. These data are particularly interesting because they are representative, that is to say that the percentages of households per region observed in the total Swiss population are respected in the samples. One limitation to studying second-generation immigrants using the SHP is that it had not, until 2013, targeted the immigrant population or its descendants during the sampling process (Laganà et al. 2013).

In the following pages, I present the four chapters of this thesis. Each chapter has been constructed and developed as an independent scientific article presenting an independent theoretical part that complements the dissertation's general theoretical background; a specific research question; an empirical section with methodology, data, and results; and a final discussion in light of the theoretical premises and the limitations of the analysis. Finally, at the end of the document, a conclusion relates them to the dissertation's main research question.

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Chapter 1: Risk Factors of Labor-Market Insertion for Children of Immigrants in Switzerland

This chapter is a reproduction of the book chapter:

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1. Background and research questions

In the decades after World War II, labor shortages led to a massive influx of temporary immigrants to most Western European countries, that with the different changes in the European migration policy, could settle in the host country (Coleman 2006; Mens 2006). The children of these immigrants are commonly called the second-generation (Crul 2004). Their characteristics include being educated and socialized in the host country. In Europe, research on employment for children of immigrants started in the 1990s with studies that specifically targeted this population (Bader and Fibbi 2012; Crul 2008). These early works were heavily influenced by theories that were developed in the United States. Early theories, such as Park's and Gordon's theories on linear assimilation and Gans's theory of generations, have given way to Portes and Zhou's critical theory of segmented assimilation (Rea and Tripier 2003). The theory of linear assimilation suggests that the difficulties experienced by first-generation immigrants tend to disappear in successive generations. In this sense, immigration is considered a process of assimilation that progressively allows the structural integration of later generations. By contrast, the theory of segmented assimilation (Portes and Zhou 1993) assumes that several factors can have an impact on this process, including the quality of training (academic and occupational), the substitution of the old wave of immigration with new waves, and the economic conditions. This perspective then postulates that certain groups of second-generation children remain marginalized even as others are successfully integrated.[16]

[16] Alba et al., quoted by Crul and Mollenkopf (2012), outline three different approaches that scholars use to analyze the process of acculturation to the host country among immigrants and their children; they are assimilation, integration, and cohesion. According to the authors, each of these approaches is commonly used to understand the differences between natives and the immigrant population. They also argue that contextual differences must be considered to understand the life courses of immigrant children.

Today, the children of immigrants represent a large group of inhabitants in the urban areas of Western Europe and the United States: “the large size of the second-generation guarantees that these individuals will have a profound impact on the cultural and ethnic differences within their societies” (Crul and Mollenkopf 2012:3). However, research on these populations shows that social and ethnic origins still strongly determine the life course of the second-generation, particularly in terms of education and training; these origins also impact these populations’ transition into the labor market (Portes, Kelly and Haller 2005; Laganà 2011). Specifically, Reisel Lessard-Phillips and Kasinitz (2012) showed that the ethnic minorities experience the greatest difficulties in Western European and US cities.

The study of the second-generation is especially interesting in the specific case of Switzerland. The successive massive migrations starting at the end of World War II led to Switzerland’s population having a multicultural composition, with a large and growing number of residents who are the children of immigrants. These children of immigrants from various countries are part of the current social structure of Switzerland (Wanner 2004).

1.1. Second-generation residents’ access to the labor market

The transition from childhood to adulthood is characterized by a change in behaviors from those of teenage life to a series of adult roles (Gauthier 2007). Authors have identified at least four dimensions that mark the transition from youth to adulthood: (1) leaving the parental home, (2) forming a family, (3) participating in civic life, and (4) accessing the labor market (Andréo 2001). Getting a job is clearly an essential element of personal autonomy. It generally allows financial independence and contributes to self-esteem and peer recognition (Avenel 2006). Successful access

to the occupational world is a primary way to accumulate resources. Most researchers agree, however, that the transition to the labor market is sensitive to individual differences (Billari and Liefbroer 2010; Dahinden 2005; Gauthier 2007; Settersten 2005). This transition is considered to be a turning point in life. It is at this point that social inequalities can combine with latent vulnerabilities, such as a lack of resources (especially concerning education), to cause a young person difficulty in finding a job.

Access to employment also has consequences regarding immigrants' integration in society. Active participation in the labor market is essential to ensure social cohesion and empowerment for both immigrants and their children. In most Organization for Economic Co-operation and Development (OECD) countries, immigrants recorded worse difficulties than non-immigrants on the labor market. They generally suffered from a higher unemployment rate.[17] Most studies have found that first-time immigrants face both cultural adaptation challenges regarding identity and relationships (Canales and Zlolniski 2000; Kevisto 2001; Levitt 2004; Portes 1997, 1999; Vertovec 2003) and economic problems (Alba 1985; Portes 1994) in the host country. Portes (1997) showed that first-time immigrants must mobilize resources that lead them to diversify their work trajectories and family lives more strongly than natives of the host society. Indeed, children of immigrants generally surpass their parents in terms of labor-market status, occupational achievement, and economic status (Farley and Alba 2002). The increasing trend toward higher attainment in education is more important for second-generation residents than for natives (Telhado and Tavares 2000). Still, it is interesting to compare employment status and occupational achievement among second-

[17] Note that large differences exist among immigrant groups.

generation residents and natives. Native-born people and immigrants' children who have been educated and socialized in the host country follow fairly similar occupational career trajectories. However, a series of studies have shown that the second-generation remains in a disadvantaged position in several European countries (Heath, Rothon and Kilpi 2008). For example, Crul (2008) showed that, in France, second-generation young adults of Turkish and Moroccan descent are more likely to (1) drop out of school, (2) achieve lower educational levels, and (3) have a lower job status than their majority-group peers. Simon (2003) found the same results, showing that second-generation residents from the Maghreb are disadvantaged in the French labor market. However, for some immigrant groups, the assimilation process is much better. For example, the families of immigrants from Mexico to the United States experienced considerable improvements through three generations, narrowing the educational and income gaps between themselves and native-born whites (Perlman and Waldinger 1997). In a similar way, in Switzerland, second-generation residents of Italian and Spanish descent generally experience less difficulty in getting a job than either their parents or their native counterparts (Fibbi, Bolzman and Vial 1999; Bolzman, Fibbi and Vial 2003).

One of the main explanations for the differences in educational and occupational success between children of immigrants and natives is related to the parents' social status. Numerous studies have shown that inequalities are partly rooted in the social origin of the parents, especially their education level and their socio-occupational status. Of course, parents with higher education levels will be able to provide help during their children's schooling, but "they also have experience with the more demanding educational pathways, and this strategic knowledge places them [their children] in an advantageous position at important educational

transitions" (Kristen et al. 2011:124). Nevertheless, these authors found that, after controlling for social origin, inequalities persist. Heath et al. (2008) showed that, for certain groups of immigrant children, there is an ethnic penalty regarding the transition to the labor market.

1.2. Research questions

In this chapter, we focus on unemployment among second-generation residents during their transition to the labor market in Switzerland. We define second-generation residents as individuals (1) whose parents are immigrants and (2) who were born in Switzerland or moved to Switzerland before the age of 10.[18] Using the Swiss Labour Force Survey (SLFS) data, we address four research questions. First, we want to assess whether second-generation residents are more successful on the labor market than first-generation immigrants (RQ1). Although this question has already been extensively studied in many countries, we want to provide more insight in the specific case of immigrants to Switzerland; secondly, we want to assess whether second-generation residents experience more difficulties than Swiss natives (RQ2). Research in other countries supports the idea that those in the second-generation are often disadvantaged relative to natives in terms of occupational and educational achievement; those in the second-generation also have a higher risk of unemployment (Heath and Cheung 2007). Thirdly, we want to

[18] This definition is based on the work of Oropesa and Nancy (1997). We decided to use the term "second-generation" and not "1.5 generation", since previous investigations that distinguished between children who arrived in Switzerland between 6 and 15 years old and those born in Switzerland showed no significant differences. (Note that this could be explained by the small number of respondents who arrived in Switzerland at these ages.) We chose to take the upper limit of 10 years old for the age of arrival and to combine the interviewees who matched this criterion with immigrants' children who were born in Switzerland. The two types of respondents share the fact that they were socialized in the Swiss obligatory school. We use the term "second-generation" to designate this combined population. The term "first generation" designates immigrants who settled in Switzerland after the age of 10.

assess whether the father's educational level has an impact on his children's ability to find employment (RQ3). Using a decision-tree-based preliminary analysis, we succeeded in refining this hypothesis by highlighting an interaction effect between fathers' and children's education: although educated young adults find employment because of their own grades, the education of the father could be an important resource for less-educated young adults. Finally, we want to know if there is a specific "ethnic penalty" for particular groups of immigrants' children (RQ4). With this question, we seek to confirm the results obtained in other countries, which demonstrated that second-generation residents of Turkish or Kosovar origin (and those from surrounding countries) experience more difficulties in getting a job than Swiss natives (Crul 2008; Fibbi, Kaya and Piguet 2004; Simon 2003).

2. Data and methods

2.1. Data

This study is based on SLFS data. The aim of the SLFS is to provide data to study the evolution of employment and unemployment in Switzerland. It collects information on different aspects of working conditions and on the consequences of the free movement of persons. Due to strict compliance with International Labour Organization standards, the Swiss data are comparable with those of the OECD countries and the European Union. The Swiss Federal Statistical Office has conducted the SLFS since 1991, and it targets permanent residents in Switzerland who are aged 15 and older. This database has two characteristics that are of foremost interest in our research. First, since 2003, an additional sample of foreign residents has been added to the standard sample. Secondly, this feature of the SLFS overcomes the problem of small sample size that generally affects surveys of

immigrant populations or other minorities. This additional sample was taken from the *Système d'Information Central sur la Migration*.

The SLFS is a rotating panel.[19] Each year, a different module in the questionnaire is devoted to specific issues. In 2009, the Federal Statistical Office included a module on "further training" and "the entry of young people into the labor market" as a complement to the standard survey. In this study, we are especially interested in the "immigration" module, from which we can identify second-generation residents. This module questions respondents about their social origins (e.g., their parents' education) and about their geographical origins (and those of their parents). This module was integrated into the core questionnaire in 2001, 2003, 2008, and 2009. However, it should be noted that second-generation residents are underrepresented in the 2001 survey (which occurred before the sample of foreigners was added in 2003), so we decided not to consider this wave. To maximize the number of cases for analysis, we built our sample by pooling all the waves from 2003 through 2011.[20]

2.2. Sample

Because we are interested in transitions to the labor market, our sample includes only those individuals between 15 and 35 years old who have entered the workforce; all students are dropped. We select individuals who participated in the survey at least once between 2003 and 2011. We also consider the participants' up-to-date

[19] From 1991 to 2009, people were interviewed once per year (in the second quarter) over a 5-year period. Since 2010, the SLFS sample is a 4-wave rotating panel, with a 3-month period between the first and second interviews, a 9-month period between the second and third interviews, and a 3-month period between the third and fourth interviews. Thus, participants are interviewed four times over 15 months. Federal Statistical Office (2018).
https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/surveys/slfs.html

[20] As a consequence, following the Swiss Federal Statistical Office, we chose not to use nonresponse weights in our analyses, as no official weights are provided for this kind of design.

employment status during the 2003–2011 observation window. The SLFS provides employment status for each year during this period. Therefore, we set the employment status for each respondent as the most recent available employment from this window.[21] The second-generation is distinguished from the first generation according to the criteria of birth and age, as we defined above. To determine the country of origin of second-generation residents, we considered the parents' place of birth. To allow clearer interpretations, we dropped individuals whose parents did not have the same country of origin. The distribution of our sample is presented in Table 1 for the first generation and in Table 2 for the second-generation.

The plurality of the immigrants' children in the sample are of Italian or Spanish origin (36.77%); 16.18% are Kosovar (or from the surrounding countries). We also note in our data that, for the first generation, the most represented group is the immigrants from Kosovo and surrounding countries (20.36%).

2.3. Variables

2.3.1. Dependent variable

The SLFS divides employment status into four categories: employed, apprentice, unemployed, and non-active. By sample construction, this variable represents the most up-to-date employment status during the 2003–2011 observation window. As we are interested in individuals who are unable to find employment, we derived the dependent variable "unemployment" from this variable by recoding as follows: "yes" = unemployed and "no" = employed or apprentice. "Non-active" individuals are dropped from our analyses in this chapter.

[21] The code used for extracting the employment status for each individual in each year (and the corresponding values of the covariates) is included in the Rsocialdata package (Rousseaux et al. 2013). This makes our analyses replicable.

2.3.2. Independent variables

We first considered the country of origin. We sorted individuals into six groups based on country of origin: (1) Switzerland, (2) Italy or Spain, (3) Portugal, (4) Turkey, (5) Kosovo and surrounding countries,[22] and (6) other European countries.[23] Because these groups have different migration origins, we expect that they will behave differently when they access the labor market. Because we want to assess the impact of individual resources, the educational level of both the respondents and their fathers are of great interest. We also considered investigating the educational level of the mothers, but this covariate contained too many missing values to be considered in our analyses. Both types of educational level are coded in three categories (high, intermediate, and low). As our selected population is between 15 and 35 years old, educational level can evolve with time. To be consistent, for each individual, we used the educational level from the same year as that person's most up-to-date employment status.

2.3.3. Control variables

Age plays a significant role in employment, especially when young people access the labor market. By spending more time in the labor market, young people (1) accumulate more chances to get a job and (2) become more experienced. Therefore, it is important to control for age. Because of the trade-off between sharpness and complexity, we grouped individuals into four age categories: 15–20, 21–25, 26–30, and 31–35. As access to the labor market may be linked with male and female roles, we also controlled for sex. Finally, as the construction of our

[22] We also included individuals from the countries surrounding Kosovo (Albania, Macedonia, Montenegro, and Serbia).
[23] We merged all European countries that did not have a specific migration wave.

sample led to selecting individuals from different years, we had to control for a residual effect of this sampling. We coded the participation year of the survey using three groups: 2003–2005, 2006–2008, and 2009–2011.

Table 1: Distribution of variables for first-generation immigrants

	Swiss origins		First-generation immigrants													
			Italian-Spanish		Portuguese		Turkish		Kosovo and surrounding countries [a]		Other Europeans		Other origins		Total first-generation	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	11336		771	7.19	961	8.96	467	4.35	2184	20.36	3157	29.42	3189	29.72	10729	
Unemployment																
Employed	7936	70.01	636	82.49	815	84.81	312	66.81	1532	70.15	2545	80.61	2129	66.76	15905	72.08
Apprentice	1280	11.29	9	1.17	15	1.56	10	2.14	66	3.02	26	0.82	64	2.01	1470	6.66
Unemployed	291	2.57	34	4.41	44	4.58	46	9.85	190	8.7	107	3.39	340	10.66	1052	4.77
Non-active	1829	16.13	92	11.93	87	9.05	99	21.2	396	18.13	479	15.17	656	20.57	3638	16.49
Total	11336		771		961		467		2184		3157		3189		22065	
Age																
15-20	2779	24.5	20	16.4	43	52.6	26	43.2	168	65.2	114	30.9	219	45	3369	15.27
21-25	1848	16.3	58	18.9	119	27.1	64	22.6	448	24	298	19.4	387	23.6	3222	14.6
26-30	2310	20.4	203	22.6	260	13.8	157	21.6	709	7.8	951	18.5	945	13.2	5535	25.08
31-35	4399	38.8	490	42.1	539	6.6	220	12.6	859	2.9	1794	31.2	1638	18.2	9939	45.04
Total	11336		771		961		467		2184		3157		3189		22065	

Table 1: Distribution of variables for first-generation immigrants (continued)

	Swiss origins		First-generation immigrants													
			Italian-Spanish		Portuguese		Turkish		Kosovo and surrounding countries [a]		Other Europeans		Other origins		Total first-generation	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex																
Male	5369	47.36	434	56.29	450	46.83	216	46.25	1023	46.84	1399	44.31	1375	43.12	10266	46.53
Female	5967	52.64	337	43.71	511	53.17	251	53.75	1161	53.16	1758	55.69	1814	56.88	11799	53.47
Total	11336		771		961		467		2184		3157		3189		22065	
Educational level																
Low	2511	22.16	262	33.98	677	70.45	234	50.11	1158	53.09	221	7	944	29.78	6007	27.26
Middle	6141	54.19	299	38.78	242	25.18	166	35.55	902	41.36	1163	36.86	1109	34.98	10022	45.48
High	2680	23.65	210	27.24	42	4.37	67	14.35	121	5.55	1771	56.13	1117	35.24	6008	27.26
Total	11332		771		961		467		2181		3155		3170		22037	
Educational level of father																
Low	315	6.18	135	52.53	299	89.25	182	79.13	646	62.84	105	8.33	351	30.66	2033	21.74
Middle	3213	63.06	65	25.29	28	8.36	28	12.17	293	28.5	514	40.79	338	29.52	4479	47.9
High	1567	30.76	57	22.18	8	2.39	20	8.7	89	8.66	641	50.87	456	39.83	2838	30.35
Total	5095		257		335		230		1028		1260		1145		9350	

[a] Kosovo, Albania, Macedonia, Montenegro, and Serbia

Table 2: Distribution of variables for second-generation immigrants

	Swiss origins		Second-generation immigrants													
			Italian-Spanish		Portuguese		Turkish		Kosovo and surrounding countries [a]		Other Europeans		Other origins		Total second-generation	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	11336		2581	36.77	487	6.94	532	7.58	1136	16.18	731	10.41	1553	22.12	7020	
Unemployment																
Employed	7936	70.01	1924	74.54	249	51.13	295	55.45	504	44.37	472	64.57	784	50.48	12164	66.27
Apprentice	1280	11.29	217	8.41	110	22.59	95	17.86	321	28.26	70	9.58	284	18.29	2377	12.95
Unemployed	291	2.57	133	5.15	40	8.21	46	8.65	90	7.92	31	4.24	118	7.6	749	4.08
Non-active	1829	16.13	307	11.89	88	18.07	96	18.05	221	19.45	158	21.61	367	23.63	3066	16.7
Total	11336		2581		487		532		1136		731		1553		18356	
Age																
15-20	2779	24.5	422	16.4	256	52.6	230	43.2	741	65.2	226	30.9	699	45	5353	29.16
21-25	1848	16.3	489	18.9	132	27.1	120	22.6	273	24	142	19.4	367	23.6	3371	18.36
26-30	2310	20.4	584	22.6	67	13.8	115	21.6	89	7.8	135	18.5	205	13.2	3505	19.09
31-35	4399	38.8	1086	42.1	32	6.6	67	12.6	33	2.9	228	31.2	282	18.2	6127	33.38
Total	11336		2581		487		532		1136		731		1553		18356	

Table 2: Distribution of variables for second-generation immigrants (continued)

	Swiss origins		Second-generation immigrants													
			Italian-Spanish		Portuguese		Turkish		Kosovo and surrounding countries [a]		Other Europeans		Other origins		Total second-generation	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex																
Male	5369	47.36	1425	55.21	248	50.92	321	60.34	634	55.81	350	47.88	792	51	9139	49.79
Female	5967	52.64	1156	44.79	239	49.08	211	39.66	502	44.19	381	52.12	761	49	9217	50.21
Total	11336		2581		487		532		1136		731		1553		18356	
Educational level																
Low	2511	22.16	541	20.96	238	49.07	293	55.08	763	67.17	214	29.27	680	43.79	5240	28.56
Middle	6141	54.19	1599	61.95	224	46.19	204	38.35	347	30.55	343	46.92	663	42.69	9521	51.89
High	2680	23.65	441	17.09	23	4.74	35	6.58	26	2.29	174	23.8	210	13.52	3589	19.56
Total	11332		2581		485		532		1136		731		1553		18350	
Educational level of father																
Low	315	6.18	671	62.13	235	75.32	230	67.85	417	48.94	39	11.27	257	30.6	2164	24.41
Middle	3213	63.06	357	33.06	70	22.44	92	27.14	356	41.78	126	36.42	345	41.07	4559	51.43
High	1567	30.76	52	4.81	7	2.24	17	5.01	79	9.27	181	52.31	238	28.33	2141	24.15
Total	5095		1080		312		339		852		346		840		8864	

[a] Kosovo, Albania, Macedonia, Montenegro, and Serbia

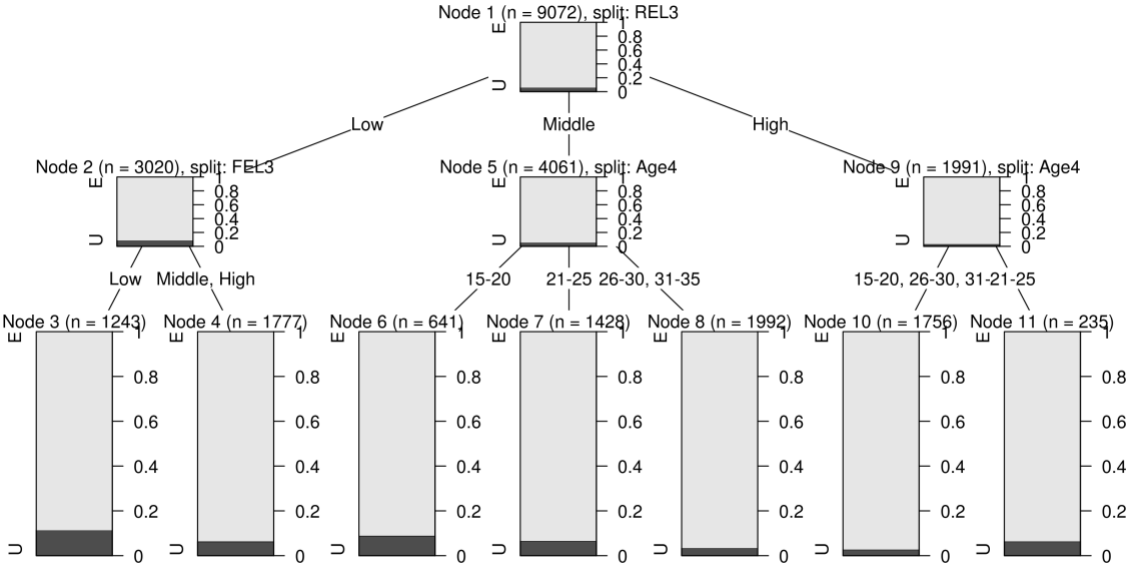
2.4. Modeling

We started our investigation with preliminary exploratory data mining (EDM) analysis. As shown by McArdle and Ritschard (2013), EDM techniques help to highlight the combinations of variables that have predictive value. Such techniques help researchers to go beyond their research questions by discovering complex and even unexpected relations between variables. In the present case, we opted to use decision-tree modeling to detect potential interactions between covariates. Ilgen et al. (2009) already used such an approach successfully. A decision tree is a supervised learning method that uses a categorical dependent variable. This method creates a partition in the attribute space that explains the values of the dependent variable (here, employment status). This partitioning is performed by recursively splitting data according to the different covariate values. The algorithm starts with a partition of only one element, which is called the root of the tree. At this starting point, all observations are grouped together, and nothing discriminates between them. This initial model is similar to independence in regression analysis. The algorithm thus selects the split that maximizes the gain in a user-defined quality measure (chi-squared distance, Gini entropy, etc.). After the split, the partition contains two or more elements, which are called nodes. The process is then recursively repeated on each child node. The tree's growth breaks when a stopping criterion is satisfied. Stopping criteria include minimum number of individuals in a child node, a minimum improvement in the growing criterion, and a limit on the number of levels. This procedure is very efficient for discovering underlying interrelations between covariates. We computed trees according to the Chi-squared Automatic Interaction Detection (CHAID) method (Kass 1980) using R software (R Core Team 2014). The CHAID method uses the Pearson chi-squared test to assess

the quality of a split. We controlled the tree's growth with a significance threshold (p value) of 0.05 for both splitting variables and merging groups. We succeeded in highlighting the interaction effect by considering the variables of age, sex, respondent's educational level, and father's educational level. The corresponding tree is presented in Figure 1.

We then performed a standard logistic regression model with embedded blocks (Table 3). The first model assesses the impact of the country of origin on both the first and second-generations; it controls for age, sex, and the year of participation in the survey. Model 2 adds the educational level to the equation. Models 3, 4, and 5 are built according to the results observed with the decision-tree method, which showed an interaction effect between the levels of education for the respondent and his/her father (see below). Model 3 adds the father's educational level. As this last variable produces no evidence, Model 4 assesses it without controlling for the child's educational level. We suspect that the effect of the father's educational level is strongly connected to that of the child's educational level, making the latter variable unable to produce new, significant evidence. However, even without taking into account the child's educational level, the father's educational level has no significant global impact. Model 5 considers the previously highlighted interaction between the child's and the father's educational level.

Figure 1: Decision tree for the prediction of unemployment (CHAID method)



3. Results

3.1. Comments on control variables

The results show that the year of participation in the survey is not significant. This indicates that the construction of our sample (taking the up-to-date employment status and corresponding values of covariates separately for each individual) did not introduce significant bias. Regarding age, young people are more affected by unemployment, as expected. A surprising finding, however, is that there is no significant difference between men and women.[24]

[24] However, further investigations, not shown here, show that sex has a strong impact on occupational attainment.

Table 3: Binomial logistic regression for the probability of experiencing unemployment versus employment

	Model 1		Model 2		Model 3		Model 4		Model 5	
Origin (reference = Swiss)										
Other Europeans – 1st	1.31		1.41	+	1.38		1.28		1.33	
Other Europeans – 2nd	1.59	+	1.58	+	1.54		1.56		1.55	
Italian-Spanish – 1st	2.45	**	2.39	**	2.3	**	2.32	**	2.34	**
Italian-Spanish – 2nd	1.57	**	1.55	**	1.5	*	1.48	*	1.56	*
Turk – 1st	5.67	***	5.09	***	4.83	***	5.25	***	4.95	***
Turk – 2nd	2.58	***	2.44	***	2.34	***	2.42	***	2.32	***
Kososvo and surrounding countries [a] – 1st	3.23	***	2.89	***	2.79	***	3.05	***	2.79	***
Kososvo and surrounding countries [a] – 2nd	2.03	***	1.92	***	1.87	***	1.94	***	1.86	***
Portuguese – 1st	1.94	*	1.64	+	1.56		1.78	*	1.53	
Portuguese – 2nd	2.52	***	2.43	***	2.32	***	2.34	***	2.31	***
Age (reference = 31–35)										
15–20	2.47	***	2.04	***	2.06	***	2.5	***	2.16	***
21–25	2.19	***	2.09	***	2.09	***	2.2	***	2.11	***
26–30	1.45	*	1.46		1.46	*	1.45	*	1.46	*
Woman (reference = Male)	1.11		1.11		1.1		1.1		1.09	
Year of participation (ref. = [2003, 2005])										
(2005, 2008]	0.78		0.79		0.8		0.79		0.8	
(2008, 2011]	0.83		0.84		0.84		0.83		0.84	
Educational level of the respondent (ref. = Low)										
Middle			0.79	*	0.79	+				
High			0.63	*	0.63	*				
Educational level of the father (ref. = Low)										
Middle					0.89		0.87			

High					1.01		0.95			
Interaction between the respondent's and father's educational level (ref. = Low/Low)										
Resp. = Low, Father = Middle or High									0.68	*
Resp. = Middle, Father = ALL									0.66	**
Resp. = High, Father = ALL									0.532	**
(Intercept)	0.02	***	0.03	***	0.03	***	0.02	***	0.03	***
Model quality assessment										
Deviance	3881.56		3874.39		3873.06		3880.14		3868.14	
Model Chi2	168.44	***	175.62	***	176.94	***	169.86	***	181.86	***
Model DF	16		18		20		18		19	
Block Chi2	168.44	***	7.18	*	1.32		1.42		13.42	**
Block DF	16		2		2		2		3	
R2 Nagelkerke	0.05		0.05		0.05		0.05		0.06	
AIC	3915.56		3912.39		3915.06		3918.14		3908.14	
BIC	4036.48		4047.53		4064.43		4053.28		4050.4	
N	9072		9072		9072		9072		9072	

***:p < 0.001; **: p < 0.01; *: p < 0.05; +: p < 0.1

[a]Kosovo, Albania, Macedonia, Montenegro, and Serbia

3.2. Comparison of first- and second-generation residents and swiss natives

We observe strong disparities according to the country of origin among first-generation immigrants. The results show that immigrants from Turkey and Kosovo are strongly affected: the odds ratios of unemployment versus employment for second-generation residents of Turkish or Kosovar origin are (respectively) five and three times higher than that of Swiss natives. For those of Italian, Spanish, and Portuguese descent, the impact of origin is moderate (but significant). Such results show evidence of an assimilation process across generations, as immigrants from earlier waves succeeded more in their insertion into the labor market than immigrants from more recent waves; the latter groups are more marginalized. Other European immigrants do not experience any more difficulties in getting a job than Swiss young adults. Indeed, people from these other European countries come to Switzerland to enhance their occupational situation more often than to escape from their country of origin.

We observe less disparity according to the country of origin for the second-generation. The odds ratios for these groups vary between 1.5 and 2.5. For those of Italian, Spanish, and Kosovar origin, comparisons between the first- and second-generation groups show that the latter groups are less likely to be unemployed than the former groups that have the same origin. This result tends to confirm the generation-as-leveler effect. However, we observe the opposite situation in the case of the Portuguese: the odds ratio of unemployment is lower for the first generation than for the second-generation. An interpretation of this result is that first-generation Portuguese immigrants have a network that facilitates getting a job. However, these jobs correspond mainly to low-skilled positions (Fibbi et al. 2010b). As children of

these immigrants tend to be more educated, they do not benefit from the same efficient network.

3.3. Impact of father's educational level on unemployment

Parental educational level generally plays a role in the successful education of children. Well-educated parents can provide educational support and advice to their children. As mentioned before, we limit our study to the father's educational level (Place and Vincent 2009). We start our analyses with a description of the preliminary decision-tree-based analysis, which highlighted interesting results concerning the impact that the father's education level has on employment (Figure 1).

First, the tree indicates that, among the different covariates we took into account, the one that best explains the lack of access to employment is the child's educational level (node 1, split: REL3). A lower educational level increases the likelihood that the child will be unemployed. The second level of the tree shows that the most relevant descriptor to explain unemployment for those with middle or high educational levels is age (nodes 5 and 9, split: Age4). In addition, for those of middle educational level, we observe an ordinal relation with age: older respondents are more likely to get a job (nodes 6–8). Such a relation seems to be less visible for people with high educational levels (nodes 10 and 11). This could be related to there not being enough individuals to create a significant 3-class split (4061 individuals in node 5 but only 1991 in node 9). In the case of those in the second-generation who have a low level of education, the splitting covariate is the educational level of the father (node 2, split: FEL3), which could indicate that the role of the father is more significant when young adults have a low level of education. On the other hand, the

insertion of young adults with medium or high levels of education into the labor market is affected by their educational level.

To assess evidence of this interaction, Model 3 of our logistic regression tests the impact of the father's educational level (Table 3). We observe no significant result. The variable itself is not significant. The simplest explanation (without knowing the results of the decision-tree analysis from Figure 1) would be that, having already controlled for the respondent's educational level, the effect of the father's educational level would not be strong enough to stand out from that of the child. Model 4 introduces the father's educational level without controlling for that of the child, but there is still no significant effect. This result seems to indicate that the impact of the father's educational level is either weak or moderated by another covariate. Model 5 considers the interaction between the father's and the child's educational levels. Using only respondents with a low level of education, this model classifies the father's educational level using a low/high coding. The results show that second-generation residents who have low levels of education but whose fathers have medium or high levels of education are 33% less likely to be unemployed than are those whose fathers also have a low level of education. These three models confirm that the father's educational level plays a significant role in the child's insertion into the labor market for young adults with a low educational level but a much more moderate role for those with a middle or high educational level.

4. Conclusion

Young people of foreign origin are increasingly attracting the attention of scholars and policy-makers. This is demonstrated, for instance, by the emergence of international studies such as *The Integration of the European Second-generation*.

In this chapter, we have discussed the employment situation of young adults who are second-generation residents of Switzerland and their access to the labor market. From a methodological point of view, the paper advocates for the necessity of preliminary EDM analysis. Such preliminary analysis allows scholars to go beyond their research questions by discovering complex and even unexpected relations in their data. In the case of our study, this data mining showed exploratory results implying a complex relationship between the respondent's and father's levels of education. This exploratory analysis guided us to introduce an interaction effect between these two independent covariates as part of a logistic model. The results confirm this complex theory.

In more detail, our results showed a general enhancement of the labor-market situation for the second-generation in comparison with the first generation. We also observed that origin-specific characteristics persist in the case of second-generation residents, although they play a smaller role than in the case of first-generation immigrants. Furthermore, we found evidence that second-generation residents experience more disadvantages when accessing the labor market than Swiss natives. A strong explanatory factor for this result is the level of education. A decision-tree-based exploratory analysis indicated that the father's educational level has a more significant impact on young adults with low educational levels than it does on those with middle or high educational levels. This finding can be explained by the fact that educated people are generally able to find employment on their own but that, for those with a low level of education, the father is a significant resource in helping find employment. We also show that, after controlling for social origin, age, sex, and educational level, some inequality related to ethnic origin remains

unexplained. This is particularly the case for second-generation residents of Kosovar origin, who seem to suffer a substantial ethnic penalty.

One limit of our study is its cross-sectional design. The use of a longitudinal statistical model would allow young people's trajectories to be studied during the transition from school to work, instead of only looking at their employment status at a given time. Furthermore, social-network analysis could provide insight into second-generation residents' accumulation of resources. By looking at the links that the second-generation has established in the host country, we can collect precious information about the behaviors, resources, information flow, and power logic that are in play when these people access the occupational world.

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Chapter 2: Does It Matter Where Your Parents Came From? Types of Social Capital and Family Origin among Young Adults in Switzerland

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1. Introduction

Social capital has become a pivotal concept in the sociological literature on migration or ethnic minorities. Numerous studies have shown how access to social resources channeled through household or community ties affects individuals' likelihood of migrating, their choice of destination, and the social and economic opportunities that will open up to them and their family in the host society (e.g., Aizlewood and Pendakur 2005; Bankston 2014; de Valk 2011). Since the seminal work of Portes (1995) in particular, there has been heightened interest in how the distribution of social capital can either facilitate or hinder the next generation's integration by selectively allocating easier access to jobs, specific information, or valuable skills. In the present contribution to this burgeoning literature, we aim to analyze the relationship between parents' origin and children's social capital in the context of contemporary Swiss society.

The Swiss case is particularly revealing because it superimposes different waves of immigration covering a large social spectrum – from "guest workers" providing a cheap labor force over more than one generation to highly mobile and specialized "expatriates" – and mingles a rich variety of specific community histories. It therefore gives a privileged opportunity to move beyond an understanding of social capital as a unidimensional quantity – as a good one can possess more or less of. Focusing on a generation of young adults who grew up in Switzerland, the present study is hence guided by a twofold objective: (a) to identify qualitatively different types of social capital within this population and develop a methodology to do so; and (b) to show how access to these different types of social capital not only depends on individual life choices and qualifications but also on where one's parents are from and the community history to which a person is tied by origin.

To reach these goals, we will pay particular attention to the specific social contexts within which informal social ties are performed, labored, and consolidated. Moving beyond the question of how many regular social contacts a person maintains, the different social spheres within which these interactions take place will serve as a basis for an empirical typology of qualitatively different configurations of social capital. The types of configurations associated with particular individuals can then be related to their respective social attributes and origins.

1.1. Social Capital and Second-generation Immigrants

In the context of immigrant populations and their children, Portes (1995) defined social capital as the capacity of individuals to command scarce resources by virtue of their membership in networks or broader social structures. In this view, social ties play an important role in shaping specific outcomes and dynamics of the life course. According to Portes (1995), because social ties and social networks are based on mutual obligations at the levels of individual relations and larger communities (see also Putnam 2000), they can function as a resource as well as a burden. In particular, networks based on strong social and cultural similarity within ethnic communities may well help to receive solidarity and find entry jobs in specific sectors, but they may also prevent social mobility and broader social integration in the long run (Portes 1995). In a similar vein, Borjas (1992, 1993, 1994) proposed the concept of ethnic capital and posited that ethnicity acts as an externality in the process of accumulating human capital. According to this author: “The skills of the next generation depend not [only] on parental inputs, but also on the average quality of the ethnic environment in which parents make their investments or ‘ethnic capital’ […] The introduction of ethnic capital into an economic model of intergenerational

mobility has one important implication: if the external effect of ethnicity is sufficiently strong, ethnic differences in skills observed in this generation are likely to persist for many generations" (Borjas 1992, 123). Borjas (1992) notably showed that the educational attainment of a second-generation immigrant is generally well predicted by the average level of education within his/her ethnic community. More generally, skills and labor-market outcomes of second-generation immigrants depend not only on the skills and labor-market experiences of their own parents but also on skills and labor-market experiences which circulate within their wider ethnic community, through social contacts between coethnics. This view is further corroborated by findings from Sweden, which show that living in a high-income ethnic enclave can improve an individual's social and economic prospects, whereas living in a low-income ethnic enclave will lower these prospects (Hammarstedt and Palme 2012).

An important qualitative distinction introduced already by Granovetter (1973, 1990) concerns the difference between weak links and strong links: the strength of a link between two persons is determined by the emotional intensity, level of intimacy, mutual trust, amount of time spent together, and reciprocal services between the two persons. If two people have stronger links, the probability that they share mutual friends will increase (Granovetter 1973). However, in a network mainly composed of strong links, the distribution of information will be less effective, and information will circulate less easily than in a network that includes a significant proportion of weak ties, which are more likely to bridge more diversified social worlds.

The contributions of Bourdieu (1986, 1996) are particularly useful to conceptualize the relationship between inequalities rooted in social structure and individual social capital. They provide "a useful alternative to other

conceptualizations of social capital, by emphasizing, on the one hand, social hierarchies and power differentials among different resources/networks and, on the other, their exclusionary aspects" (Cederberg 2012:60). This shows that class differences and social inequalities depend not only on the economic or cultural capital directly possessed by an individual person but also on the economic or cultural capital which he/she can access by mobilizing his/her social network. For Bourdieu (1996), social capital hence acts as a multiplier of economic or cultural capital and therefore plays an essential role in processes of social inclusion and exclusion. This perspective appears particularly relevant to conceive of social capital not just as an outcome of individual activity and effort but as an asset (or burden) that is partially inherited, i.e., depending on the history and collective trajectory of the family and community into which one is born.

A more specific aspect of social capital that has been studied among children of immigrants is related to the concept of significant others (Woelfel and Haller 1971). Following Bader and Fibbi (2012), these can be associated with three types of circles, which act on children concomitantly or separately: the family, the (ethnic) community, and the institutional circle around school or work relationships. Nee and Sanders (2001) studied the important role of *family* for providing key resources in the experiences of second-generation immigrants. For these authors, family is often the most readily available resource for youth to access the labor market, through the social ties of parents, siblings, and relatives as well as their friends. Andersson and Hammarstedt (2015) studied *communities* of immigrants in so-called ethnic enclaves and showed that these communities not only provide collective resources for immigrant children that their families lack but also provide their coethnics with

goods and services that they would not be able to access through contacts with "natives" (see also Portes and Zhou 1993).

However, family ties and belonging to a community can also involve a number of constraints and require compliance with particular social norms. The most important constraints and normative pressures typically stem from strong ties, more particularly from the family (Portes, 1997). Difficulties encountered by the first generation of immigrants might also be passed on to the next generation.

The *institutional* circle (school, work) provides the children of immigrants with access to a third type of social resources. Through school and work, they are likely to get in touch with more diverse social worlds and more heterogeneous circles of acquaintances. The social capital accumulated through social contacts established in the context of formal institutions opens up information and potential services spanning beyond the reach of the family or a larger community based on social and cultural similarity (Portes 1995, 2003). These links might, in particular, provide proactive or protective resources to cope with a critical life-course transition like entry into the labor market (Granovetter 1974).

Finally, drawing on Granovetter's (1973) classic distinction between strong and weak ties, Putnam (2000) proposes that different type of social ties can roughly be classified according to their main function, as either bonding or bridging forms of social capital. *Bonding social capital* reinforces specific reciprocity by mobilizing internal solidarity within groups. According to Agnitsch et al. (2006, 39), "it is found among densely connected groups with strong, affective ties connecting group members to each other, and is important in providing social support and increasing in-group solidarity". *Bridging social capital*, in contrast, links one social group to external assets and information through social network ties. Unlike bonding social

capital, through which networks are composed of similar people with presumably similar resources, bridging social capital is crucial in accessing a wider variety of resources and enhancing the diffusion of information across larger groups (Putnam 2000). According to Putnam (2000), (ethnic) communities will be of particular appeal to their members when they are able to provide both forms of social capital to their members, i.e., when they are both socially cohesive and provide effective economic niches for newcomers and their children.

1.2. The Swiss case

Switzerland has an important history of immigration. At the end of World War II, many immigrants from Italy and Spain came to Switzerland. Bilateral agreements governing the entry and residence of these temporary "guest workers" motivated them to settle and become part of society. Thereafter, these immigrant groups were joined by workforces from the Balkans (Fibbi, Lerch and Wanner 2007). In the early 2000s, the introduction of the Law on the Free Movement of Persons for the Residents of the European Economic Area (EEA), facilitated the arrival in Switzerland of migrants from bordering countries such as Germany, France, and Italy.

According to the Swiss Federal Statistical Office, in 2015, about 29% of the Swiss population had migrated to Switzerland during their lifetime, whereas 8% had at least one of their parents born abroad (OFS 2017). For these second-generation immigrants, the composition of social networks and the distribution of social capital are of particular importance during their entry into adult life and their first contacts with the labor market (Cacciuttolo 2009). In this paper, we will use the term "Secondos" as a synonym for second-generation immigrants, following a

terminological practice that has been common in the Swiss context (Bolzman,et al. 2003).

Fibbi et al. (2011) and Fibbi and Wanner (2009) showed that "Secondos" find significantly more favorable conditions of access to the labor market than their first-generation[25] counterparts. However, Guarin and Rousseaux (2017) found that compared with the general youth population, Secondos from specific origins tend to have lower incomes and less desirable jobs at the same level of qualifications, even after controlling for their parents' social class.[26] The authors therefore hypothesized that the observed differences in economic opportunities between second-generation immigrants depending on their ethnic background could be due – among other factors, like social prejudice or discriminatory treatment – to differences in the types of social capital to which they have access through their communities.

Burri et al. (2010) found that women from the larger Kosovo region are clearly underrepresented in the Swiss labor market, compared both with their male compatriots and with women from other backgrounds, especially among older age groups. These findings led the authors to speculate as to whether the traditional role of women in the families of certain ethnic communities and, thus, normative expectations and pressures from the family and the community can become an impediment when these women seek work.

[25] Regarding migration networks, researchers frequently resort to concepts like migration chains, migration networks, social remissions, and/or transnational networks to explain the development of migration and the integration of immigrants. These concepts are regularly used to analyze the linkages between migrants from the same country and bring an ethnic perspective to the analysis (Ávila 2008).

[26] The results are more evident for "new" second-generation immigrants. The authors used the phrase "'new' second-generation immigrants" to refer to the second-generation of immigrants from Turkey and former Yugoslavia in Switzerland, whose parents arrived in Switzerland in around the 1980s. Thus, this term is used to differentiate them from the population groups of second-generation immigrants with Italian and Spanish origins (Fibbi, Wanner, Topgül and Ugrina 2015).

Guarin, Bernardi and Schmid (2018) also found that the chances of having a second child are lower for both immigrants and their descendants than for Swiss natives, and they proposed that the arrival of a child requires additional economic and social resources, which are less available to families with an immigrant background and thus more restricted social networks.

In sum, the current literature documents well that “ethnic penalties” exist in Swiss society, and that where one’s parents are from has an objective impact on social and economic opportunities during entry into adult life. Several authors have invoked unequal access to different forms of social capital as one possible mechanism contributing to these inequalities, but none so far has directly empirically substantiated the assumption that (in Switzerland) the types of social capital to which one has access during early adulthood depend on where one’s parents came from. The current study aims to fill this gap.

More specifically, we aim to address three research questions:

1) Do the size, composition, and diversity of young adults’ contact networks in Switzerland depend on their parent’s place of origin?

2) Do the scope of young adults’ regular social interactions and the different social spheres in which they pursue these interactions form qualitatively different types of social capital?

3) Are the different types of social capital that coexist within contemporary Switzerland meaningfully related to collective migration histories and to the current positions of different communities in the ethnoclass structure of Swiss society?

2. Methods

2.1. Data and Variables

The present analyses are based on the LIVES Cohort Survey (Spini et al. 2019). This cohort study is a panel survey whose first wave was conducted between October 2013 and June 2014. Three criteria defined the reference population for the cohort: a) being a Swiss resident, b) being aged 15–25 on January 1, 2013 (i.e., being born between 1988 and 1997), and c) having attended a Swiss school before the age of 10. What is more, whether naturalized or not, second-generation immigrants were overrepresented, and particular attention was paid to the offspring of low- and middle-skilled migrants, who mainly hailed from Southern Europe or the Balkan Peninsula (Elcheroth and Antal 2013). [27] Hence, the sample design corresponds to an unequal probability sample in which the probability of inclusion for each individual is known, thus allowing the use of weights to make statistical inferences to the corresponding cohort in the reference population (see Antal 2016).

The LIVES Cohort Survey (2013) contains three types of data: calendar data, household data, and network data. The present paper focusses on the network data, which were available for 1,616 respondents. After removing individuals who did not provide information on the country of birth of either of their parents (i.e., for whom the critical origin variable could not be derived), 1,445 respondents were left. Among these, 352 (24.3%) were defined as Swiss natives (two parents were born in

[27] The LIVES Cohort Survey is distinguished by its particular sampling process. The selection process of the first wave used a controlled network sampling method, starting with a stratified random sample, and w composed by three separated steps. Phase 1: Drawing a stratified random sample with unequal inclusion probabilities from the reference population. Phase 2: Secondos with the started sample. Phase 3: Over-representation of Secondos by network sampling. In each steps the inclusion probability of each individual can be calculated or efficiently estimated (see Antal 2016).

Switzerland), and 1,093 (75.6%) are Secondos (at least one parent born outside of Switzerland.[28]

During the survey interviews, respondents' contact networks were generated by asking them to recall people aged between 15 and 25 years who lived in a different household, with whom they had regular contact in the last three months, and who currently resided and were schooled in Switzerland. They were instructed to think of everybody with whom they had conversed at least once a week during this period, as part of an extraoccupational activity.[29] They were told not to mention people with whom they talked only for occupational purposes or as part of a service that they gave to another person in carrying out a paid or volunteer activity.

After generating a list of network members (alters), which was limited to 15 members maximum, the respondents (egos) provided additional information on each network member (all egos together generated 11,095 alters), including if they were Secondos or not. Other information concerned the languages that each Alter felt the closest to and knew the best (see Appendix 1). Finally, of particular importance for the present study is the social sphere in which the respondents regularly interacted with each of their social contacts. Several answers were allowed to the question, "Can you tell me the context of the types of activities during which you talk regularly with each person you just mentioned?" Several answers were allowed, and the proposed response categories were: work breaks, training, family

[28] We decided to use the term "second-generation" and not "1.5 generation". Our previous investigations, which distinguished between children who arrived in Switzerland between age 6 and 10 years old and those born in Switzerland, showed no significant differences. Note that this could be explained by the small number of respondents who arrived in Switzerland at these ages. We considered that both types of respondents (natives and Secondos) share the fact that they were socialized in Swiss obligatory school.

[29] Respondents were told to think, for example, of acquaintances with whom they talk on the sidelines of a sport, cultural, or religious activity but also their colleagues or fellow students with whom they discuss, share work, or spend breaks, or even relatives or neighbors with whom they talk through a friendly or recreational activity.

meetings, religious practice, sports activities, outings with friends, other leisure activities, other activities, and no common activity.

2.2. Sample Composition

To identify the origins of the respondents, they were first divided into “natives” and “second-generation immigrants” in our network, on the basis of their parents’ birth countries. Natives were defined as individuals whose parents were both born in Switzerland or arrived in Switzerland before the age of 18. If at least one parent was born outside of Switzerland and arrived as an adult,[30] the respondent was considered a second-generation immigrant. If a descendant of immigrants had parents of different foreign origins, priority was given to the father’s birth country.[31] Then, we disaggregated the variable origin according to parental geographic origin, regrouping it as follows: (a) North-Western and Central European countries (5.46%) (Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, Ireland, Liechtenstein, Luxembourg, the Netherlands and territories, Norway, Poland, Romania, Sweden, the United Kingdom and territories, and Ukraine); (b) Southern European countries (23.11%), which have had a longer tradition of migration to Switzerland (Greece, Italy, Portugal, and Spain); (c) South-Eastern European countries (27.75%), where migration to Switzerland has been more recent (Albania, Bosnia-Herzegovina, Croatia, ex-Republic of Yugoslavia, Kosovo, Macedonia, Montenegro, Slovenia, and Serbia); (d) Turkey (5.05%), which

[30] We decided to use the term “second-generation” and not “1.5 generation.” Our previous investigations, which distinguished between children who arrived in Switzerland between age 6, or 10 years old and those born in Switzerland, showed no significant differences. Note that this could be explained by the small number of respondents who arrived in Switzerland at these ages. We considered that both types of respondents (natives and Secondos) share the fact that they were socialized in the Swiss obligatory school.

[31] There were only 19 cases where parents were born in different countries.

is also considered a new second-generation immigrant group, is widely represented in Switzerland (Fibbi et al. 2015), and is large enough in the present sample to identify it as a separate group; and (e) Non-European countries, which include African (5.05%), American (4.84%), and Asian countries (4.35%) (see Table 1).

Table 1: Sample Composition (%)

	Natives	North-Western and Central European Secondos	Southern European Secondos	Southeastern European Secondos	Turkish Secondos	African Secondos	American Secondos	Asian Secondos	T-test (Pearson's Chi-squared)
Age									458.17
15-19	59,9	63,29	58,7	43,6	43,8	52,1	60,0	57,1	df=21
20-25	40,1	36,7	41,3	56,4	56,2	48,0	40,0	42,9	***
Count	352	79	334	401	73	73	70	63	
Sex									464.7
W	54,0	58,2	48,8	48,4	48,0	71,2	51,4	47,6	df=21
M	46,0	41,8	51,2	51,6	52,1	28,8	48,6	52,4	***
Count	352	79	334	401	73	73	70	63	
Language mastered 1									
French	35,2	53,2	55,7	18,7	20,6	71,2	45,7	36,5	585.86
German or Swiss German	56,3	43,0	28,7	73,3	69,9	21,9	40,0	55,6	df=35
Italian	8,0	3,8	11,7	3,5	1,4	2,7	7,1	4,8	***
Other	0,6	0,0	3,9	4,5	8,2	4,1	7,1	3,2	
Count	352	79	334	401	73	73	70	63	
Nationality*									
Swiss	97,7	79,8	26,7	47,1	45,2	64,4	68,6	87,3	
Nordwestern and Central Europan	0,0	19,0	0,0	0,3	0,0	2,7	1,4	3,2	1644.8
Southern European	2,3	1,3	73,4	0,8	2,7	20,6	15,7	1,6	df=49
Southeastern European	0,0	0,0	0,0	51,9	0,0	0,0	0,0	1,6	***
Turkish	0,0	0,0	0,0	0,0	52,1	0,0	0,0	1,6	
Other	0,0	0,0	0,0	0,0	0,0	12,3	14,3	4,8	
Count	352	79	334	401	73	73	70	63	
Civil Status									459.59
Single / Never married	99,7	98,7	98,2	94,5	94,5	97,3	100,0	100,0	df=21
Married	0,3	1,3	1,8	5,5	5,5	2,7	0,0	0,0	***
Count	352	79	334	401	73	73	70	63	
Occupation									
Unemployed	2,8	2,5	3,3	6,0	8,2	6,9	2,9	4,8	496.24
Employed	18,5	15,2	21,3	38,5	35,6	11,0	14,3	22,2	df=28
In training	78,7	82,3	75,5	55,5	56,2	82,2	82,9	73,0	***
Count	352	79	334	400	73	73	70	63	
Educational level									
High	5,4	5,1	1,8	2,5	2,7	1,4	2,9	0,0	460.33
Medium	33,6	34,2	40,4	50,8	46,6	35,6	35,7	44,4	df=28
Low	61,0	60,8	57,8	46,8	50,7	63,0	61,4	55,6	***
Count	351	79	334	400	73	73	70	63	
Household type									
Alone	8,0	3,8	3,3	2,3	2,7	8,2	4,3	4,8	497.89
Couple	4,3	2,5	4,2	6,0	4,1	1,4	0,0	1,6	df=35
Parent(s)-Child(ren)	81,5	79,8	90,7	89,3	93,2	89,0	88,6	84,1	***
Other	6,3	13,9	1,8	2,5	0,0	1,4	7,1	9,5	
Count	352	79	333	400	73	73	70	63	
People in the household									
Mean (Min = 1; Max = 9)	3,6	3,7	3,6	4,3	3,8	3,7	3,2	3,7	
Count	352	79	334	401	73	73	70	63	

Note:
*Group of countries was created in the same way as for the variable origin

Table 1 is a descriptive presentation of the study sample's composition according to parents' origin. The results show that natives, Secondos with North-Western and Central European origins, and Secondos with Southern European origins were somewhat more represented in the category 15–19 years old, in comparison with other groups of Secondos. In most groups, the numbers of men and women were similar.

Language is likely to play an important role in the construction social ties, as it allows or prevents access to social spheres that will change the composition of networks (Portes 1995, 2003; Putnam 2000). In the cohort survey, respondents chose the language they were the most fluent in. The results show that all of the Secondos with North-Western and Central European origin were most fluent in one of the national languages (German, French, or Italian), whereas Secondos with Turkish origins had a higher percentage in the "other" language category (8.2%) than all other groups.

Respondents also answered the question "What is your first nationality?" While we are aware that the answer to this question does not imply a direct "choice" in declaring one's nationality (like the question "What is the nationality with which you feel closest?"), it is still interesting to note that that Secondos with North-Western and Central European origins (and Secondos with Asian origins) regularly declared their Swiss nationality as their first nationality (79.8% and 87.3%, respectively) more frequently than all other groups of Secondos, reflecting high rates of naturalization and possibly looser attachment to the nationality inherited from (one of) their parents. On the other hand, among Secondos with Southern European origin, only 26.7% declared Swiss nationality as their first, which might indicate stronger attachment to the nationality of their parents' country of origin.

With regard to their marital status, the vast majority of the sample were single persons, which is easily explained by the young age of the respondents. Yet, the percentages in the “married” category were slightly higher for Secondos with South-Eastern European and Turkish origins (about 5.5% for both groups).

Two other dimensions plausibly play a role in the constitution of social capital: occupation and education. In our analysis, we distinguished between three types of occupation: unemployed, employed, and in training. Whereas Secondos with South-Eastern European and Turkish origins were more frequently employed and less frequently in training, Secondos with other origins and natives were the most represented in the training category. A similar division appeared regarding level of education, with more Secondos with South-Eastern European and Turkish origins in the “low education” category than all other groups. Finally, the vast majority of respondents, whatever their origin, lived in their family’s household and (presumably) still with their parents.

2.3. Data Analyses

We analyzed the data in three steps. The first step concerned descriptive analyses of relevant network characteristics, specifically number of regular contacts, share of Secondos among them, reference languages of the contacts, and social spheres of interaction with them. For these analyses, we merged the American, African, and Asian categories to facilitate reading and to focus on groups more represented in Swiss migration history. We also used survey design weights to infer estimates for the entire cohort in the Swiss reference population (Antal 2016).

In our second analysis, to study different types of social capital qualitatively, we applied hierarchical cluster analysis to network sizes overall as well as broken

down by social spheres of interaction. For Hair, Black and Babin (2009), hierarchical clustering analysis groups individuals into clusters according to the degree of mutual proximity, which the literature calls the distance/similarity (Filho et al. 2014). Here, we implemented hierarchical clusters on the outcomes of a principal components analysis (PCA) on the overall and sphere-specific network sizes, using the R package FactoMineR (Husson, Josse and Pagès 2010). Performing an PCA before the cluster analysis "can be viewed as a de-noising method that separates signal and noise: the first dimensions extract the essential of the information while the last ones are restricted to noise. Then without the noise in the data, the clustering is more stable than the one obtained from the original distances" (Husson et al. 2010:2).

The third step consisted of estimating logistic regression models, using the cluster memberships in the previous step as outcome variables. This step notably makes it possible to analyze whether, controlling for other factors, the origin of parents affects the type of social capital available.

3. Results

3.1. Descriptive Approach to Network Characteristics

Number of social contacts and share of Secondos among them. Table 2 provides the first indication regarding the network composition across different origins. The results show that networks of Secondos with South-Eastern European and Turkish origins are smaller, on average, than for all other groups. Children of immigrants with South-Eastern European origins had the highest share of Secondos in their networks.

Main language(s) of social contacts. As the data do not provide specific information on the origin of alters' parents, we decided to use their main language

as an indirect indicator of their cultural affiliation. For those with fluency in two different languages, we focused here on the second language mentioned if the first language mentioned was one of the three Swiss national languages.

Table 2: Network Characteristics by Origin

	Natives	North-Western and Central European Secondos	Southern European Secondos	Southeastern European Secondos*	Turkish Secondos	Non European Secondos**
Overall number of regular contacts						
Mean (Min=1; Max=15)	8,0	7,8	7,9	6,1	5,5	8,3
Count	549	109	179	254	72	277
Share of Secondos among regular contacts (%)						
Natives	91,2	86,1	74,3	66,5	73,3	76,4
Secondos	8,8	13,9	25,7	33,5	26,7	23,6
Count	544	110	171	250	72	273
Share of main languages among regular contacts (%)						
French, German or Italian (Natives)	79,8	79,0	55,0	43,2	49,2	69,9
Albanian, Serbian, Montenegrin, Croatian, Serbo-Croatian dialect, Gheg, Tosk…	2,6	3,0	5,6	38,1	13,4	6,7
Spanish and Portuguese	15,5	14,8	37,0	13,1	12,3	19,9
Turkish	1,6	1,5	1,4	4,4	23,0	1,8
Other languages	0,6	1,8	1,0	1,2	2,0	1,8
Count	544	109	171	249	72	272
Share of contexts of interaction among regular contacts (%)						
…work	5,1	4,4	7,3	5,5	4,0	5,2
…training	27,1	31,7	21,2	23,1	22,8	25,3
…family	3,5	1,7	4,5	7,2	5,9	3,6
…religion	1,3	1,9	0,7	1,3	2,5	1,9
…sport	8,5	6,2	8,2	8,1	5,7	7,0
…friends	40,5	44,0	45,8	40,5	42,8	43,4
…leisure	12,2	8,9	10,5	13,6	14,5	11,7
…others	1,7	1,1	1,9	0,7	1,7	1,9
Count	544	109	171	249	72	272

Notes:
*Albania, Bosnia-Herzegovina, Croatia, Ex-Republic of Yugoslavia, Kosovo, Macedonia, Montenegro, Slovenia, Serbia
**American, African and Asian countries
Data are design-weighted to correct for unequal selection probabilities

The results (see Table 2) show that natives and Secondos with North-Western and Central European origins had higher shares of social contacts who are fluent only in national languages (about 80%). By contrast, for Secondos with Southern European origins, only 55% of their social contacts were fluent only in national languages, whereas a substantial part was fluent in a foreign language spoken in Southern Europe. Secondos from a South-Eastern European background similarly had many social contacts fluent in a foreign language spoken in their parents' region

of origin, whereas the social contacts of Secondos from a Turkish background appeared the most diversified with regard to language.

Spheres of interaction of social contacts. Finally, we identified the contexts of social activities in which respondents reported regular interactions with their contacts. Two results are particularly noteworthy. First, it appears that Secondos of North-Western and Central European origins and, to a lesser degree, natives had more contacts in the context of training activities than all other groups. Second, social contacts related to the family sphere represented a higher share of all contacts among Secondos with South-Eastern European and Turkish origins.

3.2. Types of Social Capital

To study qualitatively different types of social capital within our population, we focused on the number of social contacts in the network, overall and by spheres of interaction. For this end, the contexts of social activities were grouped into four theoretically relevant types of social spheres: *family* (interactions in the context of family meetings), i*nstitutions* (interactions in the context of work and training), *associations* (interactions in the context of religious practice, sports, leisure of other activity), and *friendship* (outing with friends). Table 3 shows outcomes of the combined principal components and cluster analyses. The V-test indicates the specific contribution (strength and direction) of individual variables to the definition of each cluster. The findings show three distinct groups of respondents (see Table 3):

1. Restricted networks. The respondents grouped into this cluster (Cluster 1) were characterized by generally smaller contact networks. The most characteristic value with which to define this cluster (negatively) is the overall network size. These

cluster members displayed substantially fewer social contacts than average in the spheres of friendship and associations with formal institutions. The only value that approached the overall sample average concerned social contacts within the family sphere, which indicates networks that span with more difficulty beyond this primary sphere of sociability.

Table 3: Contributions of Network Size, Overall and by Social Sphere, to the Definition of the Three Clusters

Cluster 1	v.test	standard deviation in category	Overall standard deviation	p.value
Family	-1,93	0,40	0,9997	***
Institutions	-15,10	0,44	0,9997	***
Associations	-16,32	0,34	0,9997	***
Friendship	-20,83	0,47	0,9997	***
Overall network	-27,05	0,41	0,9997	***
Cluster 2	v.test	standard deviation in category	Overall standard deviation	p.value
Associations	12,11	1,01	0,9997	***
Family	8,49	1,16	0,9997	**
Friendship	4,88	0,81	0,9997	***
Overall network	2,79	0,62	0,9997	**
Institutions	-11,39	0,52	0,9997	***
Cluster 3	v.test	standard deviation in category	Overall standard deviation	p.value
Institutions	28,68	1,09	0,9997	***
Overall network	26,89	0,87	0,9997	***
Friendship	17,83	1,18	0,9997	***
Associations	5,21	1,29	0,9997	***
Family	1,99	1,25	0,9997	*

*** p < 0.001, ** p < 0.01, * p < 0.05

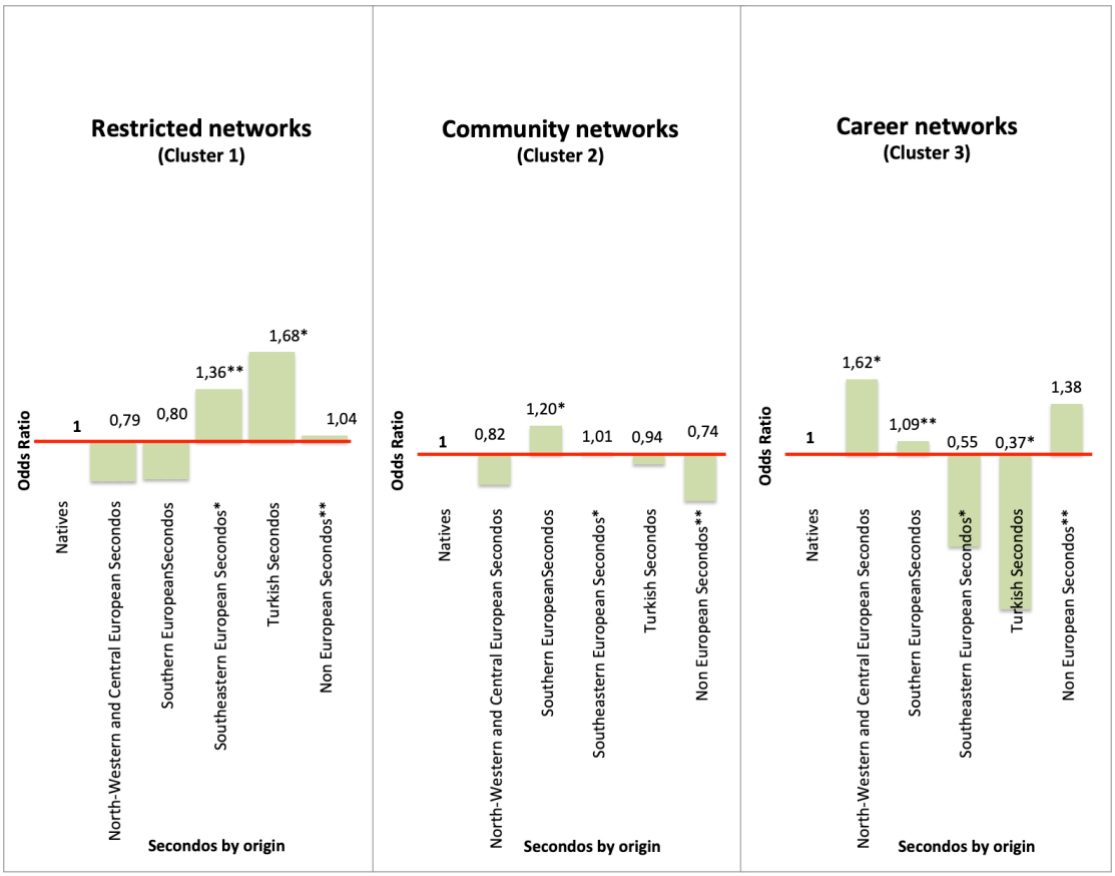
2. Community networks. In this cluster, people had more social contacts than average with whom they interacted in the context of community activities related to specific associations (religious, sports, or leisure) or, to a lesser degree, with family and friends. However, they had much fewer social contacts than average in the context of formal institutions (occupational or training).

3. Career networks. Of the three clusters in our analysis, this last one can be considered as displaying the most extended contact networks. Respondents grouped into Cluster 3 maintained regular social interactions with colleagues from work or training much more frequently than average, and the overall size of their networks was much larger than average. The other contributions are positive as well, although smaller, which means that members of this cluster had more regular contacts than average in the spheres of friendship and, to a lesser degree, associations or family.

3.3. Impact of Family Origin

Once we identified these three distinct configurations of social capital, we could link them to the origins of parents. To do this, we carried out logistic regressions that modelled how origin (with natives defined as the reference group) affected the likelihood of belonging to each of the three clusters generated in the previous step (restricted networks, community network, and career networks. Four successive models were performed. The first model assessed the “gross” effect of parents’ origin on type of social capital, without any control variables. Model 2 controlled for sex and age, Model 3 added educational level, and Model 4 added employment status. Overall, the impact of family origin appeared consistent across all four models. We will therefore focus on the interpretation of the full Model 4, which displays only the net effects of family origin after controlling for sex, age, and educational level (Figure 1).

Figure 1: Partial Logistic Regression Coefficients for Type of Social Capital by Family Origin (Reference Group = natives)



Notes:
Model was controlled for different variables: sex, age, educational level and employment statuses.
***p < 0.001, **p < 0.01, *p < 0.05
*Albania, Bosnia-Herzegovina, Croatia, Ex-Republic of Yugoslavia, Kosovo, Macedonia, Montenegro, Slovenia, Serbia
**American, African and Asian countries

Overall, the results show that specific origins stood out in each cluster. Secondos with South-Eastern European and Turkish origins were overrepresented in the restricted networks cluster. Their odds of falling into this cluster were significantly higher than those of natives, with odds ratios of 1.36 and 1.68, respectively. In the *community networks* cluster, Secondos with Southern European origins stood out with significantly higher representation than that of natives (odds ratio = 1.2). Interestingly, Secondos with North-Western and Central European origins and Secondos with non-European origins tended to be underrepresented in this cluster

(even if their odds ratios of less than 1 were not significant, which, at least for Secondos with non-European origins, was certainly related to their small subsample size).

Finally, Secondos with North-Western and Central European origins clearly stood out positively in the career networks cluster (Secondos from non-European backgrounds displayed a similar tendency, although the odds ratio with natives did not reach statistical significance), while Secondos from a Turkish background (and, although non-significantly, from a South-Eastern European background) appeared strongly underrepresented in the same cluster.

4. Discussion

Using an original dataset that allows comparison of young adults from different origins, our analysis focused on different configurations of social capital and associated factors within a Swiss cohort. More specifically, we studied the relationship between parents' origin and their children's access to specific types of social capital during entry into adult life.

Our results show that young adults whose parents were born in Switzerland and those whose parents came from North-Western and Central Europe or from Southern Europe had similarly sized networks, with average numbers revolving around eight regular contacts outside their household within the same cohort. On the other hand, children of immigrants with South-Eastern European and Turkish origins had smaller networks: on average, they revolved around five to six regular contacts. The results further suggest that their networks are more oriented towards persons from a similar (cultural) background to their own, particularly among Secondos with South-Eastern European origins. Privileged contacts with culturally

similar others appeared to play a role among Secondos from Southern European origins as well, but in this case without being a by-product of smaller overall contact networks.

To further identify qualitatively different types of social capital, we studied the specific social contexts within which social ties were created, activated, and consolidated. Our findings reveal three qualitatively distinct configurations of social capital and show that access to different forms of social capital depends not only on individual life choices and qualifications but also on where one's parents are from. For Secondos from South-Eastern European or Turkish backgrounds, regular social contacts tend to be scarcer and more limited to interactions within the family circle. They are strongly overrepresented in the restricted networks type. This might limit the flow and diversity of information and thereby the social resources available to these population groups. In light of these results, one might wonder whether having more restricted networks is related to the type of migration and the length of time that the community has been established in the host society. In Switzerland, this group of Secondos works disproportionally "in unskilled jobs and are generally in the same sector, mostly in the cleaning and services sector (concierge, sewing, farming, support services, health care, etc.). Even those who emigrated during the 1980s and 1990s, and many of them were well qualified, hold mainly unskilled positions" (Burri et al. 2010:59); or, as Fibbi (2004) stated, they often have no better option than these positions offered by "their own", as they are discriminated against in more attractive segments of the labor market.

For these groups of the population, school inequalities also remain marked: they are particularly oriented towards sectors with elementary requirements (of secondary I), and many of them do not obtain post-compulsory certification

(Gomensoro and Bolzman 2016). As a combined consequence, these population groups tend to be more confined to sectors in which their families and communities are already present.

The comparison with community networks, a second type of social capital, is interesting. Secondos with Southern European origins were overrepresented in this sector, i.e., as a group that collectively has a longer history of establishment in Switzerland than migrants with South-Eastern European and Turkish origins. Ample opportunities for participation in the social life of established associations potentially facilitate access to relevant information and thus (probably) this Secondo group's overall social and economic integration during their transition into adult life. Previous studies conducted on the children of Spanish and Italian immigrants to Switzerland showed that, in terms of training and occupational integration, there is very little difference between them and members from the same generation whose parents were born in Switzerland (Bolzman 2007). These results are confirmed when we look at school pathways, political participation, and health, for which the life courses of descendants of Italians and Spanish immigrants are growing closer to those of natives (Bolzman et al. 2003).

By contrast, the third type of social capital found here – career networks – describes young adults who are in contact with a wider range of people with whom they notably interact, in institutional contexts likely to span beyond particular ethnic or cultural communities. Considering that the Secondos with North-Western and Central European origins (as well as from other continents) were the most represented in this cluster, they appear to have been part of a cosmopolitan elite having access to information and social resources that are likely to be particular instrumental for job and career opportunities. This interpretation is consistent with

the previous finding that in Switzerland, Secondos with North-Western and Central European origins have easier labor-market access than other groups (Guarin and Russeaux 2017).

These most instrumental links, which appear to be concentrated in the career networks type, might represent weaker emotional ties, but they provide more useful information for sociopolitical and occupational integration. “Strong” ties, on the other hand, such as those built within the family or community of belonging, can prove less effective in transmitting relevant information about available positions, for example. These links certainly facilitate the transfer of private or sensitive knowledge, but they tend to be compartmentalized within communities based on cultural and social similarity (Granovetter 1974). In some cases, they convey specific constraints and norms established within the family, clan, or community, which do not necessarily promote social mobility, or at least not for everyone (Portes 1997).

These findings call for future research to verify empirically whether the different types of social capital identified indeed lead to different socio-economic opportunities and to clarify the social mechanisms involved. Further studies might also look more directly into specific social “functions” that can be fulfilled by specific social contacts. The data analyzed here do not allow us to specify when young adults are calling for specific resources that are potentially available in their networks or the types of needs for which they are mobilizing their social contacts. Nor do the data allow for a detailed analysis of ethnic of cultural compositions of contact networks, in terms of, for example, the exact places of origin of the parents of network members.

Nonetheless, by using a unique data source on social contacts among young adults from diverse backgrounds and applying a novel analytic approach to identify qualitatively different configurations of social capital, we demonstrate here for the first time how parents' origin affects access to different types of social capital during entry into adult life in contemporary Swiss society. These findings open up interesting avenues for a more precise understanding of the social mechanisms through which unequal social opportunities are produced and maintained in multicultural societies, across a potentially broad spectrum of life-course outcomes, including in terms of careers, family formation, and well-being and health trajectories.

5. References

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Appendices

Appendix 1: Lives Cohort Survey 2013 - Enquête auprès d'une génération ayant grandi en Suisse. Questionnaire Réseau

Identification des membres du réseau de contact

1. J'aimerais vous demander tout d'abord de vous rappeler des personnes âgées entre 15 et 24 ans, avec lesquelles vous avez eu des contacts réguliers au cours des trois derniers mois. Pensez à tous ceux **avec qui vous avez eu au moins une conversation par semaine pendant cette période, dans le cadre d'une activité extra-professionnelle**. Pensez, par exemple, à des connaissances avec qui vous vous entretenez en marge d'une activité sportive, culturelle ou religieuse, à des collègues ou condisciples avec qui vous discutez en partageant les pauses de travail ou de cours, ou encore à des proches ou à des voisins avec qui vous vous entretenez dans le cadre d'une activité conviviale ou récréative.

   Précision : « Au moins une conversation par semaine » renvoie à une moyenne. Une personne avec qui le répondant estime avoir eu au moins 13 conversations au cours des trois derniers mois, est éligible, même s'il y a eu des semaines sans aucun contact. Il peut s'agir de conversations en face-à-face, par téléphone ou par visioconférence. Les sujets de la conversation ou leur importance subjective ne sont pas à prendre en considération.

   Attention, j'aimerais vous demander de mentionner uniquement les personnes susceptibles d'avoir entre 15 et 24 ans, de résider actuellement en Suisse et d'y être allé à l'école. Veuillez ne pas mentionner, par contre, des personnes qui vivent dans le même ménage que vous, ni des personnes avec qui vous vous entretenez uniquement dans un but professionnel ou dans le cadre d'un service que l'un rend à l'autre, en exerçant une fonction rémunérée ou bénévole.

   Précision : Un enseignant rend un service rémunéré à ses élèves, un commerçant à ses clients et un médecin à ses patients. Un entraineur sportif ou un travailleur social rendent un service, qui peut être rémunéré ou bénévole, à ceux qu'il entraîne ou à ceux qu'il assiste.

1.2 Pouvez-vous d'abord inscrire sur cette feuille les prénoms de toutes les personnes dont vous arrivez à vous souvenir s'il-vous-plaît, ainsi que leur sexe et leur âge ?

Pour chaque personne citée

2. J'aimerais maintenant vous poser une série de questions concernant la personne que vous venez d'identifier comme [PRENOM].
   Moyennant cette carte, pouvez-vous me dire dans le cadre de quel type d'activités vous vous entretenez régulièrement avec [PRENOM] ?
   → MONTRER CARTE DE REPONSE 1
   [PLUSIEURS REPONSES POSSIBLES]

1. Pause de travail
2. Formation
3. Rencontre familiale
4. Pratique religieuse
5. Activité sportive
6. Sorties entre amis
7. Autre activité de loisirs
8. Autre activité : _____
9. Aucune activité commune passer à la personne suivante
10. Sans réponse

2.1 Est-ce que l'un des deux parents de [PRENOM] au moins a grandi en Suisse ?

1. Sûr que oui
2. Sûr que non
3. Pas sûr

2.2 Dans quel pays [PRENOM] elle il/est né(e) ?

4. Suisse
5. Autre – > _____
6. Ne sais pas

2.3 Dans quelle région habite [PRENOM] actuellement, en vous référant à cette carte de la Suisse ?

→ MONTRER LA <u>CARTE DES REGIONS MS</u>

____ (enregistrer le numéro de région MS)

9. Ne sais pas

3.1 Est-ce que [PRENOM] a la nationalité suisse ?

1. Oui
2. Non
3. Ne sais pas

3.2. Est-ce que [PRENOM] a une ou plusieurs autres nationalités?

1. Oui aller à la question 3.3
2. Non aller à la question 3.4
3. Ne sais pas aller à la question 3.4

3.3. Laquelle / Lesquelles ?

_____

9. Ne sais pas

3.4. Quelle est la langue dont [PRENOM] se sent le/la plus proche et qu'il/elle maîtrise le mieux ?

<u>Précision :</u> Pour des personnes éduquées dans plusieurs langues, ***les deux langues*** *qu'elle maîtrise le mieux peuvent être indiquées*

1. Français (ou patois romand)
2. (Suisse) Allemand
3. Italien (ou dialecte tessinois, italo-grison)
4. Albanais (ou dialecte guègue)
5. Serbe, Monténégrin, Croate, Bosniaque
6. Macédonien
7. Espagnol
8. Portugais
9. Turque
10. Autre
11. Ne sais pas

Chapter 3: First and second births among immigrants and their descendants in Switzerland

This chapter is a reproduction of the article:

Guarin A., Bernardi L., Schmid F. (2018). First and second births among immigrants and their descendants in Switzerland. *Demographic Research* 35(2): 247-286. https://www.demographic-research.org/volumes/vol38/11/

A longer version using other data sources and relaying international comparative work can be found following the working paper:

Kulu, H., Hannemann, T., Pailhé, A., Neels, K., Rahnu, L., Puur, A., Krapf, S., González-Ferrer, A., Castro-Martin, T., Kraus, E., Bernardi, L., Guarin, A., Andersson, G., and Persson, A. (2015). A comparative study on fertility among the descendants of immigrants in Europe. Stockholm: Stockholm University (FamiliesAndSocieties working paper series "Changing families and sustainable societies: Policy contexts and diversity over the life course and across generations" 40).

http://www.familiesandsocieties.eu/wp-content/uploads/2015/09/WP40KuluEtAl2015.pdf

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1. Introduction

The fertility of migrants in Europe has attracted much attention in the literature, for three main reasons. Firstly, on average and in most countries, migrants' fertility is higher than the fertility of natives (Kahn 1988; Kulu et al. 2017), thus contributing to the slowing of population ageing (Sobotka 2008). Secondly, given that migrants face worse employment and economic outcomes (Algan, Dustmann, Glitz and Manning 2010; Alba 1985; Kogan 2007; Portes 1994; Portes and Rumbaut 2005) and greater challenges in cultural adaptation (Canales and Zlolniski 2000; Kevisto 2001; Levitt 2004; Portes 1997, 1999; Vertovec 2003), migrants' higher fertility is seen as challenging social welfare and social cohesion (Crul and Vermeulen 2003; de Valk 2011; Höhn 2005; Kulu et al. 2017). Thirdly, in the literature on migrants' integration, differential fertility patterns between migrants and majority populations are used as indicators of the degree of migrants' socio-cultural integration (Dubuc 2015).

In the past, the literature focusing on family dynamics among immigrants has looked at high-fertility immigrant groups migrating to low-fertility countries in Europe and North America and has found patterns of gradual adaptation of migrants' fertility (Andersson 2004; de Valk 2011; Ford 1990; Kulu 2005; Kulu and Milewski 2007). Many such studies report overall differences in fertility levels and show that age at immigration, duration of stay, reasons for migration, and labor force participation affect migrant fertility (Abbasi-Shavazi and McDonald 2000; Andersson and Scott 2005, 2007; Holland and de Valk 2013; Kulu and Milewski 2007; Toulemon 2004).

However, many studies do not address the large heterogeneity between different groups of migrants (Coleman 1994; Sobotka 2008). Given the general fertility decline in most sending countries, interest in that topic has increased. Kulu and colleagues (2015) show that immigrants from Pakistan and Bangladesh in the

United Kingdom and immigrants from Turkey in France, Belgium, Germany, and Switzerland exhibit significantly higher first-birth rates than most other population subgroups. Second-generation immigrants in these groups bear children sooner and more often than natives in their home countries (Kulu et al. 2015).

We know little about the first- and second-birth risks of different immigrant groups in Switzerland, particularly for new second-generation immigrants from Portugal, Turkey, and the Balkan regions (Fibbi, Wanner, Topgül and Ugrina 2015; Wanner 2012).[32] Such lack of knowledge is regrettable, given that Switzerland has one of the highest quotas of immigrants in Europe (Marks 2005). In 2015 about 36% of the Swiss population had immigrant origins (first- and second- generation immigrants) (FSO 2017). This high proportion is the combined result of a restrictive naturalization policy, which keeps migrants in the status of foreigners, and generally higher fertility rates compared with the native population (Fibbi and Wanner 2009; Wanner 2012).

Not only is the migrant population high, but it is also highly diversified in terms of geographic origin, socio-economic position, and migration trajectories (Afonso 2004; Bolzman 2001; Fibbi, Lerch and Wanner 2010; Laganà, Chevillard and Gauthier 2013; Lerch and Wanner 2010). Four-fifths of the immigrants come from various European countries but their migration history is heterogeneous. At the beginning of the 21st century the largest immigrant group in Switzerland came from Italy, followed by immigrants from Germany and Portugal (Federal Statistical Office 2014). Children of immigrants, commonly referred to as second-generation immigrants, have been educated and socialized in their parents' host country for

[32] By "new second-generation" in Switzerland we mean (principally) the children of immigrants from Turkey and former Yugoslavia in Switzerland (Zurich and Basel). See also Fibbi et al. (2015).

decades and constitute a substantial subgroup (Crul 2013; Crul and Mollenkopf 2012). Laganà and colleagues (2013) estimate that the proportion of children born to migrant parents in Switzerland is about 10%, of which 4% have Italian or Spanish parents and 5.4% have parents from the groups that have arrived more recently from Portugal, former Yugoslavia, and Turkey. A major challenge facing such groups is integration into Switzerland's federal structure, which is based on 26 cantons with different official languages – 65% of Switzerland's resident population speak mainly German, 23% speak French, and 8% speak Italian (Federal Statistical Office 2014). Until now, research on the fertility of immigrants in Switzerland has been based on nationality, without distinguishing between different immigrant groups or generations. Studies by Bolzman (2001, 2007) take into account Spanish and Italian immigrant children; research on fertility by Fibbi and Wanner (2009), Haug, Compton and Courbage (2003), and Wanner and Fei (2005) uses nationality to distinguish immigrant groups; Fibbi et al. (2015) study the second-generation of immigrants from Turkey and former Yugoslavia in Zurich and Basel and do not present results on timing and quantum of fertility; and the Federal Statistical Office presents differences of fertility according to nationality. Our paper contributes to the literature by adding to knowledge about fertility trajectories of migrants and their children in a context of highly diversified ethnic migration origins. Specifically, we study differences between first- and second-birth patterns of native Swiss, immigrants, and children of immigrants, examining probabilities of birth and the timing of birth for women of reproductive age and taking into account their ethnic origin. Drawing on data from the Family and Generation Survey (FGS) collected in 2013, we disaggregate the fertility indicators of intensity and timing by ethnic minority and by birth order, controlling for a variety of demographic and socio-

economic characteristics. To our surprise, we find that the comparison of second-generation migrants' fertility with that of their native counterparts diverges from what is observed in neighboring countries: in Switzerland the children of migrants delay or forego second births more often than the native Swiss.

In the next section we review existing explanations of differences in childbearing trends between natives, immigrants, and their descendants. In Section 3 we give an overview of immigrants' and their children's fertility in Switzerland. Section 4 introduces the data and methods of our analysis. Sections 5 and 6 display the results and our interpretation of them.

2. Theoretical background

2.1. Immigrants' fertility: Theoretical explanations

Compared with specific research on the structural integration of migrants (e.g., in host societies' labor markets or educational systems), research on socio-cultural integration has lagged behind (Hardin 2001). In particular, the question of why ethnic identities, habits, and behaviors tend to be associated with high levels of structural integration for some groups but not for others remains unanswered. Family patterns of immigrants and ethnic minorities have often been used in demography as indicators of migrants' degree of integration in host countries: the more similar the union and fertility dynamics of a migrant group are to those of the native population, the more the group is considered to be integrated in the host society (Coleman 2006; Kulu and Hannemann 2016; Milewski 2010; Tucci 2017). Yet given that the diversity of family forms has increased among immigrants and ethnic minorities just as it has among native populations, establishing a single, unidirectional relationship between immigrant family dynamics and integration is complicated (de Valk 2010). Despite

such difficulties, it has been claimed that some theoretical mechanisms, which are not mutually exclusive, link fertility patterns and the degree of migrants' integration. The most common mechanisms investigated in the literature are socialization, adaptation, selection, and disruption (Milewski 2007, 2010).

The socialization mechanism suggests that immigrants' family trajectories depend on the values, norms, and behavioral patterns that immigrants learn in childhood (Kulu and Milewski 2007; Kulu and González-Ferrer 2014). Since migrants come from contexts that differ in terms of family values and fertility practices, the socialization hypothesis allows for variation in individuals' fertility preferences according to their origin. The implicit assumption is that preferences are relatively stable over time, and that this remains the case despite the fact that the migration experience constitutes a major adjustment in the life course (Kulu and González-Ferrer 2014). Several empirical cases illustrate the pertinence of this hypothesis, showing that migrants' fertility is more similar to patterns found in their country of origin than to those in the host country, even after controlling for socio-economic characteristics (Alders 2000 in the Netherlands; Andersson 2004 in Sweden; Milewski 2010 in Germany). The uncertainty associated with the migration experience and the perception that the new environment threatens such values may reinforce adhesion to them (Huschek, de Valk and Liefbroer 2011).

The adaptation mechanism posits that the family behavior of migrants will gradually converge with that of their host society (Andersson 2004; Andersson and Scott 2005; Kulu and González-Ferrer 2014). Immigrants create a new family life that is influenced not only by past cultural customs and earlier socialization but also substantially by the lifestyle of the new country. The adaptation hypothesis is compatible with the socialization hypothesis (Krapf and Wolf 2015). According to the

adaptation mechanism the convergence of immigrants' and natives' behaviors does not occur immediately but takes more than one generation (Kulu and González-Ferrer 2014). Among current conditions that most influence the fertility preferences and behavior of migrants are economic constraints and the resources available to them (Andersson and Scott 2005, 2007; Kulu 2006; Kulu and Milewski 2007), and socio-cultural gender, fertility, and family norms in the host country (Kulu and González-Ferrer 2014). Consequently, despite coming from a context of early and high fertility, immigrants might adapt to the ideal smaller family size prevalent in the host country and enter into parenthood later.

The selection mechanism suggests that immigrants' fertility preferences and behavior differ from those of the population in their country of origin, and that this difference influenced their initial decision to leave (Andersson 2004; Kulu and González-Ferrer 2014; Kulu and Milewski 2007). The selectivity hypothesis demands that attention be paid to controlling the compositional differences between migrants on the one hand and the sending and receiving populations on the other (Rahnu, Puur, Skkeus and Klesment 2015). Selectivity may occur on the basis of individual characteristics such as education, occupation, social mobility, career ambitions, family proneness, or other characteristics that shape and reflect an individual's long-term plans (Hoem 1975; Macisco, Bouvier and Waller 1970). Depending on what kind of selectivity principle is at stake, migrants' fertility may be more or less similar to that of the host country.

Finally, the disruption mechanism emphasizes the importance of the timing of migration, differentiating between recently arrived migrants and longer-term migrants. Disruption assumes that fertility levels are particularly low immediately after migration due to the economic costs and psychological stress of migrating and

the immediate and often dramatic changes resulting from it (Kulu and González-Ferrer 2014). After an adjustment phase, the length of which varies according to migration circumstances, fertility levels are expected to rise again (de Valk and Milewski 2011; Kulu and Milewski 2007; Kulu and González-Ferrer 2014).[33] Yet, as a counter-hypothesis compatible with the disruption frame, a pregnancy may follow closely after migration to fill the time during the adjustment period when employment is disrupted and social networks are broken (Brinbaum and Kieffer 2004; Foner 1997; Kulu and Milewski 2007; Santelli 2007).

2.2. The fertility of the children of immigrants

Based for the most part on the previous four theoretical mechanisms, studies of immigrants' fertility have analyzed the descendants of immigrants as a distinct population subgroup that is expected to have behaviors in between those of their parents and those of their counterparts among the native population. Most studies have suggested that "the fertility of the descendants of migrants moving from high to low-fertility countries is lower than the one of their parents" (Andersson and Persson 2015: 6), while remaining higher than that of the majority population. While socialization, adaptation, disruption, and selection mechanism hypotheses work well for newcomers, they have been found to apply only partially to children of immigrants and their fertility. Unlike their parents, immigrants' children are socialized in the host country from a young age, meaning that they do not personally experience migration and its disruption potential. Adaptation is therefore strongly identified with socialization. However, differences in the fertility patterns of the

[33] For a summary of this topic, see Kulu and González-Ferrer (2014). They present an excellent state-of-the-art report of the hypotheses that explain the differences between immigrant populations and natives.

children of immigrants and native populations have mostly been interpreted as being due to modified socialization and adaptation mechanisms.

Socialization allows specific fertility norms and values to be transmitted from the first generation to their children. For some immigrant groups, values such as the ideal number of children and age norms concerning the transition to parenthood are transmitted between first- and second-generation immigrants (de Valk and Milewski 2011; Milewski 2011). Depending on the degree to which their ethnic group is open to other cultures and intermarriage, some children of migrants may grow up under the influence of an immigrant or minority subculture, which may also be reflected in their family and fertility ideals and behaviors (de Valk and Liefbroer 2007; Milewski 2010; Milewski and Kulu 2014). However, and cohering with the adaptation hypothesis, the children of immigrants might also experience cultural adaptation via social exposure to the majority population from an early age. In addition, they participate in the institutions and labor-market conditions of the host countries to a greater extent than their parents (Huschek et al. 2011).

Empirical research on the fertility of descendants of immigrants focuses on the comparison between first-generation migrants, their descendants, and native populations, as well as between the descendants of migrants of different origin (i.e., different migrant groups). Such research is still relatively young in Europe (de Valk and Milewski 2011). On the one hand, second-generation immigrants have in many cases not yet reached the end of their reproductive age; on the other hand, given the difficulty of identifying second-generation immigrants in the European surveys, establishing groups for meaningful comparison is challenging (Andersson and Persson 2015; Lessard-Phillips, Galandini, de Valk and Fibbi 2015; Kulu and Milewski 2007). However, studying the fertility behavior of individuals in their late

20s or early 30s is, in many cases, indicative of completed fertility (Kreyenfeld and Andersson 2014).

2.3. The compositional effects

In addition to these theories, we can also explain the differences in fertility between immigrants, their descendants, and natives by studying the composition effect. Besides cultural factors such as religion, language, and family orientation, socio-economic differences between first-generation immigrants, second-generation immigrants, and natives are pronounced and could play a role in fertility. One of these compositional effects is educational level: higher educational levels are related to higher opportunity costs and lead to lower fertility (Gustafsson 2001). School enrolment may be incompatible with family foundation, for several reasons. Young parents need time for childcare and employment to support their new families, making it difficult to invest in schooling (Moore, Manlove, Glei and Morrison 1998).

Parental education level plays an indirect role in fertility behavior via children's educational orientation and preferences: parents with higher education will be able to provide help during the schooling of their children and "they also have experience with the more demanding educational pathways, and this strategic knowledge places them [their children] in an advantageous position at important educational transitions" (Kristen, Sodian, Thoermer and Perst 2011: 124) and during prolonged enrolment in the educational systems (van Hek, Kraaykamp and Wolbers 2015). Children with highly educated parents may be socialized differently from children with less-well-educated parents: prolonged enrolment in the educational system leads to the postponement of family formation (van Hek, Kraaykamp and

Wolbers 2015). Other important compositional effects are the motivation for immigration and age at immigration (these variables only apply to first-generation immigrants). Research has shown an elevated probability of childbearing when migration is for family reasons. If immigrants who are joining their partner in the receiving country have not previously had children, they often have a concentrated reproductive period in the years immediately following the migratory event (Mussino and Strozza 2012). On the other hand, immigrants who are motivated for employment reasons may postpone having children.

2.4. First- and second-generation immigrants' fertility in Switzerland

The large size of the migrant population in Switzerland reflects a rich immigration history. The massive inflow of "temporary" migrants in response to labor force scarcity in the 1960s allowed for the settlement of large numbers of immigrants in most Western European countries (Coleman 2006; Mens 2006). In 1970, 65% of foreign nationals in Switzerland originated from Italy and Spain and 20% from France, Germany, and Austria. Between 1970 and 2000 the number of foreigners increased from 420,000 to 1.5 million, but Italians and Spaniards declined to 27% and foreigners from the three other neighboring countries to 14% (Haug and Wanner 2005). Huge changes in the European labor market as well as rapid economic growth in Southern Europe led to major return flows to Italy and Spain. Switzerland began accepting migrant workers from Turkey, former Yugoslavia, and Portugal, while immigrants from Asia were accepted under asylum rules (much less so for immigrants from Africa and Latin America). During the 1990s the breakup of Yugoslavia and the wars in Bosnia-Herzegovina and Kosovo brought large groups of migrants and their families to Switzerland (Haug and Wanner 2005). This

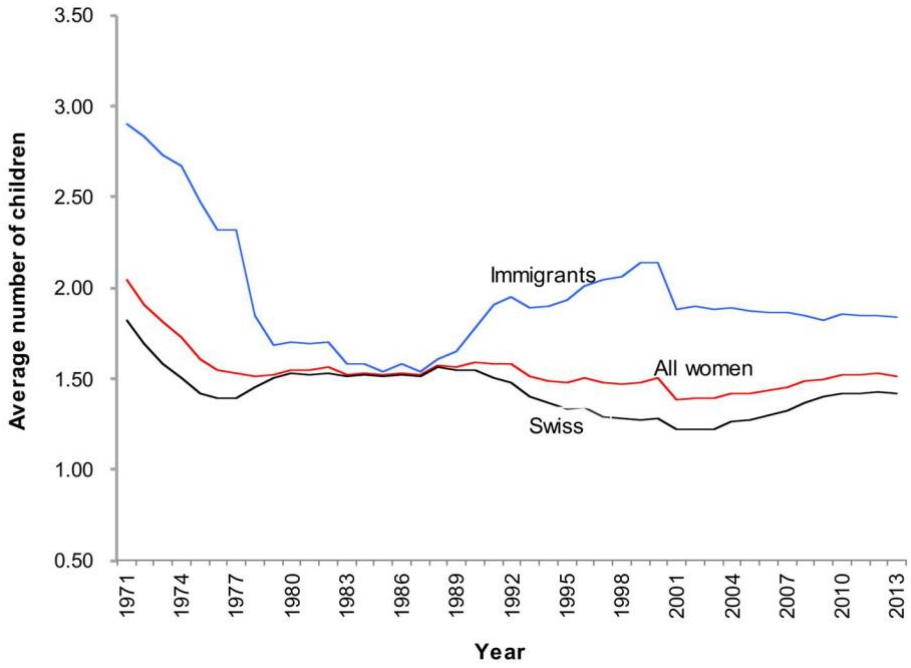
settlement was followed by family formation. People of Italian and Spanish origin still dominate among the descendants of immigrants, but the new immigrants are rapidly catching up as their children are born and raised in Switzerland, with most of them remaining foreign nationals (Mey, Rorato and Voll 2005).

The integration of the immigrant population in Switzerland has led to numerous studies in different fields (Bader and Fibbi 2012) regarding family formation (Bolzman, Fibbi and Vial 2003; Fibbi, Lerch and Wanner 2007; Wanner and Fibbi 2002), access to education (Bauer and Riphahn 2007; Fibbi, Lerch and Wanner 2010; Laganà, Chevillard and Gauthier 2013; Mahnig and Piguet 2003), demographic behavior (Wanner 2001), economic status (Flückiger and Ramirez 2003), and access to the labor market (Fibbi 2010).

Total fertility rates in Switzerland, as in other European countries, declined between the mid-1960s and 2001 and then gradually increased again to reach 1.52 children per woman in 2013 (FSO 2014). Women's average age at first birth increased from 28 to around 30 between the 1960s and the 1990s (Wanner 2004a; Wanner 2004b; Wanner and Fei 2005). In 2013 the average age was 32. Using census data, researchers (Guarin, Bernardi and Burkimsher 2016; Burkimsher and Zeman 2017) have shown that childlessness is fairly common for Swiss natives (over 20%), though there is also variation between the country's different linguistic areas. The Italian-speaking part of Switzerland has the highest frequency of childlessness (23% of women who have recently completed their reproductive life), followed by the Swiss-German region (22%), with the French-speaking areas having the lowest levels (19%), at least for the postwar generations (Burkimsher and Zeman 2017).

The total fertility rate (TFR) of the immigrant residents in Switzerland has only partially followed these trends. Foreign women had more children than the Swiss (Federal Statistical Office 2014) between 1970 and mid-1980s. From the mid-1980s to 1990, Swiss and immigrant women had a similar TFR. Throughout the 1990s fertility among immigrants rose sharply, but remained stable during the 2000s (1.8 for migrant women on average) (Figure 1).

Figure 1: Average number of children per women for "natives" and immigrants in Switzerland. (FSO 2014)



- Source: http://www.bfs.admin.ch/bfs/portal/fr/index/themen/01/06/blank/key/02/05.html

Figure 1 show that in 2013 the immigrant total fertility rate was about 1.8 and the TFR of the native Swiss was 1.56. When we decompose by migrant group, immigrant TFR appears driven by specific subgroups. While Southern European, German, and French women have 1.6 and 1.7 children on average, this is below the level of Swiss natives (1.81), while the TFRs for Turkish, ex-Yugoslav, and African women range between 2.01 and 2.3 (Wanner 2012).

The study conducted by Bolzman, Fibbi and Vial (2003) on children of Spanish and Italian migrants in Switzerland seems to point in the same direction. In the working and lower-middle classes there are very few differences between the fertility patterns of young Spanish and Italian immigrants and the Swiss-born (Bolzman 2007). Kohler (2012) found evidence that second-generation women from the Middle East, the Maghreb, and Turkey still display the highest fertility but have also experienced the largest drop compared with Swiss natives. A new second-generation has come of reproductive age in Switzerland, identified as the children of recently arrived migrants from the Balkans, Turkey, and Portugal. Little is known about the fertility or the timing of childbearing in these populations. This is particularly interesting because the global context of fertility has changed in the 21st century. Low fertility and increasing age at first childbirth characterize most of the countries of origin of the new second-generation, and norms regarding family size and age at first childbirth are changing accordingly.

3. Hypotheses

Against this long and heterogeneous migration background, we examine the fertility trajectories of immigrants and their descendants. We ask if we can identify different degrees of integration in the differing fertility patterns of Swiss women, immigrant women from different migration groups, and their daughters. We specifically focus on the occurrence and timing of first and second births. Pursuant to theoretical explanations that show that a larger gap in fertility patterns between first and second-generations could be a sign of gradual adaptation to prevailing behaviors and norms in Switzerland, we expect that:

The fertility patterns of children of immigrants are more similar to those of natives than to those of their parents (H1a).

This is because second-generation immigrants have been socialized within the host country from an early age, attended its educational institutions, and experienced economic integration in young adulthood. However, because the socialization and adaptation of children of immigrants is potentially caught between multiple contexts:

The fertility behavior of children of immigrants may still undergo some adaptation and differ subtly from that of natives (H1b).

We also expect that, because parental background is an important factor in explaining fertility patterns (Huschek, de Valk and Liefbroer 2011; Kulu et al. 2017):

First-generation immigrants and their descendants from traditionally higher-fertility groups (Turks and Balkans) are more likely to have a child and to have a child faster than natives (H2).

This would be in line with recent comparative studies on the fertility of migrants in Germany and Austria, which have immigrant groups that are comparable to those in Switzerland (Kulu et al. 2015).

Finally, we test a variant of the adaptation hypothesis, by assuming that*:*

The fertility patterns of ethnic groups with a longer presence in the country or who are culturally "closer" to the Swiss, like Southern European migrants, migrants from bordering countries like Germany and France and Northern European countries, are more similar to the fertility pattern of natives than is the case for the recently arrived and more culturally distant groups from the Balkans and Turkey (H3).

All of the hypotheses are tested controlling for other individual characteristics like educational level and age.

4. Data and method

We draw on data from the 2013 Survey on Families and Generations (FGS),[34] which was conducted by the Federal Statistical Office (FSO) as part of a new census of the Swiss population. Its sample includes approximately 10,000 permanent residents in Switzerland aged 15 to 79 years (the reference date being January 1, 2013). The FGS aims to provide data on the current state and evolution of families and more generally on the relationship between generations. Among other things, the survey collected information on ethnic origin, migratory status, and retrospective information on partners with whom the respondent had cohabited (married or not) in the past. The data was collected through computer-assisted telephone interviews (CATIs), followed by additional online or paper questionnaires (CAWI/PAPI). The interviews were done in three languages, German, French, and Italian. To conduct the FGS, the Federal Statistical Office started with a randomly drawn sample of 34,818 people in the sampling frame for surveys of individuals and households. A total of 17,288 persons (50%) participated in the survey (53% women and 47% men). Eighty-two per cent of these persons have Swiss nationality and 18% are foreign nationals. The data has been weighted and calibrated to take into account the sampling plan and missing responses.[35]

While the FGS represents the population in Switzerland and its major linguistic regions, it does not specifically target immigrants[36]. It does not provide

[34] https://www.bfs.admin.ch/bfs/en/home/statistics/population.gnpdetail.2014-0364.html#publication.

[35] The data was weighted to correct for nonresponse, taking into account marital status (married or not), nationality (Swiss or not), sex, age group, and (groups of) cantons. They were further calibrated to correspond to the permanent resident population of Switzerland aged 15–79 in 2013. Four sets of weights were produced: for CATI and CAWI interviews, and for each respondent level and household level.

[36] Ethnic minorities have systematically higher dropout rates in panel surveys (see Feskens et al. 2006; 2007). The FGS population weights constructed by the FSO allow us to reduce the bias due to dropouts.

researchers with an easy “list” with which to contact second-generation immigrants for survey or interview (Heckathorn 2002). Furthermore, national registers provide no variables to identify second-generation immigrants, such as parents’ country of birth or age at arrival in host country. This is why studies of second-generation immigrants tend to homogenize situations that could be distinct. Recent literature has tended to construct typologies of individuals with immigrant parentage (Heath, Rothon and Kilpi 2008; Lessard-Phillips et al. 2017). Such typologies help to understand immigrant integration within the population (Lessard-Phillips et al. 2017; Rumbaut 2005). Our dependent variables were those that identify first and second births and timing of births. We generated a variable that indicates whether a woman has had a first or second childbirth. For the transition to the first birth, the process time was the respondents’ age at first birth. This is based on the difference between the mother’s birth year and the birth year of her first child. For second births we calculated the duration since the first birth using yearly time information results in an overestimate of the Kaplan-Meier survival estimates. To reduce this overestimation, we imputed random birth months to distribute births across the year.

Our major interest is detecting differences in fertility patterns (first and second births) between natives and first- and second-generation immigrant groups. We defined immigrant origins as follows: we constructed the variable “origin” to identify individuals with an immigrant background that combined the dummy variable “born in Switzerland” (yes/no), having moved to Switzerland before the age of 15,[37] and country of birth. We chose the age of 15 as the limit, because compulsory education in Switzerland is from age 4 to age 15, so an immigrant who enters the country after

[37] Analyses were also made for children of immigrants who arrived before the ages of 10 or 6. Their results are virtually identical.

age 15 does not have to participate (and be socialized) in institutions related to the educational system.

We could then use the variable "origin" to divide the population into native Swiss, immigrants (the first generation), and their descendants (the second-generation). Natives are individuals who are Swiss nationals and whose parents are Swiss nationals. If at least one of their parents was not a Swiss national, the individual was considered to be a descendant of immigrants. If a descendant of immigrants had parents of different origins, priority was given to the father's country of birth. Since we were interested in fertility by generation and immigrant group we disaggregated the variable "origin" according to the geographic origin of the respondent, regrouping as follows: 1) Southern European countries that have a tradition of migration to Switzerland (Greece, Italy, Portugal,[38] and Spain); 2) countries that share a border with Switzerland, putting them in or near Western Europe (Austria, France, Germany and Liechtenstein); 3) Eastern European countries, for which migration to Switzerland is more recent (ex-communist states including former Yugoslavia, plus Turkey); 4) north-western European countries, which include Western European countries that are not included in the preceding categories such as the United Kingdom and the Scandinavian countries; and 5) others, mainly Russia, the United States and its territories, India, Lebanon, and Sri Lanka (see Appendix A). We proceeded in two steps. First, we provided descriptive analyses of TFR by origin, mean age at first and second birth by origin, and Kaplan-Meier survival estimates of the chance of having a first and second birth by origin. We used the period TFR rather than completed fertility, both because we wanted to

[38] We did analyses separately for Portuguese immigrants. The results indicated similar behavior to the Italians and Spanish.

compare first and second-generations and because for the latter (particularly for groups coming from the Balkans and Turkey) we do not yet have information about lifetime fertility.

We applied event-history analyses (Cox models) to identify some influential determinants (age cohort, educational level of the respondents and their parents) of the transition to first and second birth by origin. The common starting age for being at risk of giving birth is 15.[39] Cases were right-censored either at the last known interview date or at age 45. We included only women. The data was in person–month format, with each person potentially contributing one entry per month.

For each transition we estimated a series of main effect models and monitored the change in the effects of the independent variable with the introduction of controls (age cohort, age at birth, and achieved education level).[40] For the first birth, Model M1 included the independent variable "origin" (immigrant status/generation); in M2 we added the birth cohort (1949 and before, 1950–1959, 1960–1969, 1970–1979, 1980 and after), 1949 and before being the reference. In M3 we added controls for the educational attainment (low, medium, high)[41] of respondents using a stepwise procedure and taking the medium category as the reference. In M4 we added the educational levels of the father and mother.

[39] We decided to start the risk age at 15 years because few women give birth before 15 (4 cases only).

[40] Following the composition hypothesis, educational differences would account for differences in fertility patterns of immigrants and non-immigrants. We expected to find lower fertility for first-generation immigrants with higher educational levels and higher parental educational levels. On the other hand, we expected to find that differences in birth risks between second-generation immigrants and natives do not exist after accounting for the effect of educational level and parental educational level.

[41] Low educational level: incomplete compulsory school, specialized school for handicapped, pre-obligatory schooling, domestic science course, or one-year school of commerce. Medium educational level: general training school, apprenticeship (federal certificate of competence), full-time vocational school, or bachelor/maturity. High educational level: vocational high school with master certificate, federal certificate, technical or vocational school, vocational high school, university, academic high school, university of teacher education, professional educational training, University of Applied Sciences and Arts Western Switzerland.

For the second birth we used the same M1, M2, and M3 models. In the M4 model we added as a control variable the age of the mother at first birth (15–20, 21–25, 26–30, 31 and older) and took 26–30 as the reference category. In M5 we interacted the level of education with the migrant status to test whether education has a different effect on the fertility patterns of Swiss natives and first- and second-generation immigrants. The category “medium” is the reference category for educational level and the category “natives” is the reference for origin. Finally, in M6 we added a control for parents’ educational level (both father and mother), with low education as the reference category.

5. Results

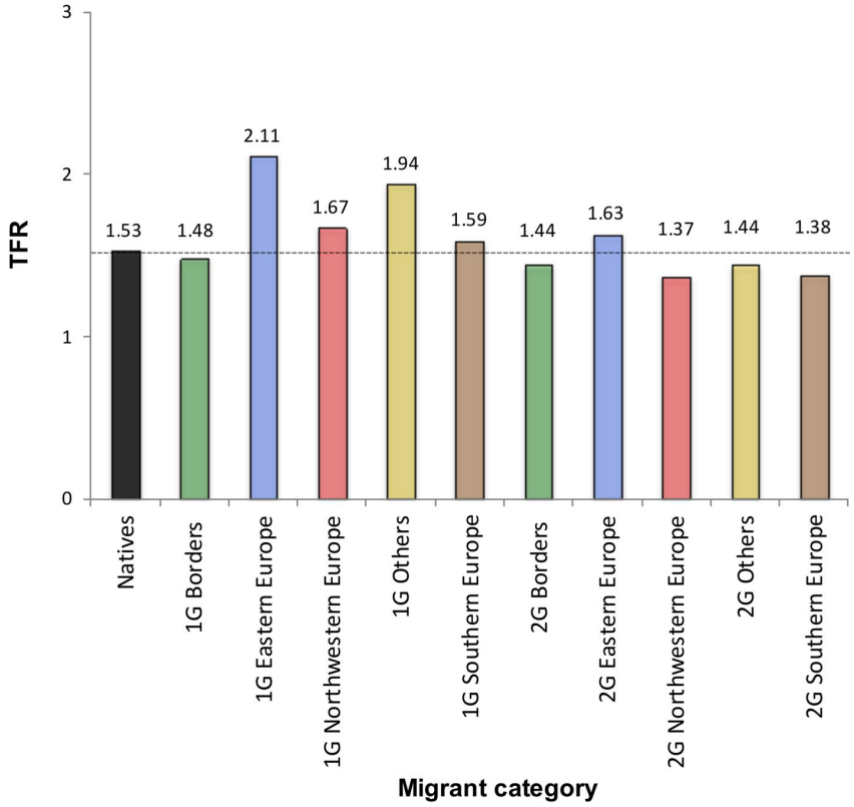
We have three sets of results which contrast the fertility of migrants with that of Swiss natives: the TFRs by immigrant group; the average age of the mother at first and second birth; the survival curves for first and second birth by origin, and the parametric Cox models of first- and second-birth risks.

5.1. Total fertility rate (TFR) by immigrant group

The immigrant groups under examination display very different TFRs in Switzerland. We present TFR by origin in 2013, calculated as an average for the period 1940 to 1998, to give an overview of the fertility behavior of ethnic minorities and natives in Switzerland. TFR “is defined as the number of children a woman would have if she were to live throughout her reproductive years (typically ages 15–44) and give birth according to the prevailing age-specific fertility rates (ASFRs)” (Parrado 2011: 1061). Figure 2 shows the TFRs calculated by migrant status. The analysis by migrant status shows that first-generation immigrants had more children on average

than Swiss natives, especially those from Eastern Europe (2.11). Fertility levels were also relatively high for first-generation immigrants from the category “others” (1.94). The descendants of immigrants had lower TFRs than immigrants, as expected. Only second-generation immigrants of Eastern European origin had higher TFRs than Swiss natives (1.63).

Figure 2: Total fertility rate for women, by origin, between 1940 and 1998 (FGS 2013)



-Note: 1G means first-generation immigrants and 2G means second-generation immigrants.
- - - Level of native TFR across all other ethnic groups.

However, because of the age of our sample, and particularly the age of second-generation immigrants of Eastern European origin, we must be careful when using TFR as a measure of fertility: we could miss a substantial part of their fertility in our TFR indicator. When we use TFR we suppose that women in these hypothetical age

groups will survive till the end of their reproductive period. This is why we decided to investigate the fertility, by origin, of the older cohorts who had completed their reproductive life (i.e., who were over 49 years of age at the time of the survey).

Our results show that none of the groups is very different from the natives. From the census returns we know that migrants from former Yugoslavia have larger families (2.3 children per woman on average in 2000) than those originating from other areas of Eastern Europe (with just 1.3), while the second-generation tends toward the Swiss average when looking at completed fertility (Guarin, Bernardi and Burkimsher 2016).[42]

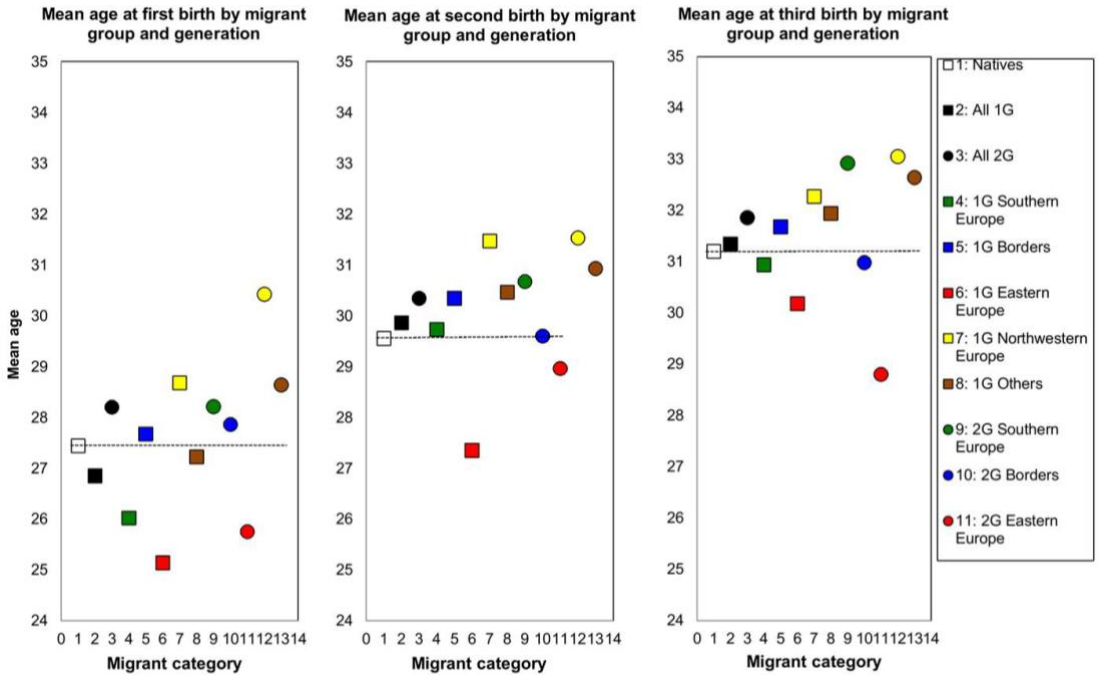
5.2. Mother's age at first and second birth

The average age of the mother at first birth has been increasing steadily over the past 40 years and has now reached above 30 years, though this age varies considerably based on the immigrant group's country of origin. In Eastern Europe the modal age for having a first child when these countries were under a communist regime was as low as 19–20. Since the fall of communism in 1989 the age of entering motherhood has risen, often precipitously (Guarin et al. 2016). The mean ages at first and second birth for women born between 1940 and 1998 appear in Figure 3; natives are represented by a white square, first-generation immigrants by a black square, and second-generation immigrants by a circle. The results show that the mean ages at first birth and second birth for first-generation immigrants and their descendants tend to be similar to those of natives (27.5 for first birth and 29.6 for second birth). However, if we analyze the results by origin we observe that first- and

[42] Immigrant groups in Switzerland are also heterogeneously composed according to their distribution across cohorts, educational levels, and parents' education. As discussed in the theoretical section, each of these variables may affect the transitions to first and second birth.

second-generation immigrants of Eastern European origin and first-generation immigrants of Southern European origin have a lower mean age at first and second birth than natives, while the reverse is true for first-and second-generation immigrants with North-Western European origins. Second-generation immigrants with Southern European origins tend to have first and second births later than first-generation immigrants of Southern European origin.

Figure 3: Mean age at first, second, and third birth per women, by origin, in Switzerland (FGS 2013)

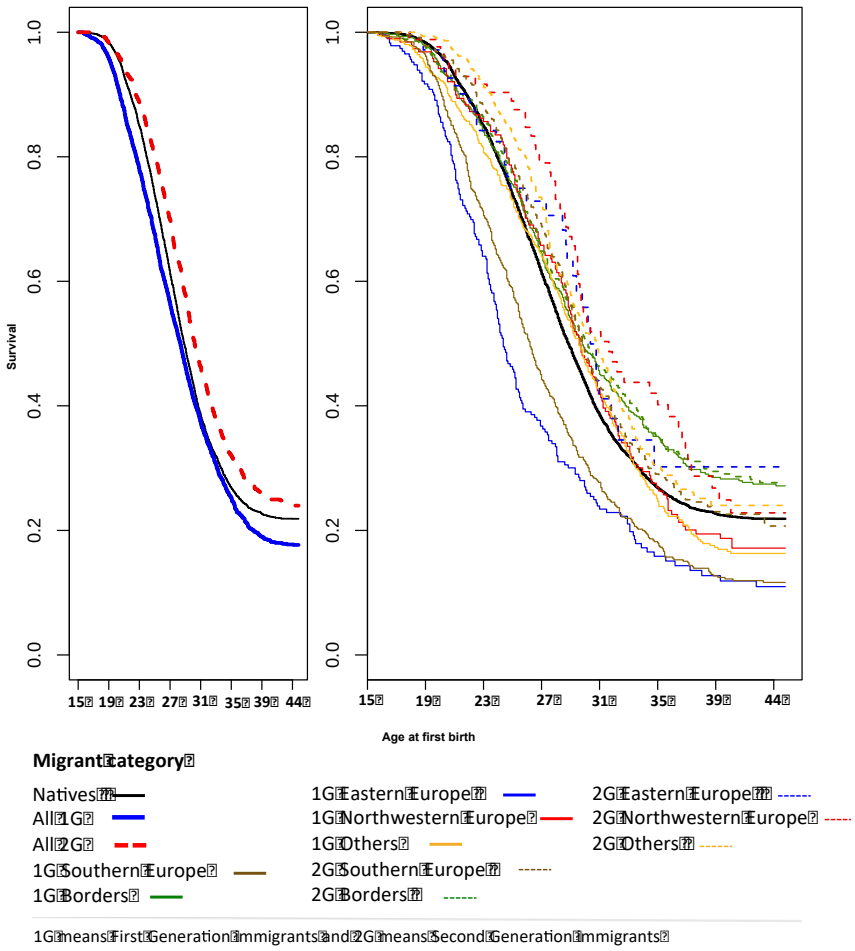


-Note: 1G means first-generation immigrants and 2G means second-generation immigrants.
- - - Level of mean age at first, second, or third birth for native women compared with all other ethnic groups.

5.3. Timing of first birth and multivariate analyses by origin

Figure 4 describes the patterns of the transition to first birth by origin. More precisely, these figures show the estimated Kaplan-Meier survival curves for first birth, with the origin both aggregated (left) and disaggregated (right). In these figures, Swiss natives and second-generation immigrants remain childless more often than first-generation immigrants.

Figure 4: Kaplan-Meier survival estimates of entering into first birth, by origin (aggregated–disaggregated), for women (FGS)



However, there are differences according to the migrants' country of origin. The probability of becoming a parent is higher for first generations of Eastern European and Southern European origin more often than for the Swiss natives. All groups of descendants of immigrants have the same probability of becoming parents as Swiss natives.

We present the results of the Cox models for first birth in Table 1. Model 1 (M1) includes the effect of migrant status without controlling for other characteristics and shows that immigrants are more likely to have children than Swiss natives. However, for all second-generation immigrants this probability is lower than for Swiss natives. Controlling for birth cohort (M2) leaves the effects unchanged.

In order to better grasp the effect of education, in Figure 5 we present the coefficients of M3. Once the level of education is controlled for, the first-generation immigrants show higher first-birth risks than the Swiss natives. This is particularly the case for first-generation immigrants of Eastern European and Southern European origin (89% and 35% higher chance of having a first birth respectively). For second-generation immigrants the first-birth risks are generally lower than for the Swiss natives, with the exception of the second-generation immigrants of Eastern European and Southern European origin (13% and 10% higher risks respectively, but coefficients are not statistically significant).

The comparison by cohort shows that women belonging to the older cohorts have a higher probability of first birth than those belonging to younger cohorts; yet this may be simply due to the fact that younger women have not yet reached their reproductive age limit and may be more likely to delay the transition to motherhood to their late thirties.

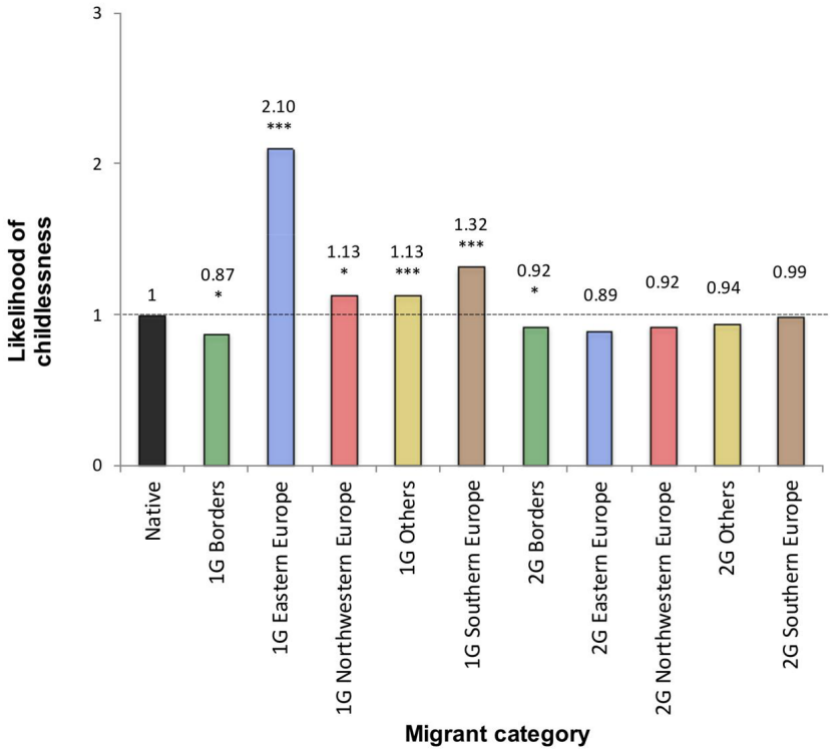
The introduction of the parents' educational level (both father's and mother's) in M4 allows us to test whether the social origin of the individual plays a role in the choice of having a first child. The results show that the likelihood of having a first child is lower for women whose fathers have a medium or high education level than it is for women whose fathers have a low education level.

Table 1: Transition to first birth for women, by origin

	Model 1		Model 2		Model 3		Model 4	
Origin								
Swiss	1		1		1		1	
1G Borders	0.85	**	0.87	**	0.91		0.87	*
1G Eastern Europe	1.76	***	2.1	***	1.89	***	1.78	***
1G Nord-Western Europe	1		1.13		1.21	*	1.21	*
1G Others	1.04		1.13	**	1.21	***	1.15	*
1G Southern Europe	1.49	***	1.32	***	1.35	***	1.29	***
2G Borders	0.82	**	0.92	*	0.87	*	0.89	
2G Eastern Europe	0.81		0.89		1.13		0.99	
2G Nord-Western Europe	0.75	*	0.92		0.94		0.91	
2G Others	0.81	**	0.94		0.93		0.93	
2G Southern Europe	0.91		0.99		1.1		1.01	
Cohort								
Before 1949			1		1		1	
1950-1959			0.83	***	0.92	***	0.93	*
1960-1969			0.69	***	0.79	***	0.8	***
1970-1979			0.61	***	0.75	***	0.78	***
1980 and +			0.44	***	0.53	***	0.67	***
Educational level								
Low					1.33	***	1.36	***
Middle					1		1	
High					0.64	***	0.65	***
Educational level Father								
Low							1	
Middle							0.92	*
High							0.88	*
Educational level Mother								
Low							1	
Middle							0.96	
High							0.93	
AIC	96173.91		95917.65		95226.54		80273.53	
R^2	0.02		0.04		0.08		0.09	
Max. R^2	1		1		1		1	
Num. events	5761		5761		5761		4946	
Num. obs.	9002		9002		8976		6760	

-Note: ***p < 0.001, **p < 0.01, *p < 0.05.
-1G means first-generation immigrants and 2G means second-generation immigrants.
-Source: Family and Generation Survey 2013.

Figure 5: Relative risk of having a first birth for women aged 15–45, by immigrant group (controlled for cohort and education)



-Note: ***p < 0.001, **p < 0.01, *p < 0.05.
-1G means first-generation immigrants and 2G means second-generation immigrants.
-The likelihood of remaining childless is the inverse of the likelihood of having a first child, so a value of <1 indicates a higher likelihood of childlessness.
-Source: Family and Generation Survey 2013.

5.4. Timing of second birth and multivariate analyses by origin

In Figure 6 we present estimated Kaplan-Meier survival curves for second birth (origin aggregated on the left and disaggregated on the right). Here, Swiss natives have a greater chance of having a second child than immigrants and their descendants. The curves that are most distant from Swiss natives are first-generation immigrants of Southern European origin and those from “Other” countries. These results show that Swiss natives are more likely to have a second child than immigrants and their descendants, and more likely to have it quickly.

Table 2 is devoted to determinants influencing the transition to second birth. In these models the process time is the duration since the first birth. The results

show that second-birth likelihood is highest two to four years after first birth for all women. After that, second-birth risks decline for immigrants of all origins more than for Swiss natives. In M4 (Table 2), where we control by cohort, educational level, and age of mother at first birth, we observe (Figure 7) that first-generation immigrants from border countries have a 25% lower chance of having a second birth than Swiss natives, first-generation immigrants of Eastern European origin have a 34% lower chance, first-generation immigrants of North-Western European origin have a 33% lower chance, first-generation immigrants from “Other” countries have a 41% lower chance, and first-generation immigrants of Southern European origin have a 40% lower chance. For second-generation immigrants, coefficients are in the same direction, except for second-generation immigrants from border countries, for whom the risk is 0.4% higher than for natives.

Figure 6: Kaplan-Meier survival estimates of entering into second birth, by origin (aggregated–disaggregated), for women

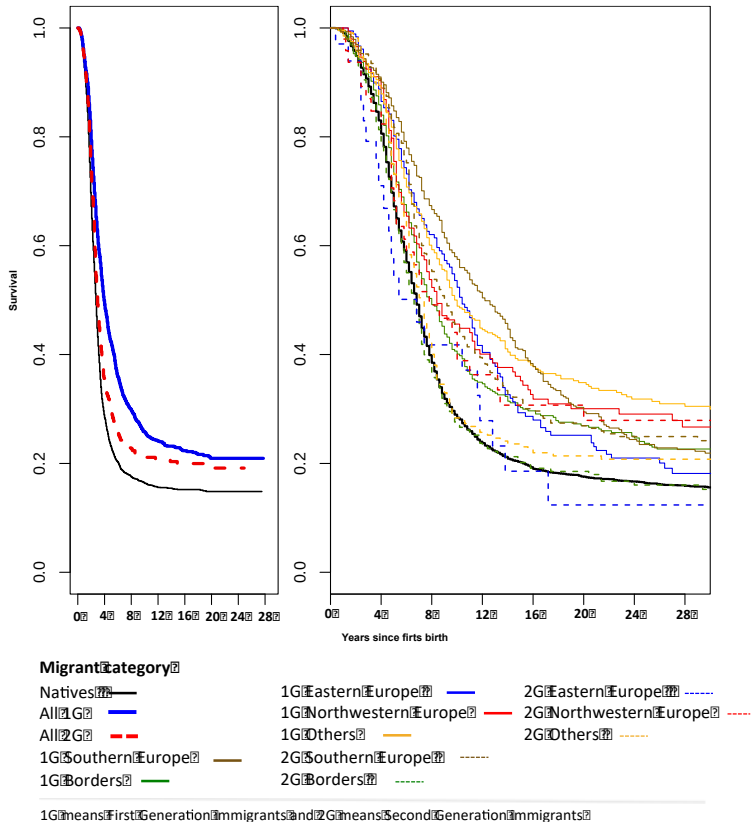
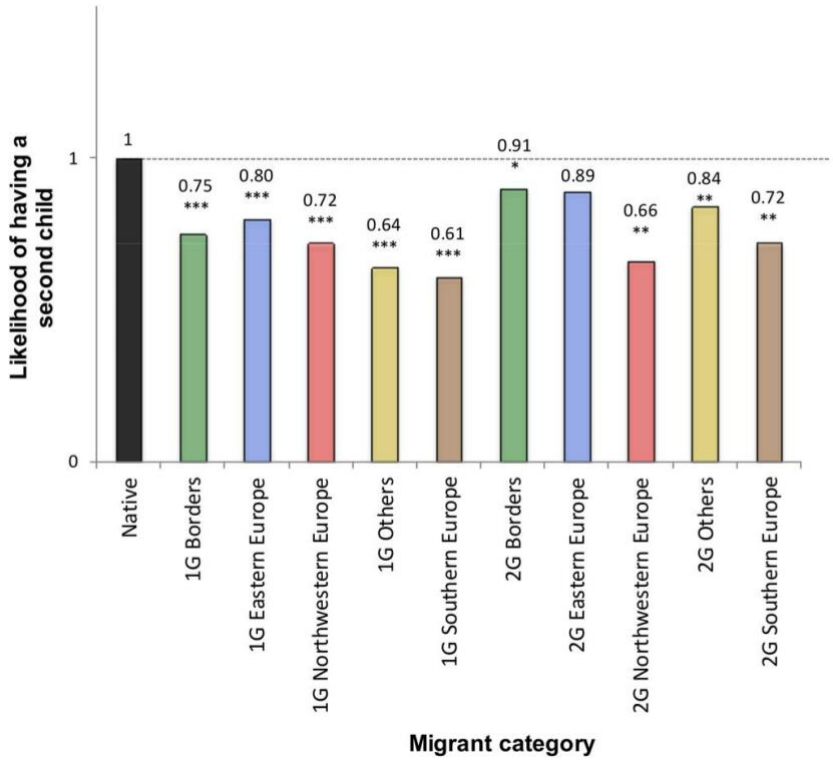


Table 2: Transition to second birth for women, by origin

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Origin						
Swiss	1	1	1	1	1	1
1G Borders	0.75 ***	0.75 ***	0.75 ***	0.75 ***	0.71 ***	0.75 ***
1G Eastern Europe	0.85 ***	0.84 ***	0.84 ***	0.81 ***	0.81 ***	0.8 ***
1G Nord-Western Europe	0.68 ***	0.67 ***	0.66 ***	0.67 ***	0.69 *	0.72 ***
1G Others	0.61 ***	0.62 ***	0.6 ***	0.6 ***	0.66 **	0.64 ***
1G Southern Europe	0.61 ***	0.61 ***	0.61 ***	0.6 ***	0.64 ***	0.61 ***
2G Borders	0.99	0.99	0.98	1.03	0.98	0.9 *
2G Eastern Europe	1.05	0.99	0.97	0.96	1.10	0.89
2G Nord-Western Europe	0.71 *	0.7 *	0.69 *	0.68 *	0.79	0.66 *
2G Others	0.88 *	0.85 *	0.84 *	0.85 *	0.95	0.84 *
2G Southern Europe	0.69 ***	0.67 ***	0.67 ***	0.68 ***	0.71 ***	0.72 ***
Cohort						
Before 1949		1	1	1	1	1
1950-1959		0.95	0.95	0.97	0.98	0.96
1960-1969		1.01	1	1.06	1.07	1.06
1970-1979		1.11 *	1.11 *	1.15 **	1.15 **	1.15 **
1980 and +		1.03	1.05	1	1.01	0.98
Educational level						
Low			0.97	0.95	0.99	0.92 *
Middle			1	1	1	1
High			1.04	1.11 **	1.09 *	1.08 *
Age mother at first birth						
15-20				0.86 **	0.86 **	0.9 *
21-25				1.02	1.02	1.04
26-30				1	1	1
31 and +				0.68 ***	0.68 ***	0.69 ***
Origin * Educational level						
Swiss (Middle)					1	
1G Borders (Low)					0.90	
1G Eastern Europe (Low)					1.46 *	
1G Nord-Western Europe (Low)					0.79	
1G Others (Low)					0.56 **	
1G Southern Europe (Low)					0.89	
2G Borders (Low)					1.04	
2G Eastern Europe (Low)					0.38 *	
2G Nord-Western Europe (Low)					1.11	
2G Others (Low)					0.70	
2G Southern Europe (Low)					1.07	
1G Borders (High)					1.25	
1G Eastern Europe (High)					0.60 *	
1G Nord-Western Europe (High)					1.03	
1G Others (High)					0.87	
1G Southern Europe (High)					1.01	
2G Borders (High)					1.27	
2G Eastern Europe (High)					0.76	
2G Nord-Western Europe (High)					0.77	
2G Others (High)					0.89	
2G Southern Europe (High)					1.03	
Educational level Father						
Low						1
Middle						0.93
High						1.02
Educational level Mother						
Low						1
Middle						0.99
High						0.98
AIC	69996.99	69992.92	69747.38	69646.05	69648.75	59148.76
R^2	0.03	0.03	0.03	0.05	0.05	0.05
Max. R^2	1	1	1	1	1	1
Num. events	4394	4394	4394	4394	4394	3795
Num. obs.	5761	5761	5761	5761	5761	4946

-Note: ***p < 0.001, **p < 0.01, *p < 0.05.
-1G means first-generation immigrants and 2G means second-generation immigrants.
-Source: Family and Generation Survey 2013.

Figure 7: Relative risk of having a second birth for women aged 15–45, by immigrant group (controlled for cohort, education, parents' education)



-Note: ***p < 0.001, **p < 0.01, *p < 0.05.
-1G means first-generation immigrants and 2G means second-generation immigrants.
-The likelihood of remaining childless is the inverse of the likelihood of having a first child, so a value of <1 indicates a higher likelihood of childlessness.
-Source: Family and Generation Survey 2013.

The introduction of control variables shows that the 1960–1969 and 1970–1979 cohorts have a greater chance of having a second birth than Swiss natives. In reference to maternal age at first birth, we found a lower second-birth probability for women who have their first child before 25 and after 30 than for those who have the first child between 25 and 30, which is in line with other studies (Kreyenfeld and Anderson 2014). Concerning education level, to identify whether this pattern is different for respondents of immigrant origin, we specified an interaction effect (M5 in Table 2). In M5 all first-generation immigrants of Eastern European origin with a low educational level have a higher chance (46%) of having a second birth than Swiss natives with a medium educational level. All other first-generation immigrants

with a low educational level have a lower likelihood of a second birth than Swiss natives with a medium educational level. First-generation immigrants with a high educational level have a lower probability of a second birth than Swiss natives with a medium educational level. For descendants of immigrants, all second-generation immigrants with a low educational level except those of North-Western European origin have a lower likelihood of having a second child, and second-generation immigrants with a high educational level have a lower chance of having a second child. In M6 (Table 2) we introduced fathers' educational level, but this variable provided no meaningful information.

The results also show that first-generation immigrants of Eastern and Southern Europeans origin, a population that commonly has a first child, are less likely to have a second child than Swiss natives, and the delay before having a second child is much longer (a mean interval of just over three years for native Swiss women compared with over six years for some first-generation immigrants of Southern and Eastern European origin). By contrast, second-generation immigrants of Eastern and Southern European origin show the reverse pattern and are similar to the Swiss natives. The pattern for second-generation immigrants shows indications of socio-cultural integration: despite first-generation immigrants being less likely to have a second child, for second-generation immigrants the likelihood approaches the Swiss norm.

6. Discussion and conclusion

This paper draws a portrait of first and second births in Switzerland, differentiating quantum and tempo of first births among Swiss natives and Swiss residents of immigrant origin. In particular, we investigate the relative probability of a first and

second birth for first- and second-generation immigrants compared with Swiss natives, and we distinguish immigrant populations by their geographical origin. In summary, the overall picture of the transition to parenthood is somewhat expected, except regarding second-birth risks and timing. First-generation immigrants from Eastern and Southern Europe have a higher probability of transiting to parenthood (first birth) than second-generation immigrants and natives, and do so earlier (H1 and H3). This is comparable to what has been observed in other European countries (Kulu et al. 2017) and can be explained by a number of combined factors: younger age at immigration (for first-generation immigrants), higher average fertility levels in the country of origin (Milewski 2011), labor-market performance (Scott and Stanfors 2011), aspirations, and norms concerning family formation. Second-generation immigrants have a lower likelihood of first birth than their parents and Swiss natives, with the exception of second-generation immigrants of Eastern and Southern European origin, whose chances of having a first birth lie between these two groups. Much has been written on the possible "normative duality" of children of migrants, who seem to have a hard time reconciling the behavioral norms and aspirations conveyed by their parents within the family with those of the host society to which they are exposed through their participation in local institutions and networks (school, work, friends, sports, hobbies) (Krapf and Wolf 2015) (H2 and H3).

Women with a low educational level are more likely to have a first birth. Women with a high educational level do so less often, and if they do, they do so later. Interactions in our models between educational level and origin show that, for all poorly educated women with a migrant background (both first- and second-generation immigrants), the probability of first birth is higher than for Swiss natives with a medium educational level. By contrast, women of immigrant origin (both first-

and second-generation immigrants) and a high educational level have a lower chance of first birth than Swiss natives with a medium educational level. Further analysis by education, where we study the interaction between educational level and origin, shows that educational level is negatively correlated with the probability of a first birth. These results confirm other studies where fertility declines as women's educational level increases (Mayer and Riphahn 2000; Mileweski 2010): higher educational attainment leads to greater autonomy in life-course choices. In the case of immigrants' descendants, a higher education level also leads to deviation from parental views and a stronger preference for autonomy (de Valk and Liefbroer 2007; Pailhé 2015). As the decision to have a child is usually seen as incompatible with educational enrolment, educational attainment also increases the costs of having a child and has a strong delaying effect on fertility decisions (de Valk and Milewski 2011; Pailhé 2015). Second-birth patterns are somewhat different. The chance of having a second birth is lower for immigrants and their descendants than for Swiss natives. These trends are not found in other European countries, whether or not they have histories of immigration that are comparable to Switzerland's. Throughout Europe, migrant groups (e.g., South Asians in the United Kingdom, Turks in Germany, and Moroccans in Spain) have higher second-birth risks than natives (e.g., Kulu et al. 2017).

This work has some limitations. We rely on the most recent dataset available, the Swiss FGS of 2013, whose large sample size allows studying recent immigrant groups and disaggregating fertility by migrant origin and generation. However, a finer distinction by country of origin, particularly for those countries whose population is ethnically, socially, and culturally very heterogeneous, could reveal important within-group differences. Similarly, our data did not allow us to distinguish natives

who have a family history of naturalization (acquisition of Swiss nationality). Last, given the young age of the second-generation migrants in recently arrived groups, we had to limit our analyses to first and second birth even though major differences in TFR depend on the transition to third birth. Our sample sizes for the analysis of third birth became too small when broken up by migrant group. Other factors such as ambition for social mobility, type of immigration, and individual family orientation could also play an important role in the fertility patterns of immigrant populations. Unfortunately, our data does not include socio-economic information or individuals' characteristics before migration. In particular, we do not have information on age at immigration or reason for immigration, so we could not test the influence of these variables in our analyses. This limited our results, because we could not build hypotheses based on the immigration strategies that play a key role in the decision to have a child. Ribe and Schultz (1980) argue that migrants have a clear "unobserved" preference for family size and that their propensity for fertility is one of the factors that determine the destination country.

Despite these limitations, the results of this study raise important questions for future research. Examining the FGS, we found that migrants have a second child less often than natives and have longer intervals between births. This pattern has not been observed in other European countries, where migrants generally have faster and more frequent transitions to a second birth (Kulu et al. 2015). What makes migrants' fertility different in Switzerland than in neighboring countries? In what ways might this be related to the Swiss context, and does it have wider implications regarding social inequalities in fertility in such a context?

First, the arrival of a child is linked to additional costs. The relatively poor public support for parents and the high costs of childrearing in Switzerland may

discriminate against migrants, who generally have lower economic and relational resources than the native population. Migrants from countries where welfare support for families and work-family reconciliation is more generous may possibly have higher expectations concerning public support for families. Working migrant parents from contexts where care needs are dealt with within the extended family face further constraints, because migrants generally have smaller social networks and thus less support is available to parents (Moret and Dahinden 2009).

Secondly, it is well known that immigrants, particularly when they migrate for social mobility reasons, have educational aspirations for their children (Brinbaum and Kieffer 2004; Fuligni and Fuligni 2007; Fuligni and Yoshikawa 2004). Therefore immigrants may want, more than natives, to invest their resources in one of their children to ensure their higher education.

Thirdly, differences in fertility behavior may also be rooted in demographic changes in the migrants' countries of origin. The theory of cultural continuity assumes that immigrants' fertility behavior will reflect that in their country of origin. This assumption would explain both the high levels of childlessness among North-Western European immigrants and their high propensity to move on to a second birth once they are parents. It could also explain the rare childlessness but many one-child families among immigrants from Southern Europe and the Balkans.

These three interpretations of our results are not mutually exclusive, but they have different consequences depending on the explanatory mechanism. In the case of the explanation regarding lower levels of informal social support for immigrants, the issue is partially socialization and adaptation to local preferences and norms concerning family support, and partially structural constraints (geographical distance from extended family). The second explanation, where higher educational

preferences lead to higher investment, may indicate that if there is relatively easy adaptation and higher flexibility in terms of family and fertility preferences, adaptation in terms of educational investment is slower. This suggests important avenues for future research on behavioral indicators of integration: rather than considering indicators from separate life domains (e.g., fertility and family behavior and educational outcomes), they need to be studied jointly in order to explore whether behavioral convergences in one domain explain divergent preferences in another. In the case of the third explanation, if the fertility behavior of the migrant groups reflects the recent decline of second-birth risks and rising age at first birth in the country of origin, then neither adaptation nor early socialization mechanisms are in play, but rather more complex cultural identity processes that link second-generation immigrants to their counterparts in their country of origin. All of these aspects are promising fields for future research.

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Appendix

Table A: Sample and number of first- and second-birth events for women, by origin and control variable

	Natives			1G Borders			1G Eastern Europe			1G Nord-Western Europe			1G Others			1G Southern Europe		
	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth
Educational Level																		
Low	22.9	23.4	24.8	13.9	16.9	17.2	34.2	36.6	48.1	12.3	9.4	8.1	24.1	24.9	19.0	58.2	63.1	65.6
Middle	53.7	57.3	57.0	42.7	45.5	44.3	43.9	44.8	40.4	30.8	31.7	33.0	36.7	40.5	46.1	27.1	27.1	26.9
High	23.4	19.4	18.3	43.4	37.6	38.6	21.9	18.6	11.4	56.8	58.8	58.9	39.2	34.6	34.9	14.7	9.8	7.5
N	5080	3228	2607	738	464	340	305	251	169	212	155	100	607	421	260	540	465	338
Age at First or Second birth																		
15-20		5.9	6.4		8.4	6.6		18.9	25.5		6.4	4.3		13.1	15.0		15.4	18.7
21-25		30.1	33.3		26.1	29.8		47.1	53.2		23.4	25.4		29.1	29.1		35.4	38.4
26-30		38.1	40.1		37.9	42.4		17.6	12.8		33.8	41.8		28.6	32.9		30.2	30.8
30 and +		25.9	20.2		27.7	21.2		16.3	8.6		36.4	28.6		29.2	23.1		19.1	12.1
N		3235	2612		467	339.8		252	173.8		156	100.4		424	260.9		466	340.1
Cohort																		
Before 1949	25.5	33.2	35.4	28.2	35.2	38.7	4.7	5.2	6.3	19.6	23.4	27.2	7.6	10.7	14.0	23.0	25.6	26.4
1950-1959	17.6	22.3	23.2	13.2	17.8	17.1	11.4	13.4	12.2	13.8	14.0	13.0	16.2	18.3	20.2	22.0	25.0	29.7
1960-1969	19.4	24.2	25.1	21.6	24.6	26.1	23.8	25.5	24.2	24.1	26.9	27.0	20.9	25.5	28.6	24.1	25.2	27.2
1970-1979	14.1	16.1	14.1	19.1	16.5	13.8	31.4	31.4	36.3	31.0	29.7	29.2	28.9	33.3	30.8	17.5	17.9	14.3
1980 and +	23.4	4.2	2.2	17.9	5.8	4.3	28.7	24.5	21.1	11.5	6.0	3.5	26.5	12.3	6.4	13.5	6.3	2.5
N	5087	3233	2612	740	466	340	309	255	174	212	155	100	614	426	261	543	467	340
Educational Level Father																		
Low	26.2	30.4	32.4	24.5	29.5	29.3	54.8	56.0	58.7	19.2	21.8	20.2	36.4	40.9	40.6	83.8	88.0	89.1
Middle	55.0	53.2	52.2	45.7	45.3	44.4	31.1	31.5	30.8	37.5	40.7	34.0	30.8	30.3	30.6	9.0	7.9	7.4
High	18.8	16.4	15.4	29.8	25.2	26.3	14.2	12.4	10.5	43.2	37.5	45.8	32.8	28.8	28.9	7.2	4.1	3.5
N	4211	2991	2426	623	389	284	267	228	157	182	138	86	517	376	230	468	415	302
Educational Level Mother																		
Low	52.1	57.8	60.1	47.1	56.9	59.1	72.7	75.2	78.7	39.7	42.5	37.6	54.7	63.9	65.3	88.0	90.6	91.8
Middle	43.9	39.3	37.1	40.2	36.8	35.5	19.4	17.1	16.6	42.8	40.1	40.4	28.3	25.8	23.9	8.1	7.9	6.7
High	4.0	2.9	2.8	12.7	6.2	5.4	7.9	7.7	4.7	17.5	17.4	22.1	17.0	10.3	10.8	3.9	1.5	1.5
N	4139	2993	2420	634	403	299	270	234	157	187	141	89	525	384	233	486	429	311

			2G Borders			2G Eastern Europe			2G Nord-Western Europe			2G Others			2G Southern Europe		
			All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth	All Sample	First Birth	Second Birth
Education																	
Low			18.8	17.3	18.1	39.0	23.9	24.3	14.8	7.3	11.9	23.4	12.7	10.6	20.5	17.4	20.6
Middle			54.8	57.2	57.6	51.9	74.7	75.7	38.2	34.8	44.8	52.0	55.2	57.5	56.6	60.7	61.4
High			26.4	25.6	24.4	9.1	1.5	0.0	47.0	57.8	43.3	24.7	32.0	31.9	22.9	21.9	18.0
N			357	214	178	188	46	32	88	45	23	496	195	138	413	260	195
Age at First or Second birth																	
15-20				9.4	10.6		21.5	21.6		4.1	8.2		2.7	3.9		6.5	8.4
21-25				26.5	29.4		33.8	25.9		8.5	9.4		21.2	23.3		26.4	28.7
26-30				32.5	35.0		25.8	33.6		45.9	63.9		43.9	45.8		34.7	38.3
30 and +				31.6	25.0		19.0	19.0		41.5	18.5		32.2	27.0		32.5	24.6
N				214	178		46	32		45	23		195	138		261	196
Cohort																	
Before 1949			18.8	24.9	25.7	0.0	0.0	0.0	13.2	16.6	26.9	6.0	11.3	10.5	3.5	4.0	4.1
1950-1959			18.7	26.0	28.1	0.0	0.0	0.0	6.4	9.2	9.9	7.1	16.8	19.0	13.9	19.9	22.3
1960-1969			27.7	31.7	29.6	2.9	8.5	7.9	22.5	32.0	31.0	14.9	29.5	31.6	30.3	40.6	39.6
1970-1979			14.5	15.1	15.0	15.0	38.7	51.9	24.4	32.2	29.4	18.1	31.7	32.9	27.4	32.3	32.8
1980 and +			20.3	2.3	1.6	82.0	52.9	40.1	33.7	10.1	2.9	53.9	10.6	6.0	24.9	3.1	1.3
N			358	214	178	188	46	32	88	45	23	497	195	138	414	261	196
Educational Level Father																	
Low			23.4	29.3	30.3	50.1	46.0	42.0	12.7	8.3	11.3	21.7	24.0	23.5	60.0	60.7	58.9
Middle			48.2	46.7	48.0	43.0	52.4	58.0	34.2	33.4	45.9	42.6	44.2	38.3	33.3	35.7	36.8
High			28.4	24.0	21.7	6.9	1.6	0.0	53.1	58.3	42.9	35.7	31.8	38.2	6.7	3.6	4.2
N			298	195	163	77	42	30	69	41	19	309	168	122	318	228	171
Educational Level Mother																	
Low			46.8	54.0	57.9	79.2	82.0	85.0	28.3	19.6	25.4	31.0	36.7	39.4	80.7	84.7	84.4
Middle			41.7	39.3	36.0	20.1	18.0	15.0	48.2	57.3	44.4	55.6	55.6	53.7	18.0	14.5	14.9
High			11.6	6.7	6.1	0.8	0.0	0.0	23.5	23.2	30.2	13.4	7.7	6.9	1.3	0.8	0.7
N			278	186	157	72	41	29	69	42	22	287	168	118	311	233	174

1G means first-generation immigrants and 2G means second-generation immigrants.
Source: Family and Generation Survey 2013.

Chapter 4: First Union among Second-generation Immigrants in Switzerland

A first version of this work can be found in the working paper:

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http://www.familiesandsocieties.eu/?page_id=2370

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1. Introduction

Existing studies on children of immigrants mainly focus on either their family-formation process, like studies on fertility (Guarin, Bernardi and Schmid 2018), their transition to adulthood (see Introduction; Bolzman, Fibbi and Vial 2003; Portes and Rumbaut 2005; Rumbaut 2005; Santelli 2007; Scott and Stanfors 2011), or their economic performance (Guarin and Rousseaux 2017; Algan, Dustmann, Glitz and Manning. 2010). Several studies have shown that among immigrants and their descendants, the de-standardization of family form, work trajectories, and timing of events has increased, as it was shown earlier among the majority population across Europe (Kulu and Milewski 2007; de Valk 2011; Kulu and Gonzalez-Ferrer 2013).

The timing and type of the first union (marriage or cohabitation) can help teach the meaning attached to these transitions for second-generation immigrants and how they best fit into the life course (Elder, Johnson and Crosnoe 2003; Holland and de Valk 2013). For the children of immigrants, finding a partner is particularly crucial because they must negotiate differences between their parents' and their own preferences. While this is the case for most children, children with a migration background are often even more distant from their parents' viewpoint, because they have grown up in a different context than their parents (de Valk and Milewski 2011). Hamel, Huschek and Milewski (2012), using data from the TIES project[43] showed that second-generation immigrants of Turkish origin living in North and Western European countries do not follow the dominant patterns of union formation in Turkey. More recently, works from the FamiliesAndSocieties project[44] have shown that the partnership behavior of the children of immigrants was strikingly similar to

[43] https://www.nidi.nl/en/research/mm/230012
[44] http://www.familiesandsocieties.eu/

that of immigrants (and different from that of natives), particularly in regard to the pathways to first-union formation (marriage versus cohabitation). For Switzerland, results from TIES have shown that second-generation women of Turkish origin enter into their first union earlier than Swiss natives and that differences between men and women are lower than for other European countries (Hamel et al. 2012).

This article contributes to this literature by breaking down the second-generation immigrants into migrant groups of different origin to see whether there are variations across groups in the first union. We focus on Switzerland, where recent migration waves from the Balkans, Turkey, and Portugal have given birth to a new second-generation, which has different origins than the more established one coming from Southern and Western Europe. Switzerland is also an interesting setting in which to study the union statuses and typical steps of transition to adulthood by migratory background because of the high share of children of immigrants among the youngest part of the population and because of the heterogeneity in ethnic-origin backgrounds (Marks 2005). More precisely, this paper contrasts second-generation immigrants of different migrant groups and natives with similar characteristics, questioning whether they differ in the timing and likelihood of transition to first union (marriage or cohabitation).

2. Union formation and second-generation immigrants in Switzerland

Union-formation patterns in Switzerland follow similar developments as the main major European countries, with cohabitation gaining ground over marriage as the preferred choice for first unions (Fibbi and Wanner 2009). According to Charton and Wanner (2001), more than 80% of Swiss women born in the 1930s were married before reaching the age of 50; for women born in the 1960s, this percentage

dropped to less than 70%. By the end of the 20th century, other forms of unions gained popularity in Switzerland: the number of unmarried partners increased between 1980 and 1990 (Charton and Wanner 2001). In 2012, men and women were, on average, older when they first married; the average age increased by five years compared with 1971. The difference in age of men and women who marry for the first time has been stable since the 1950s; on average men are around two years older than women when they marry for the first time (Federal Statistical Office 2014).

In reference to second-generation immigrants in Switzerland, with the exception of a decrease in immigration between 1975 and 1979 and a slight decline in 1983, the proportion of foreigners (persons without Swiss passport) in Switzerland has continuously increased (Piguet 2005; Bader and Fibbi 2012). Immigrants form families and have children, but despite the extraordinary increase in number, the second-generation segment of the population is rarely touched in public debates and is statistically difficult to identify (Fibbi and Wanner 2009). Marks (2005) estimated that 8% of the population born in Switzerland has immigrant origins (individuals born in Switzerland from two foreign parents). Laganà, Chevillard and Gauthier (2013) estimated this proportion to be about 10%, of which about 4% have Italian or Spanish parents and 5.4% have parents coming from Portugal, the former Yugoslavia, or Turkey. Using census data from 2000, Fibbi and Wanner (2009) estimated that children in immigrant families originating in Italy were the most representative group among the children in immigrant families from the European Union of 25 (EU-25), followed by families from Germany, Portugal, France, Spain, and Austria. Among the children from countries that are not part of the EU-25, the largest groups come from Turkey and the former Yugoslavia.

2. Data and methods

2.1. Data and sample

This analysis uses the biographical Swiss Household Panel (SHP) [45] survey (biographical data 2002 and biographical data 2013). The SHP collects longitudinal data on a variety of life-course dimensions, like origin, union, family, residence, health, education, and occupation. Therefore, it represents an invaluable source of information to study union and family dynamics from a life-course perspective. More precisely, this study used the biographical data collected in 2001 and 2002, in which a life calendar was completed by 5,560 individuals, along with the biographical data of the SHP III (2013), which contained a sample of 4,093 households and 9,945 individuals. The researchers then pooled the two data sets. Since this study is interested in the trajectories of family life the researchers selected individuals aged above 15. After deleting No Answers (NA) values and first-generation (1G) immigrants and merging the two biographical data sets, the total sample amounted to 8,954 individuals.

To perform the analyses, we constructed a variable that allowed the identification of the ethnic origin of respondents. This variable determined whether immigrants were born in Switzerland or moved to Switzerland before the age of 15[46] and the birthplace of their parents. The nationality of respondents was used as a proxy when the parents' birthplaces were unavailable. After these modifications, the research population was divided into Swiss natives, first-generation (1G) immigrants, and second-generation (2G) immigrants. Natives are individuals who were born in Switzerland and whose parents were born in Switzerland. First-

[45] https://forscenter.ch/projects/swiss-household-panel/

[46] Analyses were performed for the children of immigrants who arrived before the ages of 6 and 10, and the results of the analyses are practically identical.

generation immigrants are those whose parents were born in another country and who arrived in Switzerland after the age of 15. If at least one of the parents was not born in Switzerland and respondent arrived in Switzerland before the age of 15, that individual was classified as a second-generation immigrant. If a descendant of immigrants had parents of different origins, priority was given to the father's country of birth.

After deleting individuals of 1G immigrant origin, the variable "origin" of the people with an immigrant origin was disaggregated in the following way: 1) Southern Europe, which contains the countries that have a tradition of migration to Switzerland (Greece, Italy, Portugal and Spain), 2) border countries, which are countries that have a border with Switzerland and who are not in the Southern European group (Austria, France, Germany and Liechtenstein), 3) Eastern Europe, composed of countries of Eastern Europe and Turkey. For this group, the wave of immigration is relatively more recent (Albania, Bosnia-Herzegovina, Croatia, the former Republic of Yugoslavia, Kosovo, Macedonia, Montenegro, Serbia, Slovenia, Kosovo, and Turkey are the countries most represented), 4) North and Western Europe, which includes countries in North and Western Europe that are not in the preceding categories (Belgium, Bulgaria, Czech Republic, Denmark, Finland, Georgia, Hungary, Ireland, Luxembourg, the Netherlands and its territories, Norway, Poland, Romania, United Kingdom and its territories, and Ukraine) and 5) others, which is a category containing all others countries, including Russia, the United States and its territories, India, Lebanon, and Sri Lanka. Table 1 shows the details of the sample by origin. Natives represent 87.8%, 2G borders 3.2%, 2G Eastern Europe 1.1%, 2G North and Western Europe 1.4%, 2G Southern Europe 4.8% and

2G others 1.5%.[47] These results confirm estimations presented by Laganà et al. (2013), in which the authors showed that 2G Southern Europe and borders were more represented in Switzerland and that actually, the new 2G immigrants were arriving as adults.

In the same table (Table 1), socio-demographic characteristics are presented. In reference to sex, 2G immigrants with borders countries origins contained more women than men; all other groups had relatively similar averages of men and women in the sample. Educational level consisted of three categories (low, medium, and high).[48] The results show that 2G immigrants of Eastern Europe and other origins are most represented in the modality of low educational level: 35.6% and 52.1% respectively. Individuals with 2G borders origins are more represented among high educational levels (47.0%), and 2G immigrants with North and Western Europe origins have higher averages in the medium (45.7%) and high (41.0%) categories. Even when concentrating on events in family formation and work status, educational level is an essential variable to understand changes and transitions of 2G immigrants. Gomensoro and Bolzman (2015) showed similar results: natives were less represented among individuals with low educational levels, while these categories were overpopulated with 2G immigrants from the former Yugoslavia, Portugal, and Turkey.

[47] The choice for the construction of groups was based on descriptive analysis. This study tried to bring together the most homogeneous groups according to geographical origin of the parents and similar behaviors regarding the formation of a family in the country of origin.

[48] Educational level was recoded; low (incomplete compulsory school, pre-obligatory schooling, domestic science course, one year school of commerce); medium (general training school, apprenticeship [CFC, EFZ], full-time vocational school, bachelor/maturity); high (vocational high school with master certificate or federal certificate, technical or vocational school, vocational high school ETS, HTL etc., university, academic high school [HEP, PH, HES, FH]).

Table 1: Descriptive variables

	Native	2G Borders	2G Eastern Europe	2G North-Western Europe	2G Others	2G Southern Europe	t-test
Sex							
F	52,5	59,5	51,0	54,3	51,1	49,3	3661.4
M	47,5	40,5	49,0	45,7	48,9	50,7	df = 15
Count	7863	289	104	129	135	434	***
Educational level							
Low	14,6	10,4	22,1	13,2	20,2	15,7	3739.2
Medium	53,7	42,6	55,8	45,7	42,5	55,9	df = 20
High	31,7	47,1	22,1	41,1	37,3	28,4	***
Count	7837	289	104	129	134	433	
Cohort							
before 1950	32,7	29,8	4,8	19,4	5,9	14,1	4197.2
1951-1960	19,8	17,0	5,8	17,8	11,1	16,9	df = 25
1961-1975	28,6	40,1	26,0	44,2	29,6	48,4	***
1976 and +	19,0	13,2	63,5	18,6	53,3	20,6	
Count	7860	289	104	129	135	432	
Number of childrens							
0	30,4	27,3	31,7	40,3	46,7	31,0	
1	11,7	12,8	26,0	10,9	13,3	18,1	3799.6
2	34,3	38,8	30,8	24,8	28,2	34,3	df = 30
3	17,2	14,5	9,6	16,3	7,4	14,1	***
4 and +	6,4	6,6	1,9	7,8	4,4	2,6	
Count	7860	289	104	129	135	432	
Educational level father*							
Low	25,5	17,1	30,0	17,8	13,8	49,2	2571.2
Medium	53,3	54,1	50,0	43,0	27,6	42,2	df = 20
High	21,2	28,8	20,0	39,3	58,6	8,7	***
Count	3334	170	20	107	29	242	
Educational level mother*							
Low	47,3	40,2	45,8	35,6	36,7	70,9	2401.5
Medium	44,9	46,0	41,7	48,1	46,7	26,6	df = 20
High	7,7	13,8	12,5	16,4	16,7	2,5	***
Count	3383	174	24	104	30	244	

* Variable exists only for SHP bio I-II

*** $p < .001$

For the cohort variable (after descriptive results and trying to build a homogeneous group), the sample was coded as follows: before 1950 (when a lot of immigrants arrived in Switzerland from border countries), 1951–1960 (immigration work and reconstruction of the country), 1961–1975 (when seasonal immigrants arrived from Italy and Spain) and 1976 and beyond (the most recent groups of immigrants). The

results show that natives are more represented in the before-1950 cohort (32.6%) and in the 1961–1975 cohort (28.5%). Relative to 2G immigrants, it is obvious that they are more represented in recent cohorts; these results are more evident for individuals with 2G Eastern Europe origins, in which 63.4% of individuals belong to the 1976 and beyond cohort. 2G immigrants with Southern European origins are more represented in the 1961–1975 cohort (48.3%).[49]

For number of children, only 2G immigrants with Eastern European origins have a greater percentage of children in category “1 child” than the Swiss (25.9% against 11.7%). As regards the percentage of those who have two children, the results are relatively similar for all groups, with the exception of 2G immigrants with Eastern Europe origins, who have lower averages than other groups (24.81%).

Finally, the variable educational level of father and mother was used as a control because these variables are explanatory indicators in terms of social origin in this paper’s models. For these variables we only use the results of the biographical data from 2001 and 2002 because at the time this paper was written, the educational levels of fathers and mothers from 2013 were not available. Based on this information, the educational levels of the father are divided into two groups: those whose father’s education level was more represented in the low category (2G Eastern Europe, 2G Southern Europe) and those whose educational levels were more represented in high levels (2G borders, 2G North and Western Europe). Finally, in regard to the educational level of mothers, they had lower education levels compared with those of the father (see Guarin and Rousseaux 2017 for more explanations of the differences in terms of fathers’ educational levels).

[49] In these results, one can identify the history of immigration in Switzerland (see Piguet 2005).

2.2. Methods

To try to understand if second-generation immigrants from a particular country play a role in the timing and the type of the transition to first union (marriage or cohabitation), this paper presents results about first-union status, more precisely, descriptive analyses (median and mean ages at first union) and Kaplan-Meier survival estimates of entering into a first union. Then, to study whether second-generation immigrant background from a particular country plays a role in the likelihood of experiencing a first union, we applied event-history analyses and Cox models to analyze first union transitions while distinguishing between first cohabitation and first marriage; these methods allow for an estimate of the difference in pathways between natives and 2G immigrants. Models are presented as follows: Model 0 (M0) is the empty model containing only the origin variable. M1 includes the independent variables origin and birth cohort. M2 controls for respondents' educational attainment (low, medium, high). M3 introduces an interaction between educational level and origin. Finally, M4 adds educational level of the father and mother. M1, M2, M3, and M4 also include control variables using a stepwise procedure. The common starting age at risk is 17; cases are right-censored either at the last known interview date or at age 45.

3. Findings

3.1. Type and timing of transition to first union (marriage/cohabitation) by origin

The group age at first union formation is presented in Table 2. Here we can see that all 2G groups have a higher percentage in the group aged 15-20 years at first union

formation than natives (6.01%). This average is higher for 2G immigrants with Eastern European origins (20%).

Table 2: Average of events and age by group for first union (marriage or cohabitation) by origin

	Native	2G Borders	2G Eastern Europe	2G North-Western Europe	2G Others	2G Southern Europe	t-test
First Union (marriage or cohabitation)							
No	14,2	12,1	18,3	23,3	31,9	15,9	3722.8
Yes	85,8	87,9	81,7	76,7	68,2	84,1	df = 15
Count	7863	289	104	129	135	434	***
Age at first union (marriage or cohabitation)							
15-20	6,0	4,0	20,0	6,1	13,0	7,5	
21-25	39,2	40,7	51,8	28,6	30,4	38,4	3726.6
26-30	35,1	36,7	21,2	40,8	41,3	32,3	df = 30
31-35	13,6	13,3	7,1	15,3	10,9	14,6	***
36+	6,1	5,2	0,0	9,2	4,4	7,2	
Count	6674	248	85	98	92	362	
Married							
No	28,1	26,6	30,8	38,0	53,3	28,6	3753.1
Yes	71,9	73,4	69,2	62,0	46,7	71,4	df = 15
Count	7863	289	104	129	135	434	***
Age at first marriage							
15-20	4,8	1,9	19,4	6,3	6,4	7,1	
21-25	39,2	41,4	52,8	28,8	25,4	39,0	3508.1
26-30	36,0	38,9	20,8	42,5	49,2	32,5	df = 30
31-35	14,3	13,0	6,9	13,8	12,7	14,9	***
36+	5,9	4,8	0,0	8,8	6,4	6,5	
Count	5600	208	72	80	63	308	
Cohabitation							
No	18,9	17,7	22,1	28,7	37,0	18,9	3719.1
Yes	81,1	82,4	77,9	71,3	63,0	81,1	df = 15
Count	7863	289	104	129	135	434	***
Age at first cohabitation							
15-20	10,5	10,6	22,2	14,3	17,9	13,7	
21-25	47,5	50,2	51,9	38,5	44,1	46,6	3515.1
26-30	29,5	28,5	21,0	28,6	28,6	28,0	df = 30
31-35	8,8	8,1	3,7	12,1	8,3	7,7	***
36+	3,7	2,6	1,2	6,6	1,2	4,0	
Count	6336	235	81	91	84	350	

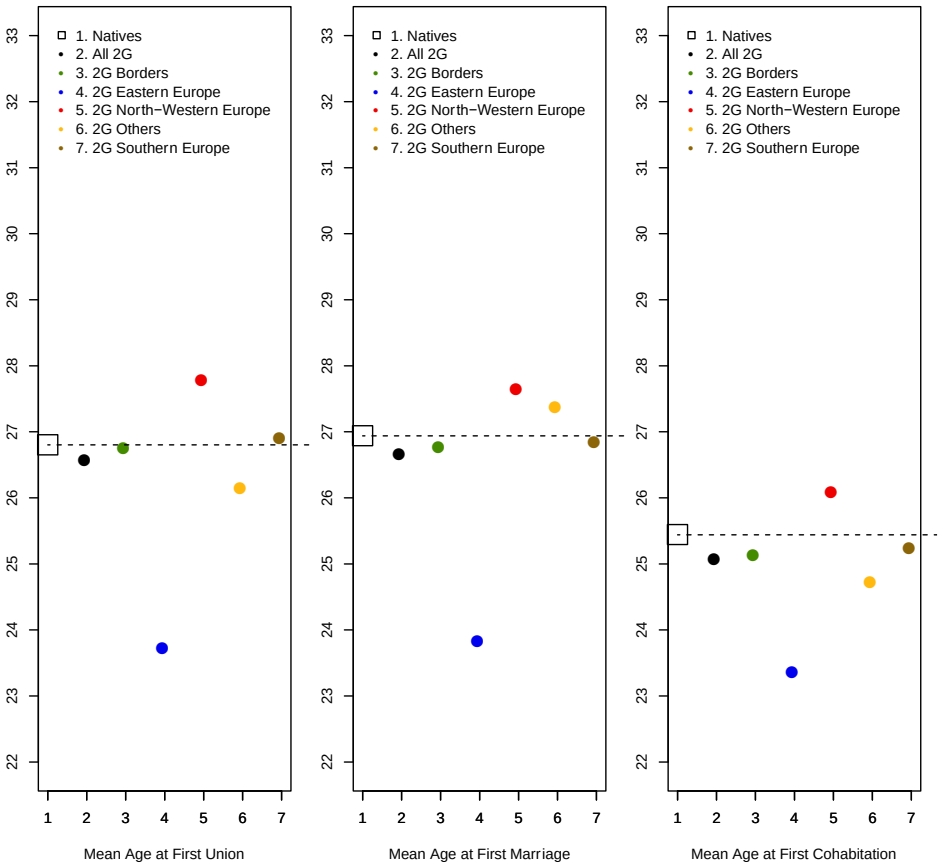
*** $p < .001$

For Age at First Union, First Marriage and First Cohabitation only values between 15 and 45 are considered

If we analyze mean age at first union in Figure 2, in which natives are represented by a white square and 2G immigrants are represented by a circle, median age at

first union for 2G immigrants tends to be similar to that of natives (26.8). Yet 2G immigrants of Eastern Europe have a lower median age (23.7) than natives. For marriage, 2G immigrants have a higher percentage in the group aged 15-20 years at first marriage than natives (4.75%).

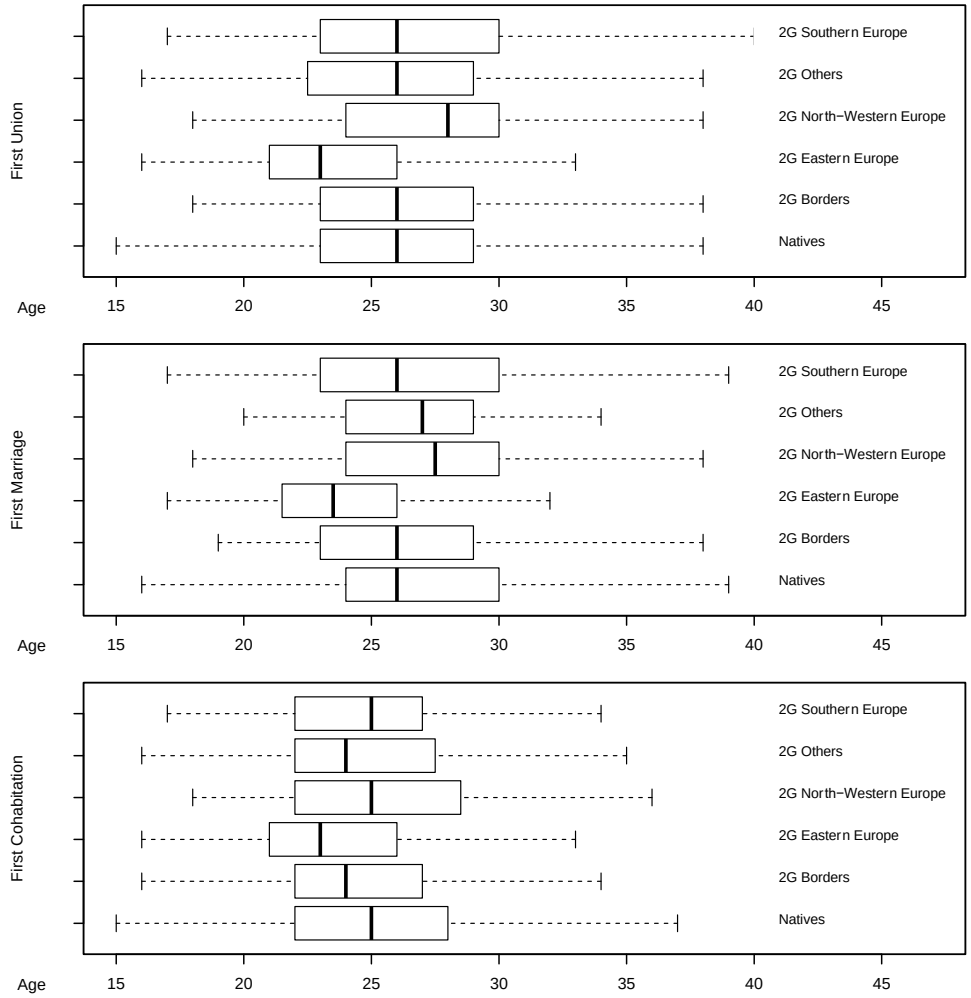
Figure 2: Mean age at first union (marriage or cohabitation) by origin



This number is greatest for 2G immigrants with Eastern European origins (19.44%) (see Table 2). The mean age of natives at first marriage is 29.36. These values are very similar for all 2G groups, though there is an exception for 2G immigrants of Eastern Europe, who have a mean of 23.86, representing a difference of about 6 points in comparison with natives (Figure 2 and Figure 3). The results regarding first cohabitation show that, as for the first union and the marriage, 2G immigrants with

Eastern European origins have lower mean age values at cohabitation than natives (23.40).

Figure 3: Box plot of age at first union (marriage or cohabitation) by origin



The survival analysis helps to visualize the differences in the median age at entering first union (marriage or cohabitation) and timing of this transition. Figure 4 shows the Kaplan-Meier survival estimates of entering into first union by origin with variable origin aggregated (Figure 4-left) and with variable origin disaggregated (Figure 4-right). With variable origin aggregated (Figure 4-left), we can see that the curves are relatively similar, but if we analyze the results with the variable origin disaggregated (Figure 4-right) we can see that, similarly to what we observed through the median

age, 2G immigrants with Eastern European origins (blue dotted line) enter their first union earlier than natives (black solid line).

Figure 4: Kaplan-Meier survival estimates of entering into first union by origin

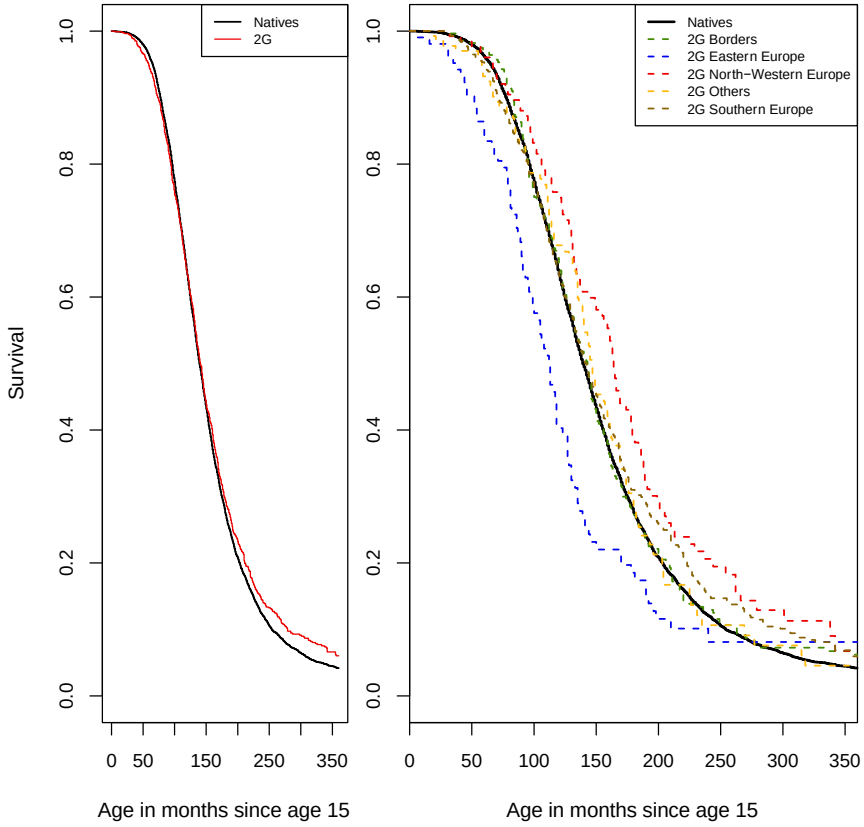


Figure 5 shows the Kaplan-Meier survival estimates of entering into first marriage by origin aggregated (Figure 5-left) and by origin disaggregated (Figure 5-right). The results show that marriages begin at same ages as first unions. Figure 5-left shows that all 2G immigrant groups have similar timing in marriage. But if we analyze Figure 5-right, 2G origins, 2G immigrants of Eastern European origins enter marriage at younger ages than natives, in comparison with all other 2G immigrants, who enter marriage later (2G North-Western Europe and other 2G) or have similar patterns to natives (2G Borders and Southern Europe). Finally figure 6 shows the Kaplan-Meier survival estimates of entering into cohabitation by origin aggregated (Figure 6-left) and disaggregated (Figure 6-right). We notice, as with first union

formation and marriage, that the difference between natives and 2G immigrants is smaller.

Figure 5: Kaplan-Meier survival estimates of entering into marriage by origin

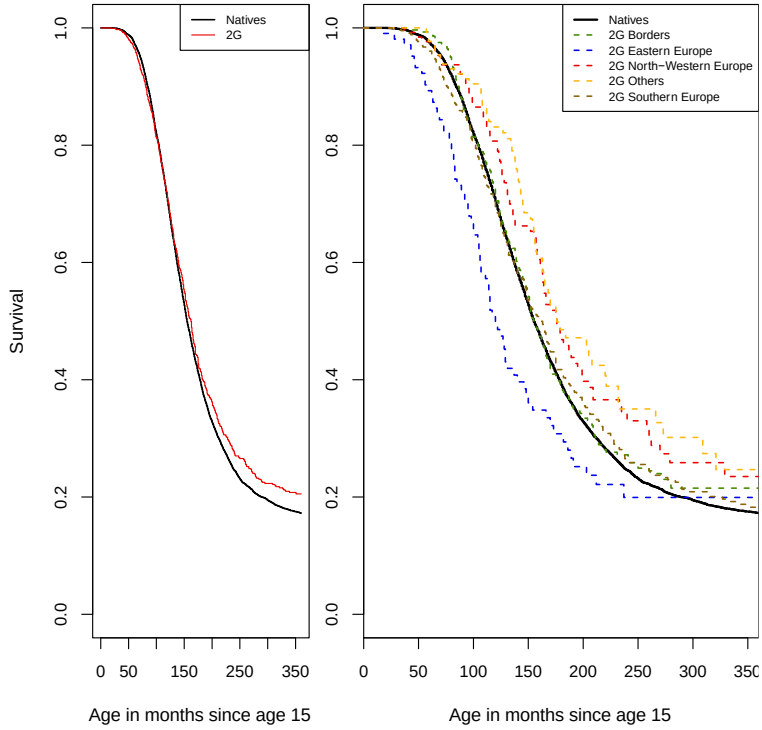
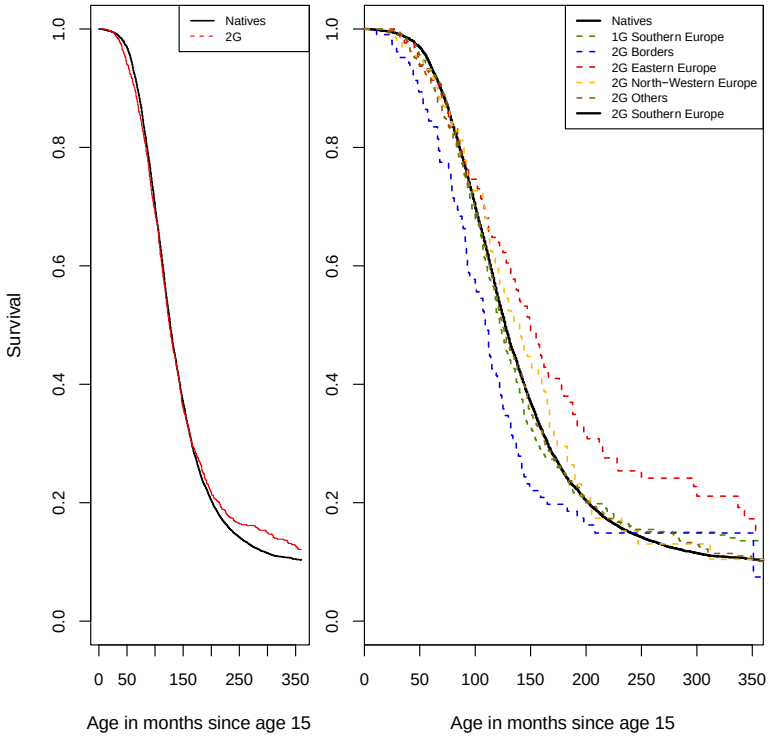


Figure 6: Kaplan-Meier survival estimates of entering into cohabitation by origin



The difference between marriage and cohabitation is partially due to the fact that the different population subgroups enter marriage later than cohabitation. In a period of rapid transformation of union types, differences in the incidence of cohabitation and marriage are likely to be strongly related to the different age or cohort profile of native and immigrant populations at the time of the survey (Kulu and Gonzalez-Ferrer 2013). For these reasons, birth cohort is one of the main control variables we introduced in our multivariate models. The question is whether we are facing a pure cohort effect or whether differences between immigrants and natives will persist after controlling for the year of birth.

3.2. Likelihood of first union formation (marriage/cohabitation) by immigrant origin

For analyses of first union formation, we distinguished between cohabitation and marriage. Risk of first union formation is presented in Table 3, where we noted that there are no significant differences in the probability of first union formation (for men and women) among the majority of 2G immigrants and natives. In the empty model M0 (without control variables), only 2G immigrants with Eastern European origins have a higher likelihood of entering a first union (marriage or cohabitation). The relative chances of entering first marriage by immigrant origin are shown in Table 4. In Model M0, we noted that the majority of 2G immigrant groups have a lower probability of marriage than natives, with the exception of 2G immigrants with Eastern European origins, who are more likely to marry than natives. The relative probabilities of entering first cohabitation by immigrant origin are shown in Table 5. The results in this part are relatively similar to those for first union and marriage.

When we control for cohort (M1), educational level (M2), interaction between origins and educational level (M3), and educational level of parents (M4), the results do not change for the variable “origins” for either men or women. However, the introduction of control variables shows that individuals born in older cohorts have a higher likelihood of experiencing first union (marriage or cohabitation) than recent cohorts: individuals appearing in a cohort before 1960 have a higher probability of first union than cohorts from 1961 and after. We also see that 2G immigrants with a low educational level have a higher likelihood of entering into a first union – marriage or cohabitation – than Swiss natives with low educational levels. Conversely, the educational levels of parents do not play a role in the decision to form a union.

These results indicate that 2G immigrants and Swiss natives have relatively similar patterns in terms of partnership formation. Indeed, we can see the convergence in family patterns between migrants and the native population in the second-generation. We can also see that in transitions addressed in the study, the inter-group differences follow a similar pattern among women and men. In fact, only 2G immigrants with Eastern European origins have a higher propensity than Swiss natives to enter first partnerships.

Regarding gender, we can see that there were no significant differences between the men and women children of immigrants and the Swiss natives at the time of the first union (marriage or cohabitation, and cohabitation only). However, when we focused on the first marriage, very significant differences were found for second-generation immigrants of Eastern European origin. Women belonging to this group are more likely to marry than men are.

Table 3: Relative risk of first union (marriage or cohabitation)

First Union		Men					Women				
		Model 0	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 0**	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	Origins	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig
	Native	1	1	1	1	1	1	1	1	1	1
	2G Borders	0,9	0,9	0,9	1,2	1,0	1,0	1,0	1,1	1,1	1,1
	2G Eastern Europe	1,5 **	1,7 ***	1,7 ***	1,9 ***	2,1 **	1,6 **	1,8 ***	1,7 ***	1,3 **	1,5
	2G North-Western Europe	0,8 *	0,8 *	0,8 *	0,8 *	0,9	0,7 **	0,7 *	0,8 *	0,7	0,9
	2G Others	0,9	1,1	1,1	0,9	0,9	1,0	1,1	1,1	1,7	0,7
	2G Southern Europe	0,9	0,9	1,0	1,2	1,0	0,9	1,0	1,0	1,0	0,9
	Cohort										
	before 1950		1,6 ***	1,6 ***	1,6 ***	1,6 ***		1,5 ***	1,3 ***	1,3 ***	1,2 **
	1951-1960		1,2 ***	1,2 ***	1,2 ***	1,2 *		1,2 ***	1,2 ***	1,2 ***	1,1
	1961-1975		1	1	1	1		1	1	1	1
	1976 and +		0,9	0,9	1,0	0,7 **		1,0	1,0	1,0	1,0
	Educational level										
	Low			0,8 ***	0,8 ***	0,7 *			1,2 ***	1,2 ***	1,2 *
	Medium			1	1	1			1	1	1
	High			0,9	1,0	1,0			0,7 ***	0,7 ***	0,7 ***
	Origin * Educational level										
	Swiss (Middle)				1					1	
	2G Borders (Low)				1,7					1,0	
	2G Eastern Europe (Low)				1,2 *					2,0 *	
	2G North-Western Europe (Low)				1,1					1,5	
	2G Others (Low)				2,5 *					0,2 **	
	2G Southern Europe (Low)				0,8					1,0	
	2G Borders (High)				0,7 *					1,0	
	2G Eastern Europe (High)				0,7					1,5 *	
	2G North-Western Europe (High)				1,0					0,8	
	2G Others (High)				1,2					0,6	
	2G Southern Europe (High)				0,7 *					1,0	
	Educational level Father										
	Low					1					1
	Medium					0,9 *					1,0
	High					0,8 **					0,9 *
	Educational level Mother										
	Low					1					1
	Medium					1,1					0,9
	High					1,0					1,0
	AIC	52262,30	52108,10	52877,10	19980,50	51882,70	60798,84	60697,02	60391,02	60393,65	23686,64
	R2	0	0,04	0,04	0,05	0,05	0	0,03	0,05	0,05	0,05
	Max. R2	1	1	1	1	1	1	1	1	1	1
	N	4213	4213	4213	4213	1768	4670	4670	4670	4670	1981
	Number of events	3522	3522	3522	3522	1517	4028	4028	4028	4028	1758

Signif: *** p<0.01, ** p<0.05, * p<0.1

Individuals become under risk at age 17 and censoring last interview or age 45

Table 4: Relative risk of first marriage

		Men										Women									
		Model 0		**Model 1**		**Model 2**		**Model 3**		**Model 4**		**Model 0**		**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Origins	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig	HR	Sig
	Native	1		1		1		1		1		1		1		1		1		1	
	2G Borders	0,9		0,9		0,9		1,0		0,8		1,0		1,0		1,0		1,0		1,1	
	2G Eastern Europe	1,3		1,4	**	1,4	**	1,6	***	1,4	*	1,5	**	2,3	***	2,3	***	2,1	***	2,0	*
	2G North-Western Europe	0,8		0,9		0,9		1,0		0,8		0,8	*	0,8		0,9		0,9		1,0	
	2G Others	0,8		1,0		1,0		0,7		1,2		0,7	*	0,9		1,0		1,2		1,1	
	2G Southern Europe	0,9		1,1		1,1		1,1		1,2		1,0		1,1		1,1		1,0		1,0	
	Cohort																				
	before 1950			1,9	***	1,9	***	1,9	***	2,1	***			1,6	***	1,5	***	1,5	***	1,5	***
	1951-1960			1,4	***	1,4	***	1,4	***	1,5	***			1,4	***	1,3	***	1,4	***	1,3	***
	1961-1975			1		1		1		1				1		1		1		1	
	1976 and +			0,5	***	0,6	***	0,5	***	0,4	***			0,5	***	0,5	***	0,5	***	0,4	***
	Educational level																				
	Low					0,8	*	0,7	***	0,8	*					1,2	**	1,1	**	1,2	***
	Medium					1		1		1						1		1		1	
	High					1,0		1,0		1,0						0,7	***	0,7	***	0,7	***
	Origin * Educational level																				
	Swiss (Middle)							1										1			
Marriage	2G Borders (Low)							2,9	*									1,0			
	2G Eastern Europe (Low)							1,2	**									2,4	**		
	2G North-Western Europe (Low)							1,5										2,1	*		
	2G Others (Low)							4,3	**									0,4			
	2G Southern Europe (Low)							1,3										1,1			
	2G Borders (High)							0,9										1,3			
	2G Eastern Europe (High)							0,4	**									0,7			
	2G North-Western Europe (High)							0,8										0,6			
	2G Others (High)							1,5										0,9			
	2G Southern Europe (High)							1,0										1,2			
	Educational level Father																				
	Low									1										1	
	Medium									0,9	*									1,0	
	High									0,7	***									0,9	
	Educational level Mother																				
	Low									1										1	
	Medium									1,1										0,9	
	High									1,0										0,8	
	AIC	45354,85		44982,31		44776,78		44777,82		18233,27		51844,70		51414,07		51150,95		51149,27		21495,00	
	R2	0		0,09		0,09		0,09		0,12		0		0,01		0,11		0,11		0,11	
	Max. R2	1		1		1		1		1		1		1		1		1		1	
	N	4213		4213		4213		4213		1768		4670		4670		4670		4670		1981	
	Number of events	2980		2980		2980		2980		1367		3344		3344		3344		3344		1573	

Signif: *** p<0.01, ** p<0.05, * p<0.1

Individuals become under risk at age 17 and censoring last interview or age 45

Table 5: Relative risk of first cohabitation

		Men					Women				
		Model 0	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 0**	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	Origins	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig	HR Sig
	Native	1	1	1	1	1	1	1	1	1	1
	2G Borders	0,9	0,9	0,9	1,0	1,0	1,0	1,0	1,0	0,9	1,2
	2G Eastern Europe	1,2 **	1,4 *	1,4 *	1,5 *	1,3 *	1,4 *	1,5 *	1,4 *	1,4 *	0,9
	2G North-Western Europe	0,8	0,8	0,8	0,9	1,0	0,7 *	0,7 *	0,7 *	0,8	1,0
	2G Others	0,8	0,9	0,9	0,8	0,8	1,0	1,0	1,1	1,4	0,7
	2G Southern Europe	1,0	1,0	1,0	1,0	1,2	1,0	1,0	1,0	0,9	1,2
	Cohort										
	before 1950		1,0	1,0	1,0	1,0		0,8 ***	0,8 ***	0,8 ***	0,8 ***
	1951-1960		1,1 *	1,1 *	1,1	1,1		1,1 **	1,1 *	1,1 *	1,0
	1961-1975		1	1	1	1		1	1	1	1
	1976 and +		0,7 ***	0,7 ***	0,7 ***	0,4 ***		0,8 ***	0,8 ***	0,8 ***	0,6 ***
	Educational level										
	Low			0,7 ***	0,7	0,6 **			1,0	1,0	0,9
	Medium			1	1	1			1	1	1
	High			1,0	1,0	1,0			0,8 ***	0,8 ***	0,8 **
	Origin * Educational level										
Cohabitation	Swiss (Middle)				1					1	
	2G Borders (Low)				1,9					1,2	
	2G Eastern Europe (Low)				1,5 *					1,3 *	
	2G North-Western Europe (Low)				0,5					1,1	
	2G Others (Low)				2,6 *					0,5	
	2G Southern Europe (Low)				1,5					1,2	
	2G Borders (High)				0,9					1,3	
	2G Eastern Europe (High)				0,7					0,9	
	2G North-Western Europe (High)				0,9					0,7	
	2G Others (High)				1,0					0,7	
	2G Southern Europe (High)				0,9					1,1	
	Educational level Father										
	Low					1					1
	Medium					1,0					1,1
	High					0,9					0,9
	Educational level Mother										
	Low					1					1
	Medium					1,0					0,9
	High					1,0					0,9
	AIC	50931,53	50891,07	50647,86	50657,94	18936,24	58243,57	58183,81	57957,71	57970,47	21623,77
	R2	0	0,01	0,02	0,02	0,04	0	0,02	0,02	0,02	0,04
	Max. R2	1	1	1	1	1	1	1	1	1	1
	N	4213	4213	4213	4213	1767	4670	4670	4670	4670	1980
	Number of events	3379	3379	3379	3366	1405	3792	3792	3792	3792	1561

Signif: *** p<0.01, ** p<0.05, * p<0.1

Individuals become under risk at age 17 and censoring last interview or age 45

4. Discussion

The present paper investigates the characteristics of the transition to first union (cohabitation and marriage) of children of immigrants in Switzerland using data from the SHP. It provides indications of the differences between the timing of these transitions for different 2G immigrant origin groups compared with the majority (Swiss natives).

First, we found that the median age at first marriage is higher than the age at first cohabitation for all young adults. This clearly points to periods of unmarried cohabitation that are now common not only among the Swiss native population but also for children of immigrants. The median age at first cohabitation may not be increasing as rapidly as the median age at first marriage because the barriers to cohabitation are not as high as those to marriage. Motivations to cohabit have tended to be based on relational prospects and have not carried the same prerequisites, such as stable economic prospects, as marriage (Manning, Brown and Payne 2014). As regards mean age at first union (marriage or cohabitation), natives have a similar mean age to all 2G groups, though 2G immigrants with Eastern European origins form an exception, as they have a lower mean age at first union (marriage or cohabitation) than natives.

Secondly, our analyses show significant differences in partnership trajectories (timing and probability) across population subgroups, indicating the importance of not studying the second-generation as a homogeneous group. Second-generation young adults with North-Western, Borders, and Southern European origins have a similar likelihood of union formation (cohabitation and marriage) to that of natives. This suggests that for these groups of 2G immigrants, such exposure will make the family behaviors of migrants converge (in a medium- rather than a long-term perspective) toward that of the population of the host society (Andersson 2004; Andersson and Scott 2005; Kulu and Gonzalez-Ferrer 2013). In line with this, even if children of immigrants experience socialization entirely in the country of immigration of their parents, first-generation migrant parents and family members do pass on values and norms to their children (Nauck 2001). Social contacts with a peer group of heterogeneous background (including those of migrant

and non-migrant origin) during childhood, as well as exposure to the economic conditions and social institutions of the host country, make it likely that second-generation immigrants will adopt the norms and values of the host society. Indeed, the majority of 2G immigrants postpone transitions even more than the Swiss (as presented in survival curves) and, as such, they may either continue the later union formation patterns typical of their parents' country of origin or may face difficulty in finding a partner in Switzerland. Our analyses cannot answer this question, but it is important to bear in mind that different processes might be at work. Further detailed analyses among European migrants in Switzerland are needed to shed more light on their position. Linking these studies with information on union and family formation in the countries of origin of their parents might be useful in light of this. On the other hand, for 2G immigrants with Eastern Europe origins, first union patterns seem to be contrary to those of other 2G immigrants. More precisely, we found that children of immigrants with Eastern European origins have a higher probability of first union formation (marriage or cohabitation) than Swiss natives and form these unions earlier. One could imagine that family trajectories of 2G immigrants with Eastern European origins are more strongly influenced by the values, norms, and behavioral patterns to which they are exposed in a family context during childhood (Kulu and Milewski 2007; Kulu and Gonzalez-Ferrer 2013).

In terms of the differences found between men and women at the time of first union, our result showed that female second-generation immigrants of Eastern European origin are more likely to marry than men are. This difference is explained in other studies by the fact that the level of parental involvement in the children's spouse choices is greater for immigrant women than for immigrant men (van Zantvliet et al. 2014). Authors have argued that gender socialization teaches women

to be submissive and to prioritize family over career (Xiao 2000). This is true for majority-background and immigrant women alike, although immigrant-background women are often “guardians of tradition” (Liversage 2012) and have a central role in transmitting ethnic traditions to the next generation. This could imply that immigrant background women are more susceptible to the social pressure to marry within their groups at prescribed ages than their male counterparts are.

To conclude, more research is needed on the explanatory mechanisms behind the linkage of union formation and children of immigrants, which also calls for longitudinal data. Our cross-sectional analyses can only indicate relations but cannot claim far-reaching causal effects; indeed, the purpose of this paper was not to identify causal effects. Future research on the couple relationship of immigrant children in Switzerland must explore more specifically the differences according to the country of origin (of the parents) and other unobserved individual characteristics, such as attitudes and values, information that was not available in the data we used.

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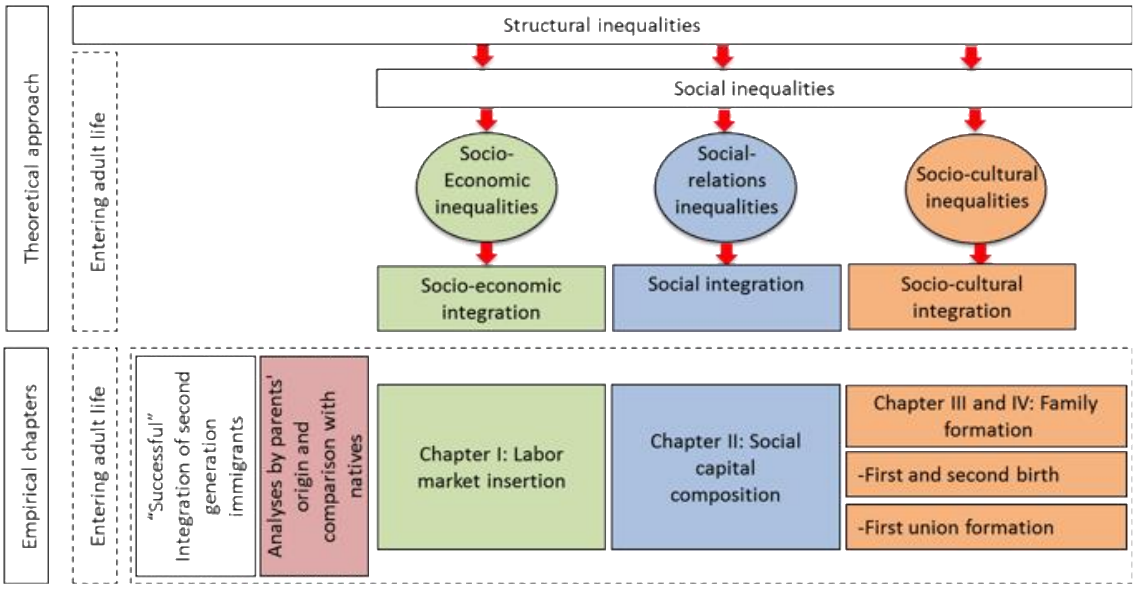
Conclusion

The main aim of the thesis is to study the existence of *structural inequalities* among second-generation immigrants entering adult life in Switzerland. It investigates whether and how such structural inequalities play a role in the "successful" *integration* process of these immigrant children. To answer this question, I study social inequalities that could exist for second-generation immigrants in Switzerland in transition to adulthood, and I choose three essential dimensions (socio-economic inequalities, social-relations inequalities, and socio-cultural inequalities). Then, for each of these dimensions, I concentrate on one indicator (labor-market insertion, social capital composition, and first and second child – first union formation). Each of these indicators enables me to measure the existence (or not) of structural inequalities facing the children of immigrants compared with the natives in Swiss society (Figure 1). I then interpret the results found in each article and their implications in the process of a "successful" integration, while taking into account the heterogeneity among the children of immigrants according to the parents' place of birth.

Figure 1: Theoretical structure



In the next paragraphs, I summarize the main results found for each dimension obtained with the different databases and their relationship with socio-economic, social, and socio-cultural integration, at the same time explaining contribution of this thesis to the literature. I then discuss the work's limitations, and I end with comments and implications for future research.

Principal results and contribution to the literature

Before presenting the main results of the thesis, it must be said that all of the articles in this thesis bring to light new analyses concerning social inequalities at entry into adulthood between the children of immigrants and natives. Using various statistical methods and data from various sources, my thesis identifies a population that is not formally identified or studied in the official Swiss registers. Strenuous and rigorous work had to be done in order to use different databases, particularly the construction of the variable "origin". In order to extract this difficult-to-identify population, my work has been a meticulous analysis and codifications of existing data, which has rarely been done in Switzerland and that is fundamental in order to study the children of immigrants.

This work done with the different databases has enabled me to arrive at innovative results. In all my chapters I have studied the existence of social inequality by comparing different groups of immigrant children and natives. The results answer the questions in each of the dimensions studied: but on the basis of these results, how could we interpret them in the light of "successful" integration?

As stated in the Introduction, based on the fact that the existence of structural inequalities in society reinforces feelings of isolation or social exclusion and hinders a smooth "successful" integration process (Paugam 2005), I define "successful"

integration as the absence of inequalities in the three dimensions studied in my thesis: socio-economic inequalities, social-relations inequalities, and socio-cultural inequalities.

Next, I present the most relevant results found in this thesis. They will be presented by chapter while taking into account the heterogeneity among Secondos. Then, for each dimension, I will focus on interpreting the results of the "successful" integration of children of immigrants in Switzerland.

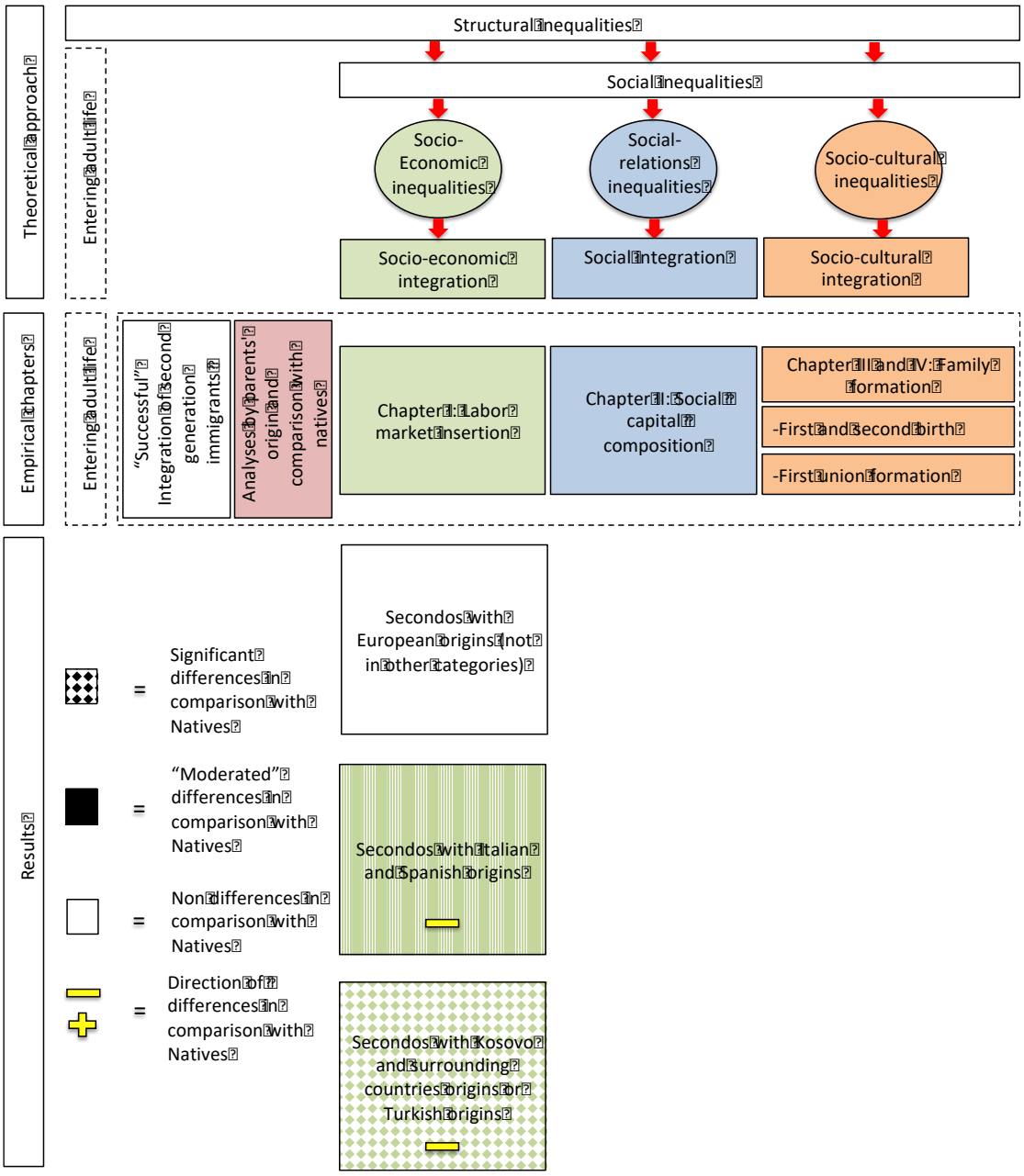
Dimension 1: Socio-economic inequalities (Figure 2A)

To operationalize the first dimension, I studied labor-market insertion. I was interested in understanding whether there may be risks of unemployment and/or having a job considered at the bottom of the social ladder that vary according to the parents of the children of immigrants. The results in the first article showed that children of immigrants from North-Western and Central Europe[50] do not encounter socio-economic inequalities in terms of labor-market insertion. This group has low unemployment rates and works in trades considered high on the social scale. They even exceed the performance obtained by natives in labor-market insertion. With reference to children whose parents were born in Southern Europe, I show that structural inequalities exist at the level of labor-market integration. But these inequalities are lower than for children of immigrants with Kosovar (and from surrounding countries) and Turkish origins; these results have also been found in other studies (Bolzman 2007). Finally, for the group of children of immigrants with

[50] In the Conclusion, we refer to the population groups studied in each chapter. The different labels used in each chapter are due to the nature of the data and the sample sizes for each database.

South-Eastern European or Turkish backgrounds, we found more marked differences in comparison with natives than for all other Secondos groups.

Figure 2A: Results for the socio-economic dimension



This chapter clearly demonstrates an "ethnic penalty" that prevents the children of immigrants with Kosovar (and surrounding countries) and Turkish origins from "proper" insertion into the labor market. The jobs held by this group are widely

considered to be at the bottom of the social ladder. Added to this is the higher unemployment rate for this group.

In terms of "successful" integration, defined as the non-existence of socio-economic inequalities (equality of opportunities) (Heath, Rothon and Kilpi 2008), we can clearly see that the children of immigrants whose parents were born in Kosovo or Turkey have more problems in achieving their socio-economic integration than other groups of children of immigrants. For them, equality of opportunity is not guaranteed in the search for a job or in the type of job performed. I demonstrate these findings in a robust and statistically reliable way, while controlling my results by different variables (in particular, the level of parents' education) to show that it is not just a class effect, but that a structural inequality exists.

Dimension 2: Social-relations-inequalities (Figure 2B)

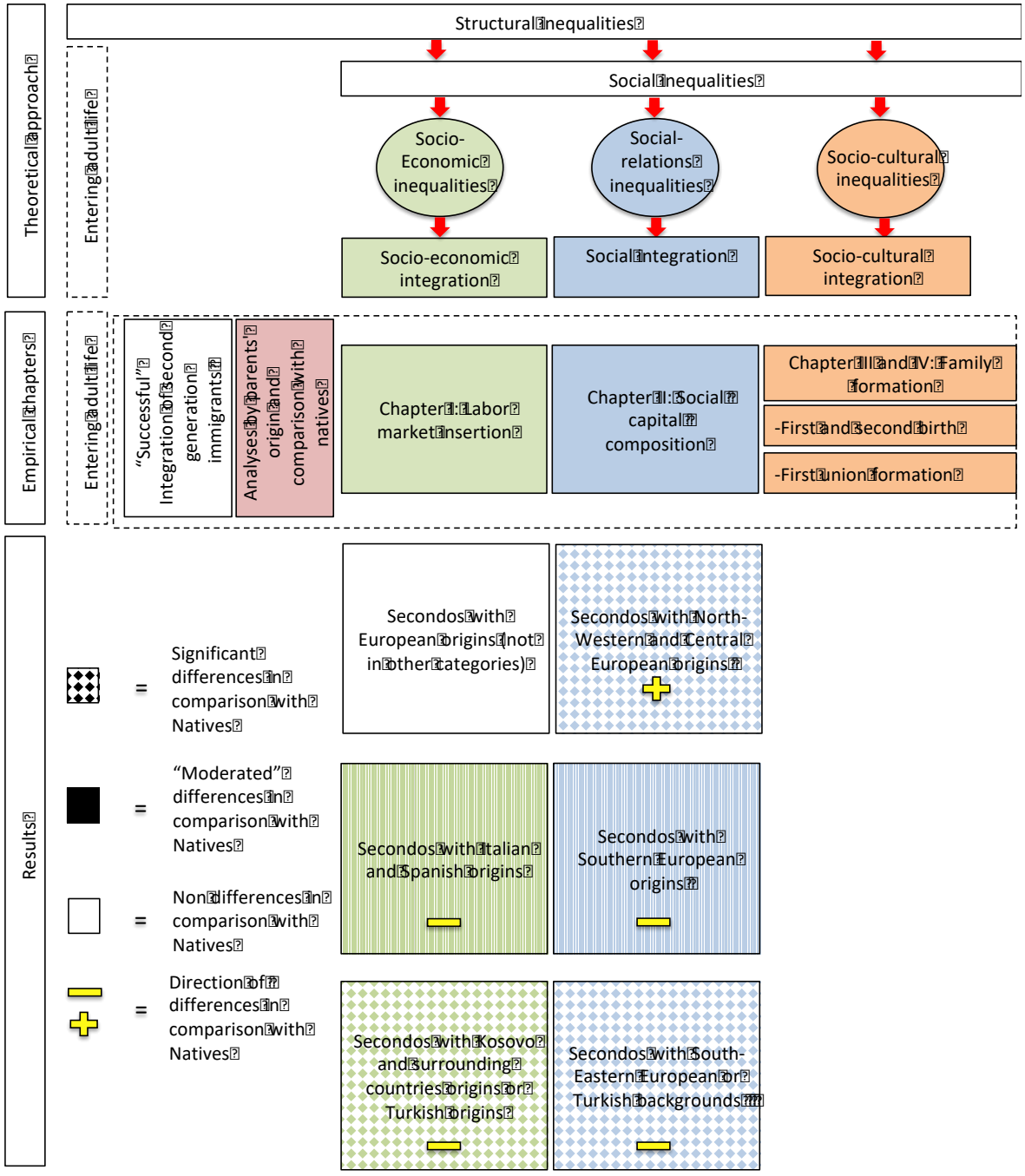
For this dimension I study the relationship between parents' origin and their children's access to specific types of social capital composition during entry into adult life. More precisely, I use as indicators the size, composition, and diversity of young adults' contact networks that a young cohort could have in Switzerland. In my second chapter, using an original dataset (LIVES Cohort Survey) that allows comparison of young adults from different origins, my analysis focuses on different configurations of social capital and associated factors within a Swiss cohort.

The results show that children of immigrants from North-Western and Central Europe are in contact with a wider range of people with whom they notably interact, in institutional contexts (education and work) likely to span beyond particular ethnic or cultural communities. By contrast, children of immigrants with Southern European origins are more represented in networks whose social capital is strongly organized

around community life. These groups of children of immigrants had more social contacts than average with whom they interacted in the context of community activities related to specific associations (religious, sports, or leisure) and, to a lesser degree, with family and friends. However, they had fewer social contacts than average in the context of formal institutions (occupation or training). Finally, our findings reveal that Secondos from South-Eastern European or Turkish backgrounds are strongly overrepresented in the restricted network type, with fewer regular social contacts than for other groups of Secondos, which also tend to be scarcer and more limited to interactions within the family circle.

For this dimension, in terms of "successful" integration, defined as equality of opportunity in terms of diversity of social capital we can say that children of immigrants from North-Western and Central Europe appear to have been part of a cosmopolitan elite with access to information and social resources that are likely to be particularly instrumental for job and career opportunities (Andersson and Hammarstedt 2015). Children of immigrants with Southern European origins have ample opportunities for participation in the social life of established associations, which potentially facilitates access to relevant information and thus (probably) this Secondos group's overall social-relation integration during their transition into adult life. For Secondos from South-Eastern European or Turkish backgrounds, the social capital accumulated might limit the flow and diversity of information and thereby the social resources available, which might prevent the social-relations integration of this population.

Figure 2B: Results for the social-relations inequalities dimension



Dimension 3: Socio-cultural inequalities (Figure 2C)

Regarding the last dimension, I focus on *family formation*. More specifically, I focus on the occurrence and timing of two demographic events in the transition to adulthood: first and second child, and first union formation. In these two chapters

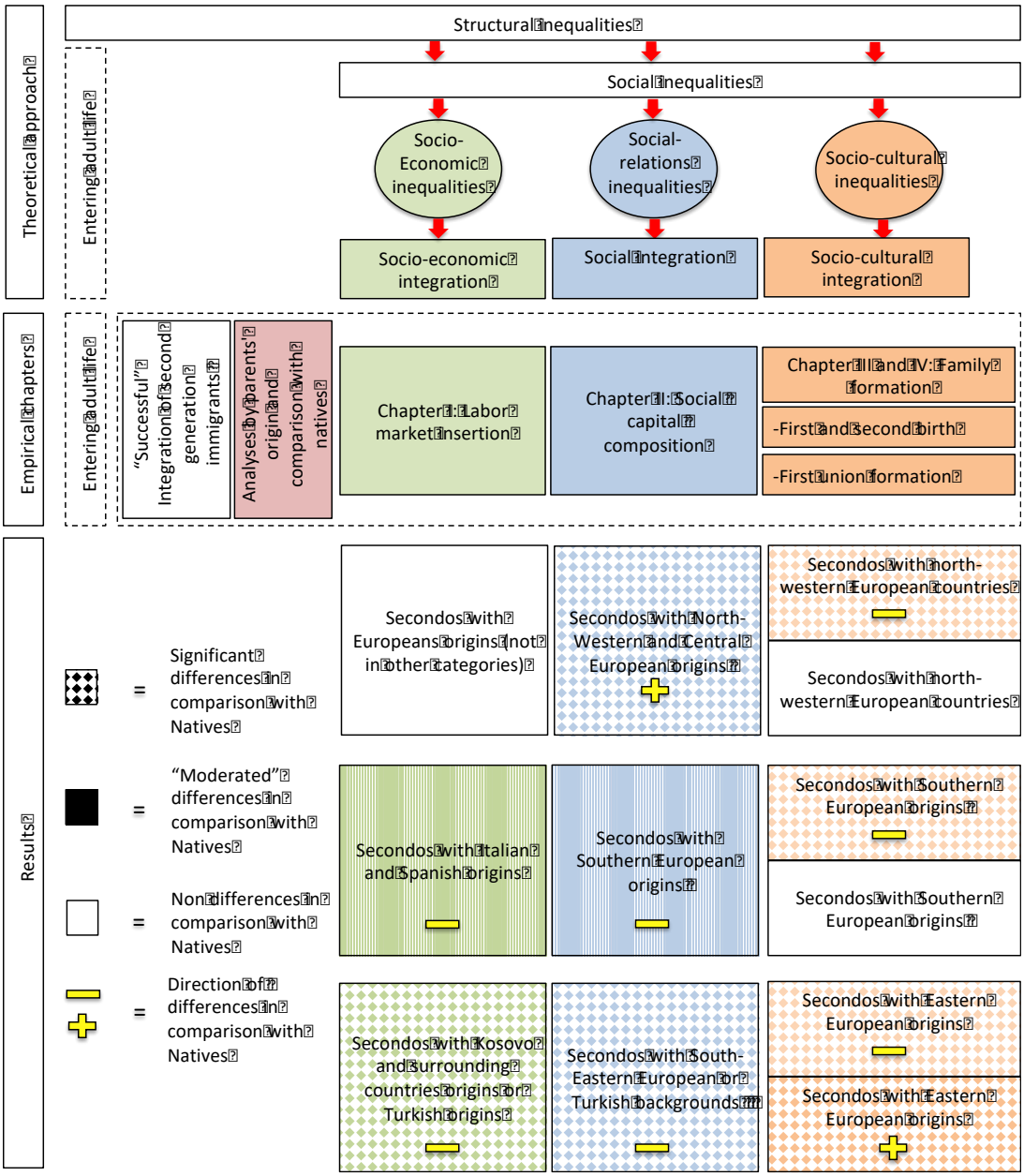
the results showed that all groups of second-generation immigrants (Borders, Southern European, Eastern European, Western Europe and North-Western European) have lower probability (and later timing) than natives for having a first and second child. In regards to partnership formation, all groups (with the exception of children of immigrants with Eastern European origin) tend to have the same probability (and timing) of first union formation. Children with Eastern European origins have faster transitions into cohabitation and marriage, have a lower mean age at first union (marriage or cohabitation) than natives and have a higher probability of forming their first union.

Looking at these results (Chapters 3 and 4), as I said in the introduction, I do not interpret the results in terms of cultural diversity but in the sense of inequalities that may exist behind cultural differences. Because the difference in itself does not represent an inequality, it is the mechanism that creates the difference that can be interpreted as an inequality.

In terms of social inequalities, the results found in Chapter 3 can be explained by how the arrival of a second child is linked to additional costs, with the decision to have a second child being a more "thoughtful" option. The relatively poor public support for parents and the high costs of childrearing in Switzerland may discriminate against immigrants, who generally have fewer economic and relational resources than the native population. Immigrants from countries where welfare support for families and work-family reconciliation are more generous may have higher expectations concerning public support for families (Kulu and Gonzalez-Ferrer 2014). Working immigrant parents from contexts where the extended family handles care face further constraints because immigrants generally have smaller social networks, meaning less support is available to parents (Moret and Dahinden

2009). Other explanations can come from models of the vision of work within the couple (Kofman 2000), the origin of the partner, or the probability of retaining international mobility (Wanner 2012).

Figure 2C: Results for the socio-cultural inequalities dimension



In my fourth chapter, as regards the interpretation of the results in terms of successful integration, it could be argued that faster transitions to first union formation guarantee an important socio-economic improvement and solve the

difficulties related to socio-economic inequalities (results found in Chapter 1). My analyses found that the only group of migrants with significantly different values are the children of immigrants with Eastern origins, who have a faster transition to union formation (cohabitation or marriage). However, to advance an explanation in the sense of equality of opportunities requires one to go further in the search for this relationship.

A typology of results by origin? The second-generation concept

Looking at the results obtained in the different chapters and the summary presented in the previous pages, we can ask us if there is a typology established according to the origin of the children of immigrants. The answer could be found in Figure 2C. Indeed, in terms of the dimensions studied in this thesis, we identify three groups of results clearly differentiated. Even if the composition of the groups is not 100% identical in all the chapters of the thesis, we can identify:

a) on the one hand, a second-generation group of immigrants with western european origins. For whom structural inequalities seem nonexistent in terms of professional integration. The contacts established allow this group of individuals to have access to information and social resources that are likely to be particularly instrumental for job and career opportunities. In terms of reproductive behavior and first union, they would have the same behavior as young Swiss natives.

b) On the other hand, we find a group of Secondos from South-Eastern European or Turkish backgrounds, for which inequalities in entry into the professional world are more likely to be present. They have a restricted network and more limited to the interactions within the family circle, their

resources (access to information) needed to overcome entry into adulthood would be limited. They have lower probability (and later timing) than natives for having a first and second child and present a faster transition to union formation (cohabitation or marriage) and a lower mean age at first union (marriage or cohabitation) than natives.

c) Finally, there would be a group “between two” represented by children of immigrants with Southern European origins, for whom it would seem to exist an structural inequalities (mora attenuated thant for Secondos from South-Eastern European or Turkish backgrounds) at the level of labor-market insertion. Tthis group have ample opportunities for participation in the social life of established associations in the context of community. And they have lower probability (and later timing) than natives for having a first and second child, and tend to have the same probability (and timing) of first union formation than Swiss natives.

Even if the construction of typologies facilitates a researcher’s task, we must remain attentive to this typology used in demographic and sociological studies. In view of the results obtained in the different chapters, we might wonder if it is still relevant to keep the concept of “second generation” to talk about the population that we have studied throughout this thesis. The diversity of the situations observed among the subgroups of origin and the absence of differences for certain subgroups of children of immigrants with the "natives" oblige us to question the relevance of the use of this concept.

The notion of the second-generation of immigrants supposes a "break" with the generation of parents (Sayad 1994). This categorization attributes to the second-

generation more favorable resources as well as an "obligation" of success in the process of integration in comparison with their parents (Santelli 2007). However, the results obtained clearly show the filiation between the generations and emphasizes the difficulties that persist for certain categories of immigrants and the children of these immigrants (of non-European origin). The results of my thesis show existing inequalities for some of the children of immigrants, whose explanations do not lie solely in socioeconomic differences, but the existence of these seems to come from the immigrant backgrounds of those with children of immigrants. Thus, the notion of second generation still seems relevant to use.

However, we must continue to reproduce research that takes into account methodological, multidisciplinary, and representative approaches. This will allow us to reveal the multiple facets of the second-generation immigrant concept to allow us to see a more contrasted and dynamic reality of this concept.

Limitations

Although my work throughout the various articles allows us to draw definite conclusions about our main research question, we noticed some elements that could be limitations. Some of these limitations are related to a) the difficulty of identifying our population in databases and the impossibility of identifying some characteristics of the population; b) the small sample size for breaking up the “Others” group and gender differences; and c) the cross-sectional nature of the data.

Concerning *the difficulty of identifying our population in databases and the impossibility of identifying some characteristics of the population*, one limitation of my study using the SLFS database is the cross-sectional data and the impossibility of identifying some characteristics of the population, such as information from before

the parents' migration (e.g. the reason for migration, the socio-economic resources before migration) (Portes 1995). The use of a longitudinal statistical model would allow young people's trajectories to be studied during the transition from school to work, instead of only looking at their employment status at a given time.

In Families and Generations (FGS), one part of the data design has retrospective information, which may introduce selection bias and misclassification or information bias. FGS also did not enable us to distinguish natives with a family history of naturalization (acquisition of Swiss nationality). This information could have enabled us to better identify the social background of the children of immigrants and thus complete more analyses comparing Secondos with natives. Another limitation due to the data was that, given the young age of the second-generation migrants in the recently arrived groups, we had to limit our analyses to first and second births, even though major differences in total fertility rate (TFR) depend on the transition to third birth.

Using the LIVES Cohort Survey, we focused on analyzing social capital in the survey's first wave. However, the survey was unable to reconstruct the emotional intensity, the reciprocity and intimacy of the network or the origins of the ego network's members. If this information had been available when we carried out our analyses, then the available resources and the types of resources cumulated upon entering adulthood could have been better identified. Today, the LIVES Cohort Survey is in its fourth wave, and future work will be able to explore these points.

Finally, when using the Swiss Household Panel (SHP), "national minorities are typically underrepresented in general population surveys due to their under-coverage in the sampling frame and/or their smaller participation rates" (Herzing, Elcheroth, Lipps and Kleiner 2019: p. 3). Lipps, Laganà, Pollien and Gianettoni

(2011) highlighted that, on average, nationwide Swiss surveys are systematically biased against one-fifth of the country's population, specifically those who do not hold Swiss citizenship.

Even if the use of all these data represents a richness and a strong point in the production of this thesis, it was impossible for us to study all of the areas we needed (work, family construction, and social relations) using the same database. The use of different databases was necessary due to the absence of a large multidimensional survey devoted to the life course of the descendants of migrants in Switzerland. Indeed, one of the fundamental obstacles, for a more long-term overview, to scientific progress in studying second-generation immigrants is the lack of common empirical measures and multidimensional studies.

Concerning the limit of *small sample size for breaking up the "Others" group,* throughout my analyses, the *Others* category could not really be studied and deciphered because it was composed of children of immigrants with very diverse origins. Breaking up this category would have enriched the interpretation of the results. However, given the number of individuals, it was difficult for us to give attention to this category in each chapter.

In the sense of the precedent limitation, we have not been able to deepen the gender dimension in our analyses. Given the size of my sample, differentiated analyses at the gender level and the interaction with ethnic origin were not feasible because the results were not representative. This limitation is all the more important to point out in my work because it occupies an important place today in the analysis of social inequalities (Ridgeway 2011). Questioning gender relations does not just concern individuals who are supposed to have different abilities depending on whether they are men or women. Rather, it concerns society as a whole. The job

market, the accumulation of social capital, access to education, and family formation, among others, are areas in which the gender gap plays an essential role.

Regarding my thesis, in my first chapter, we introduced the gender variable as a control variable in the models studied, but we did not find any differences. However, we can imagine that the interaction between the origin of the children of immigrants and gender could have had an impact on professional integration. Researchers have shown that ethnic origin plays a role in the labor market, especially in combination with gender (Kofman 2000). For Gorodzeisky (2017), in countries like France, Germany, and Switzerland, women are more exposed than men are to unemployment, especially if they come from non-European countries. They have to compete for a relatively small number of occupations and jobs (mostly semiprofessional, clerical, and service-related jobs). The explanations for these differences are linked to the existing inequalities in terms of social roles given to women in society (differentiated socialization of boys and girls, sexual orientation, the unequal distribution of household and family tasks, maternity, child care and family tasks, etc.) and structural inequalities (wage differences in the job market, weight of stereotypes, segregation of the job market, etc.) (Gadery and Gradey 2017).

In our second chapter, the gender variable was also introduced as a control variable in the different models. Unfortunately, we were unable to interpret these results by making interactions with ethnic origin because the numbers were very small. Hébert and colleagues (2004) have shown that, in Canada variables like gender, time depth in country, and ethnicity influence (over the life course) the nature and number of friendships for these immigrant youth. Male adolescents tend to be more sensitive to hierarchical relations within three to nine years of residence

in Canada than in other periods. They also report fewer friends in the country of origin and select more friends from their own schools than from other schools. On average, girls tend to have more friends and acquaintances than boys do (Hébert et al. 2004).

In terms of fertility, the third chapter considered only women in our analysis. The reasons for this choice are, first of all, linked to the fact that in fertility studies, we focus more specifically on women. Indeed, one of the most used indicators by demographers is the total fertility rate, which expresses the average number of children per woman who would be subject to the observed conditions at each age, during her fertile life in a particular period studied. This indicator is also calculated for men. However, the average number of children per man is lower than that of women. As men are slightly more numerous than women are at reproductive ages, it follows that their fertility is lower than women's. Second, there is also a higher rate of the non-recognition of children, which is higher among men (Prioux et Mazuy 2009). Finally, this chapter is also part of an international comparative analysis in another article whose population studied was women.

In the fourth chapter, we were able to establish differences in the first marriage for second-generation immigrants of Eastern European origin. Women belonging to this group are more likely to marry than men are (see discussion in Chapter 4).

Finally, as regards the *cross-sectional nature of the data*, more precisely the impossibility of working with and linking events that form life trajectories, although it was not one of our objectives in this thesis, studying the links between the individuals' different trajectories could have brought a more detailed analysis of the trajectories of children of immigrants. Life trajectories are not necessarily watertight:

occupational life, family life, and leisure life can be superimposed. As the life-course approach implies, the temporality and order of arrival of events are key to understanding how events shape trajectories (Billari 2001).

Implications for future research

Despite these limitations, the results raise issues of inequality according to the parents' origins. We have shown inequalities in the transition to adulthood and at the levels of labor-market insertion, social capital composition, and family formation, which are structural constraints that affect the ability of second-generation immigrants (particularly Secondos with South-Eastern European and Turkish origins) to "successfully" integrate into the population. This thesis highlights a phenomenon that is gaining increasing importance within European societies, more particularly in Switzerland: the growth of the proportion of immigrants during the last 20 years and the transition of the children of these migrants into adulthood (Fibbi, Topgül, Ugrina and Wanner 2015). Crul and Schneider (2013) showed that the public debate about second-generation immigrants in Europe has taken on more importance and interest. The negative association around the second-generation and their integration in the different European countries has become increasingly present in political exchanges. These exchanges have led more and more researchers to be interested in this phenomenon.

In this sense, my analyses provide three principal implications for future research. First, longitudinal and representative data targeting second-generation immigrants need to be developed. This will make it possible to analyze temporal phenomena in a prospective way and overcome the sample limitation and the cross-sectional nature of my analyses. Thanks to the work done in this thesis, we can say

that, at the Swiss level, the Secondos need to be clearly and robustly identified in national surveys for future research concerning second-generation immigrants. Such work must take into account the diversity (heterogeneity) within this group. The more we can make clear distinctions among the Secondos based on their parents' country of birth, the more our analyses will identify the mechanisms involved in the differentiated life paths between the children of immigrants (according to their parents' origins) and the natives, and in constructing social inequalities.

This thesis also draws attention to the fact that, in future research, the notion of Secondos must be studied in a more refined way, with particular distinctions according to the parents' origin, because within this "category" are different resources according to the origin of the parents. In addition to clear identification of the Secondos, there is an urgent need to generate longitudinal data that will allow follow-up of the events arrived at in the different life trajectories.

The second implication, related to the first, focuses on the importance of having data that can be investigated linking trajectories. The effects of a transition can be very different depending on the moment of their appearance in the trajectory or the events that preceded it or will follow. Any sequence of events leaves imprints on trajectories, but their effects vary according to social positions in the social structure (Ferrari and Pailhé 2017). Linking trajectories (occupational, family, education, and network) is a promising area of research. Life-course events in the family, educational, and work domains are thus closely interrelated (Bernardi, Huinink and Settersten 2019), and young adults must balance these commitments as they progress through life (Koelet, de Valk, Glorieux, Laurijssen and Willaert 2015). Studies have shown that the timing of transitions involves balancing

individuals' entry into and exit from different work, educational, and family roles throughout their lives (Hareven 1996).

As a third implication, as discussed in the Introduction, the choice of comparison level can also lead to biases. Our focus on the national level was chosen because it allowed us to assess the impact of structural inequality in the integration process at the macro level. Although this gave great insight into the general situation and potential influence of the Swiss context, it ignored important nuances in outcomes and processes at the subnational level (Lessard-Phillips, Galandini, de Valk, & Fibbi 2017). In the context of migration, transnational analyses could be pertinent. "Transnational social spaces imply not only interconnectedness of networks, organizations, and communities across the borders of national states but also certain segments of migrants leading cross-border lives regarding family, friends, business partners, political participation, and cultural exchange" (Faist 2000).

Final remarks

The concept of identity

The concept of identity in reference to second-generation immigrants is difficult to grasp and to study (which is not the goal of this thesis[51]). However, in this work, it is essential show that the concept of identity exists in psychology, anthropology, and cultural studies, but that the standard and encyclopaedic definitions are highly diverse, even within one discipline. As Fibbi and colleagues (2015) showed, we know that as a consequence of their parents' migratory history, children of immigrants can and are sometimes pressured to form attachments to multiple

[51] For more information about second-generation and identity, see Fibbi 2015; Portes and Rumbaut 2001; Schneider et al. 2012.

sources of identification emerging from their parents' nations, cultures, and religions and from the cultures of the country where they were born and grew up (Vertovec 1999).

The concept of ethnic identity has two dimensions. The first one is built by the society (presented in previous sections) in which identification is an outcome of the social classification and structuring processes through which we attempt to understand and control ever more complex social relations within modern societies (Brubaker and Cooper 2000; Pieterse 2007). The second dimension deals with the process of individuation, or establishment of a unique and coherent self. Individuation is theorized as a process of individual differentiation through conscious or unconscious selection among many collectively available identifications and their subsequent creative manipulation (Schüller 2015).

Political implications

The fact that (parts of) the second-generation are not becoming similar to or are resentful toward the host society is often used by politicians as evidence to argue that integration has failed or that multiculturalism has failed. For example, the family patterns of ethnic minorities have often been used in demography to indicate immigrants' degrees of integration in host countries: the more similar an immigrant group's union and fertility dynamics are to those of the native population, the more integrated into the host society the group is considered to be (Coleman 2006; Kulu and Hannemann 2016; Milewski 2010). However, my analyses confirm that social inequalities are rooted in the Swiss social structure, conditioning the integration process – more particularly, the entry into adulthood – of the children of immigrants. Based on their parents' origin, children of immigrants have unequal opportunities,

unequal access to the labor market, unequal social capital, and unequal family formations. In this sense, the integration process of second-generation immigrants largely depends on society's structural inequalities, which would appear to be particularly harmful to the children of immigrants with Eastern European origins. The persistent cumulative inequalities could lead to behaviors that are detrimental to integration for this group, such as resignation and the renunciation of social participation.

In Switzerland, the results presented by the Federal Statistical Office (FSO) have differentiated between first- and second-generation immigrants only in recent years. Essential elements are needed to better understand differences in inequality and integration. It is only from 2015 in Switzerland that we find an interest in working, more particularly with the immigrant population (OFS 2018). With this "new" approach, we abandon the dichotomous study of the integration of people with and without Swiss nationality, as we are interested in studying the "immigrants'" origins and their indirect relationship to migration through the experiences of migrant parents.

This is widely visible in the typology of the population established by the FSO according to migratory status. The FSO (2018) compares the statistical values displayed by different groups of the permanent resident population with each other to measure the integration of the different group typologies constructed. This is done through indicators spread over many areas of life. Thus, today, various statistical reports and syntheses concentrate on presenting the differences between immigrant and nonimmigrant populations through these indicators and study the integration levels in the two populations. However, they give isolated indicators of similarities and differences with natives and do not take a life-course perspective that would

allow them to see the cumulative and interlocking disadvantages (work, family and sociability) of given subgroups. This is why I plea for the use of an existing representative survey which allows for intersecting different trajectories and for the study of structural inequalities. I suggest that there is more than one “identity” of secondos as far as social practices and conditions are concerned, but that future studies should show how “secondos” experience, perceive and represent these different identities themselves and how they are being perceived by relevant others.

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