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PATHWAYS TO HIGHER EDUCATION IN FRANCE AND SWITZERLAND

Do vocational tracks facilitate access to higher education for immigrant students?

1. INTRODUCTION

Over the past decades, educational policy implementations in France and Switzerland have increased the eligibility of those completing (upper or post compulsory) secondary education to access higher or tertiary education, by introducing vocationally orientated programs on the upper secondary level that offer access to higher education. Such policies should help to reduce some of the well-known inequalities in the educational system by improving educational achievement of disadvantaged groups such as students with an immigrant background or those coming from low socio-economic households. Despite their different immigration histories and policies as well as countries of immigrations, both France and Switzerland have a sizeable immigrant population, some of which do experience obstacles in their educational and professional careers (Brinbaum & Guégnard, 2012; Fibbi et al., 2006; Frickey et al., 2006; Hupka & Stalder, 2011;).

In France, over half of the total immigrant population is second-generation, which is a particularity of this country compared to most Western European countries. Moreover, the proportion of the second-generation at the age of enrolment into tertiary studies is high. Indeed, 19 percent of the second-generation are between 18 and 24 years old versus 7 percent for the first-generation and 10 percent for non-immigrants (Bouvier, 2012). Ninety percent of the immigrant population aged between 20 and 35 have been schooled only in France. However immigrant youths generally obtain less frequently the *baccalauréat* (which enables access to higher education) compared to non-immigrants (61% vs 68%). In addition, only one in five immigrant youths obtain at least a Bachelor's degree whereas it is the case for a quarter for non-immigrants (Brinbaum et al., 2012).

Even though 20 percent of students in Swiss higher education institutions are foreign nationals, only one out of four of them have been schooled in Switzerland itself (OFS, 2005). Given that young people with immigrant background represent almost a third (29%) of the resident population aged 15 to 24 years (Fibbi et al., 2006), Swiss-educated immigrant students are considerably underrepresented in higher education. Indeed, Picot (2012) shows that 35 percent of non-immigrants

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have attended a tertiary education programme by age 23 in 2007, compared to 26 percent of second-generation students, and only 17 percent of first-generation students.

In terms of comparison, a study by Crul et al. (2012) that looked at second-generation Turkish students in France and Switzerland, through a two-city study[1], indicates that a lower proportion of second-generation Turkish students enrol in higher tertiary education in Switzerland (13% vs 37% for native Swiss), compared to France (40% vs 68% for native French). In turn, the dropout rate among those second generation Turks in tertiary education appears to be lower in Switzerland than in France (9% vs 15%). Despite this, comparative findings on the access to higher education programmes by immigrant and non-immigrant students in both countries by Griga et al. (2013), show that once students possess a higher education entrance qualification, and once social origin of students is taken into account, the chances of accessing higher education may be even higher for high-school graduates with an immigrant background. According to the same study, this is especially the case for women of North African origins in France and for men from south-eastern European, Turkish and Portuguese origins in Switzerland.

In this chapter we wish to clarify through which institutional pathways higher education is accessed by immigrant group students in Switzerland and France. We have chosen these two countries because they differ from each other both in their educational systems and in the ways new routes to higher education have been set up through vocationally orientated programmes. The educational landscape in France is characterised by a more school-based system and has a greater tradition of prestigious tertiary education institutions (Duru-Bellat et al., 2008). Moreover, traditional vocational education and training (VET) does not have very high status and therefore fails to attract a large proportion of well-performing students. However, France has witnessed a *vocationalisation of the academic route* to higher education through the implementation of the specifically vocationally orientated track (particularly the *baccalauréat professionnel*). The situation in Switzerland is more or less reversed. Less people pursue academic education and over two thirds of students enrol in a variety of VET programmes. In the Swiss case, a new route to higher education has been created through the *academisation of VET* with the setting up of the Federal Vocational Baccalaureate diploma that grants access to universities of applied science.

Using youth panel data from France (DEPP *panel d'élèves*) and Switzerland (Transitions from Education to Employment, TREE), we will analyse the pathways to higher education in both countries in more detail, looking specifically at the access of higher education through different educational tracks while taking in account the different characteristics of the students, e.g. immigrant backgrounds, gender and aspirations. We will first outline the different educational systems of France and Switzerland with a special focus on the new routes to higher education and what is known from previous research concerning the whereabouts of immigrant students within this system. Next, we present our data and our analysis strategy. In Switzerland we compare the pathways to higher education of first and

second-generation immigrant students from Turkey and former Yugoslavia to non-immigrant students. For France, we similarly look at first and second-generation youths from North African origin (Algeria, Morocco and Tunisia) comparing their pathways to higher education with French natives. We will use multinomial logistic regressions to analyse and juxtapose the different educational pathways that lead to higher education in France and Switzerland.

2. EDUCATION SYSTEMS IN FRANCE AND SWITZERLAND

In France the *baccalauréat* is the standard final diploma of upper secondary education and gives access to higher education. There are two particularly important decision stages in the secondary school system for both families and their children. The first occurs at the age of 15 at the end of lower secondary (*collège*), where the choice is between academic track (e.g., *baccalauréat général*) and vocational tracks (e.g., the *Certificat d'aptitude professionnelle*, CAP). The second arises when students are 18 years old and concerns the access to tertiary education. We can first note that the latter access to tertiary education has expanded considerably as a result of the increasing number of pupils in secondary education, the increasing number of *baccalauréat* holders and the high social demand for training.[2] In the context of the democratisation of secondary education and the expansion of higher education, increasing numbers of second-generation immigrants access higher education. Another measure that has increased this access is the creation of a vocational orientated *baccalauréat* in 1985. After the end of lower secondary school, youths can first follow the aforementioned short school-based vocational CAP programme for two years and then follow a *baccalauréat professionnel* for a further two years.[3] This diploma offers new opportunities, particularly to children of working-class or immigrant origin. This said, as a whole, 58 percent of young people from immigrant families compared to 69 percent of French natives obtain one of the three types of *baccalauréat* diploma, i.e. a *baccalauréat général,* a *baccalauréat technologique* or a *baccalauréat professionnel* (Brinbaum & Kieffer, 2009).

These same inequalities remain in the access to higher education, where around forty percent of immigrant students have access higher education compared to over half of the natives. Immigrants, especially a significant proportion of youths of North African origin, have a preference for selective short vocational tertiary programmes but are often diverted towards the non-selective university sector, as the former programmes frequently attempt to select academic baccalaureate holders with good grades.[4] It is also possible that there is discrimination in selecting students for these vocational tertiary programmes (Brinbaum & Guégnard, 2012). This in turn leads to higher dropout rates in the university sector (particularly for *baccalauréat professionnel* holders), because students often enrol in "second-choice" university programmes after being turned down for these vocational tertiary programmes. This unequal access to higher education impacts

on degree completion and the subsequent entry into the French labour market (Brinbaum & Guégnard, 2012; Frickey et al. 2006).

In contrast to France only one out of five students in Switzerland enrols in general baccalaureate schools to obtain an academic baccalaureate (*Matura, maturité*), which grants access to higher education, i.e. to universities in general or, after an additional year of work experience, to a university of applied science. Foreign nationals are markedly underrepresented in such schools: 13 percent compared to 29 percent for Swiss nationals (SKBF, 2011). The majority of students that finish compulsory education at age 15 enrol in some form of vocational training (VET) that typically lasts between three to four years (Cortesi & Imdorf, 2013). A majority of these VET programmes (87% in 2010 according to SERI, 2013) are "dually" organised: apprentices divide their time between the vocational school and a training company. When apprenticeship places are in high demand (e.g. in the early 2000s), training companies can recruit very selectively. Previous research has indicated that this recruitment process is to the disadvantage of some school-leavers with an immigrant background, if competition for apprenticeship places is high (Imdorf, 2010). To increase the permeability between VET and higher education, a double-qualification that enables the simultaneous or subsequent acquisition of a VET qualification and a higher education entrance qualification was introduced in Switzerland in 1994 (Gonon, 2013). This so called Federal Vocational Baccalaureate (*Berufsmaturität, maturité professionnelle*) grants access to universities of applied sciences and requires enrolment or completion of a school or company-based vocational study programme. Schmid & Gonon (2011) did not find any direct effect of immigrant background on higher education access rates for students holding a vocational baccalaureate. This said, Swiss-educated foreign nationals remain underrepresented both at conventional universities and at the universities of applied sciences (6% and 7% respectively in 2007 according to SKBF 2011).

One possible reason for this, might be that access to the vocational baccalaureate is mostly restricted to those who are recruited to academically more demanding apprenticeships. The opportunity to obtain a Federal Vocational Baccalaureate is strongly linked to training for particular professions that are generally more academically demanding. Some of the immigrant students may face employer discrimination hampering their access to company-based apprenticeships which offer vocational baccalaureate careers. Frequently relegated to less demanding apprenticeships and to bridge-year courses (Imdorf 2006), immigrant students may accept to decrease or "cool down" their occupational aspirations to a level where a vocational baccalaureate is no longer an option. Such obstacles might affect the educational pathways of immigrant students.

The unequal access of immigrant students to higher education in both countries raises the question of how the institutional settings in France and Switzerland foster educational and social mobility of vulnerable groups. Varying institutional settings of national education systems are likely to affect this mobility in various ways. We will use the concept of educational pathways to analyse educational

careers of youths and to draw a comparison between France and Switzerland. We distinguish between academic versus vocational tracks as primary pathways into higher education, and we ask how academic versus vocational tracks shape pathways from secondary to tertiary education for male and female students of immigrant origins. As outlined above, the vocational pathways to higher education have evolved differently in the two countries. Whereas the Swiss Federal Vocational Baccalaureate was created as a distinct vocational pathway by basically providing additional general education beyond the practical part of VET training in Switzerland (Graf, 2013), the French *baccalauréat professionnel* evolved from "vocationalising" the academic *baccalauréat* (Verdier, 2001). We focus on the equity issues of such policies designed to increase enrolment in tertiary education and on programmes geared to encourage the passage from upper-secondary VET to tertiary level education.

3. DATA AND METHODOLOGY

The analysis presented in this chapter is based on data taken from the DEPP and TREE longitudinal surveys. Both surveys follow students through their educational career, but differ slightly with regard to their sampling and overall design.

For the DEPP survey, the French Ministry of Education tracked the educational pathways of a national representative sample of students (panel) who entered the first year of secondary school in September 1995 (N= 17,830 youths) following them until 2005. They were surveyed through lower secondary (*collège*), upper secondary (*lycée*) and subsequently tertiary education. For this study we focus on first and second generation Maghrebians whose parents are North African, born either in Tunisia, Morocco, or Algeria. Our sample of Maghrebians in the DEPP survey amounts to 890 individuals[5] (of which 46% are girls). This migrant population is ethnically visible and vulnerable (Vallet, 1996). We compare youths from North African origins with a reference group of youths born in France of two native French parents (13,806 of which 48% are girls). Moreover, children of mixed parenthood have also been excluded as their educational pathways are similar to French natives (Brinbaum & Kieffer, 2009. From this initial sample of 14,696 individuals in 1995, 13,179 (90%) are still surveyed by the year 2005.

The Swiss TREE study has been designed as a PISA follow-up and surveyed a national representative sample (panel) of compulsory school-leavers, focusing on their educational pathways and transitions into employment. School-leavers were followed after their participation in PISA 2000 and surveyed on an annual basis until 2007. An eighth wave has been carried out in 2010. From the initial 6,343 sampled school-leavers responding in 2001, 3,979 (63%) still participated in the 2010 wave. Since Maghrebians do not constitute a considerable migrant group in Switzerland we have selected school-leavers with a Turkish or former Yugoslavian migration background as a comparison. As is the case with Maghrebians in France, migrants from Turkey and former Yugoslavia are among the most vulnerable in terms of societal acceptance and socio-economic position (Hupka & Stalder, 2011;

Stolz, 2001). Even though immigrants from Turkey and former Yugoslavia are relative newcomers in Switzerland in the light of the situation of North-Africans in France, both populations often arrived as labour migrants in the respective countries, sharing a relatively low socio-economic position and equally poor educational achievements. In the TREE sample there are 328 students from Turkish or former Yugoslavian origin (of which 52% are girls).[6] We will compare this group with school-leavers that have two Swiss-born parents (4,430 of which 55% are girls). Due to sample restrictions we include both first and second generation immigrants to ensure sufficient observations.[7] Only immigrants who did not receive Swiss citizenship at birth have been included, in order to filter out school-leavers that have at least one Swiss parent.

4. YOUTH CHARACTERISTICS AND EDUCATIONAL CONTEXTS IN FRANCE AND SWITZERLAND

4.1. Lower secondary education in France

In recent decades, the level of education in France has been steadily on the rise. However, immigrant children appear to experience specific educational difficulties (Vallet, 1996), due mainly to their working class backgrounds and a lack of knowledge of the French educational system (given notably a lower level of French language of immigrant families). According to the DEPP panel data, North African parents have low levels of education.[8] In many cases, they have attended primary or no education at all (four out of ten fathers and mothers have no formal education). Concerning higher education, 27 percent of French natives have at least one of their parents with a higher education diploma compared to only two percent of North African parents (*cf. Table 1*). Moreover, the latter are generally in low-level occupations (manual workers, unskilled service workers). We define the socio-economic status of the parents into three categories (high, middle, low status) using the occupations. Ninety percent of North African parents are coded as having a low socio-economic status versus 50 percent of French parents.

The children of immigrants do not enter secondary school with the same educational assets or experience. They have more frequently repeated years in primary school than French native children. Four out of ten North African youths are late on entering secondary versus two out of ten French natives. This situation affects subsequent educational pathways. Differences in academic performance appear from the beginning of secondary school (lower performance for North African youths) (*Table 1*). For both mathematics and French, only about one quarter of immigrant students have above average marks, versus nearly 60 percent of the French native students. Finally, for North African youths, 45 percent envisaged studying in higher education whereas it is 53 percent for French natives.

Table 1. Social and schooling characteristics in secondary school (%)

Country of parental origin	North Africa	France
Parents higher education diploma	2	27
High socio-eco status	2	26
Low socio-eco status	90	50
Belated entry in secondary school	42	18
Above average marks (language)	27	59
Above average marks (math)	23	58
Aspirations to study in HE	45	53
N	890	13806

Source *: panel d'élèves du second degré, recrutement 1995- 1995-2011 (2006) [fichier électronique], DEPP | INSEE [producteur], Centre Maurice Halbwachs [diffuseur].*

4.2. Lower secondary education in Switzerland

The Swiss educational context is rather complex due to its decentralised and federalist nature. In relationship to France, the 26 Swiss cantons have much more autonomy when it comes to organising schooling and training. Important for the comparison of the two countries is the fact that the Swiss system is highly tracked. Student tracking starts at the end of primary schooling (International Standard Classification of Education level 1 years 4 to 6, depending on the canton), and is primarily based on academic selection. In most cantons students are placed in two to four different lower secondary education tracks that range from basic to more extended curricula and academic requirements. While tracking is formally based on student performance, research indicates that factors such as cultural and family background also strongly influence student allocation to the various types of tracks (Kronig, 2007).

Since the early 1980s, a continuously growing overrepresentation of immigrant students in the lowest track of lower secondary school was observed at a national level (Imdorf, 2005). In 2000, one out of two foreign nationals, but only one out of four Swiss nationals, was enrolled in the lowest track. The TREE panel data shows a consistent picture: nearly half of the Ex-Yugoslav and Turkish students are in the lower secondary school track with only basic academic requirements, compared to only 22 percent of the Swiss students (*Table 2*). In addition, Ex-Yugoslav and Turkish students are more frequently enrolled in bridge-year courses before entering upper-secondary education. This extra year between lower and upper secondary education can function as a "waiting room" for those unable to secure an apprenticeship place (Meyer, 2003; Stalder & Nägele, 2011). The recruitment process of training companies can form an obstacle for students with an immigrant background who want to access certain vocational education and training

programmes. Bridge-year courses have become an institutional offer for foreign nationals to manage their transition from school to VET (Imdorf, 2006). In terms of school performance, 62 percent of Ex-Yugoslav and Turkish students have grades in mathematics and language (French, German, or Italian) that are above the pass mark. Their Swiss counterparts outperform them and receive grades above this mark in mathematics and language in 77 percent of all cases.[9] Similar to France, the most visible difference between the two groups appears in family cultural and socio-economic backgrounds. However, in Switzerland these differences seem to be less marked. The parents of Swiss students, for example, have completed higher education twice more often than their immigrant counterparts. This said, the number of Ex-Yugoslav and Turkish students with at least one parent having completed higher education is high in comparison to the Maghrebians in France and approaches the level of native parents in France (i.e. around 20%). In terms of occupational or socio-economic status the same findings can be seen. Although there still appears to be a clear difference between native and immigrant parents in Switzerland (with 62 percent of immigrant parents having a low socio-economic status compared to 23 percent of Swiss parents) the difference between the migrant and native control group is again not as pronounced as in France.

Table 2. Social and schooling characteristics of students in Switzerland

Country of parental origin	Turkey and former Yugoslavia	Switzerland
Parents higher education diploma	20	38
High socio-eco status	10	37
Low socio-eco status	62	23
Basic requirements lower secondary school track	47	22
Above the mark (language)	59	74
Above the mark (maths)	55	64
High future job aspirations	18	25
N	328	4430

Source: TREE panel (Transition from education to employment) 2000-2010 University of Basel

Student aspirations have been measured slightly differently in France and Switzerland. Unlike the DEPP study, the TREE data does not allow us to directly measure students' aspirations to reach or complete higher education. Instead, we use a proxy variable that measures around the age of 15 which occupation the student expects to have at age 30. These occupational categories are then recoded into the ISEI scale in order to group students' aspirations into high, mid and low occupational status categories. *Table 2* shows that immigrant students have slightly

lower aspirations than their Swiss counterparts, but, like in France, the difference only amounts to a few percentage points.

4.3. Upper-secondary and tertiary education

The educational pathway pupils follow are the result of key decision-making moments, school tracking, opportunities and constraints within an institutional context. In our analysis we construct educational pathways with common elements in order to draw a comparison between the educational trajectories and the diplomas obtained up until tertiary education in the two countries, which have different educational systems and traditions.

In France, as already mentioned, tracking does not start before the end of lower secondary (*collège*). At upper secondary level, students may enrol either in a *lycée* on the *baccalauréat* track (formally three years) or on a two year vocational track (VET system), aiming to obtain a *Certificat d'aptitude professionnelle* (CAP) and possibly, as said before, after another two years, a *baccalauréat professionnel*. However, some youths leave the secondary school system without a diploma, either after lower secondary (*collège*) or during upper secondary (*lycée*).

In terms of figures, the category of school leavers with no diploma in France accounts for 10 percent (*Table 3*). Around 17 percent enrol on the aforementioned vocational track (VET system) and obtain a diploma, but do not go on to the vocational baccalaureate. Access to the *baccalauréat* track (academic and vocational) represents close to two thirds[10] of the youths. Finally, almost half of academic baccalaureate holders enter university whereas forty percent of vocational baccalaureate holders enrol in short vocational tertiary programmes (*Instituts Universitaires de Technologie* (IUT)/*Sections de Technicien Supérieur* (STS)). Moreover, forty percent of vocational baccalaureate holders do not take up tertiary studies compared to 13 percent for holders of an academic baccalaureate.

In the TREE panel a quarter of the students acquire an academic baccalaureate (*Table 3*). The majority of those students enrol into university or a university of applied science (74% and 17% respectively). Only a small minority (7%) does not continue on to any form of tertiary education. Of the students obtaining a vocational baccalaureate, only 43 percent continue on to a university or a university of applied science, meaning that more than half of the vocational baccalaureate holders do not use their diploma for tertiary studies.

Table 3. Upper-secondary diploma and tertiary enrolment in France and Switzerland[11]

France *(N = 14696)*	University	IUT-STS	Other HE	No tertiary enrolment	Total (row)	Column percentages
Academic baccalaureate	47% (2355)	17% (828)	23% (1142)	13% (627)	100% (4952)	34% (4952)
Vocational baccalaureate	9% (382)	42% (1779)	10% (410)	39% (1638)	100% (4209)	29% (4209)
Other upper secondary diploma	.	.	.	.	.	17% (2510)
No upper secondary diploma	.	.	.	.	.	10% (1508)
No data/sample attrition	.	.	.	.	.	10% (1517)
Switzerland *(N = 6343)*	University	University of Applied Science	Tertiary B	No tertiary enrolment	Total (row)	Column percentages
Academic baccalaureate	74% (1127)	17% (253)	2% (37)	7% (113)	100% (1530)	24% (1530)
Vocational baccalaureate	4% (30)	39% (326)	10% (81)	47% (395)	100% (832)	13% (832)
Upper-secondary specialized school	2% (4)	48% (101)	18% (38)	31% (64)	100% (207)	3% (207)
Other upper secondary diploma	.	.	.	.	.	29% (1845)
No upper secondary diploma	.	.	.	.	.	3% (174)
No data / sample attrition	.	.	.	.	.	28% (1746)

5. PATHWAYS TO HIGHER EDUCATION IN FRANCE AND SWITZERLAND

What is the likelihood of being in a particular educational pathway in Switzerland and France when we compared immigrant students to their counterparts with native parents? In our two country comparison we will focus on four educational pathways from secondary to tertiary education:

Path 1: Those who access tertiary education with a general (FR) or academic (CH) baccalaureate.

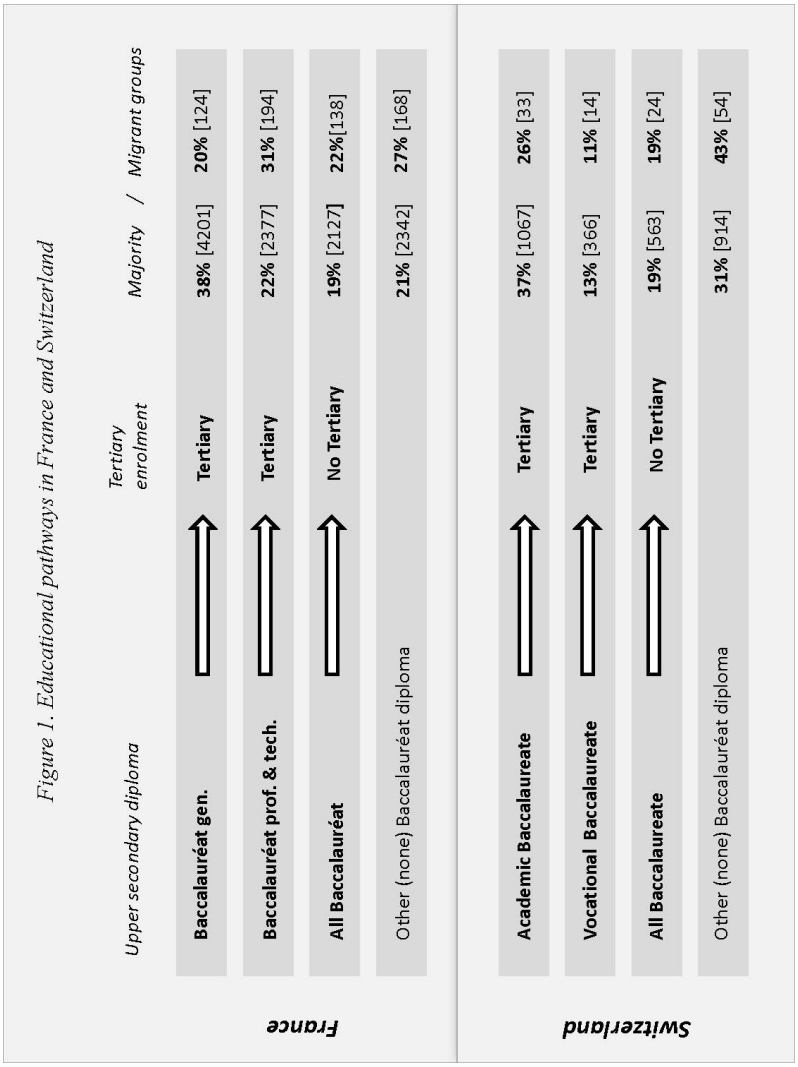
Path 2: Those who access tertiary education with a professional (FR), technical (FR) or vocational baccalaureate[12] (CH).

Path 3: Those with any type of baccalaureate who do not access tertiary education.

Path 4: All other upper secondary diploma holders (those not eligible for higher education).

Tertiary enrolment in Switzerland includes those who enrol in universities or in universities of applied science.[13] In France, we cover the university sector as well as the short vocational programmes (IUT/STS, and other types of HE programmes (preparatory schools for business and engineering schools, schools of art, architecture, nursing, social work, etc.). We further exclude students who have not completed upper secondary education[14] or those for whom we have no or insufficient data.

In France, the first pathway of youth who obtain a *baccalauréat général* and who enrol in tertiary studies account for 37 percent of those who obtain an upper secondary diploma (38% for French natives but only 20% North African youths) (*Figure 1*). Pathway 2 refers to the 22 percent of youths who obtain a *baccalauréat professionnel* or a *baccalauréat technologique* and continue onto tertiary studies (22% for French natives but 31% for youths of North African background). The third pathway covers 19 percent of youths who do not enrol in tertiary studies after their *baccalauréat* (19% for French natives and 22% for North African youths). Pathway 4 includes the 21 percent of youths who are VET graduates but do not continue onto a vocational baccalaureate (21% for French natives and 27% for North African youths).



Quite similar to France, the first pathway in Switzerland covers 37 percent of youths who acquire an academic baccalaureate and enrol in university studies (37% for native Swiss and 26% for Ex-Yugoslav and Turkish students) (*Figure 1*). Hence, in both countries the immigrant groups are underrepresented in the pathway to higher education *via* the traditional baccalaureate (path 1). The percentages of

students accessing higher education with a vocational baccalaureate (path 2) appear relatively lower in Switzerland than in France. Only 13 percent of native Swiss students and 11 percent of Ex-Yugoslav and Turkish students follow this path. The most striking finding is that immigrant students do not seem to be able to compensate for their relative low representation in the academic baccalaureate track by accessing higher education after completion of a vocational baccalaureate, as is the case in France. The share of students that do not use their baccalaureate diploma to access higher education (path 3) is at a comparable level with France. Among both native Swiss and immigrant students, 19 percent of baccalaureate graduates do not access higher education (path 3). The share of students obtaining a non-baccalaureate upper secondary diploma (path 4) in Switzerland is relatively high when compared to France (especially with regard to the immigrant group) and reflects the relative popularity and prestige attached to VET programmes in the Swiss educational landscape.

In the next two sections we will use multinomial logistic regression models to analyse the odds of being in a particular educational track. The first pathway (academic baccalaureate track → tertiary studies) is used as the reference track category. The aim is to see if there remains a residual effect of country of origin between the two groups, native and immigrant youths, once we control for schooling factors, family social and economic capital, and aspirations of the youths.

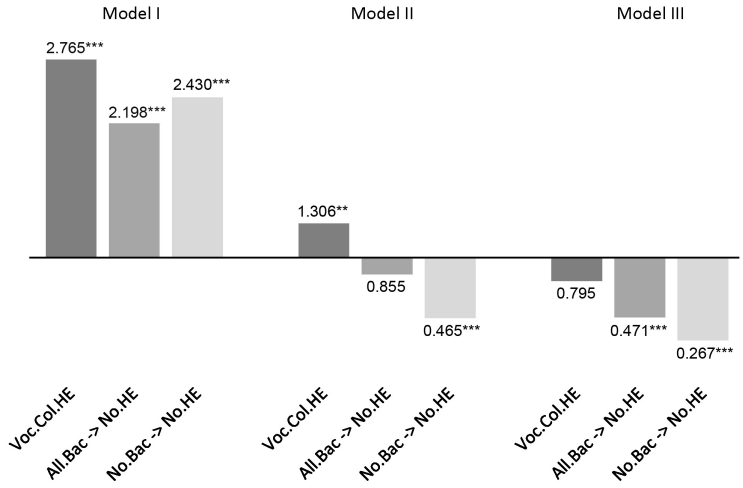
5.1. Explaining pathways to higher education in France

The first model in *Figure 2* only takes into account the country of origin. Set against French natives, youths with North African background have almost three times more chance to access tertiary studies *via* a vocational baccalaureate (path 2) than *via* an academic baccalaureate (path 1, reference track). In comparison to non-immigrants, students with North African backgrounds are twice more probable to be in the VET system (other none *baccalauréat* diploma holders, path 4) and also twice as likely not to use their *baccalauréat* to enter tertiary education (path 3), than to access HE *via* an academic baccalaureate. Nevertheless, the predictive power of the model remains modest (Nagelkerke pseudo R^2=0.009).

The second model introduces the schooling variables (mathematics and French marks at the beginning of secondary school and repeating primary school). It reveals that North African youths have half the chance to be in the VET system (path 4) as the French natives (compared with the reference track path 1). Immigrant youths are still more likely to access tertiary studies with a vocational baccalaureate (path2). There is no significant difference between the French and the North African youths in terms of not accessing tertiary studies with a *baccalauréat* (path 3) and the reference track. The predictive power of this model has considerably increased (Nagelkerke R^2=0.365). In the reference track (path 1, academic baccalaureate and tertiary studies) students have repeated less a primary

school year and have received better marks at the beginning of secondary school. The North African youths (who have lower marks and repeat primary school) initially enrol less in the academic baccalaureate track and less frequently access tertiary studies. However, school performance controlled for, the situation of the North African youths is close to that of French in terms of access to higher education *via* the vocational baccalaureate (path 2) and *via* the academic baccalaureate (path 1). No doubt this result is due to the fact that North African students are usually geared into the vocational baccalaureate tracks. With similar marks and in relationship to French natives, North African youths have a higher probability to be in tertiary studies than in the VET system (path 4). Those North African youths who have good marks obtain an academic baccalaureate and access tertiary studies. Being late on entering secondary school is indicative of past schooling difficulties and influences the access to tertiary studies. This said, it is especially schooling performance and the weight of marks that are crucial in the educational decisions in France.

Figure 2. France



The third model adds the social characteristics of the parents (economic and cultural capital), aspirations and gender of the students. The model accounts for half of the variance (Nagelkerke R^2=0.544). The North African youths are four times less likely to be in the VET system (path 4). The probability of continuing tertiary studies with a vocational baccalaureate (path 2) is no longer significant for North African youths (compared to the reference path). The North African youths

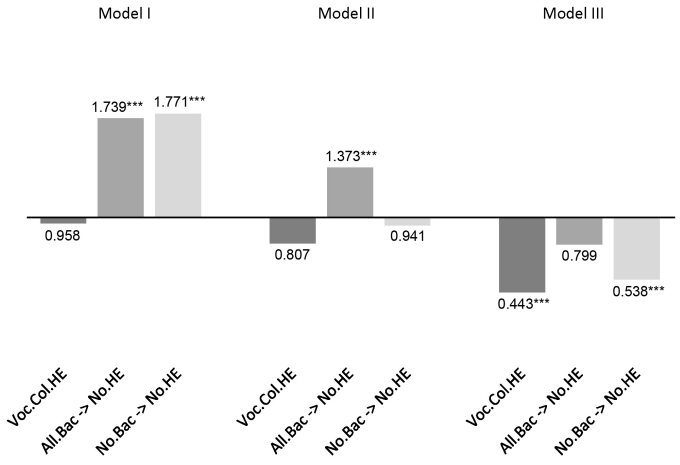
have twice less chance to have a *baccalauréat* and not enter tertiary studies (path 3).

Keeping marks constant, the social and economic variables increase the differences between the two groups of country of origin, given that the North African youths more often come from families with lower socio-economic and cultural capital. The *baccalauréat* holders of North African origin are over-selected in terms of schooling performance and social background (Caille & Lemaire, 2009).The North African youths are therefore not less likely to access higher education with an academic baccalaureate diploma because they are North African, but because of their lower secondary schooling performance.

5.2. Explaining pathways to higher education in Switzerland

In Switzerland a similar yet slightly different development can be observed (*Figure 3*). There is no significant difference between Swiss and immigrants students in accessing tertiary education *via* a vocational baccalaureate (path 2) in comparison to those doing so with an academic baccalaureate (reference path 1). Ex-Yugoslav and Turkish students have nearly twice less chance to access tertiary education after receiving a baccalaureate diploma (path 3) and are twice more likely to have received a non-baccalaureate upper secondary diploma (path 4). The predictive power of the first model is again very low (Nagelkerke pseudo R^2=0.003).

Figure 3. Switzerland



Compared to France the model estimates for Switzerland change somewhat less after the introduction of lower-secondary school variables. As in France, the predictive power increases considerably once earlier school characteristics are taken into account (Nagelkerke $R^2 = 0.198$). After controlling for lower secondary school type and grades in mathematics and language in lower secondary education, the statistically significant difference between immigrant students and their Swiss counterparts in obtaining a non-baccalaureate diploma disappears (in relation to those accessing higher education with an academic baccalaureate). Only the effect for having an Ex-Yugoslav or Turkish background and not enrolling for tertiary studies after acquiring a baccalaureate diploma (path 3) remains statistically significant. Overall, after controlling for previous school performance and early tracking there appears to be less of a difference between immigrants and native Swiss students. Immigrant students are only slightly more likely not to enrol for tertiary studies after acquiring a baccalaureate diploma. For all students being in a low-level school track at the lower secondary level, greatly decreases the odds of acquiring a baccalaureate diploma and continuing on to tertiary education. In Switzerland, tracking in lower-secondary education appears to be a major factor in determining whether or not a student obtains a baccalaureate, whereas differences in lower secondary school grades matter little for accessing higher education through either an academic or a vocational baccalaureate. This said, students with lower grades in language and mathematics have more chance not to receive any baccalaureate diploma.

Lastly, in the third model we introduce the educational level and socio-economic status of the students' parents as well as students' future job aspirations and gender, which further improves the predictive power of the model (pseudo R^2=0.434). Compared to the reference path, the Ex-Yugoslav and Turkish students have now half less probability to obtain a non-baccalaureate diploma (path 4). There is no longer a statistically significant difference between immigrant and Swiss students in obtaining a baccalaureate diploma and not accessing higher education (path 3). However, after controlling for both schooling and social background factors there is a strong negative effect for having an Ex-Yugoslav or Turkish background and accessing higher education through a vocational baccalaureate (path 2). Similar to Maghrebians in France, Ex-Yugoslav and Turkish students are not less likely to access higher education with an academic baccalaureate because of their immigrant background, but because of their previous school performance, early tracking, as well as the socio-economic background and cultural capital of their parents. When controlling for these factors, we find Ex-Yugoslav and Turkish students to have higher odds to be in the academic baccalaureate to tertiary education pathway in comparison with their native Swiss counterparts.

6. CONCLUSION

Students with a North African background in France and students with a Turkish or ex-Yugoslavian background in Switzerland are underrepresented in institutions of higher education. This raises the following question: what are the main reasons for their limited access to higher education? This chapter has analysed how the institutional settings in both countries influence access to higher education with a special interest in the integrative function of vocational baccalaureate certificates. These certificates have recently been introduced in both countries to increase permeability of the education system and allow some of those completing vocational training to access higher education, which may foster access to higher education for vulnerable groups.

What did we learn from the comparison of students with upper secondary degrees in France and Switzerland, and from the patterns of how native and immigrant students make use of their baccalaureate diplomas? At first glance, our descriptive analysis confirms that students with an immigrant background who complete upper secondary education are more likely to graduate without any higher education entry certificate compared to their native peers (27% vs 21% in France; 43% vs 31% in Switzerland).

As far as vocational pathways to higher education in France are concerned, immigrant students indeed seem to benefit from vocational programmes to compensate for their underrepresentation in the traditional academic track to higher education. The democratisation of the French educational system has led to a greater access to higher education for all youths, including those from immigrant backgrounds. For Switzerland in contrast, our results do not show such a compensation function. This might be due to the difficulties of the particular immigrant groups we studied in being hired by training companies that provide high level VET programmes, as these types of programmes are often the ones needed to enrol in a vocational baccalaureate programme. Their relegation to bridge-year courses, where students often accept to "cool down" their occupational aspirations to a level where a vocational baccalaureate is not an option anymore, may be provoked by employer discrimination.

Once earlier school performance and career variables at lower secondary level are controlled for, North African youths in France have the same chance to access tertiary studies *via* an academic baccalaureate as their native French peers. The same holds true for Ex-Yugoslav and Turkish students in Switzerland. Once we control for the socio-economic background and cultural capital of the parents, as well as for the aspirations of the student, we find that first and second-generation students of Turkish and Ex-Yugoslav descent are more likely to access higher education through the traditional academic track. Our results confirm recent findings for both countries. In France, immigrant children have a higher probability to obtain the *baccalauréat* than the native French (Vanholffelen, 2013), when differences in educational characteristics are taken into account. This higher probability of obtaining a *baccalauréat* for immigrant youths illustrates a higher

level of aspiration and a strong ambition for social mobility (Brinbaum & Kieffer, 2009; Caille & Lemaire, 2009; Griga et al., 2013; Mey et al., 2005). Picot (2012) concludes for Switzerland that the post-secondary attendance gap in favour of non-immigrant students is due almost entirely to poorer secondary school performance among immigrant students (as measured by the PISA reading scores). Secondary school tracking is also strongly associated with a significant part of the gap in access to higher education.

In other words, if the educational characteristics of the North African youths in France and those of students with Turkish or former Yugoslavian background in Switzerland were similar to those of the native students, the former would have at least the same odds of obtaining a baccalaureate diploma and access to tertiary education. Hence, the main factors of inequalities in higher education participation rates between native and immigrant youth lie in the early disadvantages during primary and lower secondary schooling. They need to be tackled at this level, and not at the crossroads at the end of upper secondary education.

To understand how educational inequalities arise in the school career of immigrant youths in France and Switzerland, and what policies could lead to its reduction, it is necessary to look closely at the integration context of immigrants in each country (Crul et al., 2012). For instance, studies in Switzerland show that naturalised second-generation immigrants are more likely to enrol for tertiary studies compared to non-naturalised second-generation migrants (Fibbi et al., 2007). Hence, citizenship regimes seem to matter for academic success.

Switzerland and France differ significantly in terms of citizenship regimes and actual naturalisation rates. Switzerland has one of the most restrictive immigration policies in Europe especially when immigrants are third country nationals, i.e. from outside of the EU. A federal minimum of 12 years of residence is required for naturalisation. Individual cantons can set a further requirement that the applicant has resided within the canton for a set number of years before naturalisation can be requested. This puts those that move frequently, for example, labour migrants, at a disadvantage. In addition, Switzerland does not have a policy of *jus soli* and Swiss-born children of migrants are therefore not automatically granted Swiss nationality at birth (Fibbi et al., 2006; 2007). France, in contrast, has a more lenient citizenship regime with a limited form of *jus soli*, meaning that third generation immigrants are automatically granted French citizenship on birth and second-generation immigrants receive French citizenship when turning 18 if they were born in France and resided there since the age of 13 (Brubaker, 1992). The naturalisation rates among first and second-generation immigrants are slightly higher in France, meaning that they should in theory have better access to political rights and social services than immigrants in Switzerland. Further research is needed, to analyse if and how citizenship relates to academic achievement in France and Switzerland.

Issues of segregation in schools and neighbourhoods are a further aspect of the integration context that impacts on academic achievement of immigrant students. Given their lower socio-economic status, North African families in France often have little choice but to send their children to schools with fewer resources. This

educational segregation takes place at a very early stage in the school career and continues onto lower secondary school (Felouzis, 2003; Ichou, 2013). Possible policies aimed at reducing school segregation, particularly at an early stage in the school career, such as compensatory resources for challenged schools or the busing of youths from challenged neighbourhoods could be developed. However, little is known about the marginal positive effects of such policies in terms of reducing educational inequalities.

In addition, differences in family values can create a conflict with institutions such as schools (Ichou, 2013), and educational actors within schools. Increasing the awareness and understanding of cultural and gender diversity of key educational actors could help to alleviate these problems (Mc Andrew et al., 2013). Indeed, in the province of Québec in Canada, teacher training programs include modules on multiculturalism and ethnic diversity (Borri-Anadon et al., 2013) to fight stereotypes.

Finally, education policies should consider issues of integration with special focus on selection processes in general, and on school guidance early on in the careers of immigrant students in particular. In Switzerland, the allocation of children in lower secondary school tracks with either basic, extended, or academic requirements should, for instance, be based less on language skills, which is at this moment the most important selection criteria, but more on mathematics or other general indicators of competence.

NOTES

[1] Paris and Strasbourg for France and Zurich and Basel for Switzerland.

[2] The educational policy of the French Ministry of Education has three objectives: 1) the access to a minimum level of education such as the *Certificat d'aptitude professionnelle* (CAP, the first vocational diploma in secondary school); 2), 80 percent of an age group to reach the *baccalauréat* level at the end of upper secondary school, and; 3) one in two youths to obtain a *licence* (a bachelor diploma) within higher education.

[3] The remodelling of the vocational track, which has already been in motion for a number ofyears, aims to enable the highest number of youths to reach the *baccalauréat* level and also to encourage further study in tertiary education. 24 percent of CAP holders continue onto the *baccalauréat professionnel* (DEPP, 2011).

[4] During the year that they take the *baccalauréat*, students who plan to enter higher education fill out one or several application forms submitted to different institutions. The institutions screen the applications, focusing mostly on students' school performance and type of *baccalauréat*, and decide whether or not the student will be offered admission.

[5] Of which 86% are second generation.

[6] These as well as the following figures of immigrant students in the Swiss data represent unweighted numbers.

[7] Previous research has pointed out that there are differences between first and second-generations immigrants in accessing higher education (Griga et al., 2013; Picot, 2012) and our estimates for immigrant students are likely to be overestimated for first-generation immigrants and underestimated for the second generation.

[8] The integration of immigrant from Algeria, Morocco and Tunisia in the 70's and 80's into French society took place in a context of post-colonialism, (especially during the aftermath of the Algerian War), that marginalized the parents and their children in economic and cultural terms, even if they

have French citizenship (Bouvier, 2012).

[9] However, reading literacy scores as measured by PISA were much lower among immigrant students (Picot, 2012). Felouzis and Charmillot (2013) argue that such educational inequalities of academic performance are mainly due to the social segregation that goes hand in hand with early tracking.

[10] Of which 34% an academic baccalaureate (*baccalauréat général*) and 29% a vocational one (*baccalauréat professionnel* or *technologique*).

[11] Higher vocational education and training leading to an Advanced Fed. Certificate or a Fed. Diploma of higher vocational education and training (see SERI 2013 for further information).

[12] In Switzerland this pathway includes those who graduated from an upper secondary specialised school.

[13] This excludes Professional education and training (PET) (or tertiary B in Switzerland), which prepares professionals for highly technical and/or managerial positions (SERI 2013).

[14] In the Swiss case, this excludes disproportionately immigrant youth from former Yugoslavia and Turkey who show a lower participation rate in VET and higher youth unemployment rates compared to Swiss nationals (Imdorf, 2006).

REFERENCES

Borri-Anadon, C., Larochelle-Audet J., Mc Andrew, M., & Potvin, M. (2013). *La formation initiale du personnel scolaire sur la diversité ethnoculturelle, religieuse et linguistique dans les universités québécoises: portrait quantitatif et qualitatif*. Montréal: CEETUM.

Bouvier, G. (2012). *Les descendants d'immigrés plus nombreux que les immigrés : une position française originale en Europe, Immigrés et descendants d'immigrés en France.* Insee Références Édition 2012. Paris: Insee.

Brinbaum,Y. Moguérou, L., & Primon, J-L (2012). *Les enfants d'immigrés ont des parcours scolaires différenciés selon leur origine migratoire, Immigrés et descendants d'immigrés en France.* Insee Références Édition 2012. Paris: Insee.

Brinbaum, Y., & Guégnard, C. (2012). Parcours de formation et d'insertion des jeunes issus de l'immigration au prisme de l'orientation. *Formation Emploi*, *118*, 61-82.

Brinbaum, Y., & Kieffer, A. (2009). Trajectories of Immigrants' Children in Secondary Education in France: Differentiation and Polarization. *Population-E*, *64*(3), 507-554.

Brubaker, R. (1992). *Citizenship and nationhood in France and Germany*. Cambridge: Harvard University Press.

Caille, J-.P., & Lemaire, S. (2009). *Les bacheliers "de première génération" : des trajectoires scolaires et des parcours dans l'enseignement supérieur « bridés » par de moindres ambitions?* France, portrait social Édition 2009. Paris : Insee.

Cortesi, S., & Imdorf, C. (2013). Le certificat fédéral de capacité en Suisse. Quelles significations sociales pour un diplôme hétérogène ? *Cahiers de la recherche sur l'éducation et les savoirs, Hors Série n°4,* 91-108.

Crul, M., Schneider, J., & Lelie, F., (Eds.) (2012). *The European second generation compared: Does the integration context matter?* Amsterdam: Amsterdam University Press.

DEPP, Direction de l'évaluation, de la prospective et de la performance (2011). *Repères et références statistiques sur les enseignements, la formation et la recherche.* Ministère de l'Éducation nationale. Paris: DEPP.

Duru-Bellat, M. Kieffer, A. & Reimer, D. (2008). Patterns of Social Inequalities in Access to Higher Education in France and Germany. *International Journal of Comparative Sociology*, *49*, 347-368.

Felouzis, G. (2003). La ségrégation ethnique au collège et ses conséquences. *Revue française de sociologie*. *44*(3), 413-447.

Felouzis, G., & Charmillot, S. (2013). School tracking and educational inequality: a comparison of 12 education systems in Switzerland. *Comparative Education*, *49*(2), 181-205.

Fibbi, R. Lerch, M., & Wanner, P. (2006). Unemployment and Discrimination against Youth of Immigrant Origin in Switzerland: When the Name Makes the Difference, *Journal of International Migration and Integration, 7*(3), 351-366.

Fibbi, R. Lerch, M., & Wanner, P. (2007). Naturalisation and Socio-Economic Characteristics of Youth of Immigrant Descent in Switzerland. *Journal of Ethnic and Migration Studies, 33*(7), 1121-1144.

Frickey, A., Murdoch, J., & Primon, J.L. (2006). From Higher Education to Employment: inequalities between ethnic backgrounds in France. *European Education*, 37(4), 61-74.

Gonon, P. (2013). Berufsmaturität als Reform – Hybris oder Erfolgsstory? In M. Maurer, & P. Goron (Eds.). *Herausforderungen für die Berufsbildung in der Schweiz* (p.119-146). Bern: Hep-Verlag.

Graf, L. (2013). *The Hybridization of Vocational Training and Higher Education in Austria, Germany, and Switzerland*. Opladen, Berlin & Toronto: Budrich UniPress Ltd.

Griga, D. Hadjar, A., & Becker, R. (2013). Bildungsungleichheiten beim Hochschulzugang nach Geschlecht und Migrationshintergrund: Befunde aus der Schweiz und aus Frankreich. In A. Hadjar, & S. Hupka-Brunner (Eds.) *Geschlecht, Migrationshintergrund und Bildungserfolg.* Weinheim: Beltz Juventa Verlag.

Hupka, S. Stalder, B. (2011). Jeunes migrantes et migrants à la charnière du secondaire I et du secondaire II. In M. Bergman, S. Hupka-Brunner, A. Keller, T. Meyer, & B. Stalder (Eds.) *Transitionen im Jugendalter: Ergebnisse der Schweizer Längsschnittstudie TREE* (183-200). Zürich: Seismo.

Ichou, M. (2013). Différences d'origine et origine des différences : les résultats scolaires des enfants d'émigrés/immigrés en France du début de l'école primaire à la fin du collège, *Revue française de sociologie*, *54*(1), 5-52.

Imdorf, C. (2005). *Schulqualifikation und Berufsfindung. Wie Geschlecht und nationale Herkunft den Übergang in die Berufsbildung strukturieren*. Wiesbaden: VS-Verlag.

Imdorf, C. (2006). *The selection of trainees in small and medium-sized enterprises. Integration and exclusion of immigrant youth at the transitional stage between school and vocational training in Switzerland*. Working Paper presented at the XVI ISA World Congress of Sociology. RC34 Sociology of Youth.

Imdorf, C. (2010). Die Diskriminierung "ausländischer" Jugendlicher bei der Lehrlingsauswahl. In U. Hormel, & A. Scherr (Eds.) *Diskriminierung. Grundlagen und Forschungsergebnisse* (p.197-219).Wiesbaden: VS Verlag für Sozialwissenschaften.

Kronig, W. (2007). *Die systematische Zufälligkeit des Bildungserfolgs: Theoretische Erklärungen und empirische Untersuchungen zur Lernentwicklung und Leistungsbewertung in unterschiedlichen Schulklassen.* Bern: Haupt.

Mc Andrew M., Potvin M., & Borri-Anadon C. (Eds.). (2013). *Le développement d'institutions inclusives dans un Québec pluraliste.* Québec: Presses de l'Université du Québec.

Mey, E. Rorato, M., & Voll, P. (2005). Die soziale Stellung der zweiten Generation. Analysen zur schulischen und beruflichen Integration der zweiten Auslandergeneration. In Bundesamt für Statistik (Ed.) *Die Integration der ausländischen zweiten Generation und der Eingebürgerten in der Schweiz,* (p.61-152). Neuenburg: BFS

Meyer, T. (2003). Zwischenlösung – Notlösung? In BFS/TREE (Ed.) *Wege in die nachobligatorische Ausbildung. Die ersten zwei Jahre nach Austritt aus der obligatorischen Schule. Zwischenergebnisse des Jugendlängsschnitts TREE* (101-109). Neuchâtel: Bundesamt für Statistik.

OFS, Office fédéral de la statistique. (2005). *Internationalität der Schweizer Hochschulen. Studierende und Personal: eine Bestandesaufnahme*. Neuchâtel: OFS.

Picot, G. (2012). *Immigrant Status and Secondary School Performance as Determinants of Post-Secondary Participation: A Comparison of Canada and Switzerland. OECD Education Working Papers. N°77.* Paris: OECD.

SERI, State Secretariat for Education, Research and Innovation. (2013). *Vocational and Professional Education and Training in Switzerland 2013. Facts and Figures*. Bern: SERI.

SKBF (ed.) (2011). *Swiss Education Report 2010*. Aarau: Swiss Coordination Centre for Research in Education.

Schmid, E., & Gonon, P. (2011). Übergang in eine Tertiärausbildung nach einer Berufsausbildung in der Schweiz. *bwp@Spezial*, Issue 5,HT, 1-17.

Stalder, B., & Nägele, C. (2011). Vocational Education and Training in Switzerland: Organisation, Development and Challenges for the Future. In M. Bergman, S. Hupka-Brunner, A. Keller, T. Meyer, & B. Stalder (Eds.) *Transitionen im Jugendalter: Ergebnisse der Schweizer Längsschnittstudie TREE* (p.18-39). Zürich: Seismo.

Stolz, J. (2001). Einstellungen zu Ausländern und Ausländerinnen. In H.J. Hoffmann-Nowotny (Eds.) *Das Fremde in der Schweiz* (p.33-75). Zürich: Seismo.

Vallet, L.A. (1996). L'assimilation scolaire des enfants issus de l'immigration et son interprétation: un examen sur données françaises. *Revue française de Pédagogie*, *117*, 7-27.

Vanholffelen, A. (2013). *Les bacheliers du panel 1995 : évolution et analyse des parcours. Note d'information, 10-13*. Paris : Direction de l'évaluation et de la prospective, ministère de l'Éducation nationale. Paris: DEPP.

Verdier, E. (2001). La France a-t-elle changé de régime d'éducation et de formation? *Formation Emploi*, *76*, 11-34.

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