# The Education of Children of Immigrants in Finland

Elina Kilpi

St Antony's College

University of Oxford

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**Abstract**

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This thesis considers the education of children of immigrants in Finland, focusing on attainment and transitions around the age of 16. It is the first detailed representative study on the topic in Finland. Compared to international research it is amongst the ones to most fully explore the different aspects of education around this age. For the most part, it is limited to studying structural explanations for differences between students and ethnic groups.

The majority of the analyses in the thesis are done using register data. Statistical modelling of this data is done using multivariate regression analyses. The results are supplemented with evidence from interviews with both majority students and children of immigrants.

With regards to school achievement at the end of comprehensive school, many immigrant-origin groups are seen to have lower average grades than the majority. However, this is explained by lower parental resources. After controlling for parental resources, very few disadvantages remain. On the other hand, the gender gap evident amongst the majority is not found amongst many immigrant-origin groups.

Looking at continuation to upper secondary education compared to dropping out, most children of immigrants are seen to have a higher probability of dropping out than the majority. This is explained by their lower school achievement and higher parental non-employment. Nevertheless, the difference between children of immigrants and the majority remains evident at the very low end of the achievement scale.

Considering the choice of upper secondary school type, children of immigrants can be seen to be more likely than the majority to continue to vocational school. Yet, after controlling for prior school achievement and parental resources, almost all immigrant-origin groups are more likely than the majority to continue to general rather than vocational school.

Interviews suggest that when considering their school choices, majority students tend to be driven by their interests and see their decision making as being independent of others. On the other hand, children of immigrants tend to have more specific future plans and to take the wishes of their parents more into consideration.

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# Chapter 1

# Introduction

Immigration and the integration of immigrants and their descendants is of ever-growing importance in Europe. For the children of immigrants, education is the primary vehicle for integration. The basis for equality between ethnic groups is laid during compulsory education and continued in further education. Whereas those who migrated as adults may face difficulties in the labour market due to their foreign qualifications and less-than-perfect language fluency, their children should not be hindered in this way. However, if ethnic minorities do not receive a fair treatment in the educational sphere, they are unlikely to be able to make up for this in the labour market. This is the main reason why this thesis examines the education of children of immigrants.

The focus of this thesis is particularly on the educational achievement of children of immigrants at the end of compulsory education and their transition from compulsory to upper secondary education. Educational achievement at this stage is of major importance for determining whether or not students continue in education (e.g. Boudon, 1974; Erikson et al., 2005). Making the transition itself has a significant impact on future employment (on the impact of education for the employment of ethnic minorities see Heath & Cheung, 2007b; Kalter & Kogan, 2006),

and in Finland it has been found that not making the transition immediately, even if it is made later, has a significant impact on employment opportunities (Vanttaja & Järvinen, 2004). The transition from compulsory to upper secondary education can also be seen as a stepping stone on the educational career towards higher education and labour market credentials.

From Europe and North America, there is evidence that children of immigrants are often at an educational disadvantage compared to the majority population. This disadvantage is at its largest when children start school, and in some cases it remains throughout the educational career, but sometimes it can also be reduced. In particular, evidence suggests that in some cases the continuation of children of immigrants in education, once prior educational performance has been controlled for, is higher than that of the majority population (for reviews of this literature see Heath et al., 2008; Kao & Thompson, 2003). This could indicate that children of immigrants are, to some extent, adjusting for their poorer performance in school by continuing in education for longer. There may also be other reasons driving their continuation decisions, such as expected discrimination in the labour market. The differences between what have been termed primary and secondary effects of ethnicity (Heath & Brinbaum, 2007), in other words the effect of ethnicity on achievement in school compared to the effect on continuation, have not been fully explored in previous research.

This thesis focuses on Finland and the youngsters, both of immigrant origin and otherwise, who completed compulsory education between the years 2000–2004. Finnish register data is used to study the achievement and continuation patterns of these students. In addition to the results based on the statistical analysis of the register data, this thesis also uses data obtained through interviews of students in their last year of comprehensive school in 2008–2009. This material is used to study the differences in continuation patterns of children of immigrants and majority students in more detail.

The focus is on the first educational transition for two main reasons: To begin with, the fact that it is the first transition makes it an important one to study, and in terms of continuing into tertiary education, it already places students in different positions. Moreover, because immigration has only recently become a large-scale phenomenon in Finland, earlier cohorts of immigrant-origin students are substantially smaller. This would make statistical analysis of their propensities to complete upper secondary education and continue into tertiary education more difficult.

There are at least three reasons why it is of interest to study children of immigrants in Finland. Firstly, Finnish society has consistently been found to be a relatively equal one, where social differences in many spheres are smaller than they are in most other Western countries. In particular, socioeconomic differences in school performance have been found to be relatively small, even though average performance is very high (e.g. OECD, 2004). Therefore, it is interesting to see how children of immigrants fit into this high-achieving yet equal society.

Secondly, the immigration that Finland has experienced differs from that of other Western European countries. Most notably there is a lack of labour migration, which characterizes the ethnic minority populations in most of these countries, and in its stead is a large proportion of refugees. European refugee populations have not been studied extensively, but given the very different nature of their migration process to that of labour migrants, it is possible that educational outcomes will differ between the children of the two groups.

Finally, given the relatively recent nature of immigration to Finland, there is still the opportunity for Finland to learn both from other countries and from its own short history in terms of devising effective educational policy. Moreover, new immigrant countries have been seen as having more difficulties in integrating their migrant populations than old immigrant societies (Levels & Dronkers, 2008;

OECD, 2006). Levels & Dronkers (2008) point to Denmark and Switzerland in particular in this case. As Finland is a new immigration country, it is important to examine whether it is also experiencing these kinds of difficulties.

The rest of this introductory chapter is organized as follows: The next section gives more information about immigration to Finland and the ethnic groups that live there. The Finnish education system is described in the section that follows, and the section after that gives a brief overview of the special educational measures for immigrant (and immigrant-origin) children in Finland. This is followed by a brief review of theory and prior research in the field of education of ethnic minorities. Finnish research is reviewed first and then international research relating to education of children of immigrants and/or ethnic minorities. The next two sections following this give overviews of theory and research relating to the effects of parental resources on children's education, and of naturalization for immigrants and their children. The last section includes a summary of the rest of the thesis.

## 1.1 Background information on immigration to Finland

In Finnish discourse the term 'ethnic minority' tends to refer to the established communities of Sámi, Roma, Tatars, Jews, the 'Old Russians', and, to some extent, the Swedish-speaking part of the population. Except for the Swedish speakers, it is almost impossible to study these groups in this thesis. This is because by law the state is not allowed to record ethnicity. Therefore, the remaining criterions for identifying ethnic minorities are language, country of birth and citizenship. For established communities the only possibility is language. However, for many of these groups, even though their original language may have been different to Finnish or Swedish, their officially registered language is often one of these two, thus making them unidentifiable in register entries. Children of immigrants, on

the other hand, can more often be recognised by their registered language and, more reliably, by the country of birth of their parents.

The main groups that have migrated to Finland recently have come from Russia, Estonia, Sweden, Somalia, and areas of the former Yugoslavia. As can be seen from this list, the major immigrant groups in Finland consist of citizens of neighbouring countries on the one hand, and refugees on the other.[1] Contrary to many Western European countries, Finland has not experienced large-scale labour immigration. In fact, it was itself a country of emigration until the 1980s with large-scale emigration to Sweden in particular. There are two main reasons why Finland did not require labour immigration (Forsander, 2002). On the one hand, Finland was relatively late in industrializing so that it did not reach a stage of labour shortages before the economic depression of the 1970s. In addition to this, the preference of industries that needed workers was to have emigrant Finns return. On the other hand, high female employment rates have also reduced the need for foreign workers.

A significant number of those immigrating from Russia and Estonia have migrated as Ingrian Finns.[2] Ingrian Finns are descendants of Finns who, in the $17^{th}$ Century, moved to areas near what is now St Petersburg, and was then, along with Finland, part of Sweden. Under Stalin, Ingrians were forced to leave the area and resettle in other parts of the Soviet Union (Nevalainen, 1991).[3] In a television interview in April 1990 the President of Finland, Mauno Koivisto, compared the Ingrian Finns

[1] Most immigrants from Somalia and Ex-Yugoslavia have arrived as refugees, asylum seekers or through family reunification. Both groups contain a mix of ethnic groups. Amongst the ex-Yugoslavs the largest groups are Albanians (from Kosovo) and Bosniaks, both of which are largely Muslim.

[2] Around 60–70% of people from areas of the former USSR are estimated as having moved to Finland with the returnee status of Ingrian Finns or as their family members. However, there is a difference between cohorts with returnees being the majority in the older age groups whereas amongst the younger cohorts there are approximately as many returnees as there are other immigrants. (Kulu, 1998)

[3] A specific moral duty is felt towards the Ingrian Finns because of the 55,000 Ingrian Finns who were expatriated by the Finnish authorities to the USSR under the terms of Treaty of Paris in 1944, who were then deported straight to Siberia despite Stalin's promises to allow resettlement in the areas that they had been evacuated from (de Tinguy, 2003).

to other Finnish emigrants and thus granted them the same rights of return. Until 1996, a person with at least one Finnish grandparent was seen as entitled to return, but due to the large number of returnees and their poor knowledge of Finnish, this was changed to two grandparents or one parent with Finnish nationality.[4] Finnish language requirements were introduced in 2003. It is expected that the return rights of Ingrian Finns will be completely withdrawn in 2010.

The situation of the Ingrian Finns is complicated. They are considered to have a special tie to Finland and thus their immigration has been considerably easier than for other migrants.[5] However, Russification policies in the Soviet Union have meant that most younger Ingrians cannot speak Finnish and are unlikely to ethnically identify themselves as Finnish. Finnish authorities have estimated that only 10% of returnees speak Finnish, and these are generally the oldest migrants (de Tinguy, 2003), whereas a study of young Russian immigrants showed that they used Russian to a large extent in their daily lives (Iskanius, 2006). Between friends, and particularly with best friends and partners, Russian was used more often than Finnish.[6] On average, Ingrian Finnish immigrants are better educated than Finns of the same age group; however, their unemployment rate is considerably higher than for the whole population as well as being higher than that of Estonian immigrants.[7]

The Chileans, in 1973, were the first refugee group that Finland accepted. In 1979, the first Vietnamese 'boat people' were accepted. In the early 1990s, the major refugee group were the Somalians, many of whom came from the Soviet Union as asylum seekers, fleeing due to the changed political situation caused by the civil

[4]Nationality in this case is not the same as citizenship.

[5]In this sense their immigration can be seen as similar to many other migrations that happened in Europe after the fall of the Soviet Union, as well as the migration of Jews to Israel (de Tinguy, 2003).

[6]It should be noted that the sample for this study was chosen from schools and institutions which were likely to have more than just a few Russian immigrants.

[7]In spring 1999, the unemployment rate of Ingrian Finns was estimated at 40%, that of Estonian citizens was 29% and for the whole population it was 10% (unofficial estimates of Forsander (1999)).

Table 1.1: Reasons for receiving a residence permit in largest migrant groups (% within country of origin)

| Reason | Russian | | Estonian | | (Ingrian Finn) | Somalian | Vietnamese |
|---|---|---|---|---|---|---|---|
| Ingrian Finn | 56 | (36) | 63 | (28) | (77) | – | – |
| Refugee | – | | – | | – | 26 | 45 |
| Asylum | – | | – | | – | 34 | 0 |
| Family member* | 12 | (5) | 13 | (6) | (14) | 33 | 40 |
| Marriage | 24 | (44) | 15 | (38) | (4) | 6 | 11 |
| Work, studies | 5 | (10) | 8 | (21) | (2) | 0 | 3 |
| Other reason | 3 | (5) | 1 | (7) | (3) | 1 | 1 |
| N | 532 | (1159) | 312 | (466) | (1302) | 324 | 193 |

*Underaged with family members or through family reunification
Sources: Pohjanpää & Paananen (2003) Table 8.7, and figures in parentheses
Liebkind et al. (2004) Appendix Table 2

war in their country.[8] From the mid-1990s, Finland has accepted many former Yugoslavians as well as Iranians, Iraqis and Afghans. Since 1986, Finland has had an annual quota of refugees, starting from 100 and currently 750. Many refugees are also able to move to Finland through family reunification programmes. The number of asylum seekers has also increased, but the numbers are still relatively low, and few are granted asylum except on a temporary basis.[9]

The reasons for obtaining a residence permit, and thus to some extent for immigrating to Finland, for four of the largest country of origin groups can be seen in Table 1.1.[10] Unsurprisingly, only very few immigrants from Somalia and Vietnam have been granted residence for a reason other than asylum (either through being

[8]The link between Somalia, the former Soviet Union, and Finland is one of Cold War alliances and geographical proximity. For many Somalians who fled, Moscow was their first destination because of the Somalians studying there and because Aeroflot was one of the last airlines to fly out of Mogadishu. Finland, on the other hand, was the closest Western country, where many people headed to when the Soviet Union could no longer host them due to its own turmoil, and when their resources would not allow them to go any further. (Alitolppa-Niitamo, 2000)

[9]The basic difference between an asylum seeker and a refugee in the way the words are used here is that refugees have already been given that status before coming to Finland, normally by the UNHCR, whereas asylum seekers apply for that status after arriving in Finland.

[10]This information was from a survey of foreign-born 20–65 year olds who had been resident in Finland for at least two years in 2002 (Pohjanpää & Paananen, 2003). The survey was limited to those living in the metropolitan area, where most immigrants in Finland live, as well as Tampere and Turku for the Russians. Another survey, the results of which can also be seen in Table 1.1, only surveyed immigrants from Russia and Estonia and, in contrast to the previous survey, separated out the Ingrian Finns from the other Russians and Estonians on the basis of their registered language (Liebkind et al., 2004).

a refugee or an asylum seeker) or being a family member of someone who has a residence permit. On the other hand, the situation of those from Russia and Estonia is more diverse: approximately 60% have been given residence on the basis of being Ingrian Finns, and a further 12–13% have come as underaged family members, although not only as family members of Ingrian Finns. Only a small minority of those who can be identified as Ingrian Finns have been given residency on grounds other than being a Ingrian Finns, whereas approximately a third of Russians and Estonians who have not been identified as Ingrian Finns have been given residency on that basis. For those Russians and Estonians not identified as Ingrian Finns, the most important reason for the granting of residency is marriage to a Finn. Work and studies have brought relatively few people to Finland (or at least they have not been allowed to stay for this reason), although it has been more important for Estonians than for Russians.[11]

The other groups studied in this thesis are divided between those who have arrived as refugees or asylum seekers and those that have arrived for work, marriage or family reasons (Martikainen, 2007). As mentioned earlier, former Yugoslavians belong mostly to the first group, as do immigrants from Iran, Iraq and Afghanistan. In contrast, immigrants from Europe, Turkey, Morocco, China, and Sub-Saharan Africa except for Somalia, Rwanda and Sudan, have migrated for work, marriage or family reasons.

On the whole, immigrants have not found it easy to integrate into the Finnish labour market. Rates of labour force participation are lower than for Finns and those of unemployment higher, neither of which can be explained by education levels (Joronen, 2007). Groups that are characterized by both low labour force participation and high unemployment are ones from ex-Yugoslavia, Turkey (women only), North Africa, Somalia, Vietnam, Iran and Iraq. In other words, these are

[11] At the time when this survey was done Estonia was not part of the European Union; after its accession in 2004 working in Finland is likely to have become a more important reason for Estonians to move to Finland.

mostly refugee groups. On the other hand, rather more successful groups that are characterized by high labour force participation and low unemployment are ones from Europe (especially Sweden and Estonia), Canada and USA, China and some other Asian countries and Oceania, although this is mostly applicable to the men in these groups.[12]

## 1.2 The Finnish education system

The Finnish education system is shown in Figure 1.1. The general features of the education system are the nine-year comprehensive (and compulsory) school,[13] with an optional $10^{th}$ grade for improving one's chances of applying to upper secondary education, and a two-tiered system of education at both the upper secondary and the tertiary levels. Despite the two-tiered nature of the system, changing from one part to the other is possible at and between all stages, although it is slightly more complicated at the tertiary level. (Kilpi, 2008)

Only about 5% of those who complete compulsory education do not continue their studies immediately. Over half of the age group continues into general upper secondary schools (*lukio*), whereas around 40% go on to vocational schools (*ammattikoulu*). In most years, around 3% continue in the voluntary $10^{th}$ grade (Statistics Finland, 2007). In order to ensure that as large a part of the age group as possible continues after compulsory education, the number of places available at this level has been around 120–130% of the age group since the 1980s (Kivinen & Rinne, 1996; Karppinen, 2007).[14] Students are chosen into general upper secondary schools according to their school-leaving average grade; some special-

[12]The figures that this paragraph has been based on are from Joronen (2007), Table 13.7, and based on data from the metropolitan region in 2004, from those who had migrated to Finland in the years 1989–2004.

[13]The comprehensive school is also known as the basic school, which is a more literal translation of the Finnish *peruskoulu*.

[14]The number of places seems to have an effect on the number of drop-outs as the increase in places from about 120% of the age group in the late 1990s to around 130% between 2001–2004 resulted in a decrease in the proportion not studying in the autumn following completion of comprehensive school (Karppinen, 2007).

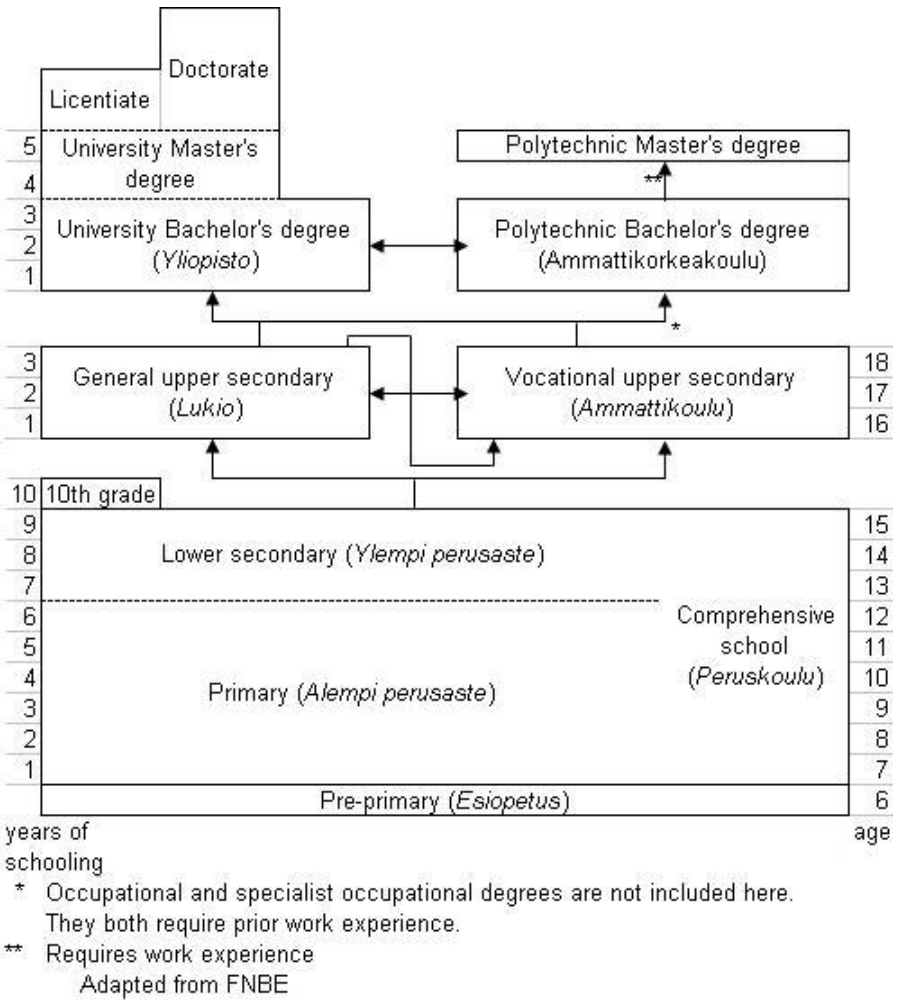



Figure 1.1: The Finnish education system

ist general upper secondary schools and vocational schools use aptitude tests in addition to this. Vocational schools also check with language tests that students whose first language is not Finnish (or Swedish) have the required language skills to follow the courses.[15]

In terms of dropping out at this transition, the largest so-called problem group are those who applied but were not chosen in the first stage of applications. However, even amongst those rejected in the first stage, more than half applied in the supplementary stage and were accepted. The two other problem groups are those who did not apply at all and those who drop out at an early stage of upper secondary studies. (Karppinen, 2007)

Dropping out of school is extremely rare during compulsory school, and relatively rare in general upper secondary education. Over the period 1996–2006, approximately 0.5% of the majority population and 1.5% of the foreign-speaking population left school without gaining the comprehensive school leaving certificate (*peruskoulun päättötodistus*) after they had surpassed the statutory school age (Karppinen, 2008). In addition to this, around 70 children each year do not take part in any kind of formal education (Statistics Finland, 2007). During the school year 2003/2004, fewer than 4% of general upper secondary students and almost 11% of vocational upper secondary students dropped out of the type of school they were in, although some of them continued in another type of school.

Finland's language situation should also be mentioned with regard to its effect on the education system. The largest language minority in Finland are the Swedish speakers, and there are parallel schools for the two language groups. The majority language in the municipality determines the language of the schools. In most cases, however, the minority also has the right to establish public schools in its own language. Moreover, officially bilingual municipalities have schools in both

[15]Discussing this with the guidance counsellors in the schools that I went to during this research, the language tests are somewhat of a hurdle for many immigrant-origin students. However, their effect on continuation has not been studied.

languages. In terms of upper secondary and tertiary education, there tend to be proportionately more places for Swedish than for Finnish speakers (Saarela & Finnäs, 2003).

The indigenous population living in the North of Finland, the Sámi, can also now be educated in their own language in the areas regarded as their homeland. This has only been possible since the 1970s. Most Sámi students have Sámi as a subject at school rather than as their medium of instruction. Since the 1990s, Roma children also have a right to education in the Romani language. However, since municipalities are not obliged to provide this, in contrast to the situation of the Sámi, Romani is only taught as a subject rather than being the medium of instruction. Even then, approximately only 15% of students entitled to Romani language teaching receive it (for more information on the situation of different language groups in Finland, see Latomaa & Nuolijärvi (2002)).

There is a number of schools that teach in a language other than one of the national ones. In addition to private international schools, there are many schools around Finland that teach either some or all subjects in English. In the largest towns there are also schools that teach in French, German, Russian, Estonian and Chinese. Except for the international schools, most schools that teach in a foreign language do so in immersion- or content and language integrated learning (CLIL) programmes, and the amount that is taught in the foreign language ranges from a few hours a week to almost all lessons.[16] Since the late 1980s, immigrant students have also had the right to learn their mother tongue at school. This is organized by the municipalities if the number of students is large enough (4 is the minimum) and if there is a teacher available.

There are very few private schools left in Finland. Private secondary schools were very common up until the 1960s and 70s when legislation made most of them change into municipality-run schools. In 2005, out of a total of 3,579 schools

[16]There are also Swedish programmes for Finnish speakers and vice versa.

allowed to issue comprehensive school leaving certificates, 59 (1.6%) were privately owned and 30 (0.8%) by the state, the rest (97.6%) being owned by municipalities (Statistics Finland, 2007). Private schools tend to be either foreign-language based (mainly English), or offer Waldorf-Steiner education, or are religious schools. State schools, on the other hand, tend to be either linked to university teacher-training departments or schools for people with hearing, visual or motor impairments. A few foreign-language schools are also state-run. Only very few international private schools are allowed to charge fees, and the majority of private schools use the national curriculum and receive the statutory government transfer.[17]

## 1.3 Education of immigrant children in Finland

There are a variety of educational measures that relate to the education of immigrants in Finland. These include preparatory classes for pupils coming to comprehensive school, as well as preparatory vocational classes for entry into vocational upper secondary education. When a school-aged child immigrates to Finland, they are directed to special preparatory classes for at least half a year, although this is often extended to one year.[18] In these classes specific attention is placed on developing Finnish language skills. As the child progresses, they are gradually integrated into regular classes, beginning with classes where language skills are not as important, such as physical education and arts. The preparatory vocational classes are not only for those who have recently immigrated, although in general, a lack of appropriate language skills is a key determinant for attending these classes where students are placed for between half a year and one year. (Nissilä, 2008)

[17]Information from Ministry of Education website (`http://www.minedu.fi/OPM/Tiedotteet/2000/1/raskyksityiskoulut_taydentavat_koulujarjestelmaa?lang=fi`, in Finnish, last accessed 12.1.2010.)

[18]Not all municipalities have preparatory classes, but these municipalities mostly have very few immigrants.

Finnish and Swedish are also taught as a second language either in separate classes or alongside the mother tongue curriculum. In general, students whose language proficiency in Finnish (or Swedish or Sámi) is not at native level in all domains of the language should follow the second language curriculum. In practice, very few students attend completely separate second language classes, and approximately a quarter of immigrant students do not follow the second language curriculum. This is partly because some students have good enough language skills to follow the first language curriculum, and partly because some schools and municipalities do not have the necessary resources to organize the teaching of Finnish as a second language. (Nissilä, 2008)

As mentioned above, home language (or mother tongue) tuition is also organized as well as the teaching of other religions.[19] Home language tuition was attended by 11,013 students in 50 different languages in autumn 2006. A total of 81 municipalities organized home language tuition. (Nissilä, 2008)

Municipalities can apply for financial support from the state for many aspects of immigrant education. Some of this is tied to the length of residence of the immigrants (up to 4 years from immigration) and some to the size of groups (at least four for home language tuition). In a recent survey of schools, 79% of schools with immigrants reported that they had received financial support for immigrant education (Kuusela et al., 2008).

The support for bilingualism and even biculturalism of children of immigrants can be seen as an extension of the traditional and legal support that the Swedish speaking part of the population enjoys, and the position of Swedish as an official language (Kosonen, 2008).

[19]Most Finns are Lutherans and religion is taught at school. Those not following any religion classes have to attend ethics classes.

## 1.4 Previous research on the education of children of immigrants in Finland

There is very little previous research on the education of children of immigrants in Finland, whereas there is a large amount of relevant research that has taken place in other countries. This section will present the few Finnish studies that exist, although they focus almost solely on the $1^{st}$ generation, in other words students who have migrated themselves. The most relevant Finnish studies will be explored in more detail in later chapters. Some of the relevant international research will be reviewed in the next section to provide a reference point for this research.

### 1.4.1 School achievement

One of the earliest studies analyzed students of one lower secondary school over a five-year period and found that immigrant students obtained lower grades than their Finnish counterparts overall (Perttula, 2001). Moreover, many immigrant groups had a high risk of leaving education without obtaining the comprehensive school leaving certificate. Students from Vietnam and Thailand were most likely to leave school prematurely, followed by Somalians and other Africans. Students from Estonia and Russia were least likely to drop out (none had dropped out during the study period). However, because the sample size was very small (122 overall, between 4 and 16 for most groups), the results are not very reliable or generalizable.

The most in-depth study to date focused on Somali students in Helsinki (Alitolppa-Niitamo, 2004). This study reported the difficulties that Somali students who have migrated to Finland in their teens face in formal education. However, this study was based on a core sample of five students, and did not record their actual school performance.

The most recent and most extensive study to date was conducted by the National

Board of Education, and they used register data that is almost identical to that used in this thesis, the main difference being that the time span was slightly longer: 1996–2004. They found that the $2^{nd}$ generation, usually defined as individuals born in the country of origin to foreign-born parents, has higher grades in $9^{th}$ grade than the majority, whereas the $1^{st}$ generation has lower, especially those from outside the EU. In particular, the $2^{nd}$ generation get better grades in foreign languages. This last result may be seen as relatively unsurprising as some of these foreign languages may be their home languages. (Karppinen, 2008)

The weakness of this study is that it did not distinguish between different groups: out of foreign-language students born abroad it differentiated between EU and non-EU migrants, whereas all Finnish-born foreign-language students were included into one $2^{nd}$ generation group, although a significant proportion of these students are not children of immigrants but part of historical linguistic minorities.[20] It also did not consider the family background of students further.

In terms of national tests,[21] the National Board of Education found that foreign-language students achieved significantly lower scores in maths and science at the end of primary school, and Finnish and maths at the end of lower secondary school. Again, in languages the differences were smaller, or the foreign-language students outperformed the majority. (Kuusela & Etelälahti, 2008)

### 1.4.2 Special education and additional support

Children from immigrant families (where at least one parent was born abroad and/or is a citizen of a country other than Finland) have been found to be over-represented in special education (Kivirauma et al., 2006). This applies to both

[20] Analysis of the data used in this thesis indicates that approximately 42% of the students in this group have two Finnish-born parents, and the proportion is likely to be higher in the study referred to here as it includes earlier cohorts.

[21] National tests in Finland are only taken by a sample of students and do not take place every year. A more detailed explanation of how national tests work is provided in section 2.1.2.

classroom-based special education (i.e. separate classes and often also separate schools), but especially to part-time special education. This may be caused by factors to do with social background rather than ethnicity. Lower Finnish proficiency of recent immigrants may cause some transfers to special education although this is not a lawful reason for transfer.[22]

Based on national examinations in maths, foreign-language students received an approximately equal amount of additional support at each level of performance compared to majority students. At each level of performance in Finnish tests, they received more support. Additional support includes both special education and supplementary tuition. (Kuusela & Etelälahti, 2008)

### 1.4.3 Continuation after comprehensive school

With regards to educational continuation, one study based on register data found that the young immigrants finishing compulsory school in Helsinki in 1997 could be divided into three groups according to country of origin and continuation the following autumn (Romakkaniemi, 1998). The first group consists of Bosnians and Vietnamese, who tend to continue into upper secondary education with few dropouts. The second group consists of Russians, Estonians and most other nationalities, who mostly continue into upper secondary education or in the tenth grade but with higher numbers of dropouts. The third group consists of Somalians, who tend not to get into the education they desire and either continue in the tenth grade or drop out of the education system. However, the weakness of this study is that it did not consider the family background of the students, or even the length of their residence in Finland, which tended to be less than five years.

[22]Transfer to special education should be made if a child is not able to achieve the basic education goals due to reasons related to disability, illness, delays in development, or social or emotional problems. Transfer decisions require a statement from either a doctor or a psychologist, or a social evaluation. (National Board of Education website: `http://www.oph.fi/english/education/special_educational_support/special_needs_education`, in English, last accessed 12.1.2010)

The only comprehensive study on the matter to date was conducted by the National Board of Education (Karppinen, 2008). As mentioned above, this study used a very similar data set to the one in this thesis. This study found that children of immigrants tend to continue in vocational school at similar rates to the majority. However, their continuation in general school is lower and the number of drop-outs higher than amongst the majority. The continuation of the $2^{nd}$ generation in general schools does not differ from the majority. However, at each level of achievement immigrant-origin students were found to continue to general schools at rates similar or higher than the majority. Their drop-out rates are also at least as high as those of the majority at every level of achievement.

A separate study on the ways in which drop-out occurs amongst immigrant students found that the primary reason is being rejected despite applying (Karppinen, 2007). Immigrant students are also less likely than Finns to use the supplementary application process after being rejected. Compared to the majority, more immigrant students do not apply at all and they are also more likely to drop out in the first month. The difference between immigrants and the majority for this last cause is relatively small. There is a possibility that particularly those immigrants who do not apply to upper secondary education at all may have been applying to educational institutions that are not included in the application process. However, there is no direct evidence of this.

### 1.4.4 Educational careers and entry into the labour force

The National Board of Education study also included a longitudinal view of the education and labour market entry of one cohort of students. They looked at the comprehensive school leavers of 1996 and what these students were doing in 2004. The overall finding was that, whatever the education path taken (general school, vocational school, $10^{th}$ grade, or dropping out), the immigrant students, defined

as all those registered as foreign-language speakers, were less likely to have gained an upper secondary qualification 8.5 years after completing comprehensive school compared to the majority. In total, almost 27% of immigrant students did not have an upper secondary qualification at this stage compared to 14% amongst the majority. Amongst the immigrants, those who had continued in general upper secondary schools were most likely to have a qualification[23] (93%), whereas less than half of those who had dropped out of education or gone to $10^{th}$ grade had one. (Karppinen, 2008)

In terms of gender, amongst the majority, girls in all continuation paths were more likely to gain upper secondary qualifications than boys, and the difference was particularly large amongst those who had dropped out. The results were more mixed for the immigrant students. The immigrant girls who had gone to vocational schools were more likely to get upper secondary qualifications than the boys, whereas the opposite was the case in general schools. Out of the immigrants who had dropped out completely, boys were more likely to return to school than girls, whereas girls were more likely to gain upper secondary qualifications following 10th grade than boys. (Karppinen, 2008)

Looked at in 2004, the immigrant students of the class of 1996 were almost twice as likely as the majority students to be outside employment and education (28 compared to 15%). Amongst immigrant girls, the proportion unclassified was particularly large (22 compared to 8% amongst majority girls and even less amongst all boys), possibly indicating a larger proportion of stay-at-home mothers in this group. Having an upper secondary qualification improved the chances of being in employment or education amongst all groups, and in particular, for the immigrant boys. The immigrant boys who had a qualification were most likely to still be in education (30%), whereas the immigrant boys without a qualification were least likely (9%). Overall, immigrants were about as likely to be in education as the

[23]This may have been either a general or a vocational upper secondary qualification.

majority (both approximately 22%). (Karppinen, 2008)

There are also small-scale studies from Finland that indicate that immigrant students have high educational and career aspirations. For example, the educational and labour market ambitions of Somalians in Finland have been found to be quite high, although even youngsters who had migrated to Finland during their primary school years and would receive almost a complete Finnish education doubted their possibilities of finding work in Finland (Peltonen, 2005). This is likely to be a reflection of the very high unemployment rate of Somalians in Finland. A study done amongst the Vietnamese community in Helsinki in the mid-1990s found that Vietnamese youngsters planned on getting a high education and a good occupation because this would bring honour to the family (Oinonen, 1999). A small-scale survey of 14–20 year-old immigrants in Finland found that most of them were aspiring to occupations that required a university degree. The single most popular occupation mentioned was that of doctor. Law, psychology, engineering and education were also relatively popular fields. (Hiltunen, 2002)

## 1.5 Previous international research results

This section reviews some of the international results in three sections. First, the achievement of children of immigrants or ethnic minorities with regards to test performance or school grades will be reviewed. This can be seen as a measure of the primary effect of ethnicity on education (Heath & Brinbaum, 2007). Then the continuation of these groups into upper secondary or higher education as well as their final educational attainment will be reviewed. This can be seen as a measure of the secondary effect of ethnicity, although strictly speaking secondary effects should refer to continuation rates after prior achievement has been controlled for. The final section reviews the segmented assimilation approach towards explaining differences between immigrant groups. The focus in the first two sections is on

Europe, whereas for discussing the segmented assimilation approach it is on the United States.

### 1.5.1 Primary effects: School achievement

Throughout Western Europe, the general conclusion seems to be that most children of immigrants tend to get grades or perform in examinations at a lower level than their majority peers. This is the case of children of both European and non-European immigrants, although in many countries children of some Asian groups tend to have higher achievement levels than the majority.

Some of the groups that have been identified as having poorer test performance or grades than the majority include the children of immigrants from North Africa and Portugal in France (Brinbaum & Cebolla-Boado, 2007); Morocco, Turkey, Surinam and the Antilles in the Netherlands (van de Werfhorst & van Tubergen, 2007); Pakistan, Bangladesh and the Caribbean in the UK (Rothon, 2007); and Nordic countries, many Middle Eastern countries, Africa and Chile in Sweden (Jonsson & Rudolphi, 2009).

On the other hand, the few groups that have been identified as having higher grades than the majority include children of immigrants from India and China in the UK (Rothon, 2007), and most of Asia in Sweden (Jonsson & Rudolphi, 2009).

Much of the disadvantages may be explained by family background either in terms of parental education or parental social class. Referring back to the studies quoted above, the disadvantages in France and the Netherlands become insignificant after these controls are introduced. In the UK, the disadvantage of the Pakistani and Bangladeshi groups can be explained in this way, though not that of the Afro-Caribbeans. In Sweden, all disadvantages are reduced, though ones relating to Nordic countries, some Middle Eastern countries and Chile remain significant. Moreover, some of the advantages referred to above are increased by controls for

parental or family background. The effect of controlling for family background on ethnic differences depends on the group in question and the controls used. Although in the studies quoted here adding these controls often reduces the differences by at least one half, research by the OECD (2006) suggests that the difference explained may not be even this much.

Overall, the reasons behind remaining primary effects of ethnic minority origin have not been resolved. In particular, the puzzling question is why some groups have higher achievement levels than the majority and some have lower.

### 1.5.2 Secondary effects: Continuation in education and educational attainment

With regards to continuation and attainment, the initial findings are much the same as those based on school achievement: there is widespread ethnic minority disadvantage. In the Netherlands, children of Turkish and Moroccan immigrants continue to higher secondary tracks less frequently than the majority (van de Werfhorst & van Tubergen, 2007). In Sweden, most groups are more likely to drop out of education after compulsory school than the majority (Jonsson & Rudolphi, 2009). In France, children of Portuguese and North African immigrants continue to the baccalauréat less frequently than the majority (Brinbaum & Cebolla-Boado, 2007). In Germany, many groups are less likely to reach the Abitur, with those of Turkish or Italian nationality being the most disadvantaged (Kristen & Granato, 2007). And in Norway and Belgium, children of Turkish and Pakistani (in Norway) or Turkish and Moroccan (in Belgium) immigrants have lower levels of completed education than the majority (Fekjaer, 2007; Phalet et al., 2007).

However, many of these disadvantages are reduced or completely explained by taking into account family background. Moreover, taking into account previous school achievement tends to suggest that ethnic minorities are more likely to continue in education, or at least more likely to continue in the higher tracks. For

example, controlling for grades and social origin, the continuation propensity from Abitur to university is higher for all migrant-origin students than for the majority, being highest of all for the Turkish group (Kristen et al., 2008). Other studies that have been able to take into account the effect of prior school achievement are those of van de Werfhorst & van Tubergen (2007), Jonsson & Rudolphi (2009), and Brinbaum & Cebolla-Boado (2007). All of these studies have found that at least some groups have higher continuation rates to higher tracks of secondary education after controls for school achievement and parental background have been introduced.

One of the possible reasons for these positive secondary effects of ethnic minority background may be higher aspirations. The high aspirations of immigrant origin youths in Finland were referred to above and reflect similar findings in other national contexts. For example, the young British Muslim girls in the study by Basit (1996) also aspired to middle class occupations regardless of the occupational status of their own parents and their working class background. In France, it has been found that parents of Maghrebin origin are more likely to want their children to follow an academic upper secondary route than are French-born parents of similar socioeconomic status (Brinbaum & Kieffer, 2005).

These secondary effects are puzzling in the sense that one would assume that if they were caused by high aspirations, the aspirations would also lead to positive primary effects.

### 1.5.3 Segmented assimilation

One of the main strands of international research in this field has been that focusing on and developing the theory of segmented assimilation in the United States (e.g. Portes & Zhou, 1993; Rumbaut & Portes, 2001). The approach highlights not only the importance of parental resources, in particular parental education, on the success of their children, but also the context surrounding the immigrant family

in terms of the receiving society and the co-ethnic group. The approach identifies three archetypal paths of acculturation: consonant acculturation, selective acculturation, and dissonant acculturation. Whereas previous research has focused on consonant acculturation and the upward mobility of children of immigrants into the mainstream, Portes and his colleagues show the existence both of other ways of attaining upward mobility (selective acculturation) and of the perils of inner-city cultures for the assimilation of children of immigrants (dissonant acculturation).

In addition to parental human capital and family structure, modes of incorporation play a major role in determining the intergenerational patterns of acculturation, which in turn determine the expected outcomes for the children of immigrants. Modes of incorporation are defined by governmental policy towards a specific group, whether or not societal reception towards the group is prejudiced, and the strength of the co-ethnic community (Portes & Zhou, 1993). In particular, the hypothesis developed by Portes and his colleagues is that children of immigrants whose parents do not have many resources to help them directly in terms of educational achievement can nevertheless succeed if they are part of a strong ethnic group. In contrast, children of immigrants who neither have resourceful parents nor belong to a strong ethnic group are at great risk of what is termed 'downward assimilation,' and most often characterized by educational failure.

For the purposes of this thesis, the major importance of this research is to show that groups can follow different trajectories towards integration. This means that it is important to disaggregate immigrant-origin groups as far as possible rather than to analyse all children of immigrants together. Some of the arguments with regards to the possible effects of modes of incorporation will also be returned to in the concluding chapter, where explanations for remaining group differences will be explored.

## 1.6 Importance of family resources for education

Family resources have been found to be extremely important for the educational performance of all children. The mechanisms that link family resources to educational attainment differ somewhat depending on the specific outcome of education that is considered (Erikson & Jonsson, 1996). The way in which they relate to the education measures used here will be discussed in Chapters 3, 4 and 5.

Overall, it seems that the effect of family resources on children's education is somewhat lower in Finland than in many other Western countries (Hertz et al., 2007; OECD, 2004). The OECD's PISA[24] tests have consistently found that family background differences are smaller in Finland and that family background explains less of the variance in students' performance than in other OECD countries. Moreover, the same seems to be the case for final educational attainment (Hertz et al., 2007).

As has already been discussed above with reference to both European and American results, family background also has an important effect on the educational attainment of children of immigrants. It explains differences within ethnic minority groups, as within the majority itself, but it also has the potential to explain differences between groups. Given that ethnic minorities tend to differ from the majority, and possibly from each other, with regards to the resources that they have to support their children's education, it is important to control for family background in order to assess the underlying effects of ethnicity on educational attainment.

In Finland, it is also the case that immigrants tend to occupy very different positions in the labour market compared to the majority. Unemployment is higher

[24]PISA stands for the Programme of International Assessment, which is a triennial testing of 15 year-old students across the world, albeit mainly in OECD countries. The results of three sets of tests have been published so far: in 2000 the focus for the tests was reading literacy, in 2003 mathematics literacy and in 2006 science literacy.

amongst immigrants, and those who find work are often employed in poorly paid manual jobs, including cleaning, catering, and transport. These jobs often do not match their (foreign) qualifications. (Väänänen et al., 2009) These differences are likely to explain at least some of the disadvantages found in earlier Finnish research.

## 1.7 Citizenship

Acquiring citizenship of the country of residence can be of major importance for immigrants. European countries vary widely not only in the ease in which citizenship can be obtained but also in the extent that having that country's citizenship affects life chances, such as employment opportunities. There is some prior research that has studied naturalization and its effect in Europe. However, most of these studies have focussed on the adult $1^{st}$ generation. Nevertheless, some of their findings will be reviewed here.

One of the most interesting reasons to study the effects of citizenship is because it can be hypothesized to be a measure of integration: immigrants who want to obtain the citizenship of their country of residence are likely to be the ones who are best settled and least likely to leave. There is some evidence that supports this, but it is by no means conclusive. For example, Turkish and ex-Yugoslav immigrants in Germany who have close German friends are more likely to want to acquire German citizenship or to already have German citizenship (Constant et al., 2007). However, Dutch contacts were not found to be related to the naturalization of Moroccans or Turks in the Netherlands (Bevelander & Veenman, 2006). However, this same study found that self-identification as Dutch is positively related to naturalization for Moroccans, and modernization attitudes positively related for Turkish and Moroccan women. Finally, although one could assume that the size of one's co-ethnic group could be positively related to within-group contacts and,

therefore, a lower likelihood of wanting citizenship, a large co-ethnic group was found to be positively related to acquisition of citizenship in France, possibly because co-ethnics can provide know-how of the acquisition process (Fougère & Safi, 2009).

The effect of citizenship on the employment prospects of mainly the $1^{st}$ generation seems to vary depending on the country and possibly the group. Positive effects have been found in France (Fougère & Safi, 2009), for Turkish women in the Netherlands (Bevelander & Veenman, 2006), and for the occupational status of ex-Yugoslavs in Austria (Kogan, 2003). However, no effect was found for Turkish men or Moroccans in the Netherlands (Bevelander & Veenman, 2006), ex-Yugoslavs in Sweden, or on the unemployment risks of ex-Yugoslavs in Austria (Kogan, 2003).

At least one previous study has focused on the $2^{nd}$ generation. Fibbi et al. (2007) show that citizenship positively affects educational attainment in Switzerland, and to a lesser extent also unemployment risks. However, the causal effect is unclear. More specifically, because citizenship is obtained in early adulthood, applying for it may be a strategy for the educationally successful to advance in the Swiss labour market, even if this strategy does not necessarily pay off. Even if this is the case, we may assume that citizenship is related to integration, which in turn assists in obtaining higher education. In other words, citizenship itself is not necessarily a causal factor for educational attainment, but may be a proxy for something that we have not been able to measure directly, which may be integration attitudes.

As will be described in the next chapter, in Finland children can obtain citizenship if their parents have it or apply for it. Therefore, in contrast to the situation in Switzerland, school-age children of immigrants often tend to have Finnish citizenship. The fact that the citizenship of children depends on the parents applying for it means that the integration attitudes that we are assuming citizenship to reflect are primarily those of the parents.

There may also be other possible explanations if citizenship is found to have an effect on educational attainment. Primarily these would be hypothesized to relate to parental resources, partly because these are a requirement for obtaining citizenship (as will be described in the next chapter). However, this possibility should be minimized by the introduction of parental-resource controls in the models with citizenship. It is also possible that the effects of citizenship are related to the specific groups that are more or less likely to obtain it. For this reason, the ethnic origin controls will also be introduced to these models.

## 1.8 Thesis outline

The key research questions that this thesis aims to address are the following:

- In an otherwise relatively equal society such as Finland, how do children of immigrants fare in the educational sphere? Are the differences between ethnic groups larger than other social differences?
- What are the patterns of primary and secondary effects of ethnicity? In other words, how does the effect of ethnicity differ depending on the educational outcome under consideration?
- To what extent can differences between ethnic groups be explained by social background differences between groups?
- Is having Finnish citizenship related to educational attainment amongst children of immigrants?
- Given the (expected and found) higher preference for general upper secondary education amongst children of immigrants, how does the educational decision-making of children of immigrants differ from the majority?

These questions will be addressed in three quantitative chapters and one qualitative one. In addition to this, a data and methods chapter is included as well as a conclusion. The rest of this chapter gives a brief overview of the thesis.

**Chapter 2: Data and methods**

This chapter presents the two sets of data used in this thesis in detail. To begin with, the register data used in the majority of the chapters is described. The second part of the chapter discusses the qualitative data that is used in Chapter 6. In particular, the city and the schools where the interviews took place are described in addition to the data-collection process itself.

**Chapter 3: Educational achievement at the end of comprehensive school**

This chapter examines the school achievement of children of immigrants at the end of comprehensive school, comparing it to that of the majority. The main result of the chapter is that initial disadvantages in achievement are largely accounted for by differences in family resources. In addition to this, the disadvantages that remain are largely concentrated amongst girls from majority Muslim areas. Finally, Finnish citizenship is found to be linked to higher achievement amongst children of immigrants.

**Chapter 4: Continuation from compulsory to upper secondary education**

This chapter examines the first part of the continuation decision: continuation in upper secondary education versus dropping out. The higher dropping out of children of immigrants is largely explained by lower school achievement and differences in parental labour force participation. Children of immigrants at the very low end of the achievement scale are, nevertheless, found to be more likely to drop out than their majority peers.

**Chapter 5: Choices between general and vocational upper secondary schools**

This chapter examines the second part of the continuation decision: choosing between general/academic schools and vocational ones. Children of immigrants are relatively more likely to choose vocational school overall. However, this is largely explained by their lower school achievement and further reinforced by lower parental resources. After controlling for these, children of immigrants are significantly more likely to attend general schools than vocational schools as compared to the majority. Finnish citizenship is also associated with higher continuation propensities to general schools for children of immigrants.

**Chapter 6: Applying to upper secondary school – The student's perspective**

This chapter explores further the finding that, controlling for grades and parental resources, children of immigrants tend to prefer the academic to the vocational path of upper secondary education compared to majority Finns. This is done through analysis of the interview data gathered from both children of immigrants and majority students. These interviews suggest that children of immigrants tend to have more precise plans for the future than their majority peers. This is accompanied by high parental aspirations, which children of immigrants appear to be more likely to want to fulfil than their majority peers.

**Chapter 7: Conclusion**

The concluding chapter of this thesis brings together the results of the individual chapters. In particular, the way that the effect of ethnic origin depends on the educational measure used is discussed. Moreover, further explanations that may explain remaining differences between groups are explored. Some lessons from the

experiences of more established ethnic minorities are also drawn. Finally, policy implications of the research are discussed.

# Chapter 2

# Data and methods

This thesis uses both quantitative and qualitative data. Most of the chapters and analyses rely on register data from Finland but some of the results from these analyses are further explored with interview data.

Using register data is currently the only way of quantitatively analysing children of immigrants in Finland, if one wants to obtain statistically significant results. Numbers of immigrant-origin students in surveys, including the PISA studies, are too low for these purposes. However, similarly to other Nordic countries, Finland has extensive registers that cover the whole population. These registers are an invaluable resource when it comes to studying rather small populations, such as children of immigrants, with accuracy.

Register data has several strengths, which is why it is used in this thesis, but it also has its limitations. In addition to covering the whole population and thus being able to supply large enough numbers for statistical analysis, parents and children can also be linked through the registers. This is extremely important for the purposes of this thesis: not only is parental country of birth important for identifying children of immigrants (and not just immigrant children) but high quality information about other parental characteristics such as education and

occupation is also important, as has been made clear in the previous chapter. Moreover, information in the registers does not depend on recall and there is no attrition for unknown reasons between two time periods. These can be great assets when compared to traditional (panel) survey research.

However, not relying on direct answers from individuals also means that sometimes information can be missing from the registers. In particular, this may be the case for some students' grades and some immigrant parents' education. Both of these cases and how they have been dealt with will be discussed below. Obtaining appropriate information from registers also requires a lot of thought before the data can be retrieved and handed over for analysis. Some of these issues will also be discussed in the following sections.

Moreover, due to the nature of registers as administrative records, the data they contain is limited to so-called hard facts. This means that no measures of attitudes, beliefs or plans for the future can be used. For this reason, the quantitative analyses have been supplemented with qualitative work. In addition to being supplementary to register data in terms of providing information that register data cannot have, using interviews is also the best way of gaining insights about processes, which is the focus in the qualitative chapter.

One of the questions that is often asked about qualitative, and quantitative, work, relates to its representativeness. In this regard, mixed methods research has a great advantage: the interviewees and their actions can be compared to the population at large in order to gain some measure of this. What has been done in this research goes one step further in that interviewees have been chosen to some extent on the basis of the quantitative results.[1] However, even these precautions do not fully address the potential problem of bias. The issue of representativeness will, therefore, be discussed further towards the end of this chapter.

[1]This does not mean that the interviewees are from the register sample itself, but that interviewees are chosen on the basis of characteristics that are found to be important in the statistical models.

The rest of this chapter focuses on the types of data used in this thesis and describes the decisions that were made before and after obtaining the data. The first part discusses the quantitative data and focuses on the variables used for analysis in addition to describing the method of analysis in each of the three quantitative chapters. The second part discusses the qualitative data, focusing on where and how that data was gathered.

## 2.1 Quantitative analysis

The quantitative data used in this thesis comes from a data file compiled by Statistics Finland, the national office of statistics. The population for the purposes of this data is all individuals who finished compulsory education in the period 2000–2004. A sample from this population was chosen on the basis of registered language so that 50% of those registered as foreign-language speakers were included in the sample, as well as 30% of Swedish-speakers and 5% of Finnish-speakers.[2] This gives us a data set with 14,521 Finnish speakers, 5,014 Swedish speakers, and 3,670 foreign-language speakers. Although registered language is not the perfect determinant for identifying students of immigrant origin, it is nevertheless a relatively good measure for defining the samples. This is because amongst children with two foreign-born parents in 2005, 88% were registered as foreign-language speakers (Kartovaara et al., 2007). The proportion is close to 98% when only children who were themselves born abroad are considered, which is the majority

[2]Only students under the age of 25 at the time of completing comprehensive school were chosen for the sample. Moreover, only people resident in Finland at the end of both 2004 and 2005 can be in the sample. This is because the language information comes from 2004 and the links between children and parents from 2005. This means that if a student died or moved abroad between finishing comprehensive school and these dates, they cannot be included in the sample. There is no way of assessing how much this affects the results. However, it is unlikely to affect the results much given that return migration is not a large-scale phenomenon amongst the migrant groups in Finland at this time. Moreover, return migration (and mortality) would have to happen disproportionately amongst the migrant population, for example by being more likely amongst the highly educated, to have an effect on the results here. Nevertheless, the results should be seen as reflecting the situation of those who had finished comprehensive school in 2000–2004 and who were resident in Finland in 2004 and 2005.

of immigrant-origin students in the cohorts studied here.

### 2.1.1 Defining ethnic origin

The main area of interest in this thesis is ethnicity. However, the Finnish government does not collect data on ethnicity as this is forbidden in the constitution. Therefore, ethnic groups will be defined mainly through parental country of birth, as well as the student's own country of birth where needed. Country of birth does not always equate to ethnicity, and this is made even more problematic by the fact that country of birth data has been aggregated roughly to the level of world regions for anonymity reasons.

The decisions of which countries to group together had to be made before obtaining the data and the adequacy of these decisions cannot be assessed. The decisions were made on the basis of previous international research, a rough assessment of cultural closeness of certain countries, and the need to have large enough groups to ensure anonymity and thus be accepted by Statistics Finland. The so-called ethnic groups used in the analyses, their size in the sample as well as an approximation of the largest national-origin groups within the aggregated groups are shown in Table 2.1. The relative sizes of the largest countries are based on data on Finnish residents born abroad in 2002 and is limited to 30-59 year-olds, which should refer roughly to the parental cohort. All countries that account for over 5 % within a region are shown. A full list of countries included within each group can be found in Table A.1 in the appendix.[3]

[3]The estimates in the tables here and in the appendix are likely to underestimate the proportions in some of the groups that contain many refugees and overestimate the proportions in groups where many have migrated for marriage to a Finn. This is because children from mixed marriages are kept separate and because refugees are likely to have arrived with their family. Looking at data from 2005 on partnerships and families where both parents (or one in the case of single parents) were from a particular country changes the estimates as follows: within the West Asian and North African group Iraq 29%, Turkey 15%, Iran 22%; within the East Asian group Vietnam 52%, China 36%; and within the Sub-Saharan African group Somalia 60% (Martikainen, 2007).

Table 2.1: Sample by ethnic origin, estimates of largest countries of origin (% within group), % $2^{nd}$ generation, and average lengths of residence for $1^{st}$ and $2^{nd}$ generation

| Number | Ethnic-origin groups and largest countries of origin | % $2^{nd}$ | years $2^{nd}$ | years $1^{st}$ |
|---|---|---|---|---|
| 14,311 | Finnish origin, Finnish language | | | |
| 4,779 | Finnish origin, Swedish language | | | |
| 172 | Finnish origin, other language | | | |
| 588 | Mixed origin | | | |
| 1,779 | Former Soviet Union origin | 33 | 11 | 6 |
| | Former Soviet Union (77), Estonia (18) | | | |
| 271 | Former Yugoslavian origin | 29 | 11 | 6 |
| | Ex-Yugoslavia (84), Ex-Serbia and Montenegro (9) | | | |
| 94 | European origin | 59 | 14 | – |
| | Sweden (52), Germany (9), Britain (9) | | | |
| 407 | West Asian and North African origin | 29 | 11 | 5 |
| | Iraq (19), Turkey (19), Iran (17), Morocco (11) | | | |
| 244 | East Asian origin | 62 | 14 | 6 |
| | Vietnam (45), China (44) | | | |
| 357 | Sub-Saharan African origin | 30 | 11 | 6 |
| | Somalia (48), Ethiopia (9), Nigeria (6), Ghana (6), Congo (DRC) (5) | | | |
| 156 | Other origin | 34 | 12 | 5 |
| | unknown (24), USA (15), Thailand (13), India (8) Philippines (7), Canada (6), Japan (5) | | | |

Estimates for largest countries based on data from the Statistics Finland website (Table: Country of birth according to age and gender by region 1990–2008 from `http://pxweb2.stat.fi/database/StatFin/vrm/vaerak/vaerak_en.asp`, in English, last accessed 12.1.2010), except for unknown. For the analyses, the $1^{st}$ generation Europeans are included with the Other group

In addition to having only a very rough measure of ethnic origin for the children of immigrants, it should also be noted that traditional ethnic minorities of Finland are not treated well in this thesis. Given that registered language is the only way of identifying differences amongst the population born to two Finnish-born parents (or one Finnish-born and one unknown), only two 'ethnic minorities' can be analysed: the Swedish speakers and those speaking a language other than Finnish or Swedish. As was described in the previous chapter, the Swedish speakers are not an ethnic minority as such. Nevertheless, they will be kept as a separate category in most of the analyses in case significant differences appear.

On the other hand, the other-language Finns are likely to be an extremely mixed group. A significant proportion of this group are likely to be Sámis. However, not all those of Sámi ethnicity register Sámi as their first language. Moreover, based on previous research (Karppinen et al., 2008) and estimates based on data from the Statistics Finland website,[4] approximately a third of the students in this group are likely to have Sámi as their first language. Other students in this group must, therefore, be from other established ethnic minorities, such as the Roma, Tatars and Old Russians. However, as with the Sámi, they will only be included in this group to the extent to which they still register their language as something other than Finnish or Swedish. With regards to the Roma at least, it is unlikely that they do this to any great extent. Moreover, those who do may not be representative of the whole group.

The analyses in this thesis distinguish between the first and second generations. This is made possible not only by having information on the country of birth of both parents and children, but also having information about the length of residence in Finland of the children. This information is needed because amongst the $2^{nd}$ generation are included students who were themselves born abroad but

[4]Data from Table: Language according to age and gender by region 1990–2008 from `http://pxweb2.stat.fi/database/StatFin/vrm/vaerak/vaerak_en.asp`, in English, last accessed 12.1.2010.

migrated prior to beginning compulsory education. In the migration literature, this is often referred to as the 1.5 generation (Suarez-Orozco et al., 2008) or the 1.75 generation (Rumbaut, 2004), but for simplicity, the whole group is referred to as the $2^{nd}$ generation here. Therefore, given that compulsory education takes nine years to complete, the $2^{nd}$ generation is defined as those children who were either born in Finland to two foreign-born parents or who migrated over nine years prior to finishing $9^{th}$ grade.[5] The $1^{st}$ generation is, therefore, defined as those who migrated during their school years. Table 2.1 also shows the proportion of students that are $2^{nd}$ generation within the immigrant-origin groups and the average length of residence of the two generations within each group.

Throughout the thesis, immigrant-origin groups will be referred to according to the parental countries of origin and generation where relevant. An example of a full reference would be "$1^{st}$ generation students of ex-Yugoslav origins" or "$2^{nd}$ generation students of East Asian origins". However, for the sake of brevity the references will often be reduced to "$1^{st}$ generation ex-Yugoslavs" and "$2^{nd}$ generation East Asians".

Children with one foreign-born and one Finnish-born parent are analysed as a separate mixed-origin group.[6] These children are sometimes referred to as the 2.5 generation in the migration literature (Rumbaut, 2004). In this thesis, having

[5]Setting the boundary at nine years of residence is done on both practical and theoretical grounds. In this data only 7% of those identified as the $2^{nd}$ generation were actually born in Finland and this means that groups of Finnish-born to foreign-born parents would be too small to analyse on their own. Prior research has shown that arrival in the country of residence before the beginning of school age makes a difference for integration and school attainment. In Sweden, arriving before the age of nine seems to be critical for achievement at the end of comprehensive school (Böhlmark, 2008). This would imply a cut-off at seven years of residence prior to finishing $9^{th}$ grade. Preliminary analyses using the data here do not give a clear threshold effect for length of residence but show that a cut-off around nine years makes sense.

[6]Children with one unknown parent are categorized according to the country of birth of the known parent. For those students whose parents were born in different regions but not in Finland, their ethnic group was defined according to the student's own region of birth if they shared a region of birth with one of the two parents or neither parent's region of birth was known, or according to the region of birth of the student's father if no two known members of the family shared a region of birth (except for one who was defined as mixed because the father's registered language was Finnish).

country-specific resources is believed to be an important dimension of socialization (Jonsson, 2007). This means that even one Finnish-born parent should be sufficient for enabling Finnish language acquisition at home as well as having knowledge of the Finnish school system and labour market. However, there may be other processes to do with having one foreign-born parent that may, nevertheless, disadvantage mixed-origin students in the education system. Therefore, students of mixed origin are studied separately rather than merged with the ethnic group of the foreign-born parent.

### 2.1.2 Dependent variables and relevant statistical methods

This thesis concentrates on two educational outcomes: achievement in comprehensive school and continuation in upper secondary education after comprehensive school. In this way both the so-called primary and secondary effects of ethnicity may be studied. This section describes the variables used to study these in more detail.

#### Educational achievement

The measure of educational achievement used here is the average of all grades at the end of compulsory education, which is at age 16 for most students.[7] Grades are given in each subject from 4 (unsatisfactory performance) to 10 (excellent performance). Averages in this sample range from 6 to 9.5, with a mean of 7.8.[8] Grades are teacher-assigned and are based on examinations set by the teachers and teacher evaluations of classroom activity. There are national guidelines for each grade, but teachers are not monitored as to how well they follow these guidelines.

[7]The school-leaving average used is that of the student at the end of $9^{th}$ grade even if they have attended $10^{th}$ grade to increase it.

[8]For reasons of anonymity both of the extremes are aggregates that contain pupils with lower and higher averages respectively.

Sometimes grades may also be influenced by performance in national examinations. However, national examinations do not take place every year and are only administered to a stratified random sample of students, although schools may also ask to take part in the examinations.[9] Overall, a strong and consistent link between teacher-assigned grades and standardized tests has been shown to exist.[10] (Korhonen, 2001; Lappalainen, 2001, 2004; Tuokko, 2000)

However, there is clear scope for teacher preferences to have an effect. In a study of $9^{th}$ graders, it was found that grades in Finnish and maths correlated with both ability and temperament (Keltinkangas-Järvinen & Alatupa, 2007). Ability in mathematics and Finnish was tested with established ability tests, and temperament was self-assessed by the students with widely used scales that are meant to reflect stable characteristics and behaviours. The effects of ability and temperament were found to be almost independent of each other, and they explained approximately the same proportion of variance in grades in each of the two subjects. This result can be seen as an indication of teachers' preferences for certain types of students and rewarding them with higher grades. On the other hand, in the Finnish education system grades are not meant to reflect only ability (National Board of Education, 2004). Therefore, it is only natural that they are also correlated with certain aspects of students' temperament. However, one would assume that it is not the temperament directly but rather behaviours, such as handing in homework on time or working well in groups, which are related to temperament, that have an effect on grades.

There is also a tendency for children of immigrants to get higher grades with lower performance levels, measured by national examinations, than majority students

[9] Assessments have been carried out since 1998. Mathematics and Finnish or Swedish as the first language are assessed every second year in turn. Some assessments in other subjects, such as English, have also taken place.

[10] The correlation coefficient between grades and the standardized tests has been between 0.71 and 0.80. Examination of PISA 2000 results in literacy compared to teacher-assigned grades in Finnish have also shown a strong and linear relationship between the two (Linnakylä & Sulkunen, 2002).

(Kuusela & Etelälahti, 2008).[11] In maths examinations, the difference in teacher-assigned grade between a foreign-language student and a majority student with the same level of performance was found to be a whole grade on average. This can either be interpreted as immigrant students getting higher grades more easily, or it can also mean that teachers are following the advice of the National Board of Education that the assessment of students who are still learning the language should take into account their language skills, which national examinations do not do.

Given the continuous nature of this dependent variable, ordinary least squares regression is used in Chapter 3, where this variable is analysed. Given that students have different probabilities of being included in the sample according to their registered language, probability weights are applied in all models and for all descriptive statistics drawn from the data.

### Educational continuation

There are two possibilities for continuation after comprehensive school that are considered here, as well as dropping out. The possibilities for continuation are continuing in general upper secondary education and continuing in vocational upper secondary education.[12] The voluntary $10^{th}$ grade, where students can increase

[11] 800 immigrant students have been tested in two primary school examinations ($6^{th}$ grade maths in 2006 and $5^{th}$ grade science in 2007), and 1,600 immigrant students tested in seven $9^{th}$ grade examinations (2001–2005, first language (Finnish), Swedish (as a second/foreign language), English and maths). The total samples for Finnish-speaking students are 22,200 and 66,800 respectively. As was mentioned above, national examinations are done on a stratified random sample of students and include 5-8% of the year group. In addition to this, schools and municipalities can choose to take part in the national examinations, and these entries have been included in order to have as high numbers of immigrant students as possible. The results of the random sample and the voluntary sample do not differ substantially from each other. Only immigrant students whose teachers felt they had the relevant language skills to take the exams have taken them, and so the samples may not be fully representative of the population of all immigrant students in Finland. Particularly for the foreign-language tests Kuusela & Etelälahti (2008) suggest that the sample may be rather select.

[12] Due to the nature of the register that the data comes from, dropping out includes people who continue in other types of education than upper secondary schools. This is a small number of people and should not be of major concern. There is also a possibility of doing double degrees,

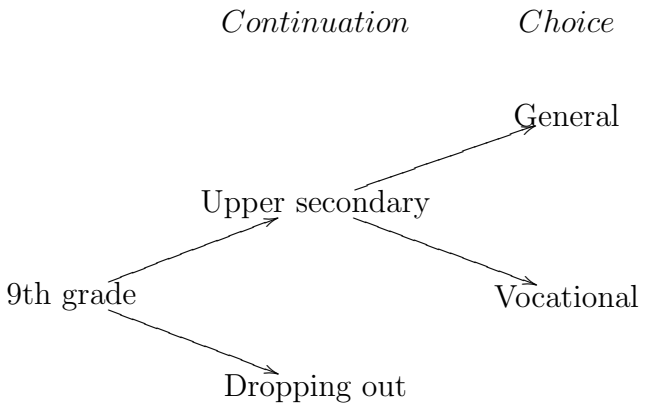



Figure 2.1: The two parts of the continuation decision

their school-leaving average, is not included, but students' continuation is measured one year after finishing. This means that those who go to $10^{th}$ grade (or preparatory vocational courses) and continue in upper secondary education the following year will be picked up. Conversely, those who continue but drop out after the first year (or switch) will be measured by where they are in the second year.[13]

In this thesis, the continuation process will be studied with two different binary dependent variables named continuation and choice (see Figure 2.1). The method used in both cases is logistic regression analysis. First, the *continuation* versus dropping out process will be analysed in Chapter 4. Then, for those who continue, the *choice* of whether they continue in general or vocational upper secondary

which means doing both the vocational and general degrees at the same time. This is a relatively new development and the students doing this cannot be separately identified in the data but will be included amongst those studying in upper secondary schools. Only students who were resident in Finland the year when their continuation was measured are included in the analyses of dropping out.

[13]There is some evidence that immigrants are more likely to attend $10^{th}$ grade than the majority (Karppinen, 2008). Whereas 3% of Finnish-majority students continued in $10^{th}$ grade in the years 1996–2004, 10.7% of $1^{st}$ generation non-EU students did so. Unfortunately, this will not be examined in this thesis as the data does not allow it. During the school year 2003/2004, less than 4% of general upper secondary students and almost 11% of vocational upper secondary students dropped out of the type of school they were in, although some of them continued in another type of school (Statistics Finland, 2007). There is some evidence that dropout is a larger problem for immigrants than for majority students (Karppinen, 2008). The data does not allow switching to be measured either.

schools will be analysed in Chapter 5. The main reason for splitting the analyses in two is presentational simplicity. The processes that lead to dropping out are possibly different to those that affect the decisions of what type of school to continue in. For example, many of the students who do not continue, may not actively seek to do so, at least whilst still in school, as dropping out happens most often when students have applied for a place in upper secondary education but have not been accepted (Karppinen, 2007). Therefore, it makes more sense to study these two in separate binary logistic regressions rather than a single (ordered or multinomial) one.

In order to make the results easily interpretable, predicted (and observed) probabilities are used to display the results in the two chapters. However, it should be remembered that differences between predicted probabilities always refer to a specific set of values for other variables in the models. Therefore, as far as possible, the examples used try to reflect either mean levels or categories that have the most children of immigrants. All models with the coefficients as log odds ratios are also included in the appendices. All the predicted values and probabilities as well as their confidence intervals have been calculated using the Clarify program in Stata (Tomz et al., 2003; King et al., 2000).

### 2.1.3 Independent variables

#### Prior school achievement

As well as being a dependent variable, school achievement is also an independent variable for the analyses of continuation and choice. By using the school-leaving average grade as an independent variable, we are assuming that there is no adaptation to future decisions that would affect current performance, in other words

that grades are not affected by the continuation decisions that students make.[14]

In the cases where information was missing on the student's average grade, this was replaced by the average for other students in the same ethnic group and with the same continuation decision. Ideally, family resources would have also been taken into account in estimating the appropriate replacement for missing information, as these tend to have a significant effect on school performance. However, especially for ethnic minority groups, this would have led to very small sample sizes for the calculation of these estimates and thus less reliable estimates. A dummy variable is also included in the analyses to identify those who originally had missing information about their average grade. Because the reason for no information about the average grade is likely to be that the student did not apply to any upper secondary school during the $9^{th}$ grade, and on average not applying is linked to lower grades, the estimated average grades are likely to be slight overestimations of the true averages.

This estimation and dummy effects strategy is not necessarily the best solution to the problem of missing data. Due to the fact that this may introduce biases to the estimation, the models have also been run without the students with missing grades. The results are similar to those obtained with the replacements. Moreover, it can be assumed that data on grades is not missing at random, meaning that listwise deletion is not the correct solution. Another possibility for dealing with missing data is multiple imputation. This will be considered in future research using this data.

[14] Although one could assume that students aiming to apply to general upper secondary schools would work harder for their grades, possibly even ask for higher grades than their performance would warrant strictly speaking, and thus at every performance level get higher grades than their peers aiming for vocational schools, the evidence actually points to the contrary. Examining the evidence from comparisons of grades with national examinations, it seems that, if anything, students aiming for vocational schools may get higher grades more easily (Lappalainen, 2004). The implication of this finding for this research is that if we take grades to be a measure of ability then the effect of grades on continuation will be an underestimation of the effect of ability on continuation rather than an overestimation.

### Parental resources

Parental socioeconomic status, income and education were each aggregated into one single variable from more detailed information on both parents separately. The aggregations were done in a way that maximizes the explanatory power of the aggregated categorical variable without including too much detail. This is explained in more detail below with reference to each of the variables. In addition to these three, information on the parents' labour force participation and household composition is also used. The way that these variables have been constructed is described in the rest of this section and the way that these variables are distributed amongst the ethnic groups used here can be seen in Tables A.2, A.3 and A.4 in the appendix.

All other independent variables come from registers of the year when the student finished comprehensive school except for parental socioeconomic status. This is from the year 2000 for all students as this data is produced by Statistics Finland less frequently.

Socioeconomic status was initially aggregated from a relatively detailed classification into general socioeconomic groups, and then according to the dominance principle into a single variable. In other words, only the highest socioeconomic group of either parent is taken into account. Classifications based on a combination of both parents' status did not work better as predictors for children's education, and using father's status as the primary one produced worse estimates than the one using the dominance principle.

The categorization is based on the Finnish classification of socioeconomic groups (1989), which is based on the recommendations of the UN for the 1990 Population Censuses, although it does not fully comply with them.[15] The categories used are

[15]Information from the Statistics Finland website (`http://www.stat.fi/meta/luokitukset/sosioekon_asema/001-1989/kuvaus_en.html`, in English, last accessed 12.1.2010).

the following:

1. Upper-level employees (Senior officials and employees, upper management)
2. Lower-level employees (Supervisors, clerical and sales workers)
3. Self-employed and farmers
4. Manual workers
5. Outside the labour force and unknown (including students and pensioners)

This is a reasonable approximation to the Goldthorpe classification that is often used in sociological research. However, there are some notable differences. To begin with, although the two employee categories could be seen as constituting the salariat, the lower-level employees also include occupations that would not normally be included there, namely the clerical and sales workers. Moreover, the manual workers are not split between skilled and unskilled. In addition to this, pensioners are included with students and the long-term unemployed rather than based on their occupation prior to retirement. However, based on the relationships between the more detailed socio-economic groups and the educational attainment of children, these aggregations make sense and work better than alternative ones. Moreover, it should be noted that due to anonymity reasons, detailed information on parental occupations was not given, and thus the data could not have been coded to the Goldthorpe classification perfectly.

The income variable was initially defined as quartiles of taxable income for both parents separately. This was aggregated into a variable with three categories. Other aggregations were also tested but did not explain more variance in the educational attainment of children. The categories used were defined as follows:

1. High: At least one parent earns in the highest quartile, or both parents earn in the third quartile
2. Medium: At most one parent earns in the third quartile, or both parents

earn in the second quartile

3. Low: At most one parent earns in the second quartile, or both earn less, or both unknown

Parental education was initially in six categories that correspond roughly to ISCED-97 categories 2–6 and unknown, with an additional separation at level 3 (upper secondary education) between academic and vocational qualifications (for more information on the way that the ISCED-97 works in Finland, see Kilpi (2008)). The individual categories were then combined so that both parents' education is taken into account. This gives a categorical variable with six ordered categories:

1. Both parents have a university degree
2. Both parents have at most general upper secondary education or lowest level tertiary education, or at most one parent has a university degree
3. At most one parent has general upper secondary education or lowest level tertiary education
4. Parents have at most vocational (upper secondary) education
5. Parents have at most compulsory education
6. Both parents' education is unknown

Based on survey data from the Russian, Estonian, Somalian and Vietnamese population in Finland, the proportion of people with upper secondary and lowest level tertiary education is probably underestimated here, and in some groups the proportion with a university degree (Liebkind et al., 2004; Pohjanpää et al., 2003). Education data may be missing for two reasons: either degrees from abroad have not been recognized in Finland and education is underestimated for this reason or the person concerned has not registered with the employment agency, and thus their education has not been registered. The latter case would hold particularly for people who have arrived in Finland with work permits. In order to alleviate

part of the problem of missing data, for those people with unknown education but who do have a known socioeconomic status, their education has been replaced with the mode or mean level of education of others with the same socioeconomic status.[16]

Parents' labour force participation is included separately for mothers and fathers. The categories in this variable are employed, unemployed, outside the labour force, and unknown. Household composition is defined with two variables: the number of adults in the household and the number of children in the household. The number of adults is a binary variable contrasting two (and possibly more) with one or none. The categories for the number of children are: Between one and three, four or more, and none, which reflects a situation where the student is already an adult and living on their own.

As a final note, all of the information about parents relates to the student's biological parents, or adopted parents when information about biological parents is not available. Therefore, the information does not necessarily relate to the adults that the student lives with. Related to this, there may be information about both parents even when the student only lives with one. Only the information about household composition is specifically about the people that the student lives with.[17]

### Citizenship

For those people who do not have a Finnish parent or spouse, or are not Finnish-born, the main determinant for citizenship is length of residence.[18] Until 2003,

[16]Either the mode or the mean was used depending on which was judged to be more appropriate. A total of 83 replacements were made to father's education and 25 to mother's education. However, this changed the combined category of only 52 families.

[17]But there is no information in the data to say that the adults that the student lives with are the parents that the other information is from.

[18]The legislations referred to in this section are the Nationality Acts of 1968 (401/1968) and 2003 (359/2003).

the length required was five consecutive years immediately preceding application. In 2003, this was extended to six years.[19] Children under the age of 18 cannot apply for citizenship on their own, but it is granted to them if it is granted to their guardian. In addition to the residency requirement, application for citizenship also requires proof of secure income to take care of the whole family. From 2003, proof of Finnish or Swedish language skills has also been required.

The new law in 2003 also specifically stated that the period of residence between applying for asylum and being granted asylum counts towards the residency requirement. However, in cases where the identity of a person is not verified, residency only starts from the time when their identity can be verified.[20] In addition, dual citizenship has been officially accepted since 2003, whereas prior to this it was not allowed. Although this means that applying for Finnish citizenship became considerably more attractive for those immigrants who did not want to relinquish their previous citizenship, at the same time it became harder to do with the new language requirements.[21]

In terms of determining eligibility for citizenship amongst the students in this data, the rules and the changes in them pose a few problems. We have to assume that the length of residence of the child is the same as that of the parent, and use this to determine eligibility. With regards to the number of years that it takes to become eligible, the minimum used here is six.[22] Although another determinant of eligibility is secure income, only length of residence and no measure of income will be used here to separate between those eligible for citizenship and those not. This is because the measure of income in this data comes from the year the student

[19]From 2003, a person who has been resident in Finland for a total of eight years after the age of 15, of which two are immediately preceding application, can also apply for citizenship.

[20]Here there is some leniency if a person has been active in trying to prove their identity.

[21]Naturally, dual citizenship is only possible for those migrants with citizenship from countries that also accept dual citizenship.

[22]The main reason for this is that there is a jump in the proportion with Finnish citizenship between five and six years of residence in this data. However, even after a person becomes eligible to apply for citizenship, it may take up to two years for the application to be processed.

finished comprehensive school and may not reflect their parental income at the time of applying for citizenship.

Therefore, the effect of citizenship will be studied with a variable that has the following categories:

1. Finnish origin, includes all Finnish and mixed origin groups who should have automatic access to citizenship
2. Short residence, includes those of immigrant origin who have been resident for five years or fewer, in other words those who are assumed not to be eligible for Finnish citizenship[23]
3. Long residence and Finnish citizenship
4. Long residence and non-Finnish citizenship

### 2.1.4 Obtaining the data

As stated above, the quantitative data for this thesis was purchased from Statistics Finland. Gathering the data from the different registers is time-consuming for the employees of Statistics Finland, and this is reflected in the price of the data. Obtaining the data is, therefore, time-consuming for the purchaser too in terms of getting funding.[24] In addition to this, several decisions with regards to coding the data need to be made before it can be obtained. Once these decisions are made, it takes time to get approval from the ethical committee at Statistics Finland, and then it takes time for the data to be put together. In my case, additional waiting time was added as I had not been specific enough in my original application, and thus, after the first approval from the ethical committee, I found out that many

[23]There are also some students in this group who have Finnish citizenship. They have been kept in this group but the results do not change if they are included in the group with Finnish citizenship and long residence.

[24]I am extremely grateful to Prof Anthony Heath for his most generous assistance in helping to purchase the data.

of the categorizations would not suit my needs and so this process had to be done again. After having started the process of applying for data mid-way through the first year of my doctoral studies, I was sent the data towards the end of my second year.

In terms of coding the data before receiving it, the country of birth groupings were the most problematic. The decisions made regarding those have been described above. There is currently no basis for questioning the adequacy of those decisions. However, if I were to order the data again, I would possibly re-think the categories of some of the parental resource variables, such as income. Rather than having the quartiles for each parent separately and then combining them, it would be better for the incomes to be combined before being divided into quartiles. Furthermore, the socioeconomic groups in this data do not completely translate into a social class schema used in international research, such as the Goldthorpe one, which I would possibly change if ordering the data again. However, this would require either obtaining information about detailed occupations, which is problematic due to anonymity reasons, or for Statistics Finland to apply the coding scheme to occupations before sending the data, which would require more work. Finally, although it is unlikely to make any practical difference, I would change the fact that the language data was obtained from 2004 and rather have it from the year in which students finished compulsory education.

## 2.2 Qualitative analysis

Interviews were conducted among students in their final year of comprehensive school (15- to 16-year-olds) in order to explore their reasons for applying to a particular upper secondary school. A total of 36 interviews were conducted in three schools in the city of Vantaa.[25] Vantaa is part of the metropolitan region

[25]The number of interviews in each of the schools was 9, 12 and 15.

and has a large proportion of immigrant residents. All of the schools included in the study had approximately 10% foreign-language students. The students interviewed included 7 minority boys (5 $2^{nd}$ generation and 2 immigrants), 12 minority girls (5 $2^{nd}$ generation, 3 mixed origin, and 4 immigrants), 8 majority boys, and 9 majority girls.

The following sections describe the setting of the schools, how they were accessed, the interviewed students, and some aspects of analysing the data.

### 2.2.1 The City of Vantaa

There were two main reasons for choosing Vantaa as the site for gathering the qualitative data. On the one hand, it has a relatively large immigrant-origin population, thus providing a pool of potential informants for the research. On the other hand, Vantaa has the added advantage over Helsinki, which also has a relatively large immigrant-origin population, that its students have not been as extensively researched as those in Helsinki. This is the case for both immigrant- and non-immigrant-origin students. Moreover, a lot of ethnographic research on immigrants in Finland has focused on Helsinki.

In the period 1996–2005, 42% of Finland's foreign-language $9^{th}$ graders were resident in the four metropolitan municipalities (Karppinen et al., 2008).[26] In the years 2004–2006, between 7 and 8 % of comprehensive-school-leavers in Vantaa were foreign-language speakers.[27] It seems that schools are possibly somewhat less segregated in Vantaa than they are in Helsinki or Espoo, as the highest within-school proportion of foreign-language speakers was 24% in Vantaa compared to 36% in Helsinki and 34% in Espoo.[28]

[26]The four metropolitan municipalities are Helsinki, Espoo, Vantaa and Kauniainen. The first three are much larger than the fourth.

[27]The figure is slightly higher in Helsinki and slightly lower in Espoo.

[28]This is only looking at the $9^{th}$ grade population in each year, in lower grades the figures are beginning to be somewhat higher.

Table 2.2: The population of the city of Vantaa in comparison to other two large metropolitan cities and the whole country

| | Vantaa | Helsinki | Espoo | Finland |
|---|---|---|---|---|
| Percentage foreign-language speakers* | 8.4 | 9.6 | 8.0 | 3.6 |
| Percentage foreign citizens* | 5.6 | 6.7 | 5.8 | 2.7 |
| Percentage with only compulsory education** | 34.8 | 30.4 | 26.8 | 34.5 |
| Percentage with university degree** | 17.4 | 26.4 | 30.7 | 16.0 |
| Median household disposable income*** | 32.0 | 27.4 | 37.3 | 27.7 |
| Median household disposable income per person*** | 22.6 | 21.6 | 25.1 | 19.8 |

*Of whole population 31.12.2008, Source: Statistics Finland website (Table: Population according to language and the number of foreigners by area 1980–2008 from `http://pxweb2.stat.fi/database/StatFin/vrm/vaerak/vaerak_en.asp`, in English, last accessed 12.1.2010)
**Of population over 15 in 2008, Source: Statistics Finland website (Table: Population according to level of education by area 2007–2008 from `http://pxweb2.stat.fi/database/StatFin/kou/vkour/vkour_fi.asp`, in Finnish last accessed 12.1.2010)
***In 1,000 euros in 2008, Source: Statistics Finland website (Table: Households, household populations and income by area 1995–2008 from `http://pxweb2.stat.fi/database/StatFin/tul/tjkt/tjkt_fi.asp`, in Finnish, last accessed 12.1.2010)

The largest $2^{nd}$ generation groups in Vantaa in 2008 were (by language and in order of size): Somali, Russian, Albanian, Vietnamese and Estonian (Henriksson, 2009). The overall largest foreign-language groups in Vantaa are the same five, although their order is slightly different when the $1^{st}$ generation is taken into account. The largest ethnic groups in Vantaa reflect the national pattern except that nationally the Vietnamese are not in the top five but Arabic speakers are (Statistics Finland, 2006).

Some aspects of the population of Vantaa in comparison to the other two larger metropolitan cities and the rest of the country are presented in Table 2.2. In terms of the proportion of the population that is of immigrant origin, the whole metropolitan area is clearly higher than the rest of the country, and Vantaa is in between the other two cities. In terms of education levels, Vantaa represents the national average and is behind the other two cities. In terms of disposable income per person, the metropolitan area is somewhat better off than the rest of the country, and Vantaa is again in between the other two cities.

Two of the schools were in areas that had higher than average proportions of foreign speakers, higher than average unemployment, lower than average income, education and socioeconomic status compared to other areas in Vantaa (Parviainen, 2004). One of the schools was in an area that was in all respects the opposite of this. All schools were in areas where more dwellings than the city average were in apartment buildings, although there were no high-rise buildings in the immediate vicinity of any of the schools. Moreover, relatively fewer dwellings were in apartment buildings in the school that was in the better-off neighbourhood.[29]

### 2.2.2 Researched schools in comparison to other schools

As mentioned above, the three schools where students were interviewed all had approximately 10% registered foreign-language speakers. This puts them in one of the two highest deciles of schools in Finland according to the proportion of foreign-language students but around average or slightly higher for the metropolitan area. Over 60% of non-European-origin students and almost 50% of European-origin students attend these types of schools, whereas only 12% of Finnish-origin students do (Table 2.3).[30] This means that the schools are representative of the types of schools that most immigrant-origin students in Finland attend although not necessarily as representative of the kinds of schools that majority students attend.

The next question is, therefore, whether schools with high proportions of immigrant-origin students differ significantly from other schools in Finland. Although proper analysis of this question is beyond the scope of this thesis,[31] some preliminary

[29] All the official information is from 2003 but is unlikely to have changed much by the time this research took place.

[30] However, this data is for students finishing school in 2000–2004 rather than 2009, when the interviews were done, and so the situation may have changed. Also to note that only 9% of mixed origin students are themselves registered as foreign-language speakers and for the European $2^{nd}$ generation 81% are, which is partly what makes their spread across the different schools more even, whereas the other immigrant-origin groups are over 96% foreign-language speaking in the register data.

[31] It is, however, something that I am planning to come back to in later work.

Table 2.3: Proportion of students in schools defined by proportion foreign-language speakers (in deciles) by ethnic origin

| | Decile of school foreign-language proportion | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Finnish | 22 | 10 | 9 | 10 | 10 | 9 | 10 | 8 | 8 | 4 |
| Mixed origin | 14 | 7 | 8 | 6 | 8 | 11 | 10 | 14 | 12 | 10 |
| European 2nd gen | 1 | 4 | 5 | 7 | 8 | 8 | 15 | 12 | 15 | 25 |
| European 1st gen | 1 | 2 | 3 | 4 | 6 | 7 | 12 | 13 | 24 | 29 |
| Non-European 2nd gen | 0 | 1 | 2 | 2 | 4 | 6 | 9 | 14 | 21 | 41 |
| Non-European 1st gen | 0 | 1 | 2 | 2 | 5 | 5 | 8 | 13 | 22 | 42 |
| TOTAL | 21 | 10 | 9 | 10 | 10 | 9 | 10 | 8 | 8 | 5 |
| High limit of decile (%) | 0.4 | 0.6 | 0.8 | 1.1 | 1.5 | 2.1 | 3.1 | 4.9 | 9.4 | |

N = 23,205, rows add up to 100, deciles of schools by registered language of $9^{th}$ graders in 2000–2004

analyses have been done. The left panel in Figure 2.2 shows the proportion of students continuing to general school versus vocational in the different types of school. There are some clear differences between school types, and it may be hypothesized that the relationship between foreign-speaking proportion and continuation to general schools follows an inverted U-shape: continuation to general schools rises as the foreign-speaking proportion rises but then falls again. However, the top decile does not quite follow this trend.

Moreover, after we control for the individual-level factors that explain continuation decisions (as will be described in Chapter 5), there are no longer significant differences between school types. This means that the types of schools chosen for the research should not differ from all Finnish schools in terms of the main variable of interest: choice between general and vocational schools.[32]

[32]The same analyses were done with two other measures of educational attainment: average grades and dropping out of education, shown in Figures A.1 and A.2 in the appendix. The results for average grades are largely similar whereas for dropping out of education some differences remain between school types, and these tend to follow a U-shape. However, the remaining differences are substantively rather small.

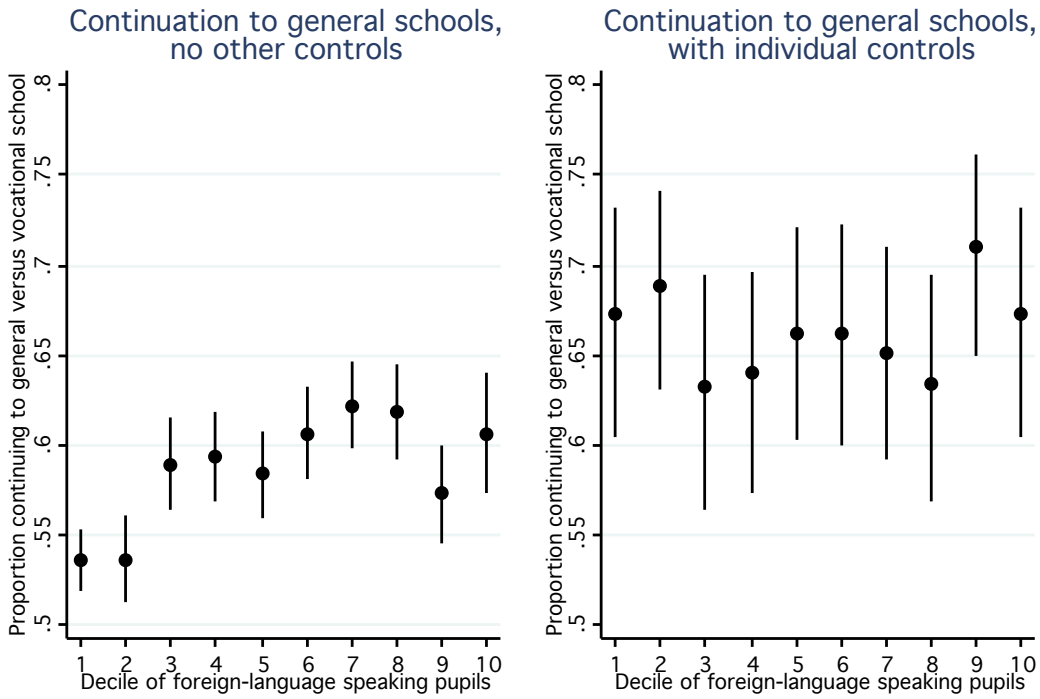



Figure 2.2: Estimated probabilities for choosing general school over vocational school in different types of school defined by the proportion of students who are foreign-language speakers (in deciles). For the graph with individual controls, the proportion has been estimated for male Finnish-origin students with an average grade of 7.5, and parents with only compulsory education, a low income and outside the labour force or unknown. These parental characteristics are the modal ones for children of immigrants.

### 2.2.3 Access to schools

Access to the schools was granted by individual heads of school. Before gaining permission from them, a research proposal was submitted to the educational authorities of the City of Vantaa, who approved the research proposal as well as the specific schools to be included in the research.[33] A total of five schools in Vantaa were approached. The main basis of selection were the home languages that the schools taught in order to ensure sufficient numbers of the ethnic groups of interest.[34] Out of the two schools approached in the first instance, one accepted and one did not reply. The education and careers adviser of the first school involved suggested another school to be approached, one that had already been considered but not approached. This school also accepted. When a third school needed to be added, two schools were approached on the same basis as the previous schools but also taking into consideration the relative proximity of these schools to the first two. Out of these two schools, one accepted and one declined on the basis that they had already taken part in several research projects that year.

In two of the schools, students were approached through their education and careers advice lessons and in one through their Finnish classes, where the immigrant-origin students were in separate Finnish as a Second Language classes.[35] Only those classes with the most immigrant-origin students were asked to participate in the research.[36] In the first stage, students were asked to answer a few background questions about themselves as well as take home a questionnaire and permission

[33]The research proposal was also approved by the Department of Sociology.

[34]Although a school provides teaching in a certain language, this does not mean that there will necessarily be many students of the relevant ethnic group in the $9^{th}$ grade, which was the focus here. However, this was the only way of knowing initially whether there were likely to be immigrant-origin students in the schools, and what their ethnic origin was likely to be.

[35]The separation was only for Finnish classes, in other classes students studied together. The Finnish as a Second Language classes also contained $2^{nd}$ generation students, not just recently arrived immigrants. The education and careers advisers in the first two schools and the Finnish as a Second Language teacher in the third were also the main contacts in these schools even though the initial acceptance had come from the head of school.

[36]This was mainly for practical reasons so that I would not take too much of the relevant teachers' time, but also that it would not take too much of my time.

slip for their parents. Students were asked where they were planning to apply to,[37] what their average grade was, where they were born, and when they had migrated to Finland if they were not born in Finland. Their parents were asked about their education, occupation and country of birth as well as their wishes for their children's education.

The information slips distributed to the students and parents, the questionnaires, and the parental permission slips are included in Appendix E. All the student slips were distributed in Finnish but an English translation is also included in the appendix. On the other hand, parental information was also available in English, although schools differed in whether the English translation was given to all parents or only when students requested them. In the latter case, all students were made aware of the possibility of asking for an English translation. No permission slips/parental surveys were returned in English.

In two of the schools, one of the classes that was approached was either a special-needs class or a class focused on getting unmotivated, and thus normally poorly performing, students to finish comprehensive school and continue to upper secondary by providing them with more opportunities for on-the-job training periods during the $9^{th}$ grade. Although both classes had a significant proportion of immigrant-origin students, no students from these classes were interviewed. This was mainly because either they did not return any of the slips, they refused to participate on the returned slip, or the slip was returned but not satisfactorily filled in (most often because it was lacking a parental signature). Although they could have been interesting cases to look at, the students in these classes are rather specific groups and thus not necessarily representative of wider trends. Moreover, students in the class with the added training component are highly likely to continue to vocational schools, and thus their choice of school is rather more limited

[37] In the third school, where students were approached after they had made their applications, they were asked where they had applied to.

than what I wanted to focus on.

Interviews took place in schools during lessons. In two of the schools, a separate room the size of a small classroom was organized for the interviews. In one of the schools, this was the student union meeting room, and in another a general meeting room. In the third school, half of the interviews were conducted in a separate small room, which was the school pastor's room, and the other half took place in the corner of a classroom during a lesson when the teacher was not present and the students were writing essays. All interviews were with one student at a time, and all except one were digitally recorded.[38] The interviews were semi-structured with a set of themes on the application/decision process guiding the interviewer. Most students seemed relatively happy to be answering the questions, although by and large their answers were relatively short, and thus the interviews relied heavily on the interviewer to keep them going through asking more questions.

### 2.2.4 The interviewed students

Out of those who returned their questionnaires with parental permission, all students of immigrant origin, most of those of mixed origin, and matching Finnish students were picked for interviews. Matching was done as far as possible based on gender and the student's average grade, as well as parental education. As will be shown in Chapter 5, a student's average grade and their parental education are the two factors that have the largest effect on the type of school that students go to. After controlling for grades, gender does not have a significant impact. However, decision-making styles may differ by gender so this was included as one of the determinants for matching. Table 2.4 illustrates the range of backgrounds that the students came from, as well as the matching on the basis of grades and

[38] All students were asked whether they were happy for the interviews to be digitally recorded and were assured that only the interviewer would listen to them. All except one student gave permission for the interview to be recorded.

Table 2.4: Interviewed students according to school achievement and parental education and socioeconomic status

| By parental education | | | |
|---|---|---|---|
| Achievement | Low | Mid | High |
| Bottom three deciles | 2 + 2 | 2 + 2 | 5 + 0 |
| Low average | 1 + 2 | 1 + 2 | 1 + 1 |
| Average to high | 1 + 2 | 1 + 1 | 2 + 2 |
| Top decile | 0 + 0 | 1 + 2 | 2 + 1 |
| **By parental socioeconomic status** | | | |
| Achievement | Low | Mid | High |
| Bottom three deciles | 2 + 2 | 4 + 2 | 3 + 0 |
| Low average | 1 + 1 | 1 + 2 | 1 + 2 |
| Average to high | 2 + 1 | 0 + 1 | 2 + 3 |
| Top decile | 0 + 0 | 1 + 1 | 2 + 2 |

In each column, first children of immigrants, then majority students

parental education.[39]

Although the matching can be seen to have worked relatively well, there is one group of children of immigrants that could not be matched to majority students. This is the group with very low achievement and highly educated parents. No majority students of this type replied to the mini-survey.[40]

The division of students according to their ethnic origin and the type of school they were applying to is shown in Table 2.5. Due to anonymity issues, the only ethnic-origin distinctions made here concern whether the student was born to Finnish, European or non-European parents, based on parental country of birth.

[39] As described above, grades are given on a scale from 4 to 10 in Finland, the mean according to the quantitative data used in this thesis being 7.8. The cut-off point for the lowest three deciles is 7.3 and that for the top decile is 8.9. Low parental education refers to compulsory and vocational education, Mid is a general upper secondary degree and High is university education. Low parental socioeconomic status refers to being working class or outside the labour force. Mid includes the self-employed as well as lower-level employees, and High refers to the higher-level employees. Both parental background variables are determined by the dominance principle, in other words, the higher of the two parents is recorded.

[40] According to the register data, under 15% of majority students with at least one university-educated parent have average grades this low, whereas amongst children of immigrants this is approximately 33%. It is also interesting to note that there are no students with very high achievement and low-educated parents. Achieving a high average when one's parents have a low education is almost equally difficult for children of immigrants as it is for the majority (approximately 5% of those with low-educated parents achieve this), and no children of immigrants of this type returned the mini-survey.

Table 2.5: Interviewed students according to ethnic origin and school choice

| | Ethnic origin | | |
|---|---|---|---|
| | Finnish | European | Non-European |
| General school | 8 | 4 | 4 |
| Vocational school | 4 | 3 | 1 |
| Uncertain/both | 5 | 3 | 4 |

Uncertain/both includes students aiming to do double degrees

In this case, mixed-origin students are studied together with the immigrant-origin students. In the quotes in the chapter, it will also be indicated whether the student is mixed origin, $2^{nd}$ generation or $1^{st}$ generation, and what the student's gender is.

It is impossible to say how representative the interviewed students are of the whole student population. On the one hand, they do represent almost the whole range of academic achievement and parental education. Moreover, the interviewed students also represent variability on the dependent variable: choice of upper secondary school type. On the other hand, it may be the case that those students (and their parents) willing to be interviewed are in some way different to those who were not willing to be interviewed. In some ways this is not a major problem here. This is because the main aim of the qualitative material is not to be representative of the country as a whole but to reflect the difference between the majority and children of immigrants. In this respect, if we assume that the bias is similar amongst both children of immigrants and the majority, then at least the difference between the two groups should be consistent.

Finally, students with Somalian origins would have been interesting to study further but only a few were interviewed. This is partly because there were not many Somalian-origin students in the classes that were targeted and partly because some of the ones that were approached refused to take part in the research. As one of the largest groups in Finland and in Vantaa, and as one of the groups that most differs in its behaviour from the majority, as will be shown in Chapter 5, it is

a pity that more Somalian-origin students could not be interviewed. However, this reflects what other Finnish researchers (Honkasalo et al., 2007) are beginning to find: because Somalians have been the focus of so much research and media attention, they are no longer as willing to take part in new research.

### 2.2.5 Ethical considerations

As has been described above, parental approval was sought for children to take part in the research. This was also a condition of the ethical approval from the City of Vantaa. Students were not directly asked for their approval, although they had several ways of refusing to participate: asking their parents to say no, not returning the questionnaires and permission slips, returning them unanswered, or refusing to take part in the interview itself.[41] Moreover, students themselves were asked whether they consented to the interviews being digitally recorded.

As can be seen from the information slips distributed to the students and their parents (in Appendix E), the participants were not deceived about the intentions of the researcher. Students were also given the opportunity to ask questions about the research when it was first introduced to them in their classroom and during the interviews themselves. Moreover, the information slips included the researchers' contact details so that both parents and students could get in contact to ask further questions.[42]

Several steps have been taken to ensure the anonymity of the interviewed students. To begin with, the researched schools are not named in this thesis. It may still be possible to make educated guesses about the possible schools and so the schools and the students are not linked together. Moreover, the exact national origins

[41] One student who had returned the questionnaire with parental permission said that he did not want to be interviewed when the interviews came to arranged.

[42] The mobile number given on the information slips was one that was specifically obtained for research purposes, and not the researcher's personal number. The questions that the students asked in class mainly related to studying in Oxford rather than the research itself.

of students are not revealed. Finally, other details mentioned by the students in interviews, such as their first language, are omitted where possible. All of this should make identifying individual students improbable.

Nevertheless, there is still the possibility that teachers may suspect who their own students are. There is no way of excluding this possibility without reducing the analytical usefulness of the data significantly. However, at the time when this thesis is completed, the interviewed students are no longer in the same schools, and therefore this possibility should not affect the lives of the interviewees.

In addition to ensuring the anonymity of the quotes used in the thesis, any documents that include the students' real names are kept secure either in password-protected documents or behind locks.

## 2.3 Summary

This chapter has presented the two sets of data used in this thesis. The register data will be used for analyses in Chapters 3, 4 and 5, whereas the interview data will be used in Chapter 6. Further aspects of the qualitative data relating to its interpretation and issues to do with language and translation will also be discussed in Chapter 6.

# Chapter 3

# Educational achievement at the end of comprehensive school

This chapter considers the educational achievement of children of immigrants in Finland. Very limited previous research has been done on the topic in Finland. However, much research literature exists on the education of children of immigrants and ethnic minorities in many Western European countries and in North America. Theories developed in these countries will be used to inform the analyses here and their relevance to the Finnish context will be assessed.

On the whole, Finnish students have been found to have high average performance levels at around this age, compared to their peers in other countries (e.g. OECD, 2004). In addition to high average achievement levels, the difference between the relatively low-performing students and the high-performing ones has been found to be rather small in Finland. One of the reasons that has been given as an explanation for this is the homogeneity of Finnish society and its lack of large populations of immigrant origin. This chapter will, therefore, assess whether the children of immigrants that are present in the Finnish education system differ significantly from their majority peers.

The education of ethnic minorities has been explained from two broad perspectives: structural and cultural (Kao & Thompson, 2003). Structural explanations focus on

the socioeconomic resources that immigrant parents have (or do not have) to assist their children's education. This chapter will use extensive measures of parental socioeconomic resources to assess the strength of this explanation for children of immigrants in Finland. Further assessment of this explanation by taking school context into consideration is an area for future research. Cultural explanations focus on group differences in orientations towards academic achievement. This chapter cannot assess the strength of this explanation except to assess the role of citizenship in explaining achievement at school. For those eligible for Finnish citizenship, holding it may be seen as an orientation towards integration.

In addition to this, the effect of gender on achievement will also be explored. In general, girls tend to do better at school than boys, but this may not be the case for all ethnic groups. On the other hand, it is also possible that girls in immigrant families are more protected from some of the potentially detrimental aspects of majority culture, in which case it may be the boys who underachieve.

Finally, explanations based on discrimination by the majority fall somewhere between structural and cultural explanations. Again, this cannot be directly assessed in this chapter but looking at how the performance of visible minorities differs from the less visible minorities may be seen as evidence in this direction.

The rest of this chapter is organized as follows: In the next section, previous Finnish and international research looking at the educational achievement of children of immigrants is reviewed. This is followed by an overview of theory and hypotheses that may explain differences in achievement within and between groups, particularly focusing on parental resources. Before the results section, there is a brief reminder of the data and variables used for the analysis. The chapter ends with a discussion and a conclusion.

## 3.1 Previous research

This section summarizes the major Finnish and international research that has been undertaken looking at the school achievements of children of immigrants and ethnic minorities. Only rather general results pertaining to the differences amongst various ethnic groups will be referred to here, and more specific results with regards to the effect of various control variables will be discussed in later sections.

### 3.1.1 Finnish research

To begin with, it has been found that in Finnish primary schools immigrant students have scores almost one standard deviation lower than the majority in maths and science (Kuusela & Etelälahti, 2008).[1] More specifically, over half of immigrant students were found to be in the lowest two deciles of performance for science and in the lowest three for maths.

For $9^{th}$ grade students, the same year group as is studied in this thesis, the difference between immigrants and the majority is slightly smaller, at just over half a standard deviation in Finnish and maths. Again in both of these subjects, half of immigrant students could be found in the lowest three deciles of performance. In Swedish, the difference was smaller, and in English immigrant students were found to perform better.[2] (Kuusela & Etelälahti, 2008)

Grades in individual subjects given at the end of $9^{th}$ grade have also been compared

[1] These studies are based on national tests that are given to a representative national sample of students. Immigrant students are defined by the first language they report on the tests and may not include those who have arrived very recently and whose Finnish is not good enough to take the tests. On the other hand, the may also include students who do not have immigrant parents but are registered as non-Finnish and non-Swedish speakers. More information about national tests can be found in the data chapter, page 41.

[2] However, as was mentioned in the previous chapter, these samples may not be as representative of immigrant students as a whole as those for Finnish and maths both because of who takes those subjects (for Swedish) and who takes the tests (for English).

(Karppinen, 2008). The differences between immigrant students and the majority are largest in history, geography and biology, whereas they are smallest in first language (Finnish or Swedish). They are also rather smaller in other language subjects. Finally, differences in maths grades are in-between those of language subjects and the other subjects.

In addition to this, the average grades of students at the end of $9^{th}$ grade in Finland have been compared (Karppinen, 2008). Again, comparisons were made on the basis of registered language but this time also country of birth in order for the $1^{st}$ and $2^{nd}$ generations (defined by country of birth) to be studied separately. $1^{st}$ generation students from non-EU countries were found to have average grades significantly lower than the majority or $2^{nd}$ generation students, who had, if anything, slightly higher averages than the majority.[3]

It is rather difficult to draw any firm conclusions based on the research reported above. The general conclusion seems to be that children of immigrants are severely disadvantaged in primary school but catch up towards the end of compulsory education. However, there may be significant differences between subjects. In addition to this, the $2^{nd}$ generation does not seem to be disadvantaged relative to the majority.

There are also two major problems with the studies. To begin with, their definition of immigrant students is a rather crude one that only looks at language. This means that, for example, more established ethnic minorities who may speak languages different to Finnish and Swedish are included with the immigrant students.[4] On the other hand, children of Swedish immigrants are not included amongst the immigrants and neither are the students who are of immigrant origin but have been registered as, or report on the test that they are, Finnish or Swedish

[3]The average of averages and standard deviations for the three groups are majority 7.82 (0.93), $2^{nd}$ generation 7.89 (0.91) and $1^{st}$ generation 7.44 (0.91).

[4]As was described in the introductory chapter, this is a particularly large problem for the $2^{nd}$ generation group as there are very few people in the studied cohorts who are born in Finland to two foreign-born parents.

speakers. The difference between results in primary and those in secondary school may also be due to compositional differences between the cohorts studied. More specifically, it is possible that there is a larger proportion of students with two immigrant parents in the cohorts who have been tested in primary school than in the cohorts who have been tested in secondary school, where mixed-origin students and those other-language students with no foreign-born parents may form a larger proportion of the group. In addition to this, except for the distinction between EU and non-EU students amongst the $1^{st}$ generation, no differentiation is made according to ethnic origin.

The second major problem concerns control variables. As will be discussed in the following sections, parental resources are an important explanatory factor for educational achievement. Moreover, as there are differences between immigrants and the majority, as well as between ethnic groups, in the amount of parental resources, the role of minority status net of the effect of parental resources has been overlooked by these researchers. Furthermore, the potentially important factor of length of residence has not been taken into account either.

### 3.1.2 International research

Looking to other European countries for the same stage of education, we can see that many children of immigrants tend to obtain lower grades than their majority peers. In France, this is the case for groups with origins in North Africa and Portugal (Brinbaum & Cebolla-Boado, 2007), in the UK for the groups identified as Pakistani, Bangladeshi or Black ethnicity (Rothon, 2007), and in Sweden the children of immigrants from Nordic countries, most Middle Eastern countries, Africa and Chile (Jonsson & Rudolphi, 2009). On the other hand, there are also a few groups that tend to obtain higher grades than the majority. These include those of Indian or Chinese ethnicity in the UK (Rothon, 2007), and children of

immigrants from most of Asia including Iran, though not other Middle Eastern countries, in Sweden (Jonsson & Rudolphi, 2009).

An important finding from this previous research is that much of the disadvantage may be explained by parental resources, such as parental education or social class. In France, the disadvantage has been found to disappear completely (Brinbaum & Cebolla-Boado, 2007), as is the case in the Netherlands for tests taken at an earlier age (van de Werfhorst & van Tubergen, 2007). In the UK, on the other hand, the evidence is more mixed (Connolly, 2006; Rothon, 2007). Social class appears to explain most, if not all, of the ethnic-minority disadvantages for Pakistanis and Bangladeshis. It does not explain the disadvantage of Blacks though. On the other hand, it adds to the advantage of groups of Chinese and Indian origin.

In Sweden, between one-half and the whole disadvantage tends to be explained by parental education and family composition (Jonsson & Rudolphi, 2009). Moreover, many European, though not Nordic, groups also emerge as having significantly higher grades than the majority. Out of the remaining significant differences, the only substantial differences compared to the size of control variables are some of the positive Asian ones.

## 3.2 Theory and research questions

### 3.2.1 Family resources

As was described above, many ethnic minority groups in Western countries tend to be disadvantaged in terms of school achievement. However, much of this disadvantage may be due to the lower socioeconomic positions that immigrant and ethnic minority parents tend to occupy compared to the majority population. It is well-established in the sociology of education that family background influences

children's educational achievement (Breen & Jonsson, 2005). In some studies done in America, parental socioeconomic status has been found to account for much, if not all, of the variation in grades between ethnic groups (Kao & Thompson, 2003). In European studies, socioeconomic background has been found to explain at least half, and often all, of the ethnic-minority disadvantage (Heath et al., 2008, and research cited in previous section). Therefore, it is interesting to see whether Finland replicates these patterns, and falls in the group of countries where family resources explain all of the disadvantage (the Netherlands and France), or just part of it (Sweden, and to some extent the UK).

The rest of this section discusses the family background measures used in this research and the theoretical motivation for using these as controls in the educational achievement models. The possibility that the mechanisms may not be the same for children of immigrants as they are for the majority is also discussed. The attention is then turned to other factors that may explain differences in educational achievement: gender, length of residence, citizenship and visibility. The first of these concerns all students, although its effect may differ between groups, whereas the last three concern only children of immigrants, and may explain either differences within or between groups.

### Parental education

There is a growing amount of research arguing that one of the main mechanisms through which family background has an effect on school performance is by developing competencies in the child.[5] Given the lack of measures for skills or cultural

[5]Farkas (1996) argues for a causal model of reading achievement that includes social class and ethnicity (i.e. the culture in the family) influencing basic cognitive abilities of children, such as auditory processing, which in turn influence reading ability. He views culture as skills, habits and styles of parents, related to social class and ethnicity, and this family culture determines the cognitive abilities of children at a very early age. Sullivan (2001) also argues that the mechanism through which cultural resources, measured by cultural participation, have an effect on educational performance is by developing knowledge or a set of competencies. de Graaf et al. (2000) argue that in countries such as the Netherlands, where there is a strong emphasis on

resources in register data, the best measure for parental abilities to develop their child's competencies is the parents' own educational attainment. However, this raises the question of whether education obtained abroad, in other words the education that many immigrant parents are likely to have, is as good a measure of these parental abilities and resources as education in the country of residence (Hustinx, 2002). If this is not the case then we would expect a negative interaction between immigrant origin and parental education.

It should also be noted that low educational qualifications in a country where education is scarce and sometimes unavailable (such as Somalia) have a different meaning than in a country such as Finland, where education has been made available to growing sections of the population (Bauer & Riphahn, 2007; van de Werfhorst & van Tubergen, 2007). In other words, in countries without extensive educational provision, even high ability parents are likely to be in the low education groups, again pointing to a negative interaction.

A negative interaction between parental education and immigrant status may also be found because of the problems in the register data with regards to education obtained abroad. As described in the previous chapter, education from outside of Finland in not included in the registers unless a person has registered with the employment authorities, which they are only likely to have done if they have become unemployed. Therefore, a person who has never been officially unemployed in Finland will not have their foreign qualifications included in the Finnish registers. Even for those who have registered, their qualifications may not be accurately classified if either they do not have the necessary documentation to prove their

learning foreign languages, linguistic and cognitive traits passed on from parents to children are more important than parental involvement in high culture. The same is likely to be the case in Finland, where students tend to be learning two or three foreign languages by the age of 13. However, de Graaf et al. (2000) found that although more educated parents are more likely to expose their children to reading and books, the parental literary activities only really have an effect for children of less educated parents. This may be explained by the fact that high education is already an indication of parents' high linguistic and cognitive skills, whereas for those with lower levels of education, reading is an indication that they have those skills (or have developed those skills) despite not having attained high levels of education.

qualifications or if the Finnish authorities do not recognize the correct level of the qualifications.

### Parental income

Although primary and secondary schooling is free in most (Western) countries, material resources may still matter for the achievement of children in school. Possible reasons for this are that wealthier parents are able to provide their children with better study spaces, more study resources such as reference books and dictionaries, and are more able to use the services of tutors when their children need additional help with their studies. In countries with significant private-school sectors and where the quality of schools varies widely, wealthier parents are more able to secure places for their children in better schools, and thus ensure their higher achievement. Although Finland does not have a significant private school sector, it may still be that parents choose their residential location according to the reputation of the schools nearby.[6]

In the case of immigrant parents, the effect of income may, again, work differently. If there is residential sorting on the basis of the reputation of schools, it may be that immigrants may not possess as much information about schools as natives and would not be able to make such decisions as effectively. This would mean that the effect of income on school achievement would be lower for children of immigrants, particularly the $1^{st}$ generation. On the other hand, given that it is likely to be more difficult for immigrants to attain high incomes, a high income may also mean higher unmeasured resources compared to the majority population, and in this way a larger effect of income (Fekjaer, 2007). It may also be that immigrants with high incomes are a very select group who are also more likely to have children with the competencies to achieve highly.

[6]It should be noted that it is likely to be extremely difficult for parents to make judgements on the relative quality of schools as league tables of comprehensive schools are not compiled. Finland has also ended school inspections. Therefore, official reports on schools are also unavailable.

### Social class

Parenting style has also been argued to have an effect on educational achievement. Parents from middle class families may 'groom' their children in the skills necessary to do well in school, and in life more generally. Lareau (2003) finds a distinct difference in the way parents from different classes raise their children.[7] Middle class parents tend to take the strategy of "concerted cultivation" whereas working class and poor parents have an approach to child rearing which emphasizes the "accomplishments of natural growth".[8] This may be one of the reasons why middle class children do better in school.

Although Lareau (2003) did not find racial differences in parenting styles in the USA, more recent immigrants may still have parenting styles different to those of the native population. In particular, immigrant parents, whatever their class position, may monitor their children, back up their children with their school work, and involve themselves with the school to an extent that may be more typical to the middle class than to the working class. This could be because for many immigrants migration is a family mobilisation project, and they therefore want the best education for their children. On the other hand, immigrant parents may also distrust Finnish schools to a greater extent than native parents do and therefore want to involve themselves to a greater extent in their children's education. These reasons could lead to social class effects being smaller for immigrants than for the native population. On the other hand, this effect may be dampened by a lack of know-how that immigrant parents may suffer from.

Furthermore, it may also be the case that immigrant parents view education as

[7]Data from qualitative research in the USA.

[8]Interestingly enough, parents who "cultivate" their children have not normally been raised that way themselves. Moreover, judging from the upwardly mobile parents, the child rearing approach has a lot to do with resources rather than a class culture that parents may have been raised into themselves. Although filling a child's day with multiple adult-organised activities is a relatively new phenomenon, the key element of concerted cultivation, that the "parent actively fosters and assesses the child's talents, opinions and skills" (Lareau, 2003, p.31), is likely to have been a part of middle class culture for much longer.

being the sole responsibility of the school and thus act in a way opposite to that described above. Evidence in this direction comes from the National Board of Education study that included interviews with school principals (Kuusela et al., 2008). They found that almost all school principals thought that immigrant parents took very little part in parent-teacher associations. International research also suggests that immigrant parents do not tend to be actively in contact with their children's schools (Heckmann, 2008). If low status immigrant parents are even less likely to engage with their child's schooling than majority parents of the same status, then we could see social class having a larger effect on the educational achievement of children of immigrants.

Research from the UK looking at the interaction between social class and ethnicity for GCSE grades did not find any significant interactions (Rothon, 2007).

### Evidence from Finland

Even though results from the OECD's PISA-testing have consistently shown that the effects of socioeconomic background on students' performance are weaker in Finland than in most other countries, the effects are significant nevertheless (Evälä, 2004; OECD, 2004). This result also holds for a variety of measures of socioeconomic status: parental occupational status, income, and mother's educational attainment (Evälä, 2004). For Finland, it has been found that cultural resources in the home account for more of the effect of socioeconomic status on educational performance than material resources or social resources (Marks et al., 2006).[9]

In addition to the three main measures of parental resources (class, income and ed-

[9]This is the case for performance in reading (decline in the effect of socioeconomic background was 29%), mathematics (18%) and science (27%). Overall, the decline in the effect of socioeconomic background was around the OECD average, whereas the effect itself was one of the lowest in the OECD. Marks et al. (2006), however, does not distinguish between social class and parental education in his measure of socioeconomic status.

ucation), the effects of parental unemployment and household composition (number of adults and children) will also be tested in this chapter. Both of these measures are likely to affect the attention that parents can give to their children's education in terms of both quality and quantity.

### 3.2.2 Gender

Gender differences in school performance appear to be prevalent across the Western world, with women having overtaken men on a variety of measures including test scores and grades, although the differences are often not as large in the former as the latter. This same pattern is mirrored in Finland. Moreover, there is also evidence that the higher achievement of female students is also largely the case amongst ethnic minorities in Western Europe and the United States (reviewed in Heath et al. (2008) for Western Europe and Suarez-Orozco & Qin (2002) for the USA).

One explanation put forward for the higher performance of ethnic minority females compared to males is a combination of two contradictory trends (Alitolppa-Niitamo, 2004). On the one hand, parents are likely to control their daughters to a greater extent than their sons. This means that the girls spend more time at home and thus potentially more time on their homework. On the other hand, immigrant parents also increasingly recognise the value of formal education for their daughters. The first of these trends shows a traditional view of female roles, whereas the second is indicative of a modernization of views amongst parents. Together they combine to give ethnic minority girls an advantage over their male peers. Moreover, compared to the majority population, these trends may lead to an interaction between gender and ethnicity, whereby the potential ethnic disadvantages are concentrated among, or even limited to, the ethnic minority boys.

On the other hand, there is also the possibility that, whatever it is that advantages

the majority girls compared to the boys, does not work in the same way for the minority girls. One of these may be parental support for girls' education. Furthermore, if achievement differentials are due to gender-specific behaviours in class, then students coming from different cultural backgrounds may not engage in those behaviours in the same way as the majority.

The Finnish research cited before did not find gender differences in test results in primary years or in $9^{th}$ grade maths for the majority or immigrants. However, there was a gender effect in $9^{th}$ grade Finnish tests as well as an additional gender interaction: although the female immigrant students did better than their male peers, the difference was not as large as it was for the majority students. (Kuusela & Etelälahti, 2008) In addition to this, when looking at the $9^{th}$ grade grades for individual subjects, gender effects were found in most, though not all, subjects with gender*ethnicity interactions in Finnish, religious studies and sports. The interaction for Finnish and religious studies was similar to that reported in the test results: the gender difference in favour of girls was smaller amongst the immigrant students than amongst the majority. The interaction effect was largest when comparing the $1^{st}$ generation non-EU students with the majority. (Karppinen, 2008)

There is mixed evidence from the UK with regards to the interactions between gender and ethnicity. Whereas Connolly (2006) did not find any significant interactions, Rothon (2007) found that Black girls performed at a higher level than their male peers, whilst the opposite was the case within the Pakistani/Bangladeshi group. Moreover, looking back at the period from the late 1980s to the mid-1990s, Demack et al. (2000) found that whereas at the beginning of the period the gender gap in many groups was either in favour of boys or in any case smaller than amongst the majority, by the end of the period a similar pattern was found amongst the minority groups as amongst the majority.

In the case of Sweden, Jonsson & Rudolphi (2009) do not discuss gender interactions and by and large the patterns seem to be the same for both genders in all of the ethnic groups. However, amongst the Middle Eastern group, after family background controls, girls have lower average grades than the majority whereas the boys do not. Moreover, in the Iranian group, girls do not differ from the majority, whereas the boys tend to have higher grades than the majority boys. On the other hand, the opposite is the case for the North African group: the girls do not differ from the majority whereas boys tend to have lower grades.

Therefore, although the theoretical expectation is that the gender difference will be at least as large amongst the children of immigrants as it is amongst the majority, if not larger, the research evidence is more mixed. Moreover, it seems to point, if anything, towards smaller gender differences amongst children of immigrants. However, there may be differences between groups, with European groups possibly being more similar to the majority than non-European groups.

### 3.2.3 Length of residence

Almost all of the students studied in this thesis under the term 'children of immigrants' are also immigrants themselves. Even amongst those who have been termed the $2^{nd}$ generation here, only a small minority is actually Finnish-born (7%). Therefore, a more appropriate name for this group would be the 1.75 generation (Rumbaut, 2004). In this thesis, length of residence determines the classification of students into the two generation groups. However, it may also be an explanatory factor within (and between) these two groups.

The effect of length of residence is likely to work through language proficiency (of both children and parents), integration, and, related to both of these, information and advice abilities of parents. As no measures of these are available in the data used, length of residence has to be used as a proxy. The hypothesis is that

achievement levels will near those of the majority group as length of residence increases, which is the case in Sweden (Böhlmark, 2008).

Moreover, with regards to refugee groups, which make up a large part of Finland's immigrant population, schooling prior to arrival in Finland may have been rather haphazard. Therefore, length of residence may be highly correlated with length of schooling for these groups. In addition to being a proxy for abilities to do well in school, length of residence may also be a proxy for attitudes towards education. A survey of immigrant students in Finnish schools found that they reported more supportive parental attitudes towards education the longer they had lived in Finland (Kuusela et al., 2008).

However, there are also reasons to suggest that this may not be the case. On the one hand, there is the advice from the National Board of Education that allows – even obliges – teachers to take into account the language proficiency of students when grading, allowing students to show their learning in more ways than just formal exams, in which success may depend more on language fluency. This is likely to be particularly important for students who migrate during their school years but who have attended school in their country of origin prior to migration. There is some evidence that these kinds of grading practices are being used, as immigrant students tend to get higher grades than their performance in national examinations would suggest (Kuusela & Etelälahti, 2008).

On the other hand, there is research evidence from the United States that suggests that school achievement may fall with length of residence (Suarez-Orozco et al., 2008). In this case, immigrant students start off with higher levels of achievement, but with the fading away of 'immigrant optimism' the achievement of many slumps.

### 3.2.4 Citizenship

Citizenship may also explain differences within the minority population. It is not citizenship in itself that is hypothesized to affect achievement, but citizenship may be seen as a proxy for the integration (and integration attitudes) of children and their parents. In this case, it is important to consider primarily the students who have resided in the country long enough to be eligible for citizenship, and amongst this group to compare those who have taken up citizenship with those who have not.[10] If we compare all minority students without taking length of residence into consideration, we are likely to be conflating the effects of length of residence (discussed above) with those of citizenship.

Citizenship may also be related to parental resources, for example due to the fact that parents with the citizenship of the country of residence tend to have better employment opportunities (Fougère & Safi, 2009; Kogan, 2003). Given that immigrant-origin groups differ in their propensities of obtaining Finnish citizenship, part of the effect of citizenship may also be due to group differences. Therefore, both of these need to be controlled for.

### 3.2.5 Visibility

Jonsson (2007) has suggested that 'visibility' may explain differences between ethnic groups. His focus was on labour market outcomes but we may also hypothesize that this will have an effect on educational outcomes. The assumption is that visible distinctiveness will have an effect on the outcome considered mainly through mechanisms based on discrimination. However, it should be noted that this is extremely hard to disentangle from other mechanisms to do with cultural and

[10] A description of the citizenship rules and the minimum length of residence required are given in Chapter 2, Section 2.1.3. To recapitulate, the minimum used here is six years of residence before completing comprehensive school.

linguistic distinctiveness from Finnish culture (and language).[11]

Following from Jonsson (2007), national origins will be ranked according to how similar they are to those of Finnish ancestry in terms of visible distinctiveness. Jonsson also suggests that students with mixed origins will be found somewhere between the relevant ethnic-origin group and the majority population, also increasing with visibility. Again, in order for some of the compositional differences between groups in terms of length of residence not to affect the results, the analyses for visibility are restricted to students who have resided in Finland for at least five years.

The groups used for studying this hypothesis are slightly different to those used otherwise in this chapter. The groups from closest to furthest are:

- Students from Estonian and Russian origins
- Students from other European origins
- Students from American and Oceanian origins
- Students from Asian and North African origins
- Students from Sub-Saharan African origins

### 3.2.6 Research questions

This chapter will aim to answer the following questions:

1. What are the patterns of educational achievement of different ethnic groups in Finland?

[11] In terms of language, only Estonian students have an advantage compared to others, as well as some of the Russian students with a Finnish heritage, given that the Finnish language differs from all other European (and non-European) languages to such a large extent. For students with an Indo-European home language, attending a Swedish-speaking school would be easier to begin with but would possibly restrict life in the long run, as Finland is largely Finnish speaking despite being officially bilingual.

2. Are differences between ethnic groups due to differences in family resources?
3. Is the effect of family resources the same for children of immigrants as it is for the majority population?
4. Are the differences between the genders similar in all ethnic groups? Are the differences between ethnic groups more to do with one gender rather than the other?
5. Does length of residence in Finland explain differences within and between ethnic groups?
6. Do achievement patterns differ by citizenship status?
7. Is there a visibility gradient evident in achievement patterns?

## 3.3 Variables

The data and variables used in this chapter have been described in the previous chapter. As a reminder, the independent variable is the average grade at the end of comprehensive school. Grades are teacher-assigned and given on a scale from 4 to 10. The average grades in the data used only range from 6 to 9.5 due to anonymity reasons.

The main independent variable is ethnic origin, and immigrant-origin groups are further divided into the $1^{st}$ and $2^{nd}$ generation. As explained in the data chapter, the dividing line between the generations is at a length of residence of nine years at the time of finishing comprehensive school, which means that those in the $2^{nd}$ generation should have gone through the whole Finnish school system. The control variables are gender, and parental socioeconomic status, income and education. The effect of both parents' labour force participation and household composition are also tested. Further tests are done with variables measuring citizenship status

and a visibility gradient.

## 3.4 Results

The overall picture of performance by ethnic origin and gender is shown in Figure 3.1.[12] Women tend to do better than men in all groups. For women, the highest performing groups are the Swedish speakers followed by the mixed-origin group with one Finnish parent (although the difference between this group and the Finnish-speaking Finns is not significant), and the lowest performing group is the $2^{nd}$ generation from ex-Yugoslav origins. For men, the highest performing groups are the Finns who speak a language other than Finnish or Swedish and the $2^{nd}$ generation East Asians (neither group differs significantly from the Finnish-speaking Finns though), and the lowest performing groups are the two of ex-Yugoslav origins.

Overall, the immigrant-origin groups tend to be at a significant disadvantage as compared to the Finnish groups. The East Asian groups are the only immigrant-origin groups that do not have achievement levels significantly below those of the majority population.

In comparison to the Finnish results discussed above, the results here are pretty much the same for the groups that can be compared. The average of averages for the $1^{st}$ generation (most of whom are non-EU) is 7.37 whereas it was 7.44 for $1^{st}$ generation non-EU in the National Board of Education results (Karppinen, 2008). The results for the $2^{nd}$ generation differ more: 7.51 here and 7.89 in their results. This is probably to do with the differing definitions of the $2^{nd}$ generation.[13] Lastly,

[12] Table B.1 showing average grades and standard errors by ethnic origin and gender is included in the appendix.

[13] The National Board of Education defines generation by country of birth, whereas the line is drawn at nine years of residence here. The National Board of Education $2^{nd}$ generation group is likely to include significant numbers of other-language students of Finnish origin and mixed-origin students.

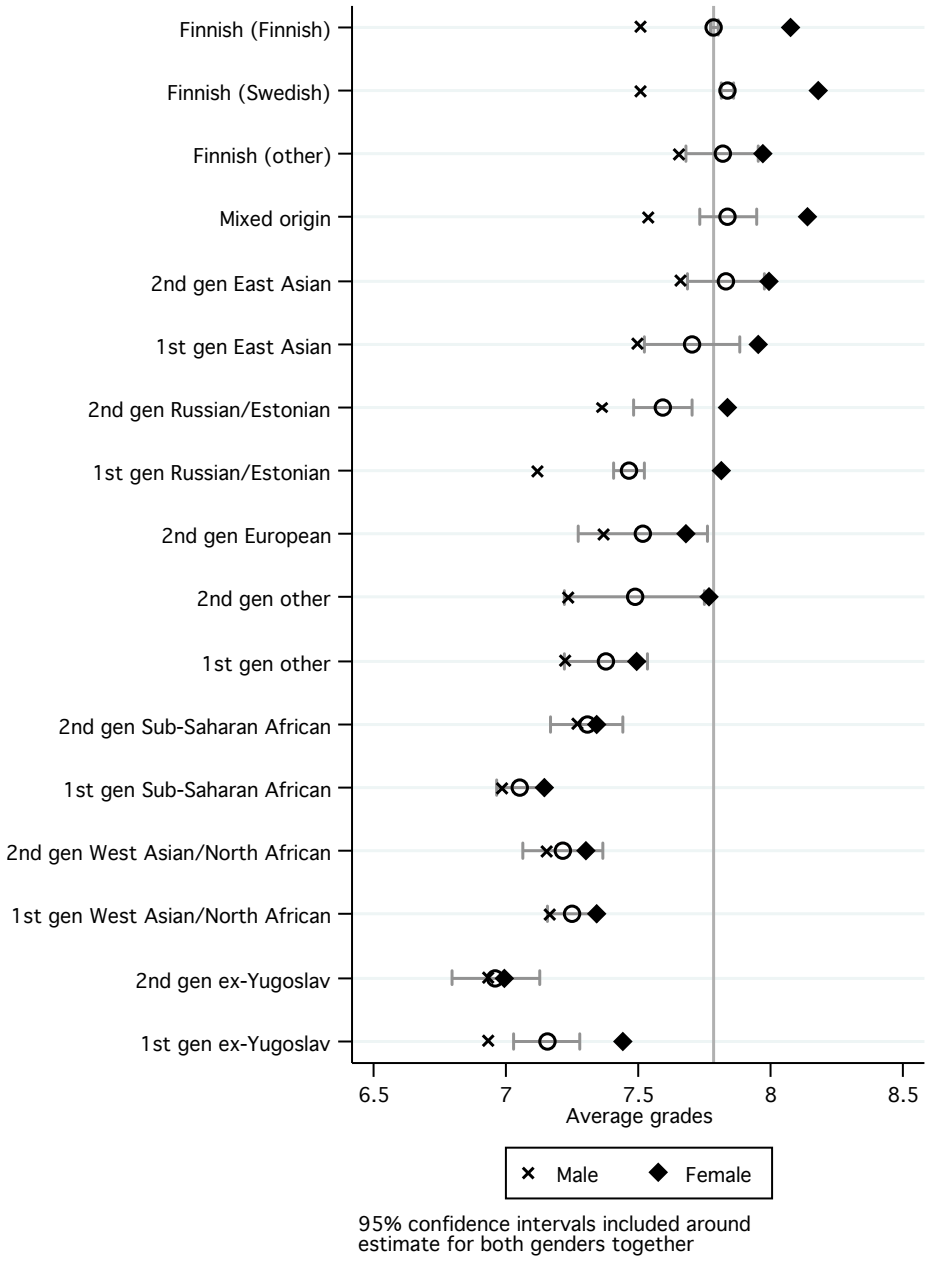



Figure 3.1: Average grades at the end of $9^{th}$ grade by ethnic origin and gender

the average for majority Finns is 7.80 here and 7.82 in the other study.

### 3.4.1 Family resources

The effect of family resources is examined in a series of models that introduce the three explanatory variables of parental socioeconomic status, income and education one at a time. The ethnic origin coefficients in each of these models are shown in Figure 3.2 and the full models can be found in the appendix (Table B.2).

The first model mirrors the results in Figure 3.1 for both genders together. As was stated above, the East Asian group (mainly from China and Vietnam) is the only immigrant-origin group that is not doing significantly worse than the majority population. At this stage, the size of many of the immigrant-origin coefficients is similar to the gender coefficient: approximately half a grade. However, the difference is larger for $2^{nd}$ generation ex-Yugoslav and $1^{st}$ generation Sub-Saharan African groups. On the other hand, the difference between the students from Russia/Estonia and Europe as well as the $2^{nd}$ generation 'other' and unknown compared to the majority population is smaller: approximately a quarter of a grade. Within the ethnic groups, the difference between the two generations is not significant except for the Russian/Estonian, ex-Yugoslav and Sub-Saharan African groups. In the first and the last of these groups the difference is in favour of the $2^{nd}$ generation whereas amongst the ex-Yugoslavs the $2^{nd}$ generation does significantly worse.

The first family resource variable to be introduced is that of parental socioeconomic status. Although it is expected that parental education will have a larger effect in explaining achievement levels, socioeconomic status is introduced first, as this measure does not suffer from the problems of measurement that education of immigrants suffers from. On the other hand, it has also been argued that controlling for class masks the problems that children of immigrants with many

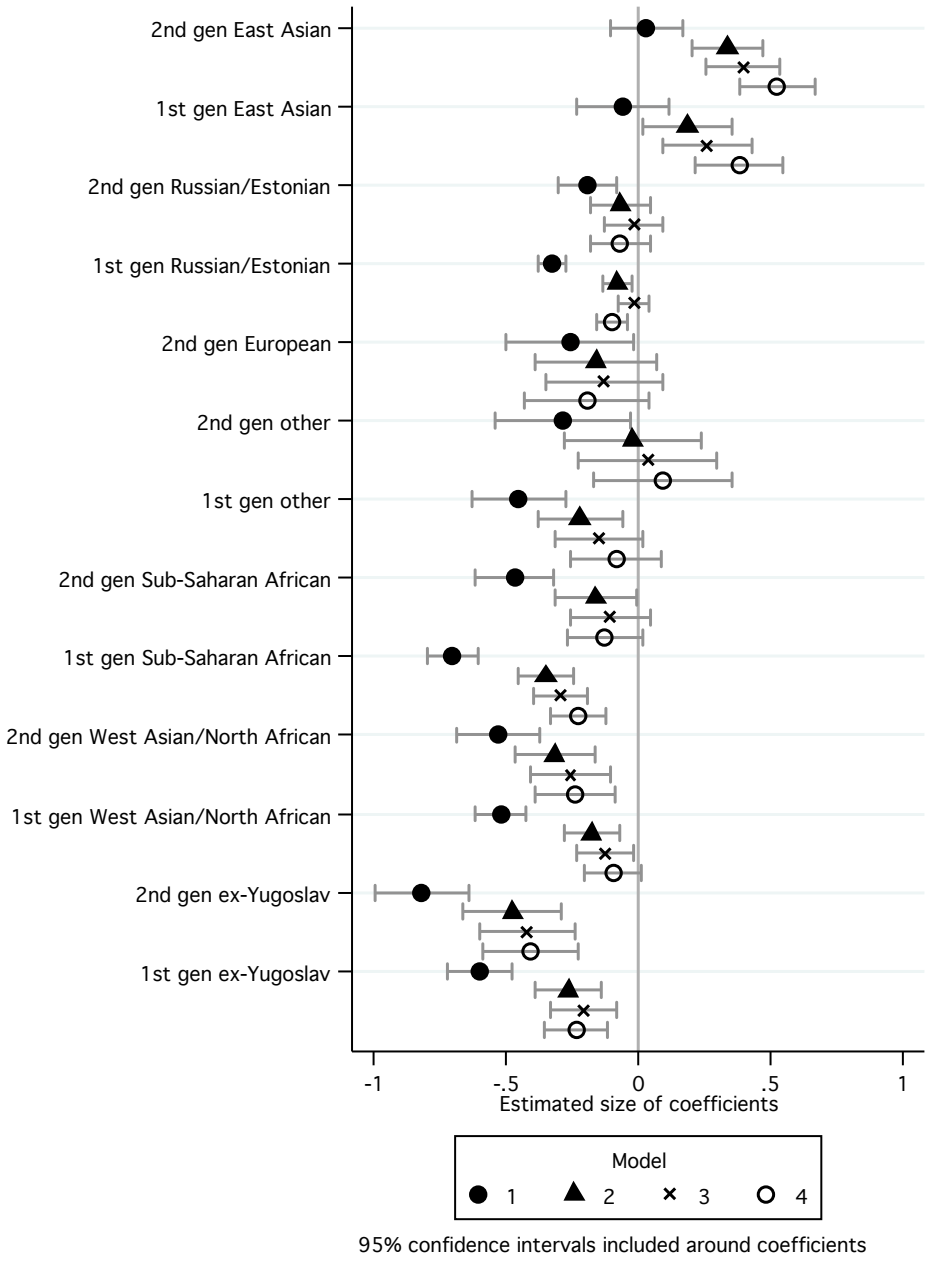



Figure 3.2: Ethnic coefficients in different models of school achievement: effect of controlling for parental resources

unemployed or working class parents face (Jonsson & Rudolphi, 2008). It is not the purpose here to paint too rosy a picture of the educational achievement of children of immigrants, and so the models have also been run without socioeconomic status and income (which suffers from similar problems), and the results will be discussed later in this section. Moreover, the possible differential effects of parental resources between the majority and children of immigrants will be discussed further in Section 3.4.1 on interactions.

Model 2 presents the results with parental socioeconomic status included as an explanatory variable. The expected gradient is found, although there is very little difference between the self-employed and the lower-level employees on the one hand, and the manual working class and those outside the labour force on the other.[14] The effect of including social class is to reduce the size of many ethnic origin coefficients, most of them by approximately a half. In addition to making the East Asian coefficient significantly positive, the $2^{nd}$ generation groups of Russian/Estonian, European and 'other' or unknown origin become insignificant. The coefficient for the Swedish speakers also turns from being positive to negative.

The next model adds parental income as an explanatory factor, which is shown to have a significant and positive effect. The difference between the high income and low income groups is just over a quarter of a grade, which is smaller than the SES differences, although it should be noted that the income groups are more highly aggregated. Most of the ethnic coefficients are slightly reduced. However, the general pattern remains unchanged, except for the $1^{st}$ generation Russian/Estonian and the $2^{nd}$ generation Sub-Saharan African groups, for which the estimated coefficients become insignificant, and the coefficient for $1^{st}$ generation 'other' and unknown remains only marginally significant.

[14] Although the latter group is very heterogeneous in who is included (students, retired, and long-term unemployed, in addition to stay-at-home mothers and others), the decision to include them all in the same group has been made on the basis of empirical evidence suggesting that their effects are not dissimilar from each other.

Model 4 introduces parental education into the models. The coefficients show the expected gradient and the difference between the two extremes (two university-educated parents and neither parent with more than compulsory education) is larger than any other difference in the models: almost a whole grade. The coefficients for the other parental resource variables are reduced in size but remain significant. Not many of the ethnic-origin coefficients are reduced in size though, in fact some of them grow in size very slightly.

Overall, all of the immigrant-origin coefficients change as a result of controlling for family background and resources. Most of the change comes already when the first control variable is introduced. Over the four models, the size of the ethnic disadvantages is reduced to at most one half of their original size, and some disadvantages become insignificant. The East Asian groups, on the other hand, are in an advantageous position after the controls. The final ethnic disadvantages are at most a quarter of a grade except for the $2^{nd}$ generation ex-Yugoslavs, for whom the difference is somewhat larger (between a third and half a grade).

Both the mixed-origin group and the Finns who speak a language other than Finnish or Swedish remain no different to the Finnish speakers throughout the models, whereas the Swedish speakers' advantage turns into disadvantage. However, this last difference is rather small in size. Except for the ex-Yugoslav and the West Asian/North African groups, the $2^{nd}$ generation is less disadvantaged in all groups as compared to the $1^{st}$ generation. On the other hand, the difference between the generations is not significant in any of the groups.

It may also be noted that the total explanatory power of the model is rather modest: even in Model 4, the total R-squared is only 0.26, in other words only 26% of the variance in average grades is explained by the variables in the model. Given that this includes three parental resource variables and gender as well as ethnic origin, this is not a very large proportion at all. However, it does suggest

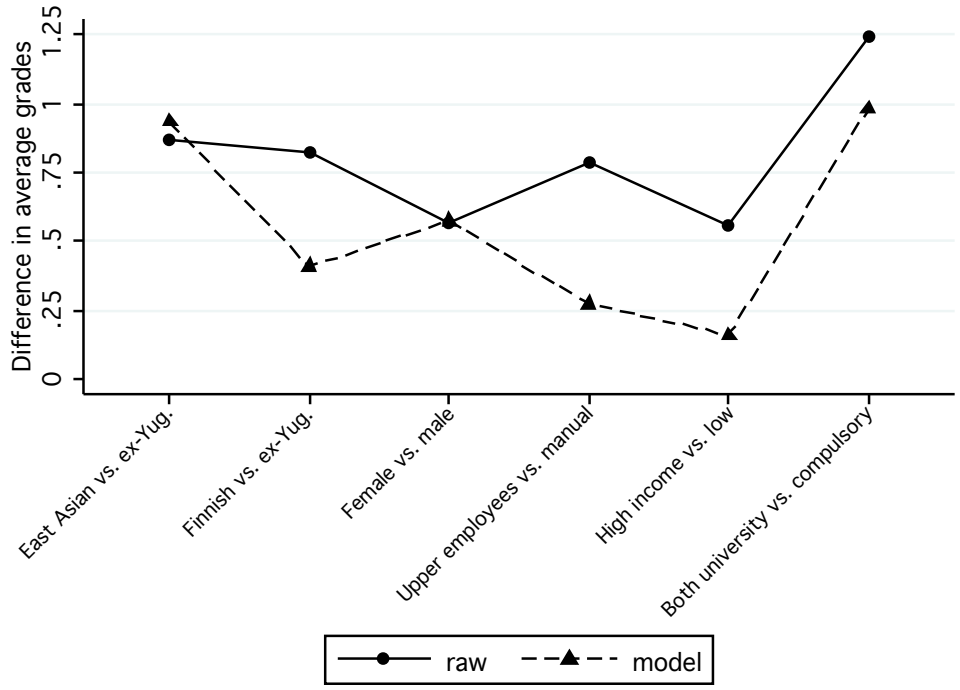



Figure 3.3: Comparison of coefficients in models of achievement

that, as has already been evident in earlier research, family background has a rather small effect on educational outcomes in Finland.

Figure 3.3 shows how the different explanatory factors affect average grades, both on their own and after other controls are introduced (Model 4). These comparisons were chosen based on maximum differences evident in the models. To begin with, the largest differences between ethnic groups are similar in size to the difference between socioeconomic groups and smaller than the difference between education groups. However, the differences are larger than the gender difference or that between income groups. After introducing all controls into one model, the largest difference between the Finnish majority and an immigrant-origin group ($2^{nd}$ generation ex-Yugoslavs) is smaller than the gender difference or that between education groups, whereas it is larger than the socioeconomic or income differences. Moreover, the largest ethnic difference (between $2^{nd}$ generation ex-Yugoslavs and East Asians) is larger than this and in the same order of magnitude as the parental education difference.

As explained in Chapter 2, it is beyond the scope of this thesis to analyse in detail the effect of schools on the achievement of children of immigrants. However, Model 4 was also run as a multilevel model with schools as a level 2 control to check that leaving out this level of analysis does not distort the results presented here. The results do not differ much whether or not schools are included (as can be seen in Table B.3).[15] Therefore, this level of analysis is not included in any further analyses.

Two further models adding mother's and father's labour force status (comparing the unemployed to all other statuses), the number of adults in the household (comparing those with two adults to others), and the number of children in the household (comparing 1-3 children, four or more children, and no children) were also analysed. Although all three variables are found to have an effect on achievement (unemployment of either parent reduces achievement as does living in a household that has fewer than two adults and in one with four or more children), they did not have a further effect on the ethnic coefficients (as can be seen in Models 6 and 7 in Table B.4).

Using a model that does not include socioeconomic status or income of parents, means that the difference between the immigrant-origin groups and the majority is between 0.10 and 0.20 larger than reported above (Model 8 in Table B.4). In this model, ethnic-minority disadvantages are around a third of a grade, except for the ex-Yugoslavs for whom the disadvantage is around half a grade. Moreover, the East Asian advantage is reduced to around a third of a grade. However, if household composition is added to this model, the changes are not quite as large for many groups (Model 9). Nevertheless, these results highlight the disadvantage faced by children of immigrants due to their parents' low position in the labour

[15]The models were run with the xtmixed command in Stata. Because this programme does not allow probability weights, which are used in all other models to adjust for differential probabilities of sampling based on registered language, Model 5a first reports the coefficients from Model 4 when weights are not applied and Model 5b then adds the school level. Only random intercepts are modelled.

market, and in particular, their inability to enter employment in many cases.

### 3.4.2 Ethnic-origin interactions with family resources

The question of whether it is appropriate to control for parental resources in the same way for children of immigrants as for children of natives is explored in this section with a lighter version of Model 4 from the main analyses. A lighter version in which certain categories of independent variables are collapsed is used to ensure statistical power in detecting possible significant interactions. In this model, all of the students with at least one Finnish-born parent are grouped together as those of Finnish origin, whereas the immigrant-origin groups are all grouped together as a non-Finnish group.[16] The measures for social class and parental education are also simplified. For social class, the upper and lower employees are merged into a non-manual employee class, and for education only two categories are used: those with at least one parent with general upper secondary education and those with parents with less education; the unknown category is also kept separate.

The interactions between family-resource variables and the non-Finnish group found to be significant were for self-employed parents (compared to non-manual employees), parental income and parental education. The resulting coefficients for the Finnish and non-Finnish groups for these variables can be seen in Figure 3.4 (the complete models are in Table B.5).

The first difference between children of immigrants and the majority is in terms of parental self-employment: whereas for the Finns this is equal to having an non-manual employee parent, for children of immigrants there is a negative effect. This is likely to be due to differences in the types of self-employment that immigrants

[16]The interactions were also tested with the mixed-origin group, and the $1^{st}$ and $2^{nd}$ generations separated, as well as the underachieving groups separated from those no different or higher achieving than the majority, but the picture remained largely the same. However, it is likely to be the case that some of the interactions found are more pertinent to some groups rather than others.

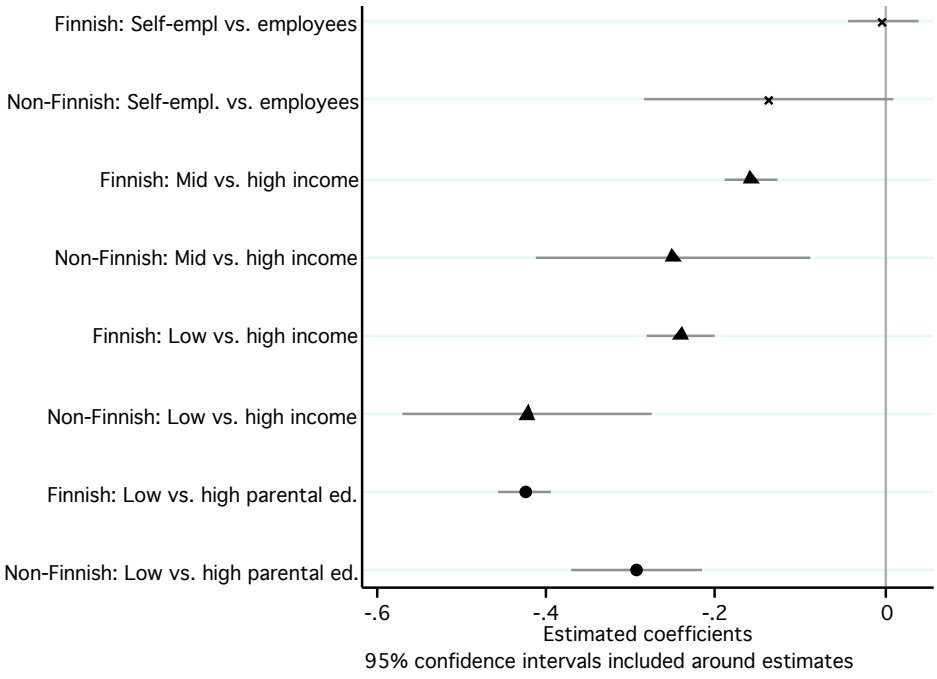



Figure 3.4: Interactions between origin and parental resources for school achievement: estimated coefficients

and the rest of the population are engaged in.[17] There do not seem to be differences between immigrants and natives in the way class affects the education of children, as the interaction between non-Finnish origin and manual working class parents was not found to be significant.

The difference between the two education levels was found to be smaller for children of immigrants than for the majority. This may be due to it not being as appropriate a measure of parental ability to assist their children for those who have obtained their education abroad, particularly in countries where it is scarce, than for those who have obtained it in Finland. On the other hand, the smaller effect for children of immigrants may also be due to underreporting of education in the Finnish registers, if immigrants have not been able to get their previously

[17]There was also an indication that for the $1^{st}$ generation having a parent outside the labour force had an additional negative effect. This is likely to be due to the importance of being employed to having a possibility to integrate into society. It may also be that the parents of the $1^{st}$ generation who are outside the labour force are largely refugees, in which case it may be their experience as refugees that is affecting school achievement rather than parental labour force status.

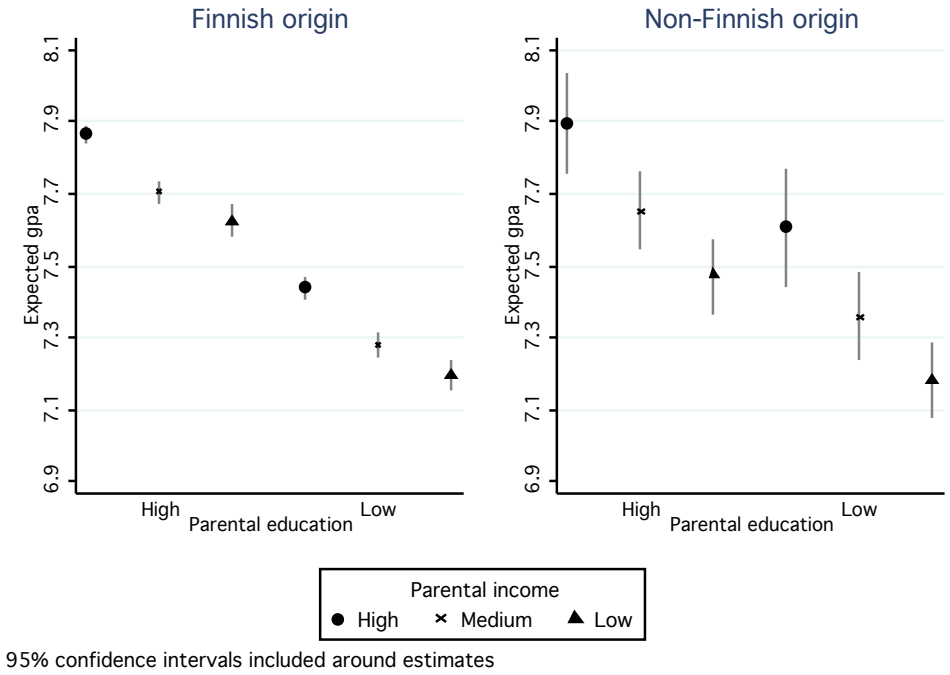



Figure 3.5: Interactions between origin and parental resources for school achievement: expected achievement of male students with non-manual employee parents

obtained education re-certified in Finland.[18]

Parental income was found to have a greater effect for children of immigrants than for the majority. In particular, this is the case for the difference between children from high and low income families. This could possibly be caused by the effect of unmeasured resources that high income immigrant parents are likely to have. However, it is also plausible that given the measurement problems with the education variable, parental income is taking on the main explanatory role for children of immigrants. Indeed, as can be seen in Figure 3.5, the joint effects of education and income tend to cancel each other out when comparing children of immigrants with the majority. In other words, even though education and income have different effects for the two groups, the achievement levels of students at the extremes (high parental education and income versus low parental education and income) are the same in the two groups.

[18]Somewhat surprisingly, the problem seems to be larger for the $2^{nd}$ generation than for the $1^{st}$, although this difference is not statistically significant.

Overall, children of immigrants do not differ in their grades from the majority when appropriate controls for parental resources are introduced. However, some groups stand out of this pattern: On the one hand, there are the children of self-employed immigrant parents who do not do as well as their majority peers. On the other hand, these interactions do not change the relative standing of ethnic-origin groups and some groups remain significantly different from the rest (Model 12 in Table B.5).

### 3.4.3 Gender

The possibility that the effect of gender may not be the same for all ethnic groups was explored with gender interaction terms introduced into the model from the previous section. Significant interactions were found for the Russian/Estonian $1^{st}$ generation, the ex-Yugoslav $2^{nd}$ generation, the East Asian $2^{nd}$ generation (only borderline significant), and both generations amongst the West Asian/North Africans and Sub-Saharan Africans (Model 13 in Table B.5). All except the Russian/Estonian $1^{st}$ generation gave negative interaction terms for the females, which were almost the size of the main effect of gender.[19] In other words, for these groups the general female advantage is almost, if not completely, wiped out. Figure 3.6 shows the effect of both the family resource controls as well as the gender interactions on predicted average grades; for children of immigrants only the $2^{nd}$ generation results are shown.

In all groups, women do better than their male counterparts. However, the difference between male and female students is rather small (and insignificant in most cases) for students with origins outside the European Union.[20] Moreover, the only significant disadvantages are for ethnic minority female students compared to majority female students. All of the groups where this is the case are largely

[19]There is also a significant, positive female interaction for the Swedish-speaking Finns

[20]This includes $2^{nd}$ generation ex-Yugoslavs, though not first. This was also not found amongst $1^{st}$ generation East Asians.

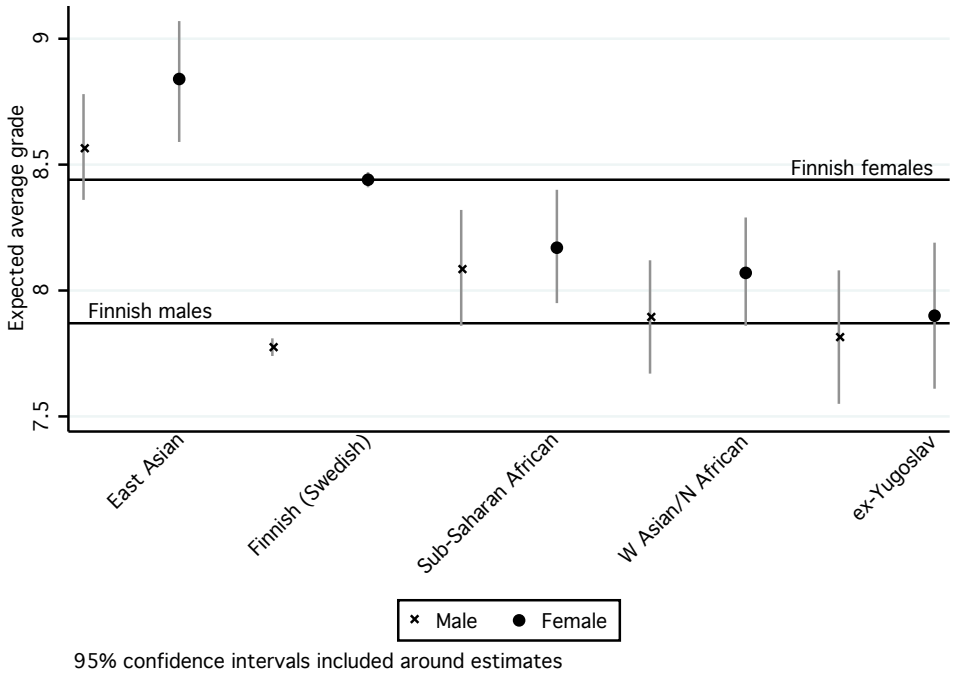



Figure 3.6: Interactions between ethnic origin and gender for school achievement: expected average grades of students with highly educated parents, with high incomes and non-manual employee occupations; results for $2^{nd}$ generation for the immigrant-origin groups

composed of Muslims.

Overall, the disadvantages seen in the main model tend to be due to the lower than expected achievement levels of females in the case of the West Asian/North African and Sub-Saharan African groups as well as the ex-Yugoslav $2^{nd}$ generation whereas for the ex-Yugoslav $1^{st}$ generation it is divided between the two genders. Moreover, for the Russian/Estonian $1^{st}$ generation and the Swedish speakers it is due to male underachievement.

### 3.4.4 Length of residence

Up until now, the $1^{st}$ generation has been analyzed separately from the $2^{nd}$ generation but the effect of length of residence has not been analyzed further. Table B.6 in the appendix shows results for analyses with length of residence rather than

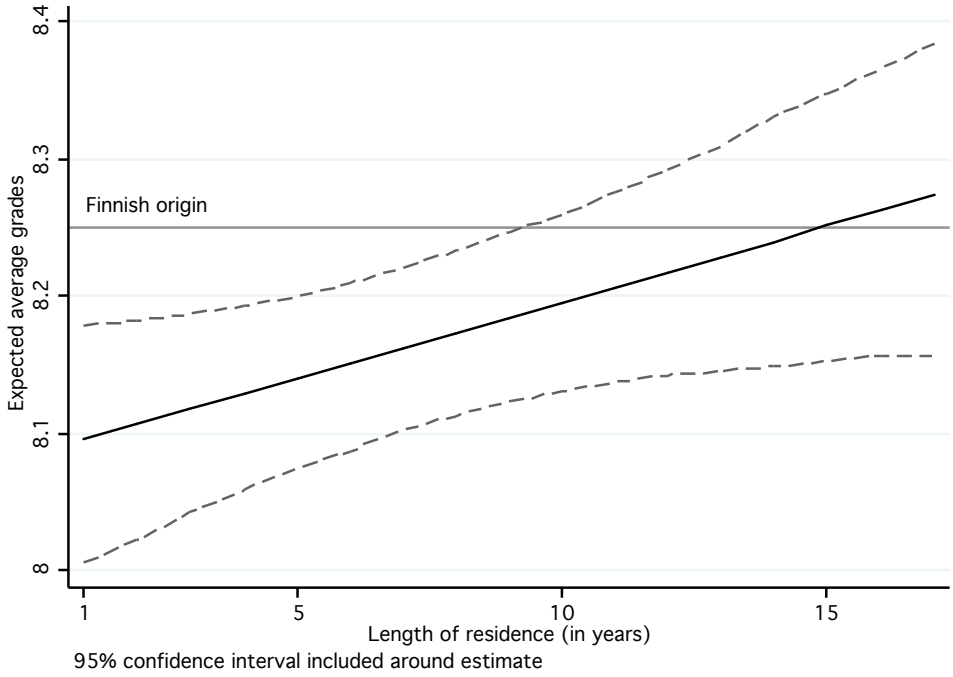



Figure 3.7: Effect of length of residence on school achievement: expected average grades of male students with the highest values for all the parental resource measures

generation. The first model (Model 14) only includes a dummy variable for immigrant origin (and gender) whereas the second model (Model 15) introduces the continuous variable of length of residence.[21] The third model (Model 16) includes the usual parental-resource variables as controls. The result for this third model is shown in Figure 3.7.[22]

Length of residence has a very small effect: over the whole range, the effect is a third of a grade when parental resources are not controlled for and a fifth of a grade when they are. Moreover, this is likely to be a maximum estimate of the possible effect of length of residence. This is because using models that either add ethnic groups as a control (Model 16), restrict the sample to those of immigrant origin (not shown), or introduce the interactions discussed in Section 3.4.1, show

[21]This variable ranges from 0 to 17, where 17 is the value for all children of two immigrant parents who were born in Finland. Three students did not have information on their length of residence and were dropped from the analyses.

[22]Based on the analysis of residuals there are no non-linearities in the effect of length of residence.

that the effect of length of residence becomes insignificant.[23]

As was discussed in the theory section, Finnish grading practices, which take language fluency into account, may be the main reason for this very small (and possibly insignificant) effect of length of residence.

### 3.4.5 Citizenship

To test for the effect of citizenship on achievement, children of immigrants were divided into three categories depending on their length of residence (long enough to qualify for citizenship versus not) and citizenship (Finnish versus other).[24] The full results of testing whether acquiring Finnish citizenship has an effect on school achievement are shown in Table B.7 in the appendix.

To begin with, all children of immigrants have achievement levels lower than the majority (Model 17). However, there is a significant difference between those with Finnish citizenship and the two other groups, whereby those with citizenship have higher achievement levels. After the introduction of controls for family resources (including their interactions with non-Finnish origin), the effect of being of immigrant origin is no longer significant (Model 18). However, a significant difference between children of immigrants with Finnish citizenship and those without remains. These results are illustrated in Figure 3.8, where the highest parental resource measures within the model have been used. Although the difference between having a Finnish citizenship and having another citizenship is significant, it is substantively rather small, estimated at a tenth of a grade, the same as the difference between the two groups within the non-manual employees.

Ethnic-origin dummies were also added to the model (Model 19). A significant

[23]However, one reason for the insignificant effect of length of residence in these additional models could be that the N in the immigrant-origin groups becomes too small for this number of independent variables. Therefore, the true effect of length of residence is likely to be somewhere between these estimates.

[24]For an explanation of how these categories were formed, please see Chapter 2, Section 2.1.3.

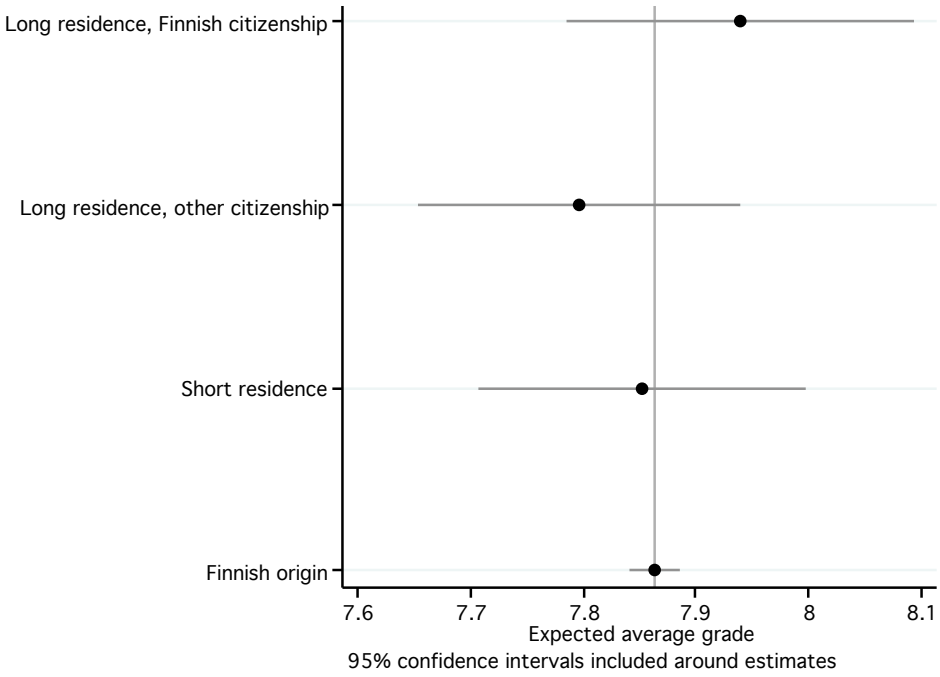



Figure 3.8: Effect of citizenship on school achievement: expected average grades of students with highly educated parents, with high incomes and non-manual employee occupations

difference between those with Finnish citizenship and those without remained. The ethnic-origin coefficients have the same order (and relative magnitude) as they do in the main models. Therefore, citizenship explains some of the differences within groups but not the differences between groups. This means that the effect of citizenship is not related to the higher propensity of some groups to obtain Finnish citizenship than others, for example those of East Asian compared to those of ex-Yugoslav origins (shown in Table A.4). In other words, the process that links Finnish citizenship amongst children of immigrants to higher achievement is relatively similar across groups. This mechanism may be more positive integration attitudes in families that have obtained Finnish citizenship for themselves and their children.

Table 3.1: Visibility gradient for school achievement: linear regression results for analyses of average grades

| Ethnic origin | Mixed | Immigrant |
|---|---|---|
| Finnish origin | reference | reference |
| Mixed: FIN-Russia/Estonia | -0.12 (0.13) | |
| Russia/Estonia | | -0.07 (0.03) ** |
| Mixed: FIN-Europe | -0.08 (0.06) | |
| Europe | | -0.25 (0.05) *** |
| Mixed: FIN-Americas | 0.16 (0.12) | |
| Americas | | -0.28 (0.22) |
| Mixed: FIN-Asia/Africa | 0.03 (0.13) | |
| Asia & North Africa | | 0.09 (0.04) ** |
| Sub-Saharan Africa | | -0.18 (0.05) *** |

$^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.001, N = 21,704, R^2 = 0.26$, controls not shown

### 3.4.6 Visibility

The visibility hypothesis was tested by using Model 4 from Table B.2 but re-grouping some of the ethnic origin variables and dropping the unknown groups. Additionally, only students resident in Finland for over 5 years were analyzed. The results for this model are shown in Table 3.1, where the mixed-origin coefficients are shown on the left and the immigrant-origin coefficients on the right to make assessment of the hypothesis easier. However, the results are all from the same model.

Looking down the two columns, there is no clear evidence for this hypothesis. The mixed-group results jump around and, if anything, decrease with visibility. The gradient amongst the immigrant-origin groups going from least visible to most visible starts out in the expected direction but then the main groups for testing this hypothesis, the Asian and North African group as well as the Sub-Saharan African one, are clearly not as expected. In fact, the most disadvantaged groups are two of the ones that one would expect to be the least disadvantaged: the Europeans and the Americans.

The visibility hypothesis only works when comparing groups within the two broad

regions of the world: the more visible Sub-Saharan Africans are more disadvantaged than the less visible Asians and North Africans; and the more visible Europeans and Americans are more disadvantaged than the less visible immigrants from the Former Soviet Union. Moreover, within most groups those of mixed origin are, to some extent, likely to be somewhere between the majority population and the immigrant group, although no mixed groups differ significantly from the majority. All of this would suggest that a visibility explanation should be replaced by a more cultural one.

## 3.5 Discussion

This chapter has tested various hypotheses relating to the school achievement of children of immigrants. What we started out with was disadvantage across almost all immigrant-origin groups, and what we ended up with was no overall disadvantage, but a few groups potentially performing less well, and one group performing significantly better. The main explanatory factors were found to be social class and income, with parental education playing a role too. These factors accounted for either the whole disadvantage of some groups, or at least half of it for others. Controlling for parental resources, only Muslim girls and two male $1^{st}$ generation groups (Russian/Estonian and ex-Yugoslav), as well as the male $2^{nd}$ generation ex-Yugoslavs remain disadvantaged. Moreover, all East Asian groups have higher achievement levels than any other ethnic group including the Finnish-speaking Finns.

The higher achievement of East Asian students is mirrored in many other Western countries (Jonsson & Rudolphi, 2009; Rothon, 2007). A possible explanation for this may be a higher focus on school work, possibly at the expense of hobbies, amongst these groups (Honkasalo et al., 2007).

Social stratification was found to affect children of immigrants slightly differently compared to the children of natives and children of mixed origin. For children of immigrants, the difference between highly educated parents and those with lower education was not as large as it is for the majority population. On the other hand, the children of immigrants were found to benefit more from higher parental income than the majority. These two trends together may be explained by problems of measurement with regards to the parental education variable, either because of issues related to the registration of education from abroad in Finland or because education from some countries of origin does not reflect parental abilities as well as education from Finland (or other Western countries). Moreover, having self-employed parents was found to be associated with more disadvantage for children of immigrants. This last effect may be related to the differences in the types of self-employment that immigrants and the majority are involved in.

It should be noted that compared to some of the differences within the majority population, most differences between ethnic groups are rather small. The ethnic-minority coefficients that remained negative are approximately similar in size to the difference between the non-manual employees and the manual working class. Much larger than this is the difference between different education levels, which, at its largest, can be a whole grade. The gender difference is much larger than any ethnic difference except for the advantage of the East Asians, which is roughly similar in size.

In other countries where ethnic differences remain significant after controls for parental resources, the size of the coefficients relative to the control variables is relatively similar to the findings here. In Sweden, even the largest negative coefficients are smaller than the gender differences and approximately similar in size to a one step increase on the parental education scale, and the positive coefficients are slightly larger than this (Jonsson & Rudolphi, 2009). In the UK, the largest ethnic differences are also similar in size to differences between social classes nearest to

each other (for example salariat and intermediate, or intermediate and working) (Rothon, 2007).

Most of the ethnic differences are due to the lower than expected achievement of girls in those ethnic groups. This is the case for those of West Asian/North African and Sub-Saharan African origin as well as the $2^{nd}$ generation ex-Yugoslavs. What is common to these groups is that they are made up largely of Muslim immigrants. In addition to this, amongst the $1^{st}$ generation ex-Yugoslavs, both genders are disadvantaged. Rothon (2007) also found girls of Pakistani and Bangladeshi origin, two largely Muslim groups, to be disadvantaged in the UK. Although lower achievement seems to be concentrated amongst these girls from majority Muslim groups, the smaller gender effect was also found in the $2^{nd}$ generation East Asian group. Therefore, the difference in gender effects may be mainly between European and non-European (including in this case ex-Yugoslav) groups.

There are three main hypotheses that could explain the phenomenon of underachievement amongst Muslim girls but not Muslim boys, which should be explored in future work. The three relate to family, teacher and social network processes. To begin with, families from countries where women's education is not widespread may have lingering scepticism about the value of education for their daughters, which may cause the girls to not perform as well as they could in school.[25] This may be linked to more domestic chores for girls in this group compared to girls in other groups, which may hinder their school work.

The second reason relates to teachers' attitudes towards Muslim girls. Given that grades are teacher-assigned, if teachers are prejudiced towards Muslim girls – or if the girls' behaviour in class is different to the behaviours teachers expect from girls – this may result in lower grades for the Muslim girls. Finally, Muslim girls

[25]This result is supported by the fact that there is no gender interaction for the $1^{st}$ generation East Asians and ex-Yugoslavs and amongst both of these groups mothers are more highly educated than amongst their $2^{nd}$ generation counterparts. However, the difference is rather small and some groups that have a gender interaction also have similar maternal levels of education.

may have friendship circles that are made up of other Muslim (or immigrant) girls to a greater extent than their male peers or other immigrant girls. This, in turn, could hinder their Finnish language development, and consequently their school work. There is some ethnographic evidence that supports this hypothesis from the time that this researcher spent in Finnish schools and other Finnish research (Niemelä, 2006).

Citizenship and length of residence were also found to predict achievement although neither affected the ethnic differences. The effect of length of residence was found to be linear but rather small and possibly related more to the differences in times of arrival of different immigrant-origin groups than being significant in its own right. However, it is also possible that the small differences are due to grading practices that take into account language development. This conclusion is reinforced by the findings on average grades in individual subjects between foreign-language speakers and the majority (Karppinen, 2008). The difference in grades is rather smaller in languages (especially Finnish) than in history, biology and geography. It can be assumed that language teachers are rather more adept at recognising language development than teachers whose subjects also require developed language proficiency. Moreover, a survey of teachers involved in the teaching of immigrant-origin students supports the view that Finnish language teachers are more concerned about the language difficulties that immigrant-origin students have than are subject teachers (Latomaa & Suni, 2010). Nevertheless, it is likely that subject teachers take into account language problems in their grading, particularly for those who have been in the country for a relatively short period of time.

Looking at the children of immigrants who had lived in Finland for long enough to be eligible for citizenship, those who had obtained Finnish citizenship had slightly higher levels of achievement than those who had not. The effect of citizenship remained even after controls for parental resources and ethnic origin. This means

that citizenship is likely to have an effect in its own right, which may be due to it acting as a proxy for positive integration attitudes, which in turn assist in school achievement.

## 3.6 Conclusion

In conclusion, a few findings stand out: processes of stratification seem to be largely similar in Finland as they are in many other Western European countries; the underachievement of immigrant origin students is largely due to their lower parental resources; remaining ethnic coefficients are rather small compared to other control variables, including gender; and underachievement is mostly limited to Muslim girls.

Many previous European studies have found ethnic differences to disappear or at least to be largely reduced after controlling for parental resources. The same is the case for Finland. This means that despite the atypical composition of the Finnish immigrant population – largely based on refugees rather than labour migrants – these groups are relatively similar to other immigrant-origin groups in Europe.

Moreover, compared to other stratification variables, the effect of ethnicity on achievement is relatively small both in Finland and in other European countries. This is a cause for both hope and concern. On the one hand, the fact that net ethnic effects are relatively small means that the remaining underachievement should not be a major cause for concern. On the other hand, given the low social status of immigrant parents, the disadvantages faced by children of immigrants are cumulative, and most children of immigrants are not overcoming their low social origins, which may be artificially low due to their parents' downward social mobility at migration. As can be seen from the tables of parental resources in the appendix (Tables A.2, A.3, A.4), the proportion of immigrant parents who

are outside the labour force[26] and on low incomes is remarkably high: well over 50% in most cases and around 90% in some. This is also made clear in the larger ethnic differences in the models where parental socioeconomic status and income are not included. Therefore, one of the best ways to help children of immigrants is to help their parents enter employment.

On the other hand, children of immigrants in Finland are in a relatively better position than those in many other European countries due to the fact that family background is less determining for a child's education than in most other countries. Despite the many significant differences that were found between social strata, the models used here do not explain a great deal of the variance between students. In other words, most of the variance within groups is left unexplained and students' achievements are not strongly restricted by their family background.

The underachievement of Muslim girls is a relatively new result. This data does not allow further investigation into the causes of this underachievement although a few possible reasons were given above. If Finland follows in the footsteps of Britain, then we would expect the same gender effect to appear amongst children of immigrants as is present amongst the majority over the next decades.

The significant effect of citizenship on school achievement is also a new result. The way that this has been interpreted here is that citizenship acts as a proxy for positive integration attitudes, which are likely to improve school achievement. However, in order to be able to test that this is the mechanism behind the effects, we would need surveys with questions measuring these attitudes, preferably at an earlier stage of schooling. If the mechanism behind the effect of citizenship is indeed integration, it is likely that direct measures of integration would have a greater effect on achievement than citizenship does here.

This chapter has shown that standard structural sociology of education arguments

[26]This includes those whose socioeconomic status is unknown and the long-term unemployed.

work well in explaining the ethnic differences in Finland, which means that at this stage we do not necessarily need any specifically ethnic explanations. On the other hand, the smaller gender effects found amongst many immigrant-origin groups require further explanation. Whereas this chapter has focused on primary effects, both of ethnicity and parental resources, the following chapters will focus on secondary effects. In particular, the next chapters look at continuation in post-compulsory education. It will be interesting to see whether these classic explanations will also apply for secondary effects of ethnicity.

# Chapter 4

# Continuation from compulsory to upper secondary education

This chapter examines the educational continuation of children of immigrants in Finland. Educational continuation is an important stepping stone for all students in a society such as Finland, where educational credentials are a major determinant of labour market success. As was the case in the previous chapter, only very limited research exists on this topic in Finland, but relevant theory and research from other European countries will be used to inform the analyses here. Again, as in the previous chapter, mainly structural explanations of educational continuation will be explored.

To be more specific, the analyses in this chapter focus on the transition from comprehensive school to upper secondary education. As was already described in the introductory chapter, the Finnish education system offers two separate routes through upper secondary education: general and vocational. This choice between the two tracks will be analysed in the next chapter, and this chapter focuses solely on whether students make the transition into upper secondary education.

Finnish society is highly credentialized, and there is a large concern in public policy with students who drop out of the education system after comprehensive school or before completing upper secondary education. One solution that has

been proposed, but not implemented, is increasing the statutory school-leaving age to 18.[1] Of the cohort that left comprehensive school in 1998, approximately 82% had completed an upper secondary degree by 2004, and of those aged 25–29 in 2005, 86% had completed an upper secondary degree (Statistics Finland, 2007). In other words, just under a fifth of the population is at risk of marginalisation due to low qualifications, even though one year after finishing comprehensive school, over 90% of each cohort is still in education.

Unemployment in Finland is highly stratified according to education (Järvinen & Vanttaja, 2001). Youth unemployment shot up with the recession in the early 1990s, and this had a particularly bad effect on the young people without any education beyond compulsory school.[2] At its highest, the unemployment rate of this group came close to 50%. Although by the early 2000s, it had come down to approximately 23%, the unemployment rate for young people with an upper secondary degree was only 13%, and for those with higher education lower still. The high unemployment rates of the early to mid-1990s were followed (with a lag of about 4 years) by a drop in the proportion of each group that did not have an upper secondary degree. However, in 2002 and 2003, this proportion had risen again.

Vanttaja & Järvinen (2004) show the long-lasting effects of being outside of education and employment at the age of 16–18. Although around half of the young people who were in this situation in 1985 were found to be employed in 2000, the proportion who were unemployed was twice that of their age group, and the proportion who were outside the labour force (or unknown) was three times that of their age group. These figures were highly stratified according to whether these

[1] One change in this direction is that young people under 25 cannot receive unemployment benefits unless they have a vocational or a tertiary degree (and general upper secondary degrees do not count as vocational degrees). They can only claim unemployment benefits if they are engaged in internships or training and, at the same time, applying to vocational education.

[2] Most of the figures in this paragraph come from the Nuora (Youth living standards indicators) website: `http://www.nuoret.org` (last accessed 12.11.2009, later no longer available), kept by the Ministry of Education. The figures concern the age group of 20–24 year-olds.

young people had obtained education subsequently, so that those with higher education were in a similar position to the whole age group.

The rest of this chapter is organized as follows: The next section describes previous Finnish and international research relating to the educational continuation of children of immigrants. The following section presents theory and hypotheses that relate to educational decision-making with a particular focus on how family resources affect this. After this comes a brief overview of the data and variables used. This is followed by the results of the analyses relating to continuation in education versus dropping out. At the end is the discussion and the conclusion.

## 4.1 Previous Finnish and international research

There have only been two studies to date looking at the continuation of children of immigrants in the Finnish education system. Both of these studies have their own limitations, which this thesis aims to overcome. The earlier study looked at immigrant students in Helsinki and examined whether they continued in upper secondary education, in $10^{th}$ grade, or dropped out the autumn following the end of comprehensive school (Romakkaniemi, 1998). Students from Somalia were the most likely to drop out, followed by Russians and Estonians (and most other nationalities). The students most likely to continue in upper secondary education came from Bosnia and Vietnam.

The more recent study was conducted by the National Board of Education, and their research found that the risk of dropping out of education after comprehensive school was larger for immigrant children than for the majority (Karppinen, 2008). The risk was largest for $1^{st}$ generation girls of non-EU origins, closely followed by the $2^{nd}$ generation girls. Overall, girls were more likely to drop out than boys. Differences between groups in dropping out were partly, although not completely, explained by school achievement.

Whereas the earlier study on Helsinki had detailed information about the origin of the immigrant students, it focused only on recent immigrants and lacked information about other relevant characteristics of the students, most notably their grades. Nor did it relate the findings to those of Finnish students.

On the other hand, the National Board of Education study had large samples and information about grades but only very broad ethnic groups. In addition to this, as has already been pointed out in this thesis, all Finnish-born foreign-language students were included into the $2^{nd}$ generation group, although not all of these students have even one foreign-born parent. Finally, even this study did not consider other control variables that may have an effect, such as parental resources or household composition.

The National Board of Education has also studied the ways in which drop-out occurs (Karppinen, 2007). This study found that the primary reason for immigrant students is being rejected despite applying. However, compared to the majority, immigrant students were found to be less likely to use the supplementary application process and less likely to apply at all. Both of these processes also contribute to the high drop-out rates of immigrant students. Immigrant students were also slightly more likely than the majority to drop out in the first month of upper secondary education.

Dropping out of education at this stage has not been extensively researched in other countries, where the focus has been on the different tracks that students take and final educational attainment. However, looking to Sweden, which has a largely comparable education system to Finland but a very different immigration history, shows a mix of results for different $2^{nd}$ generation groups (Jonsson & Rudolphi, 2009). Overall, most groups have a higher risk of not continuing directly to an upper secondary program. It is only groups of Asian origin, including Iranian but not other Middle Eastern, that have continuation rates as high or higher than the

majority. These are also the groups that were found to have higher average grades than the majority.

After controls for parental education, family type and grades, most groups were not found to differ significantly from the majority in Sweden (Jonsson & Rudolphi, 2009). For some groups, the difference is best explained by their lower average grades, whereas for others it is their higher propensity to have incomplete grades, in other words, not to have satisfactory grades from all the core subjects. Depending on the control for prior school achievement used, some groups are also less likely to drop out of education than the majority. In particular, this seems to be the case amongst the girls with parents born in the Horn of Africa.

## 4.2 Theory and research questions

Two of the main determinants of educational continuation are family background and previous educational achievement. As discussed in the case of Sweden, these factors have the potential to explain the differences found between children of immigrants and the majority in terms of continuation rates. This section will review some of the reasons behind the effects of these factors on the educational continuation decisions of young people. This will be followed by a discussion of gender effects. In relation to all three, the potential for interactions between these factors and immigrant origin will be discussed. Following this, two other potential explanatory factors – citizenship and visibility – will be presented.

### 4.2.1 Prior school achievement

One of the main reasons why grades have an effect on continuation is that the lower a student's grades, the less likely they are to be interested in school, and thus the less likely they are to be interested in continuing in education. However, the other way that grades have an effect on continuation is through the possibility

of choosing the type of education that a student is interested in. Therefore, the lower a student's grades, the less likely they are to gain access to the course that they would want to study.[3]

Although grades are likely to have a similar effect for children of immigrants as for the majority, there may still be differences in the size of this effect between the two. In Germany, a possible interaction has been found between migrant status and grades in going to university (Kristen et al., 2008). This interaction is negative, meaning that grades have a lesser effect for migrants than they do for the majority. Given that, controlling for grades, migrants were found to be more likely to continue in university than the majority, this means that their higher continuation is particularly (or only) evident among those whose grades are low.

The interaction between migrant status and grades could also be positive. This would be the case if children of immigrants would be more likely to become depressed by their low grades and thus more likely to drop out. An additional reason for why the continuation for children of immigrants with very low grades may be additionally lowered is the language fluency that is required for vocational studies (as described in the introductory chapter). This hurdle is likely to be particularly high for immigrant-origin students with low grades.

### 4.2.2 Family resources

One of the main bodies of theory behind educational continuation is that of rational choice. According to this framework, the main influence behind educational decisions is expectations of payoffs from different educational paths (Breen & Goldthorpe, 1997). Beyond differences in abilities, what leads to differences

[3] As was explained in the introductory chapter, although there are more than enough places to study at upper secondary level for all students to gain a place, entry to each course is according to grades. In other words, each course (or school) has a set number of places and these are filled in a competitive way, mostly based on grades, but sometimes other considerations, such as hobbies, are used.

between classes in their educational continuation is that they aim for slightly different things: although all children may be assumed to want to minimize the risk of social class demotion, for the middle class children this translates into an aim for the middle class, whereas for working class children this translates into an aim of minimizing the risks of becoming unemployed.

In the hypothetical world that Breen & Goldthorpe (1997) describe, this means that children from lower classes are less likely to even attempt a certain level of education in the fear that they might not complete it and have a higher risk of ending up unemployed. In the Finnish case, it is unlikely that attempting to complete the upper secondary level but failing to do so would lead to higher unemployment risks than not attempting it all.[4] What is clear in the Finnish case is that the chances of ending up unemployed are much higher for those people with only compulsory education compared to any other education level (Järvinen & Vanttaja, 2001). Therefore, we should probably not expect a class gradient in continuation.

However, a gradient in terms of parental education may be more likely, or at least a difference between children whose parents have only attended compulsory school and those whose parents have a higher education. It is possible that in families where the parents have a low education, the education of children is not valued, but also that the parents do not have the resources to assist their children in gaining a place in upper secondary education. Yet compared to many other countries, the inheritance of education from parents to their children in Finland has been found to be relatively low (Hertz et al., 2007).

A qualitative study of young unemployed people without vocational degrees in Finland in the mid-1990s found that they came from a variety of parental education backgrounds (Vehviläinen, 1998). The young people with highly educated parents

[4]However, I have not seen any research that would test this. Moreover, it is likely to affect type of school chosen and this will be analysed in Chapter 5.

tended to either see their status as outside of education as temporary or they were deliberately rebelling against their families. On the other hand, those with parents with low education tended to either want to follow the occupational (and presumably educational) model of their parents or came from families where the parents had expressed a disinterest in their child's education.

Quantitative data from 1985 and 1995 also confirmed that 16–18-year-olds who were neither in education nor employed came from a wide variety of backgrounds (Järvinen & Vanttaja, 2001). However, the risks of being in this group were highest for young people whose parents (mainly fathers) were blue collar workers or outside the active labour force, had only basic education, and were in the lowest income quartile.[5] However, the study did not look at all the young people who were outside of education, which is the focus here, but only those who were also outside of employment. Moreover, it did not take prior school achievement into account, which is likely to be an important mediating factor.

In a further study of the same cohort from 1985, their life in 2000 was studied, and the continued effect of parental resources was highlighted (Vanttaja, 2005). The young people whose parents had only compulsory education were much less likely to have obtained additional education compared to those whose parents had tertiary degrees. The children of non-manual employees and self-employed persons were also more likely to have obtained additional education than the children of the manual employees and those outside the active labour force. Moreover, both higher education and higher parental resources translated into higher socioeconomic positions in later life (Vanttaja & Järvinen, 2004; Vanttaja, 2005).[6]

The National Board of Education hypothesized that immigrant parents without education would think that going through comprehensive school is already a sig-

[5]These were not all put in a single model so their explanatory power relative to each other cannot be assessed.

[6]Again, these were not put into a single model to assess the relative strengths of each explanatory factor.

nificant achievement and sufficiently long (Kuusela et al., 2008). Therefore, they would not think that their children need more education after this. However, this is unlikely to be any different amongst majority parents without much education.

Overall in the Finnish case, it seems that parental resources may be more likely to explain dropping out than expectations of pay-offs. In addition to parental education, relevant factors to look at would therefore be parental income and labour force status. It is also possible that these parental resources do not work in the same way for the children of immigrants as they do for the majority. In particular, having parents who are not employed may be an additional handicap for children of immigrants, as employment is likely to be the main avenue of integration for immigrant adults. Therefore, migrant parents who are not employed may have even fewer resources to assist their children than native parents in a similar situation.

Moreover, family composition is likely to be an important factor when resources are considered, both in terms of number of adults giving a resource, but also number of children sharing a resource.

Finally, it is also interesting to note that the importance of education is so deeply ingrained in Finnish students that even those students who could otherwise be classified as 'anti-school' can be found to be applying to upper secondary education (Järvinen, 1999). Whether or not they find the motivation to re-apply if they are not accepted the first time around if they have very low grades, or to stay in education until they complete their upper secondary degrees, may be another matter though.

### 4.2.3 Gender

Women have been entering all non-compulsory levels of education to a larger extent than men for some time now. At each stage of education after comprehensive school, women are a larger proportion of new students and graduates in Finland.

Approximately 57% of new students in general upper secondary schools, polytechnics and universities were female in 2005, and between 57 and 63% of graduates from those schools in the same year were female. In all age groups starting from the age of 19, women are more likely to be students than men, and the difference is largest in the 20–24 age group, where 60% of women are students compared to 50% of men.[7] (Statistics Finland, 2007)

At the same time, however, women are slightly more likely than men to drop out immediately after comprehensive school (5.7% compared to 4.1% in 2005 (Statistics Finland, 2007)). With regards to children of immigrants, the National Board of Education results show that in all groups girls were more likely than boys to drop out of education, and this difference is increased further when grades are taken into account (Karppinen, 2008). Overall, the female children of immigrants were the most likely to drop out of education. However, they did not test whether there was an interaction between gender and immigrant origin.

The female Somalian informants of a study in Finland stated that girls have two ways of leaving their family home: education or marriage (Tiilikainen, 2003). In terms of continuation in education, this gives us two contradictory expectations for the children of immigrants (particularly of Sub-Saharan African origins): either girls are more likely to continue in education, or they are more likely to drop out if they choose to pursue the marriage route.

Heath & Cheung (2007a) also hypothesize that attitudes towards marriage and childbearing may differ between non-Western migrants and the majority. However, we would expect this to be more likely amongst those who have arrived relatively recently, and in the case of children of immigrants, those who have arrived at a later age. Therefore, we could expect that drop-out rates may be higher amongst girls from some $1^{st}$ generation groups but not necessarily, or to a lesser extent,

[7] This is somewhat explained by the compulsory military service that most men have to undertake around this age.

amongst the $2^{nd}$ generation.

As was already discussed above, in Sweden the propensity to drop out depends on the measure of prior educational achievement used (Jonsson & Rudolphi, 2009). Overall, the girls with origins in the Horn of Africa have the highest propensity to continue in education. It also seems that girls with origins in North Africa and Iran are relatively less likely to drop out than boys in those groups. The opposite looks to be the case amongst Turkish and South American groups. These results would suggest that, at least amongst some groups from countries where female education is not particularly widespread, the $2^{nd}$ generation girls are taking advantage of the education opportunities on offer to them.

Based on this review, it is difficult to have expectations of possible interactions between gender and ethnic origin. It will, however, be interesting to see whether some of the Swedish results are replicated.

### 4.2.4 Citizenship

As was discussed in the previous chapter, citizenship may be seen as a proxy for integration. For students who have been resident in the country for long enough to be eligible for citizenship, obtaining it may be seen as an intention to remain in that country. As we have seen, this helps students achieve higher grades at the end of comprehensive school, and we may hypothesize that it also affects their continuation decisions. More specifically, we might expect that students with citizenship would be less likely to drop out than those without. Those who have greater intentions of remaining in the country (as expressed by obtaining citizenship) may have more to gain from obtaining educational credentials from that country.

### 4.2.5 Visibility

Following on from the previous chapter, a visibility argument will also be tested for continuation in education. Whereas the visibility argument for achievement was based mainly on actual discrimination of more visible groups, for continuation the reasoning is more to do with expected discrimination. If more visible groups expect to be discriminated against in the labour market, they may want to attain higher levels of education to overcome the discrimination. On the other hand, expected discrimination may also lead to resignation and a feeling that it is useless to even try, possibly even leading to an 'oppositional culture' (Ogbu, 1997). This would lead to more visible groups being more likely to drop out of education altogether. The same visibility gradient as was described in the previous chapter will be used here.

### 4.2.6 Research questions

This chapter will aim to answer the following questions:

1. What are the continuation patterns of different ethnic groups with regards to upper secondary education?
2. Can differences between ethnic groups be accounted for by their varying achievement at the end of comprehensive school?
3. Is the effect of previous school achievement the same across groups?
4. Are differences between ethnic groups due to differences in family resources?
5. Do family resources have the same effect for different ethnic groups?
6. Are the differences between the genders similar in all ethnic groups? Are the differences between ethnic groups more to do with one gender rather than the other?

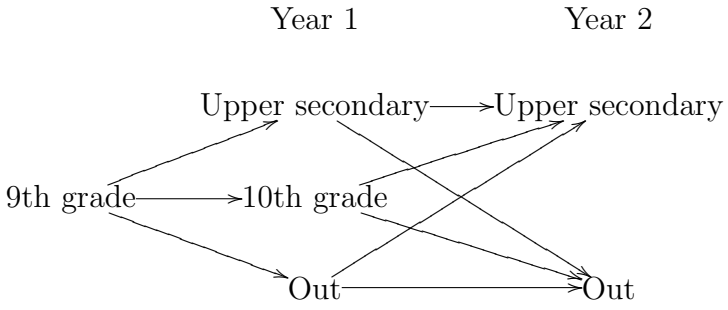



Figure 4.1: Continuation after comprehensive school

7. Do continuation patterns differ by citizenship status?

8. Is there a visibility gradient evident in continuation patterns?

## 4.3 Variables

The data and variables used in this chapter have been described in Chapter 2. As a reminder, a summary of the variables, particularly the dependent variable, is given here.

After comprehensive school, students have the choice to continue in education or drop out, and if they continue: to choose the type of school they continue in. This chapter only looks at the first of these. The data for continuation comes from just over one year after finishing comprehensive school (students in upper secondary in Year 2 in Figure 4.1). This has been chosen so that if a student attends supplementary education (often in the form of the $10^{th}$ grade) and continues after this then their continuation will also be included, or indeed if they take a gap year after comprehensive school.[8] However, this also means that if a student continues immediately after finishing comprehensive school but drops out in the first year then they will be measured as having dropped out.

[8]There is evidence that children of immigrants are over twice as likely to continue to $10^{th}$ grade immediately after finishing comprehensive school than the majority (Karppinen, 2008). To my knowledge, gap years after comprehensive school have not been studied in Finland.

The independent variables have also been described in the data chapter. The main independent variable of interest is ethnic origin, which is also divided by generation for the immigrant-origin groups. The control variables studied are gender, average grade at the end of comprehensive school (and a dummy variable for missing information), parental socioeconomic status, income and education, each parent's labour force participation, and household composition. In addition to this, the effect of citizenship will also be studied as well as the presence of a visibility gradient in continuation patterns. As described in the data chapter, all of the data comes from the registers kept by the Finnish national office of statistics.

## 4.4 Results

The general pattern of educational continuation by gender, ethnic group and generation can be seen in Figure 4.2 (and Table C.1 in the appendix). Overall, most immigrant-origin groups as well as the Finns speaking a language other than Finnish or Swedish are less likely to continue in upper secondary education. The group least likely to continue is clearly the $1^{st}$ generation group of Sub-Saharan African origin. In general, the $1^{st}$ generation group is often less likely to continue than the corresponding $2^{nd}$ generation group, but in many cases this difference is not very large, and in the case of the ex-Yugoslavs this is reversed.

Amongst most immigrant-origin groups, girls are more likely to continue than boys, although the opposite is the case for the Finnish- and Swedish-speaking majority groups. Moreover, amongst the West Asians and North Africans, the $2^{nd}$ generation ex-Yugoslavs and the $1^{st}$ generation Sub-Saharan Africans, boys are also more likely to continue than girls. The boys most likely to drop out can be found amongst the $1^{st}$ generation East Asians, the 'other' groups, the Sub-Saharan Africans, and the $1^{st}$ generation West Asians and North Africans. The girls particularly likely to drop out can be found amongst the $1^{st}$ generation

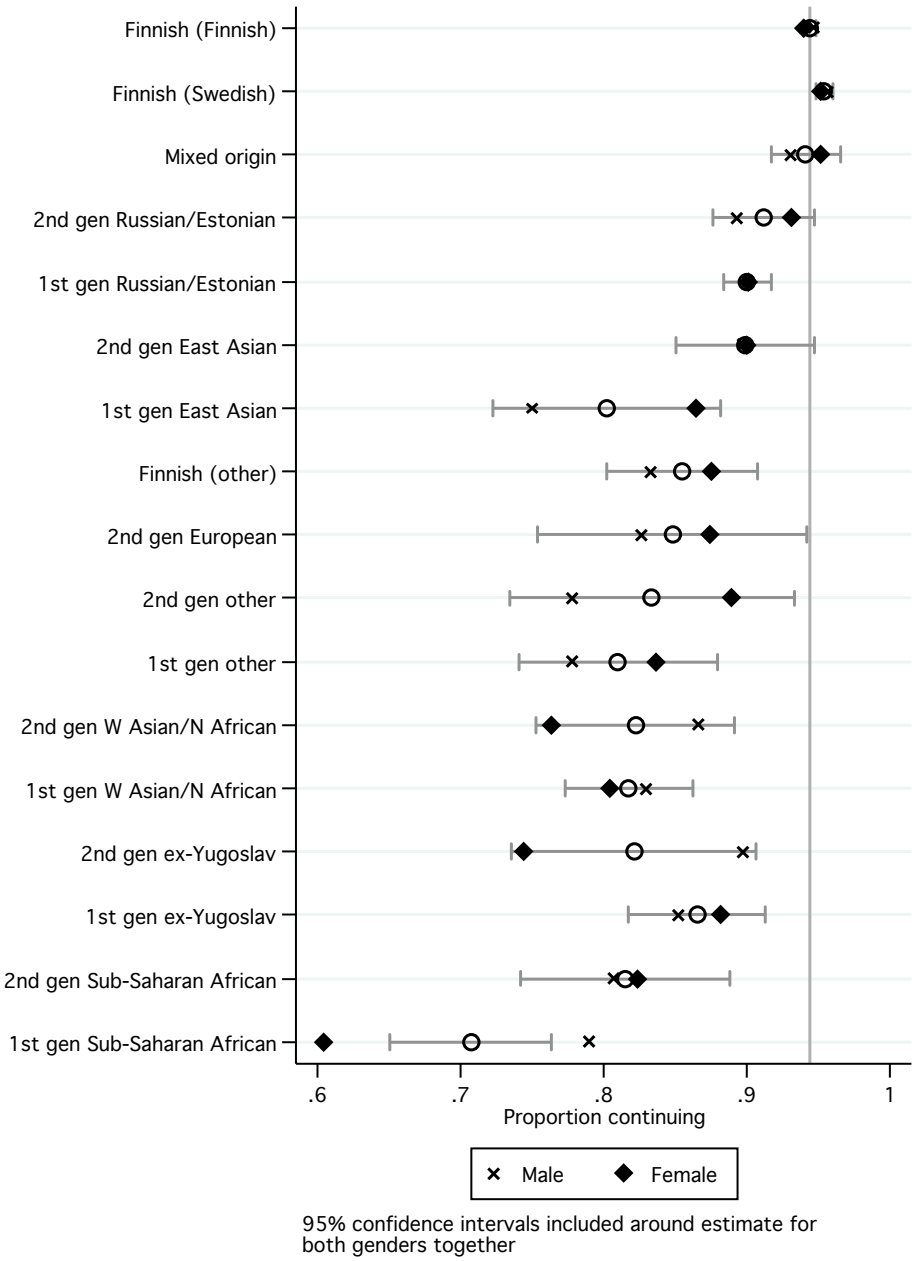



Figure 4.2: Continuation in upper secondary education versus dropping out by ethnic origin and gender

Sub-Saharan Africans, the $2^{nd}$ generation ex-Yugoslavs, and the West Asians and North Africans.

Compared to the results obtained by Romakkaniemi (1998), which were referred to above, these results show a slightly different picture. The group that he identified as most likely to drop out were the Somalians, and the Sub-Saharan African origin group is here too seen as having one of the highest percentages of drop-outs. However, he found the Bosnians and Vietnamese to be the least likely to drop out of education, but in these results neither group that they are aggregated into (ex-Yugoslav and East Asian origin respectively) are particularly unlikely to drop out. To be sure, this may be linked to the fact that the ethnic groups seen here are aggregations of many countries of origin, even if the countries mentioned are likely to make up large proportions of the ethnic groups in question. Also, Romakkaniemi (1998) did not consider continuation after the voluntary $10^{th}$ grade as has been done here.

In comparison to the National Board of Education results (Karppinen, 2008), these results show the importance of measuring continuation one year after completion. Whereas 24.4% of $1^{st}$ generation non-EU students did not continue in upper secondary education immediately (in the results of the National Board of Education), 15.1% were not in upper secondary education one year after (data presented here). The corresponding figures for the Finnish majority are 9.2% and 5.7%.[9]

### 4.4.1 Previous achievement and family resources

This section presents the results of models where the potential explanatory factors of previous educational achievement and family resources are included. The results of these models in terms of their impact on the ethnic-origin dummies can be seen

[9]However, the proportionate increase in continuation between the two years is the same for both groups, it is only in the absolute numbers that this makes a larger difference for the children of immigrants.

in Figure 4.3 (and the full models in Tables C.2, C.3 and C.4). The original results that come as log odds ratios have been translated into probabilities with the reference probability being that of Finnish-speaking Finnish females (without any controls).

The first model more or less replicates the results that were discussed in the previous section as this model only includes the ethnic-group dummies and a female dummy. As was discussed above, all immigrant-origin groups are less likely to continue and so are Finnish other-language speakers. On the other hand, the Swedish speakers are more likely to do so. The difference between the mixed-origin group and the Finnish speakers is not significant.

The next model introduces school achievement in the form of the student's school-leaving average grade. This explanatory variable is highly significant and improves the model fit considerably. The dummy variable for missing information on grades is also large and significant, suggesting that we are likely to have overestimated the grades of those with missing information by replacing them with information from the others.[10] Once we control for grades, most of the ethnic-minority coefficients are reduced and many become insignificant. The ones that remain significant are around two-thirds of the size that they were in the first model. In particular, the difference between the students from Russia/Estonia and ex-Yugoslavia with the Finnish speakers is no longer significant.

Models 3–5 introduce the parental resource measures of socioeconomic status, income and education. However, the models were not found to be satisfactory in terms of explaining dropping out and therefore the results of these will not be drawn upon further. Briefly, parental socioeconomic status was not found to have

[10]The main reason for missing information about grades is that the student did not apply to any upper secondary education in $9^{th}$ grade. Therefore, it would not make sense to drop these people from the analyses as they are disproportionately more likely to drop out than those with information about grades (almost 50% compared to less than 5%). However, if the models presented here are run without the students with missing information about grades, the conclusions drawn for the ethnic groups remain largely the same.

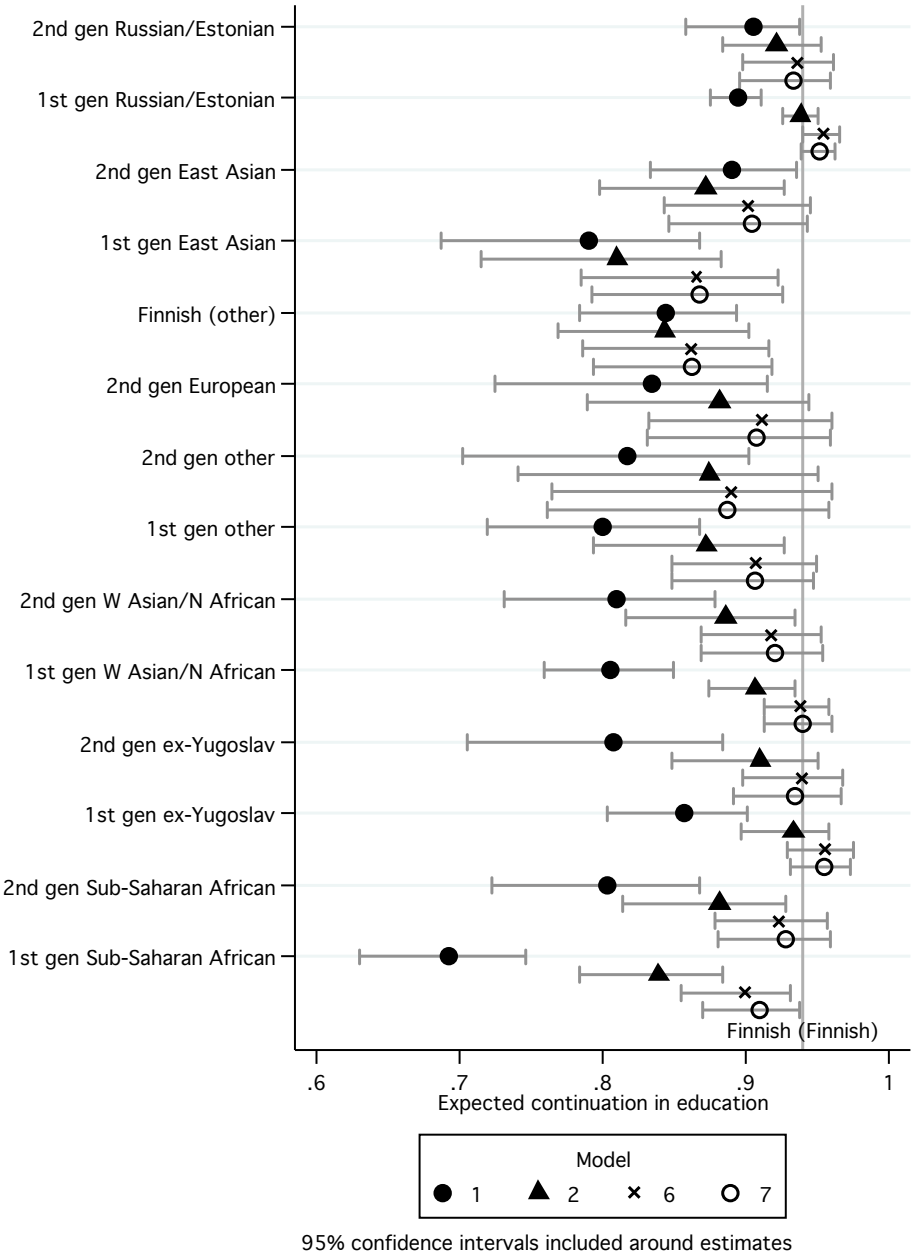



Figure 4.3: Effect of ethnic origin on continuation/dropping out in different models: Expected probabilities for female students with an average grade of approximately 7.4 (models 2, 6 and 7), both parents employed (models 6 and 7), two adults and 1-3 children in household (model 7)

any effect, there was a slight gradient in the effect of income, and parental education had a slight negative effect at both extremes: the children of two university-educated parents and those of parents with no more than compulsory education were less likely to continue than their peers. Nevertheless, the conclusions drawn for the effects of ethnicity on continuation are the same from those models as they are from the ones presented next.

Model 6 introduces the labour force status of both parents separately. Unemployment of either parent reduces the chances of continuing in education, as does a parent with unknown labour force status.[11] Moreover, having a mother who is not in the labour force also reduces the chances of continuation, whereas the same is not the case for the father. Unsurprisingly, this reduces the immigrant-origin coefficients significantly, leaving only two coefficients significant and negative: those for $1^{st}$ generation East Asians and Sub-Saharan Africans.

Model 7 introduces two variables measuring household composition: one for number of adults and the other for number of children. Not having two adults in the household is linked to an increased risk of dropping out, as is being an adult student living alone. This last effect is likely to be linked to the highly select nature of the group. Neither changes the ethnic-minority coefficients by much and the same two ethnic-minority coefficients remain significant. In both the last two models the coefficient for the $2^{nd}$ generation East Asians is also borderline significant. The coefficient for the $1^{st}$ generation Russians and Estonians is also significant or borderline significant, but in contrast to the other three, it is positive. In addition to the immigrant-origin students, the other-language Finns are also significantly more likely to drop out of education than the Finnish- or Swedish-speaking Finns. The difference between this group and the other Finns remains virtually unchanged by the control variables, and the size of the difference is as least as great, if not greater, than between any immigrant-origin group and the

[11] Amongst fathers this often translates into a missing father, but this is not always the case.

majority.

Adding parental education to this model (Model 8) shows the same U-shape as was reported above: children whose parents are both university educated or neither of whom have more than compulsory education are more likely to drop out than others. This result may be explained by the findings of Vehviläinen (1998) that were referred to above: whereas students whose parents have not pursued education further are less likely to get support for their own education, the students who come from families where both parents are very highly educated may be rebelling against that educational tradition.[12] Controlling for parental education reduces the ethnic-minority coefficients further and makes the one for $2^{nd}$ generation East Asians insignificant. However, the difference otherwise is not necessarily substantial and the model used for further analyses will be model 7.[13]

The difference between groups is evident only at the low end of the achievement scale.[14] The ethnic-minority disadvantages that remain significant tend to be larger than the family controls, and around the same as the gender difference. In terms of grades, the ethnic-minority disadvantages translate to a difference of approximately half a grade.

In addition to the large effect of grades, parental labour force participation is also a major determinant of differences between immigrant-origin groups and the majority: if we do not take labour force participation into account, the only immigrant-origin groups not to be disadvantaged are the Russians, Estonians and ex-Yugoslavs (not shown).

[12]However, as was evident from the research of Vanttaja (2005), it is also the children of highly educated parents who are more likely to return to education at a later age.

[13]The effect of parental income was also tested by adding it into Model 7 (not shown). In this case the effect was not significant, and therefore the result that was referred to above was probably due to income being a proxy for either parental labour force status or number of adults in the household.

[14]In the example used in Model 7 of Figure 4.3, where the average grade is set at 7.3, the difference in continuation probabilities is at most 7 percentage points, but with lower grades the difference becomes larger, whereas the difference disappears with higher grades.

Controlling for clustering in schools (Table C.5) did not affect the results, and so this level of analysis will not be used further in this chapter.[15]

### 4.4.2 Ethnic origin interactions with grades and parental labour force participation

The question of whether grades and parental labour force participation have a differential effect on children of immigrants' continuation was examined. For this analysis, the immigrant-origin groups were collapsed into two: the $2^{nd}$ and the $1^{st}$ generations. All the Finnish-origin groups were also collapsed into one, and the mixed-origin group was kept separate. Groups were collapsed to have high enough numbers to ensure the statistical significance of possible interactions.

Using these aggregate groups, no overall disadvantage was evident for immigrant-origin groups. However, a significant interaction with grades was found for the $2^{nd}$ generation and a borderline significant one for the $1^{st}$ generation (Model 10 in Table C.6). Moreover, interactions between parental labour force participation and the groups were tested for. One interaction was found to be significant: between the $2^{nd}$ generation and father being outside the labour force. This interaction was found to be negative. Therefore, whereas having a father outside the labour force is no different to having an employed father for other groups, it does have a negative effect on the continuation probabilities of the $2^{nd}$ generation.[16]

The effect of the interactions can be seen in Figure 4.4. This shows both the greater effect of grades for the immigrant-origin groups as well as the large negative effect of having a father outside the labour force for the $2^{nd}$ generation. The greater effect of grades is evident at the very low end of achievement where continuation

[15] As in the previous chapter, the Stata command used for this (xtlogit) does not allow for probability weights to be used. Therefore, the effect of adding the school level on the ethnic-origin coefficients should be done relative to a model where the weights have also not been used. In other words, Model 9b should be compared to Model 9a rather than to Model 7.

[16] Further analysis seems to indicate that it is not limited to any particular socioeconomic group of fathers outside the labour force (such as students, pensioners, or the long-term unemployed), but across all these groups, the $2^{nd}$ generation is less likely to continue than their peers.

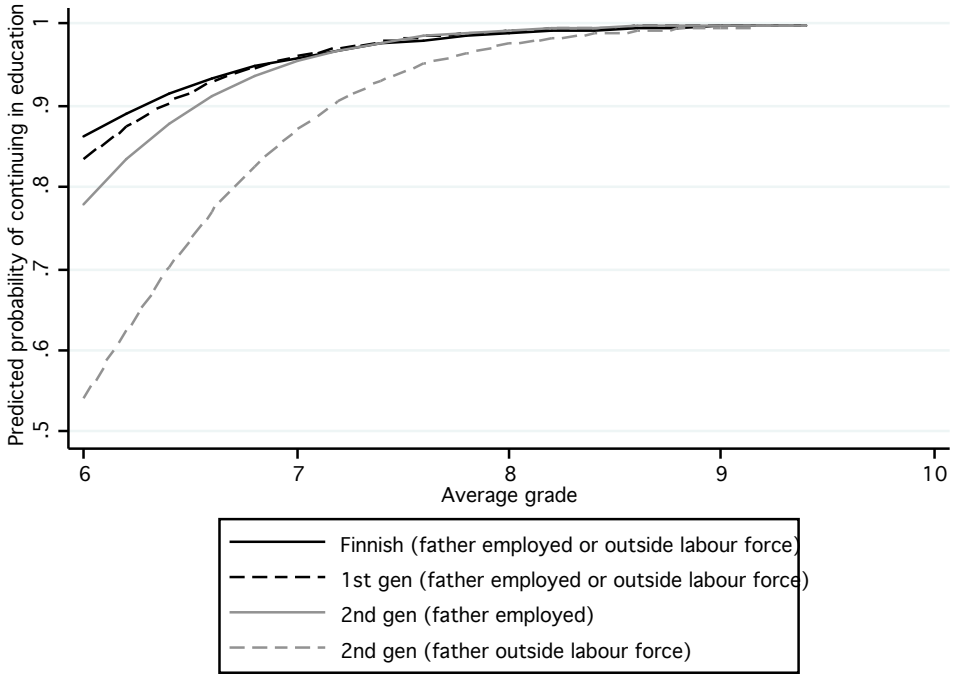



Figure 4.4: Interaction effects between generation and achievement, and generation and father's labour force participation for continuation in education: Expected probabilities for male students with employed mothers, two adults and 1-3 children in household

rates drop more rapidly for the immigrant-origin groups than for the majority. The effect of having a father outside the labour force has a negative effect for a wider range of achievement but also concentrated towards the low end. The difference between the $2^{nd}$ generation students with a father outside the labour force and other students with fathers in a similar situation can be extremely large.[17]

Adding these interactions does not change the conclusions about the individual ethnic-origin groups substantially (Model 11 in Table C.6). After the inclusion of these interactions, no $2^{nd}$ generation group differs significantly from the majority population, except naturally with regards to the effect of the independent variables discussed above. In contrast, amongst the $1^{st}$ generation there is a split between those groups more likely to drop out, namely the East Asians, the Sub-Saharan

[17]However, it should be noted that the total number of $2^{nd}$ generation students whose father is outside the labour force and who drop out is only 11 in the data, and given that this is likely to represent approximately 50% of all such students in Finland over a five year period, the extent of this problem may not be that great.

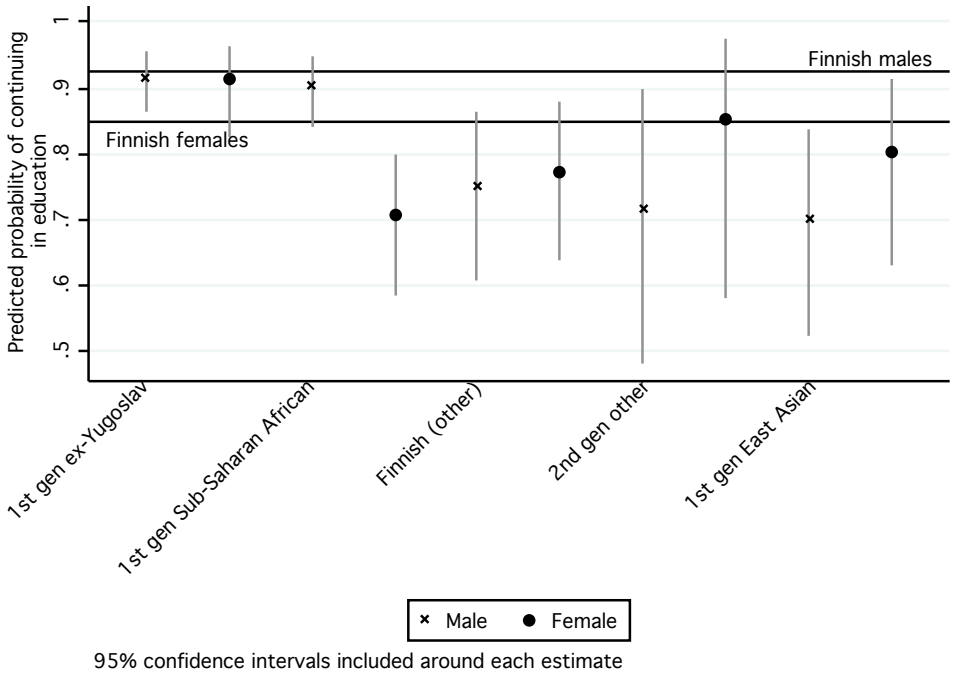



Figure 4.5: Interaction effects between ethnic origin and gender for continuation in education: Expected probabilities for students with an average grade of 6.5, both parents employed, two adults and 1-3 children in household

Africans, and the 'other' group, and those groups that do not differ from the majority or may even be less likely to drop out, namely the Russians and Estonians, the ex-Yugoslavs, and the West Asians and North Africans.

### 4.4.3 Gender

Gender interactions were added to the previous model, and those that were found to be significant, or relatively near significance, can be seen in Figure 4.5 (and Model 12 in Table C.6). Most gender interactions were found to be positive, indicating that the girls within the group were either level with the boys in their group (as the main effect of gender was found to be negative), or they were more likely to continue than the boys. The only exception to this was the $1^{st}$ generation Sub-Saharan African group, where the girls are even less likely to continue in upper secondary education than girls in other groups.

With regards to the overall pattern of continuation, these results suggest that the students who are less likely than the majority to continue in upper secondary education are male Finns who speak a language other than Finnish or Swedish, male $1^{st}$ generation East Asians and male $2^{nd}$ generation 'other' students, as well as female $1^{st}$ generation Sub-Saharan Africans.

The Swedish results discussed above were not replicated in the Finnish context. However, it does seem that most girls from groups that do not have a history of widespread female education are no more likely to drop out than other girls with similar grades and family backgrounds. The only exception to this are the $1^{st}$ generation Sub-Saharan African girls, who may face more pressure to marry early.

It is difficult to explain why the male groups that were found to be more likely to drop out do so. On the one hand, with regards to the Finns who have registered another language, some of the students in this group are Sámi students living in Lapland. Therefore, one of the reasons for them to drop out of education may be the long distances needed to travel to upper secondary schools. This is also the case for comprehensive school, but when school is no longer compulsory, these distances may become a decisive factor. However, in 2008 the drop-out rate in Lapland was even lower than in the rest of the country, and so if this was the case in the cohorts studied here, it is possible that it is no longer the case now.[18] With regards to other language minorities, there are no clear reasons why these groups, and in particular the boys, should be more likely to drop out of education than the majority.[19]

[18]Source: Statistics Finland website (Table: The continuation of comprehensive-school leavers of 2008 in upper secondary education according to region in 2008 `http://pxweb2.stat.fi/database/StatFin/kou/khak/khak_fi.asp`, in Finnish, last accessed 1.2.2010).

[19]There is a slight possibility that some students in this group are Roma, and they have a long history of dropping out of education due to a culture that has historically not valued education and has possible seen it as 'White' thing to do. It has been estimated that fewer than half of Roma children continue their studies after compulsory school (Hernesniemi & Hannikainen, 2000).

### 4.4.4 Citizenship

The effect of citizenship was tested but was not found to be significant after the introduction of controls for family resources (Table C.7). This was no different when ethnic origin and the gender interactions were added. Therefore, unlike in the case of achievement, amongst students who had lived in Finland long enough to obtain citizenship, having Finnish citizenship did not aid in making them less likely to drop out than their peers without citizenship.

### 4.4.5 Visibility

Whether and how the visibility of groups affects continuation and choice was examined with more detailed mixed-origin groups and by a somewhat different categorization of ethnic groups. Students of unknown origin and those who had been resident in Finland for fewer than five years were also dropped in the same way as in the previous chapter. The results are shown in Table 4.1 (Models otherwise as Model 7 in Table C.4). The only two groups that have significant estimates are the most visible groups: the Asians and Africans as a group are the only ones more likely than the Finns to drop out of education. Moreover, the mixed-origin estimate for this group is between the majority and the group itself, not being significantly different from either. Therefore, there is some evidence to suggest that visible groups are more likely to drop out of education at this stage.

## 4.5 Discussion

This chapter has examined the educational continuation of compulsory-school leavers in Finland. One of the main determinants, if not the main determinant, of this was found to be the student's school-leaving average grade. Although in principle there are enough continuation places for all students, the choice of school

Table 4.1: Visibility gradient in educational continuation

| Ethnic origin | Mixed | Immigrant |
|---|---|---|
| Finnish origin | reference | reference |
| Mixed: FIN-Russia/Estonia | -0.16 (0.49) | |
| Russia/Estonia | | 0.11 (0.16) |
| Mixed: FIN-Europe | -0.05 (0.31) | |
| Europe | | 0.07 (0.20) |
| Mixed: FIN-Americas | 0.74 (0.76) | |
| Americas | | -0.68 (0.89) |
| Mixed: FIN-Asia/Africa | -0.15 (0.90) | |
| Asia &N Africa | | -0.28 (0.14) * |
| Sub-Saharan Africa | | -0.33 (0.19) * |

$^{*}p < 0.10,^{**}\ p < 0.05,^{***}\ p < 0.001; N = 22,314$
controls not shown

is determined by students' grades so that more popular schools (and courses) have higher entrance requirements. Moreover, more studious students are naturally more interested in continuing in education.

Educational continuation can also be explained by parental labour force status, in particular, by whether parents are employed or not. Although this could be seen to link to a 'culture of dependency' type of argument, there are two findings that would suggest that this is not the mechanism behind it. On the one hand, a father outside the labour force does not reduce the chances of continuing, and studying those fathers further shows that there are no differences between the children of long-term unemployed fathers and those whose fathers are pensioners or students.

Parental income and socioeconomic status do not explain continuation, and parental education has a slightly surprising two-sided effect. Household composition only has an effect with regards to the number of adults in the household, and if the student is already an adult living on their own.

We started out the analyses of continuation in education with all groups being more likely to drop out of education than Finnish-speaking Finns, except for the mixed-origin students and the Swedish speakers. This disadvantage is driven by both lower grades and differences in parental labour force participation. The Rus-

sian/Estonian and ex-Yugoslav disadvantage is fully explained by grades, whereas other groups are still left somewhat disadvantaged. Controlling for parental labour force status leaves the $1^{st}$ generation Sub-Saharan Africans and East Asians disadvantaged in addition to the other-language Finns. These remaining ethnic disadvantages are of approximately the same magnitude as the female disadvantage.

Household composition and parental resources do not explain ethnic differences much further. Gender interactions also do not change the main conclusions. Whereas amongst the $1^{st}$ generation East Asians and the other-language Finns, it is the boys who are more likely to drop out, amongst the $1^{st}$ generation Sub-Saharan Africans it is the girls. It is possible that the boys from the two groups mentioned above have relatively better opportunities to become employed in 'ethnic' jobs than do boys or girls from other groups. This would mean that they have relatively fewer incentives to continue in education.

The extremely high drop-out rate amongst the $1^{st}$ generation Sub-Saharan African girls may be explained by a lingering doubt over the value of female education amongst this group, and possibly a greater inclination to get married at a younger age than in other groups. However, it may also be caused by more 'broken' school careers before arrival in Finland that are likely to have affected girls disproportionately, thus leaving them with fewer resources to gain a desirable place of study in upper secondary.

Overall, the differences amongst the majority and the children of immigrants are only evident at the very lowest end of the achievement scale. This is linked to the finding that grades have more of an effect for children of immigrants, particularly the $2^{nd}$ generation, than for the majority. This interaction means that, controlling for parental labour force status, $2^{nd}$ generation students are significantly more likely to drop out than the majority when grades are low but no different from the majority otherwise.[20]

[20]There is also the possibility that the grades of the immigrant-origin students in the very

This result may be explained by the fact that the largest proportion of drop-outs amongst children of immigrants are those who applied but did not get in and also did not reapply (Karppinen, 2008). This is likely to be the case for those students with the lowest grades. Moreover, particularly the $1^{st}$ generation non-EU students (some of whom would be defined as $2^{nd}$ generation in this thesis) were found to use the opportunities of supplementary applications (*jälkivalinta*) and $10^{th}$ grade relatively less than other groups. (Karppinen, 2008)

Therefore, the problem is not so much that children of immigrants are actively seeking to drop out of education, but that when faced with the situation that they have not gained a place of study in the main round of applications, they do not have the resources or motivation to seek admittance through other routes to the same extent as other groups of students. This would indicate that the (immigrant-origin) students who drop out are largely discouraged rather than actively anti-school.

An additional factor affecting the initial rejection and subsequent lack of reapplications amongst immigrant-origin students may be the language tests that vocational schools impose on the applicants whose first language is not Finnish. Given that students whose grades are very low are more likely to fail these tests, they may then be barred from supplementary applications. However, this does not explain why they do not enter the $10^{th}$ grade or preparatory vocational courses to increase their language proficiency and reapply the following year.[21]

lowest performing group are lower than the grades of the majority students in this group. This possibility exists because all students with averages between 4 and 6 have been merged together for reasons of anonymity. This could mean that the interaction between immigrant-origin and grades is caused by this merging rather than because at each level of achievement, children of immigrants are less likely to continue than the majority. However, this is unlikely to have had such a large effect as is seen here and, in any case, should not affect the main points drawn from these results.

[21]It is also possible that some of these students spend more than one year in $10^{th}$ grade, or that despite attending it, they do not have the necessary grades or language proficiency to get accepted into upper secondary education. This at least was the case for some of the students in an earlier study concentrating on Helsinki (Romakkaniemi, 1999). In the case of students spending more years in $10^{th}$ grade before finally continuing to upper secondary, they will be measured as having dropped out in this research. Therefore, data from a longer period of time

An interaction was also found for the $2^{nd}$ generation with fathers outside the labour force; whereas this did not have a negative effect compared to having an employed father for other groups, it did have a significant negative effect for the $2^{nd}$ generation. This could be linked to a social network effect: the social resources of $2^{nd}$ generation students with a father outside the labour force are significantly lower than those of other students. Again, the effect may work mainly at the stage when an initial application has been rejected and the student becomes discouraged from making a new application.

Amongst immigrant-origin students with long enough residence to qualify for Finnish citizenship, there is no difference between those who have Finnish citizenship and those who do not. This may be partly due to the fact that almost all students continue into upper secondary. Moreover, amongst those who do not, the reasons are not linked to integration attitudes, which is the hypothesized reason for the effect of citizenship, but rather due to the discouragement issues discussed above. On the other hand, within specific sub-groups, such as the $1^{st}$ generation Sub-Saharan African girls, one could still assume integration to play a role. However, this has not been tested here.

In terms of visibility, it is the most visible students as a group who are most likely to drop out. This may be somewhat to do with visibility: students in this group may see an initial rejection as a sign of discrimination and be more likely to become discouraged by it. However, given the gender interactions discussed above, there may also be more specific processes linked to different groups at play rather than a general visibility-related process.

after finishing comprehensive school would be needed to establish which groups continue to, and ultimately get a degree from, upper secondary. However, based on the analysis by the National Board of Education on the educational trajectories of the cohort of 1996, attending $10^{th}$ grade does not increase the chances of attaining an upper secondary degree eight years later by much compared to dropping out of education at that stage: the difference is less than 10 percentage points and for the immigrant-origin students this difference is only found amongst the girls (Karppinen, 2008).

## 4.6 Conclusion

In terms of continuation in education, the main picture is optimistic: most children of immigrants do not differ from the majority after grades and family resources have been controlled for. At the same time, however, there are several causes for concern and possible areas for intervention. To begin with, it is clear that the gross difference in drop-out rates between children of immigrants and the majority is large and important, and that this is mainly caused by differences in school achievement. Therefore, the important issue is to equip all students with the resources (including language proficiency) to apply to and continue in upper secondary education. This goes back to the issues discussed in the previous chapter on school achievement.

However, given the interaction between grades and immigrant origin, this may not always be enough and more support mechanisms for students with very low levels of achievement may be necessary. It seems plausible that immigrant-origin students with low grades who do not gain entry into upper secondary education in the main round of applications become 'discouraged students'. Their resources and motivation are then not sufficient to continue trying to access upper secondary education. This is a rather different kind of explanation to those normally put forward for school drop-out, which focus on anti-school attitudes.

The importance of parental labour force participation for continuation and drop out has also been highlighted in this chapter. Students of employed parents, whatever their ethnic origin, are in the best position to continue in education. Whereas previous models of educational continuation focus on the social class of parents affecting the continuation decisions of their children (e.g. Breen & Goldthorpe, 1997), this was not found to have a significant impact on the continuation decisions of Finnish students. Moreover, although not having parents in employment at the time when the student finishes compulsory education was found to have

a slight negative effect for all students, the effect of having a father outside the labour force was found to have an extremely negative effect for the $2^{nd}$ generation. This could be due to lower social resources in those families to assist their children in the application process.

Compared to Swedish results, many commonalities were found. In particular, the lower continuation rates of $2^{nd}$ generation groups (and most $1^{st}$ generation groups) can be explained by school achievement and family background, even if the family background variables used here are somewhat different to those used in Swedish research (Jonsson & Rudolphi, 2009). However, whereas in Sweden there do seem to be some groups with higher continuation rates than amongst the majority, in particular amongst the girls from the Horn of Africa, this was not found in Finland.

Finally, as with educational achievement, largely structural reasons explain most of the differences between children of immigrants and the majority. Contrary to the previous chapter, citizenship was not found to have an effect on continuation. The next chapter will continue looking at continuation, but from a different perspective. The focus will be on the students who continue and on their choices between academic and vocational upper secondary schools.

# Chapter 5

# Choices between general and vocational upper secondary schools

The previous chapter considered the transition from compulsory to upper secondary education in terms of whether a student made the transition at all. This chapter considers the same transition but with regards to the type of school chosen. This means that only the students who were in upper secondary education one year after finishing comprehensive school are studied in this chapter.

This chapter follows closely the same set-up as the previous two: mainly structural explanations of the differences between ethnic groups are examined. This is due to the limitations that using register data makes on the kinds of questions that can be answered. However, the chapter following this one will go deeper into the choices of students and the reasoning behind them by using qualitative data gathered through interviews. This will allow more light to be shed onto questions that remain unanswered at the end of this chapter.

The two types of upper secondary schools in Finland are general upper secondary schools (*lukio*) and vocational upper secondary schools (*ammattioppilaitos* or *ammattikoulu*). Both types take approximately three years to complete, and both qualifications give access to tertiary education. However, even though there are

some compulsory theoretical studies in vocational schools, the focus in this type of education is on skills, which are learnt both at school and in on-the-job training periods. On the other hand, there are many more compulsory theoretical courses in general schools and rather fewer possibilities for taking arts-and-crafts type courses, except in general upper secondary schools that have specialized in one (or more) of these subjects.

At the end of general upper secondary education are the matriculation examinations. Candidates need to take at least four examinations, and they can do this in three sittings over a period of one and a half years.[1] Until 2005, Finnish and Swedish were compulsory subjects, and at least one of mathematics (short or long) and 'theoretical subjects' (*reaali*) had to be taken.[2] From 2005, only the first language examination has been compulsory and the other three could be chosen from second language (for most people this means Swedish), foreign languages, mathematics and 'theoretical subjects'. From 2006, all theoretical subjects have had their own examinations rather than a combined one. It is now possible, theoretically, to take a total of 18 matriculation examinations.

It is also possible to study for both general and vocational upper secondary degrees simultaneously, which is known as a double degree (*kaksoistutkinto*). This normally means that students study for a vocational degree and take some general school courses at the same time. At the end, they take the normal matriculation examinations. This often takes four years to complete. It is also possible to study in general schools and do a vocational degree at the same time. Even though there is a growing trend towards studying for double degrees, this cannot be examined in this thesis as the data does not allow it. Therefore, students studying for double degrees will be classified according to their primary type of school.

[1] Examinations take place every autumn and spring.

[2] All compulsory subjects other than mathematics and languages are counted as theoretical subjects. They used to be examined in a single examination, where candidates could choose questions from all the different subjects or only focus on a few.

Even though both qualifications give access to tertiary education, those who graduate from general upper secondary are much more likely to study in tertiary education. Out of the students who finished general upper secondary in 1998, 37% were studying in polytechnics and 34% in universities three years after graduation. On the other hand, out of those who graduated from vocational upper secondary schools that same year, only 14% were studying in polytechnics and one percent in universities three years afterwards. (Statistics Finland, 2007) This probably reflects the wishes of the students for further education to some extent but is unlikely to be the whole story.

Moreover, as was described in the previous chapter, it is still the case in Finland that the risk of unemployment is lower for the higher educated (Järvinen & Vanttaja, 2001). Obtaining a general upper secondary degree may also be seen as more prestigious than obtaining a vocational one. In this thesis, therefore, continuation to general schools will be seen as a 'better' option than continuation to vocational schools.

The rest of this chapter is organized as follows: The next section discusses the two pieces of research that have been published on this topic in Finland previously. This is followed by a review of relevant theory and international research. The theory used in this chapter focuses on the effect that family resources have on children's education. The results of statistical models are presented after this. The chapter ends with a discussion of the results and a conclusion.

## 5.1 Previous research

### 5.1.1 Finnish research

The earliest quantitative evidence on the educational choices of children of immigrants in Finland comes from research in Helsinki (Romakkaniemi, 1998, 1999).

Looking at just those students who continued in upper secondary education immediately after $9^{th}$ grade, the simple conclusion is that in 1997 exactly half of the immigrant youth continued to general school and the other half to vocational school (Romakkaniemi, 1999).[3] Amongst the Russians and the Vietnamese, the proportion continuing to general school was slightly higher than this (approximately 60%), whereas amongst the Estonians it was slightly lower (approximately 45%). Amongst the Somalians and Bosnians, only around a third of students continued to general upper secondary schools.[4] Compared to the overall situation in Helsinki, the proportion of immigrant students continuing to general school is somewhat lower, as over 60% of comprehensive school leavers in Helsinki tended to continue to general schools at the time (Romakkaniemi, 1999).

The other quantitative research on the subject comes from the National Board of Education (Karppinen, 2008). This study has already been extensively quoted in this thesis, and it will be referred to here again as it also considered the choice between general and vocational school. Again, looking just at those who continued in upper secondary education immediately after $9^{th}$ grade, over half of all students continue in general schools. The proportion is only just over a half for the $1^{st}$ generation students from outside the EU (53%), whereas it is 58% for the $1^{st}$ generation from the EU, 60% for the majority, and 67% for the $2^{nd}$ generation.[5] However, the study also found that at each level of achievement, children of immigrants continued to general schools at rates similar to or higher than the majority. In other words, controlling for grades, children of immigrants were more likely to continue in general schools than take other routes when compared to the

[3]As has been noted earlier, the young people in this study had been resident in Finland mostly for fewer than five years at the time, and many of them did not make the transition to upper secondary education at all.

[4]It should be noted that the number of students per group is not very large, and in the case of the Bosnians and Vietnamese, fewer than 10 students continued to either type of upper secondary school.

[5]Taking the whole school-leaving population into account, rather than just those who continued, the proportions continuing into general schools are 54% for the majority, 57% for the $2^{nd}$ generation, 46% for the $1^{st}$ generation from the EU, and 40% for the $1^{st}$ generation from outside the EU.

majority.

In addition to studying the actual continuation of students, the study also looked at the choices that students put down on their applications. With regards to the $1^{st}$ generation non-EU students, they applied to general school to a greater extent than the majority at each level of achievement. However, not as many continued in general schools as applied. Nevertheless, as was stated above, more amongst this group continued than amongst the majority (at each level of achievement).

As has been discussed previously, there are several deficiencies with these two studies, which this thesis aims to overcome. Whereas the first one considered ethnic groups separately, it did not look at other factors affecting continuation, most notably prior achievement. Moreover, the numbers in each group were small, and as the study was done so long ago, it only included relatively recent immigrants. On the other hand, the second study overcomes many of the problems of the first but, despite large numbers, did not separate different ethnic groups. Moreover, its definition of the $2^{nd}$ generation is problematic as the authors did not use information on parental country of birth and thus included students without immigrant parents in the $2^{nd}$ generation merely on the basis of registered language. What is more, neither of the two considered other parental background measures, the importance of which is discussed with reference to international research results next and on a theoretical level following this.

### 5.1.2 International research

Research looking at the type of secondary education followed that takes into account social origins and often also prior achievement has been undertaken in several European countries. The overall conclusion from these studies has been that children of immigrants tend to continue to higher tracks more often than the majority, at least when these background factors are considered.

At a slightly earlier stage of education in the Netherlands, ethnic minorities are found to be more likely to continue in higher tracks of (lower) secondary education when merit and parental resources are controlled for (van de Werfhorst & van Tubergen, 2007). The largest advantages are found for the Surinamese/Antillean and Turkish origin groups. In France, at a similar level of education to the one studied here, North African students are found to be more likely to continue in higher tracks of upper secondary education controlling for school achievement and parental education (Brinbaum & Cebolla-Boado, 2007). On the other hand, the difference between the Portuguese group and the majority is not significant.

The results from Germany are slightly more mixed but have some similarities nevertheless. Many ethnic minority groups have been found to be disadvantaged in terms of their ability to reach the Abitur, which is the qualification at the end of general upper secondary education (Kristen & Granato, 2007). This disadvantage is largest for the Turkish and Italian origin groups. However, controlling for parental resources and household composition, the disadvantage remains only for Italians whereas Greeks and Iberians have significant advantages. This analysis did not take into account previous school performance. However, looking at continuation into universities, all migrant groups are found to be more likely than the majority to do so after controls for grades and social origin (Kristen et al., 2008). This advantage is highest for the Turkish origin groups. It was also found that the Turks and South Europeans differed from the majority by being more likely to go to traditional universities.

In Sweden, an overall advantage for children of immigrants has also been found when looking at continuation to academic tracks of upper secondary and controlling for parental education, family type and achievement at the end of comprehensive school (Jonsson & Rudolphi, 2009). The largest advantage is for students with origins in the Horn of Africa. Overall, non-Western origin students have the highest probabilities of continuing in academic tracks, and students with origins

in other Nordic countries are not significantly different from ethnic Swedes.

Overall, there seems to be a strong desire amongst children of immigrants to continue in academic or general education. This desire is particularly (or only) evident when we take into consideration the barriers that they tend to face in pursuing this, most importantly their lower grades. In most countries, grades have a large influence on continuation, either because they are likely to influence the recommendations of those who have the power to decide continuation (as in France for example) or because entry into schools is competitive and based on grades (as in Finland). Moreover, it seems that this desire is stronger amongst non-Western or non-European groups than amongst European ones.

## 5.2 Theory and research questions

As has been discussed above and in the previous chapter, two of the main determinants of educational continuation are family background and previous educational achievement. To my knowledge, no previous Finnish research has tested the relative effects of these two for continuation into upper secondary education. Studies looking at this transition have compared the effect of ability measured in childhood and parental education and found the latter to be more influential (Kuusinen, 1985). However, this does not guarantee that the same result would hold if school grades at the end of comprehensive school were used. Ahola & Nurmi (1997), on the other hand, looked at the transition from general upper secondary schools to tertiary education, and found grades to be highly influential in predicting preferences for tertiary education (though they did not look at the actual transition), and a relatively low effect of parental education.

Although the effect of grades is likely to be important for both children of immigrants and the majority, the effects may nevertheless differ in size. It may be the

case that children of immigrants pay less attention to their grades when making their continuation decisions. This may be the case if their abilities and motivation are not captured as well in their grades as it is for the majority. In this case, we would expect a negative interaction between children of immigrants and grades. This seems to be the case in Germany when continuation to university is considered (Kristen et al., 2008).

The interaction between migrant status and grades could also be positive. This would be the case if children of immigrants would be more likely to become depressed by their lower grades and thus be more likely to continue in lower tracks, or choose vocational school in the case of Finland.

### 5.2.1 Family resources

According to rational choice theorists, educational decisions are influenced by expectations of payoffs from different educational paths followed. These payoffs may be conceived of as social class positions. Breen & Goldthorpe (1997) assume that all children aim to minimise their chances of social class demotion. In particular, this leads to differences between classes as working class children avoid taking risks that may lead to failure to complete a certain level of education, which could increase the risk of ending up unemployed.

In opposition to the rational action view of educational transitions, other theories see the varying educational transition rates of different social groups as stemming from other reasons, such as cultural or informational effects. For example, children of more highly educated parents have more information about higher educational institutions as they have attended those institutions themselves. This makes them more confident about their ability to guide their offspring through these institutions successfully.

In this regard, immigrant parents are at an additional disadvantage if their edu-

cational credentials are from foreign educational institutions. This type of interaction has been found in Germany. Gang & Zimmermann (2000) found that the education of immigrant parents does not have an effect on their children's education. On the other hand, Kristen & Granato (2007) found that although higher parental education did have an effect on the chances of reaching the Abitur, the effect for children of immigrants was not as large as it was for the majority population. However, this interaction was only significant for the Turkish group.

In Switzerland, a similar result has been found: parental education has a smaller effect for the $2^{nd}$ generation compared to the children of natives when looking at education pursued (or completed) at the age of 17 (Bauer & Riphahn, 2007). This is driven by the children of low-educated immigrant parents being more likely to pursue higher education than their majority peers, whereas there is no difference between children of highly educated parents. However, there is considerable variation between groups in this regard and, for example, the Turkish group does not differ much from the majority with regards to the size of the parental education effect.

On the other hand, van Ours & Veenman (2003) could not reject the hypothesis that the effect of parental education on educational attainment is the same for the $1^{st}$ and the $2^{nd}$ generation compared to the majority in the Netherlands.

Comparability of parental class or socioeconomic status between children of immigrants and the majority may also be doubted. If there is downward mobility at migration, the class position of immigrant parents may not reflect their class identity, which may be based on their occupation before migration. In Finland, there is evidence that immigrants often become employed in jobs that do not match their qualifications, jobs that are often routine manual jobs with low incomes, particularly jobs in cleaning, transport and restaurants (Väänänen et al., 2009).

This downward mobility may lead immigrant parents to place hopes of reverse

mobility on their children. Hustinx (2002) proposes an explanation for weaker effects of social background for ethnic minorities based on children of immigrants realizing that their parents have had to find their place in society in different circumstances than natives have to, and thus being less likely to take their example from their own parents than children whose parents have been educated in the same country. This could lead to lower effects of socioeconomic status as the reasons that lead students from less advantaged backgrounds to lower educational attainment are lacking for children of immigrants from similar backgrounds.

On the other hand, one reason why socioeconomic background may have a larger effect for minorities is that differences in ability (and additional resources, such as networks) may be likely to show up as higher socioeconomic effects for ethnic minorities because they have to work harder to attain a higher socioeconomic status (Fekjaer, 2007).

Monetary resources may also matter for choice of school type, not only directly in terms of fees and other direct costs but also opportunity costs: children whose parents are not able to support them financially may need to enter the labour market earlier than their peers from wealthier families. Although in Finland neither the direct costs nor the opportunity costs between vocational school and upper secondary school vary much, forward-looking students are still likely to value these two options differently in terms of costs. This is because general upper secondary school is expected to be followed by more education, either at university or in various vocational institutions in order to have good labour market opportunities. A person who has completed vocational school, on the other hand, is in a better position to enter the labour market immediately after graduation.

There may also be differences between ethnic groups in terms of whether parents expect their children to support themselves after reaching maturity, or whether parental assistance continues for longer. Fekjaer (2007) also argues that family

income may be more important for those minorities for whom it is more common to have extended families and children staying at home after they have grown up. Therefore, we may see a positive interaction between immigrant-origin and income.

On the other hand, results from Belgium suggest that wealth may, in fact, have a lesser effect for children of immigrants for highest completed education (Phalet et al., 2007), which is highly linked to educational continuation. The reasons for this lower effect may be similar to those suggested by Hustinx (2002), and discussed above, for weaker effects of social background.

A significant effect of parental socioeconomic status on final educational attainment has been found in Finland. The odds of being enrolled at university in 1990 for 20–24-year-olds whose father had a university degree were over eleven times higher than for those whose father had only completed compulsory education. The odds for those with fathers who had a vocational degree were 1.4–3.9 higher, depending on the level of the vocational degree. These odds had reduced slightly from 1985. The effect of father's socioeconomic status was slightly lower, with those whose father was an upper-level employee being 7.5 times more likely to be in university than those whose father was a manual worker. For the children of entrepreneurial fathers, the odds ratio was 1.9, whereas for the children of lower-level employees it was 2.5. These had barely changed since 1985. (Kivinen & Rinne, 1995)

On the other hand, international research suggests that the transmission of parental education levels to their children is relatively low in Finland (Hertz et al., 2007). Therefore, as with the PISA results discussed in Chapter 3, family background is likely to have a significant effect on children's education in Finland, but compared to other (Western) countries, this effect is likely to be less strong. The second part of this statement cannot be tested further in this thesis.

Given that many immigrant groups have, on average, a lower socioeconomic status and lower incomes, if not lower educational levels, it is important to take this into consideration when assessing the impact of ethnic origin on educational continuation.

### 5.2.2 Primary and secondary effects of social origin

Boudon (1974) was one of the first people to make the distinction between primary and secondary effects of family background on continuation in education. He argued that family background – social class in particular – had an effect both on academic achievement (primary effect) and a separate one on continuation controlling for achievement (secondary effect). This distinction is being indirectly studied in this chapter and the two previous ones. Chapter 3 focused on the primary effects, and the analyses in this chapter will shed light on the secondary effects, both of ethnicity and of other parental resources such as class.[6]

However, in addition to these analyses, which do not create clearly comparable results for primary and secondary effects, a method is used that has been developed to separate the social origin effects on continuation into primary and secondary effects (Erikson et al., 2005). This means that the total effect of parental background can be divided into the part that works through the effect that it has on grades (and the consequent effect that grades have on continuation) and the effect that it has above and beyond grades.

It should be noted that this result is not the same as the one which is obtained from analysing the effect of family background on grades and comparing it to the effect of family background on continuation, controlling for grades (even if the coefficients were comparable). This is because the method here also takes into account the fact that grades can have a differential impact on the continuation of

[6]Chapter 4 also considered secondary effects but they were largely found to be insignificant.

different groups. In other words, it allows for an interaction between social origin and grades.

Previous research looking at primary and secondary effects for majority populations (or the whole population) has found primary effects to be more influential for students in Britain continuing to A-levels (Jackson et al., 2007). For example, comparing the salariat to the working class in 2001, primary effects accounted for approximately three-quarters of the total effect. This was up from around two-thirds in 1974 and 1986. Similar results have been found in Sweden looking at continuation to the highest track of upper secondary education (Erikson, 2007). Comparing the salariat to the working class in 1990 showed that primary effects accounted for just over two-thirds of the total effects.

All of the results above assume that students' grades are not affected by anticipatory decisions about continuation (Erikson et al., 2005). If they are, then the secondary effects are likely to be underestimated. To some extent this is unlikely to happen in Finland. On the one hand, this is because grades are teacher-assigned, and thus it is not a single examination that determines students grades as has been the case in England. On the other hand, entry into vocational school is also competitive and thus students need to get the best grades possible to guarantee entry into the course they want.[7]

The analyses of primary and secondary effects will be done using a method introduced by Erikson et al. (2005) and further developed by Buis (2008). This method uses counterfactuals to estimate continuation probabilities for groups using the performance distribution of one group and the continuation propensities conditional on performance of another, and vice versa. These counterfactuals allow

[7]This came up strongly in the interviews with students in the $9^{th}$ grade: regardless of what type of school students were applying to, there were both students who were trying to raise their grades and those who thought that their current grades would be sufficient. Moreover, as discussed in Chapter 2, evidence suggests that, if anything, it is the students applying to vocational schools that get higher grades than their school performance, as measured by national examinations, would suggest, which is contrary to what would be expected if students' anticipatory decisions were affecting their grades.

for the total effects of whatever background variable is used to identify the groups to be decomposed into the direct and the indirect effects. Whereas the original Erikson et al. method assumed that performance would be normally distributed and allowed for interactions between groups and performance, the extension by Buis does not assume either of these, although it does allow for these assumptions to be used. Moreover, the Buis extension also allows for standard errors to be calculated, which is a significant improvement on the original method.

### 5.2.3 Gender

As has been described previously in this thesis, girls are mostly advantaged in education compared to boys in Finland, except for the transition from compulsory to upper secondary education. With regards to choices between upper secondary school types, girls have been found to be more likely than boys to continue in general schools and less likely than boys to continue in vocational schools in all groups (Karppinen, 2008). However, the difference between the genders was found to be smaller amongst children of immigrants than amongst the majority, although interactions were not tested. Moreover, at least part of the gender difference is likely to be explained by prior school achievement.

In Sweden, girls tend to be more likely to continue in the academic track of upper secondary education than boys even after controlling for grades (Jonsson & Rudolphi, 2009). Moreover, ethnic-minority advantages tend to be larger amongst the girls than amongst the boys. This difference is most evident for students with origins in the Horn of Africa and amongst Middle Eastern groups. Somewhat opposite results are found in Germany, where the overall advantage of women in reaching the Abitur is not present in the Italian and Portuguese groups, and to some extent the Turkish group also (Kristen & Granato, 2007).

In the Netherlands, the gender difference has been found to differ by generation

(van Ours & Veenman, 2003). Whereas, amongst the natives, women complete more education than males, amongst the $2^{nd}$ generation there is no difference, and amongst the $1^{st}$ men complete more. Finally, in terms of the highest education completed in Belgium, the female advantage has been found to be evident in all ethnic groups (Phalet et al., 2007).

Overall, these prior research results give no clear expectations for this research, as they seem to contradict each other. Only the Swedish results discussed above take into account the effect of prior school achievement on continuation or attainment. These results are, therefore, the most likely to be comparable to the Finnish ones. It is, therefore, important to note that the female advantage is greatest amongst the groups that come from areas that do not necessarily have a tradition of female education. A potential explanation for these results could be that many of the vocational courses are not seen as suitable for girls in these groups and thus academic studies are seen as a safer option. The important point to note about the Dutch results is that there may be significant differences between generations.

### 5.2.4 Citizenship

In previous chapters, citizenship has been seen to have a positive effect on school achievement but no effect on continuation to upper secondary education. Its effect on choice of school type, for those who are seen to be eligible based on their length of residence in Finland, will be studied in this chapter.

With regards to choice of school, we might expect students with citizenship to be more committed to staying in Finland permanently and, therefore, more ambitious about advancing themselves in the Finnish education system. This should translate into higher probabilities of continuing in general upper secondary schools rather than vocational ones compared to those without citizenship.

On the other hand, we could also expect those with citizenship to behave more

like the majority than those without, which in this case may mean being more likely to choose vocational schools. This is because, based on previous research, we would expect children of immigrants to choose general schools to a greater extent than the majority.

Looking at the $2^{nd}$ generation in Switzerland, Fibbi et al. (2007) have found a significant difference between the naturalized and the non-naturalized in terms of tertiary education. Naturalized youth were found to be more likely to be enroled in, or have a degree from, tertiary education than non-naturalized youth. Moreover, controlling for social origin, their enrolment was also higher than amongst the Swiss majority. The naturalized 1.5 generation (those who had migrated during their school years) were also found to be in education at similar levels to the naturalized $2^{nd}$ generation.

However, due to Swiss nationality laws, the causal relation of naturalization and educational attainment cannot be assessed (Fibbi et al., 2007). On the one hand, it may be that more integrated young people are more likely to succeed at school and more likely to obtain Swiss nationality. On the other hand, it may be that the young people who succeed at school are more likely to obtain Swiss nationality in order to have better employment opportunities.

As has been discussed previously, the exact causal mechanism linking citizenship to choice of school, if such a link is found, will also be left unsolved here. However, because children with Finnish citizenship in this data are younger than the ones studied in Switzerland, and because citizenship will have been obtained for them by their parents, there is more reason to believe that any effect that citizenship may have on education here, is more likely to be related to integration rather than strategic thinking on the part of children.

### 5.2.5 Visibility

Following on from the previous chapters, a visibility argument will also be tested. Whereas the visibility argument for achievement was based mainly on actual discrimination of more visible groups, for choice of school type the reasoning is based on expected discrimination.

As was described above, according to the rational action framework, educational decisions are likely to be influenced by expectations of pay-offs from different educational paths followed (Breen & Goldthorpe, 1997). These pay-offs may be conceived of as social class positions. If students expect to be discriminated against, as ethnic minority students may, this is likely to affect their estimations of the potential value of education.

It is unclear whether anticipated discrimination would increase or decrease the desire to reach higher levels of education. On the one hand, if a certain social class position is aimed at, then a group who fears discrimination will be likely to feel that they need more education to maximize their chances of attaining that. Moreover, opportunity costs of continuing in education are, in effect, lower for those who are discriminated against on entry into the labour market (Heath et al., 2008). Lauglo (2000) argues that immigrants (particularly those who are visible minorities) work harder because they encounter discrimination and anticipate continuing discrimination in the labour market, so they want to offset this with their educational credentials. This would lead to more visible groups being more likely to choose general schools rather than vocational schools as general schools are the main gateway to higher education.

On the other hand, people who believe that they will be discriminated against may decide that it is useless for them to even try achieving the higher positions.[8]

[8]This can be seen as similar to parts of Ogbu's (1997) oppositional culture argument for why African Americans underachieve.

Therefore, the effect of discrimination depends on how the groups concerned are likely to respond to it, but also on whether young people themselves include it in their considerations. There is evidence to suggest that young people are not aware of the discrimination that they may face, but their parents are, and thus they encourage their children to achieve a good education to overcome potential discrimination (Basit, 1996).

### 5.2.6 Research questions

This chapter will aim to answer the following questions:

1. What are the continuation patterns of different ethnic groups with regards to type of upper secondary education?
2. Can differences between ethnic groups be accounted for by their varying achievement at the end of comprehensive school?
3. Is the effect of previous school achievement the same across groups?
4. Are differences between ethnic groups due to differences in family resources?
5. Do family resources have the same effect for different ethnic groups?
6. Are the differences between the genders similar in all ethnic groups? Are the differences between ethnic groups more to do with one gender rather than the other?
7. Does choice of upper secondary school differ by citizenship status?
8. Is there a visibility gradient evident in type of upper secondary school chosen?

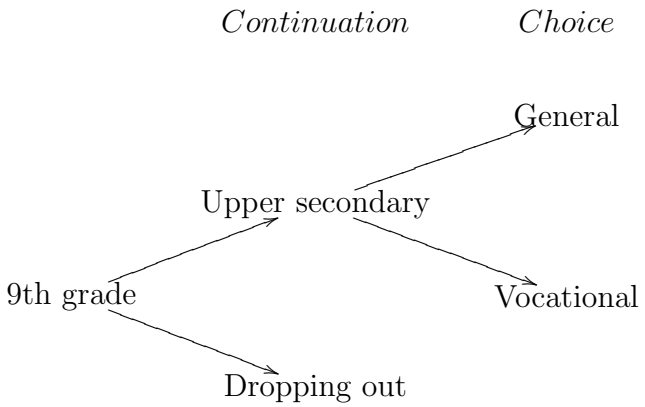



Figure 5.1: The two dependent variables of continuation and choice

## 5.3 Variables

As has already been described in this thesis, the dependent variable used in this chapter is a binary one considering type of upper secondary school attended one year after finishing comprehensive school. It is the second part of the transition decision shown in Figure 5.1. This is referred to as 'choice' in the Figure because students are allowed to apply to either type of education. However, not all students are accepted into the type of school that they had as their first choice.[9] As was described in Chapters 2 and 4, the type of school that students are in is measured one year after finishing compulsory education so that students taking an additional year to increase their grades or fulfil other entrance requirements are also included.

The independent variables have also been described in the data chapter. The main independent variable of interest is ethnic origin, which is also divided by generation for the immigrant-origin groups. The control variables studied are gender, average grade at the end of comprehensive school (and a dummy variable for missing information), parental socioeconomic status, income and education, as well as each parent's labour force participation, and household composition. In addition to this, the effect of citizenship will also be studied using a variable that

[9]On the other hand, students can only be accepted into a school that they have applied to themselves.

separates between those who do and those who do not have Finnish citizenship amongst those likely to be eligible for citizenship (for students without Finnish-born parents). As described in the data chapter, all of the data comes from the registers kept by Statistics Finland.

## 5.4 Results

The proportion continuing to general versus vocational school, among those who continued at all, can be seen in Figure 5.2 for each ethnic group as well as for both genders within each group.[10] Overall, most groups are either relatively close to the majority, or tend to choose general school relatively more often. Amongst all groups except for the ex-Yugoslavs, the $2^{nd}$ generation is more advantaged than the $1^{st}$ generation in terms of having higher rates of continuation to general schools. Moreover, amongst most groups, girls are more likely to choose general school compared to the boys.

The highest rates of general school continuation can be seen amongst the $2^{nd}$ generation Europeans and Sub-Saharan Africans as well as the students with one Finnish-born and one foreign-born parent. The groups most likely to continue to vocational school are the students from ex-Yugoslavia as well as some $1^{st}$ generation groups: the other/unknown group and Russian/Estonians, in particular the boys.

Using the data from all three continuation outcomes (Table D.1), we can compare the broad groups of Finnish majority, $2^{nd}$ generation and $1^{st}$ generation to three of the groups from Karppinen (2008): the majority population, $2^{nd}$ generation and $1^{st}$ generation non-EU immigrants. Overall, these results show a similar picture.

[10]The data on which this figure is based can be found in Table D.2 in the appendix. Table D.1 also shows the proportions continuing in either type of school as well as those who have dropped out.

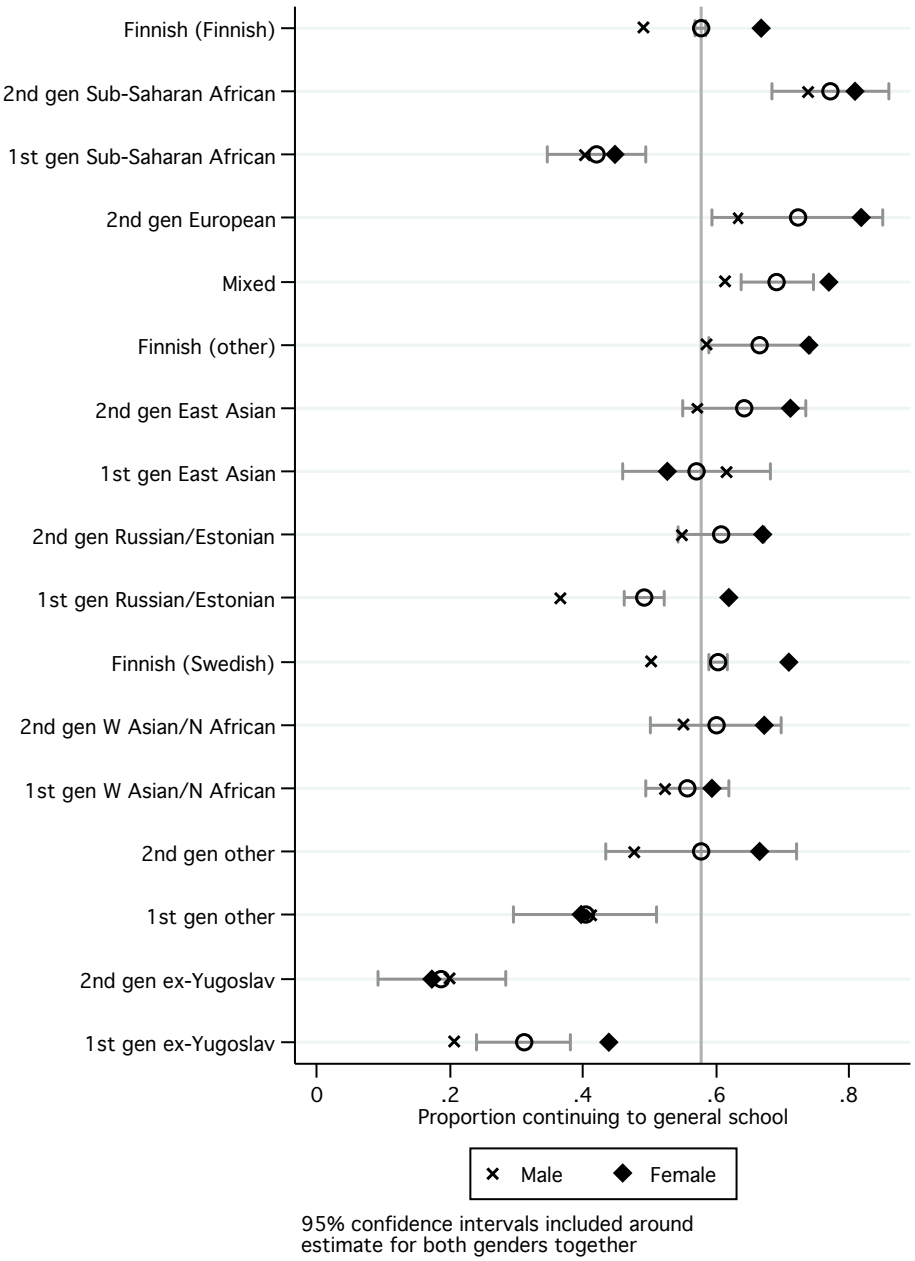



Figure 5.2: Continuation in general school versus vocational school by ethnic origin and gender

In both sets of results the proportion of students continuing to general schools is approximately the same. On the other hand, the proportion continuing to vocational school is higher in the data used here. However, if the proportion continuing in vocational school and $10^{th}$ grade in Karppinen's data is added together, the results are approximately the same as those here. This would indicate that about the same number of people continue from $10^{th}$ grade to general school as switch from general to vocational school in their first year.[11]

### 5.4.1 Previous achievement and family resources

The independent variables of previous educational achievement (in the form of grades) and family resources (parental socioeconomic status, income and education) were introduced in a series of models. The full models can be seen in the appendix (Tables D.3 and D.4). Figure 5.3 shows what the ethnic-origin effect is in all these models.[12] The original results that come as log odds ratios have been translated into probabilities, with the reference probability being that of Finnish-speaking Finnish males (without any controls).

Model 1 only includes the ethnic-origin and gender dummies and, therefore, replicates the results from Figure 5.2. Groups relatively more likely to continue in vocational education are $1^{st}$ generation Russian/Estonians, Sub-Saharan Africans and 'others' as well as both ex-Yugoslav groups. On the other hand, those relatively more likely to continue in general education are both non-Finnish-speaking Finnish groups, the mixed-origin group and $2^{nd}$ generation Europeans and Sub-Saharan Africans. The difference between other groups and the Finnish speakers is not significant. Within groups, the difference between the generations is significant for the Russian/Estonians and Sub-Saharan Africans, and borderline significant

[11] At the extreme, this could mean that no switching takes place, and all students who attend $10^{th}$ grade continue to vocational schools.

[12] For the sake of simplicity, the results from Model 3 were dropped. For most groups, they were between those from Models 4 and 5.

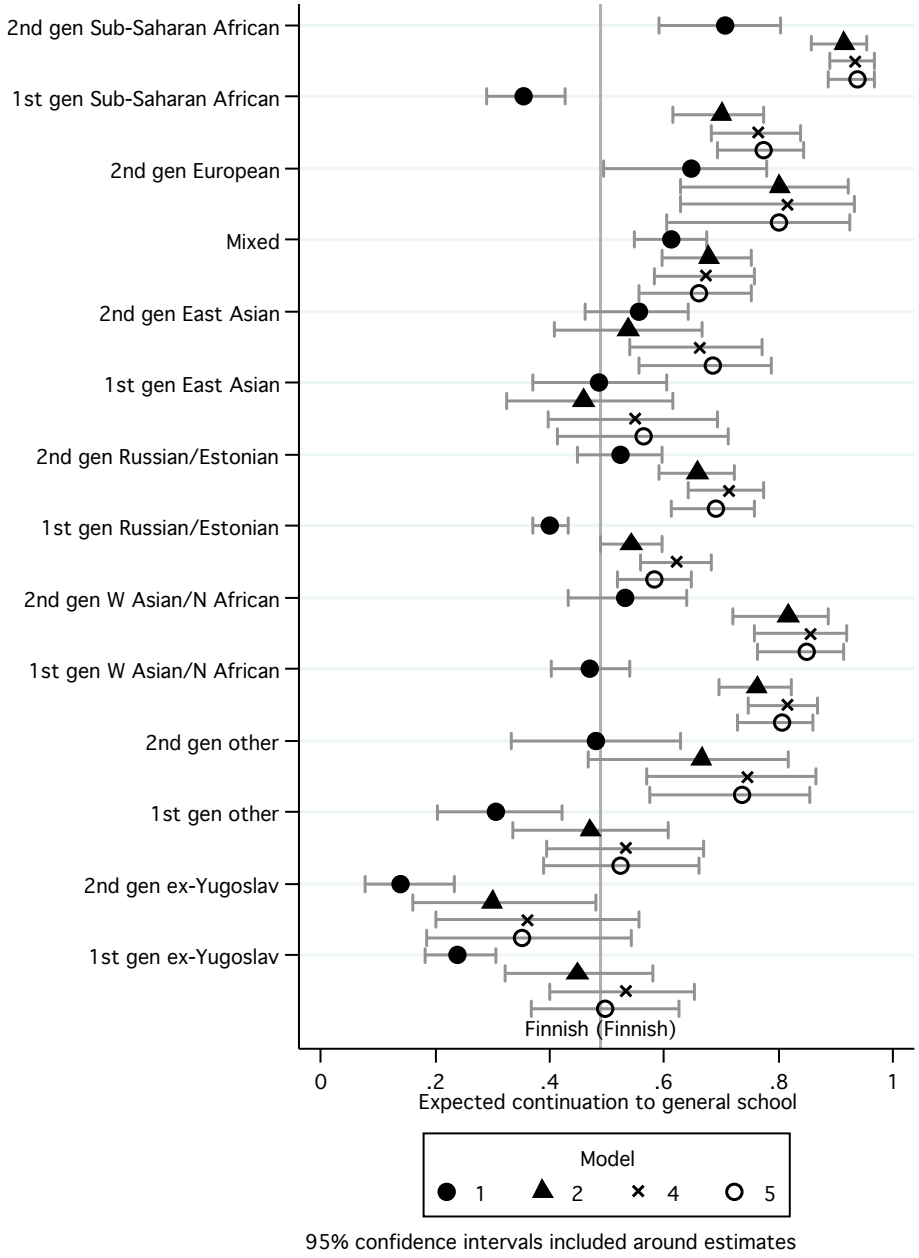



Figure 5.3: Effect of ethnic origin on choice of school type in different models: Estimated probabilities for male students with an average grade of approximately 7.5 (models 2, 4 and 5), lower employee parent(s) and medium income (models 6 and 7), and both parents with at least general upper secondary education (model 5)

(p=0.06) for the ex-Yugoslavs and the 'other' group.

The second model introduces the two variables for achievement: the average school-leaving grade and a dummy for missing information. Both of these are significant and the size of the average grade coefficient is very large. The effect of these two control variables on the ethnic group estimates is to increase the size of the positive coefficients and reduce the size of the negative ones, even turning some of them into positive ones, except for the Swedish-speaking Finns and both East Asian groups. After the introduction of these variables, there is only one ethnic-origin estimate that is negative and significant at the 5% level: the one for $2^{nd}$ generation ex-Yugoslavs. In addition to this group, only the East Asian groups, the Swedish speakers and the $1^{st}$ generation ex-Yugoslav and 'other' groups are not significantly more likely to continue in general schools than the Finnish-speaking majority.[13]

The next three models add the family resource measures as control variables. Model 3 includes parental socioeconomic status, which has the expected gradient. Model 4 includes parental income, which also has the expected gradient. Model 5 includes parental education, which again has the expected gradient. The size of the coefficients is largest for the parental education variable but it is also the most detailed one. The family resource variables increase all of the positive ethnic coefficients although there is not much change across the three models.

It is clear from Figure 5.3 that the largest difference comes between Models 1 and 2, when achievement is added to the model. Further increases with the addition of family resources are only very minor. The exception to this are the two East Asian groups for whom family resources have more of an effect. This is likely to be because, as was found in Chapter 3, they are the only group to have grades

[13]As discussed in Chapter 2 and the previous one, the decision was made to replace missing grades with what were felt to be suitable replacements based on ethnic group and continuation category. Running the models (in particular Models 5 and 11) without those with replacements shows no substantial changes to the general conclusions from these analyses.

significantly higher than those of Finnish-speaking Finns.

Overall, based on the last model, almost all immigrant-origin groups, including mixed, are more likely to continue in general schools than vocational schools compared to Finnish-speaking Finns. The only exceptions to this are the ex-Yugoslavs and the $1^{st}$ generation East Asians and 'others', who do not differ significantly from the majority. The other-language Finns also do not differ significantly from the Finnish speakers and the Swedish-speaking group is significantly less likely to continue in general schools. However, this last difference is substantively quite small. Within all origin groups, except the ex-Yugoslavs, the $2^{nd}$ generation has a higher estimated continuation to general schools than the $1^{st}$ generation, although in many groups this difference is not significant.

Controlling for clustering within schools does not change the ethnic effects except for the Swedish speakers who are no longer significantly different from the Finnish speakers (Table D.5).[14] Because it does not seem to have an effect on any of the immigrant-origin groups, the school level is not included in any of the further models.

Further models with controls for parental labour force participation and household composition were also tested, but the ethnic-minority coefficients remained much the same even with these additional independent variables. Having a non-employed father increased continuation to general school (somewhat unexpectedly), the number of adults did not have an effect, and living in a household with four or more children reduced the probability of continuing to general school (Model 7 in Table D.6).

It has been argued that controlling for the socioeconomic status of immigrant parents presents too rosy a picture of the attainment of their children (Jonsson

[14] As in the previous chapters, the conclusions of the effect of adding schools at level 2 (Model 6b) need to be made compared to a model that does not include probability weights (Model 6a) rather than one that does (Model 5).

& Rudolphi, 2008). This is because the occupational status of recent immigrants tends to be rather low due to their immigrant status. In this thesis, the decision has been taken to nevertheless include parental status (and income, which suffers from similar problems), partly because leaving it out would be leaving out something that does explain differences both within and between groups, and partly because if these were left out, measurement of parental resources would rely on parental education, which suffers from measurement issues that were described in the data chapter. However, Model 5 was also run without parental status or income, and the estimates were not very different from those of that model, although in most cases they were somewhat lower. The only exception to this was the $1^{st}$ generation Russian/Estonian group for whom the new estimate was only borderline significant (Model 8 in Table D.6). However, adding household composition to this model, increases many of the ethnic origin effects back to their original values, or even higher (Model 9). Again, the Russian/Estonian group is the exception to this. Except for the $1^{st}$ generation Russians/Estonians, the conclusions drawn about the effect of ethnic origin are the same regardless of whether a model with income and socioeconomic status (Model 5) or household composition (Model 9) is used.[15]

It should also be remembered that the outcome under analysis here is only general and vocational school, and the analyses disregard those dropping out of these two types of education. This means that some groups will have more select students making this choice than others, as was seen in the previous chapter. Models looking at continuation to general schools versus all other possibilities give largely similar results to those presented here (not shown). Only for both groups of Sub-Saharan Africans are the results of these new analyses substantially lower. Yet even in these models, the $2^{nd}$ generation Sub-Saharan Africans remain the ones estimated to have the highest continuation propensity to general schools.

[15]Even for the $1^{st}$ generation Russians/Estonians, the estimates from these two models are within two standard errors of each other, even though compared to the majority, one is significant and the other one is not.

### 5.4.2 Ethnic-origin interactions with grades and family resources

As with interactions in previous chapters, the independent variables were simplified for statistically significant effects to be found. For ethnic origin, four groups were used: students of Finnish origin, $2^{nd}$ generation students of European origins, $2^{nd}$ generation students of non-European origins, and $1^{st}$ generation students.[16]

The parental-resource measures were also simplified. Parental education was divided into high and low, with the dividing line between general upper secondary education and vocational upper secondary education. The unknown category was kept separate. Parental socioeconomic status was divided into non-manual employees, the self-employed, the manual employees, and those long-term unemployed, outside the labour force and unknown. The income variable remained the same. All three parental resource measures as well as the achievement measure were interacted with the different groups and the significant, and borderline significant, results were retained (Model 10 in Table D.7).

A significant interaction between parental education and the $2^{nd}$ generation European group was found.[17] The interaction almost cancels out the main effect. In other words, for this group a low parental education does not reduce the probability of choosing general schools relative to those with high parental education. This can also be seen in Figure 5.4. Although the $2^{nd}$ generation Europeans are more likely than the majority to choose general schools whatever their parental level of education, their advantage is particularly high when parental education is low.

It could be argued that the reason why parental education does not have an effect

[16]Europeans in this case include the groups Russian/Estonian, ex-Yugoslav, European and 'other'. The $1^{st}$ generation was also initially separated into Europeans and non-Europeans, but the results between the two groups did not differ so they were merged.

[17]The non-European $2^{nd}$ generation also displayed an interaction in this direction, but it was strong enough to be included in the final model.

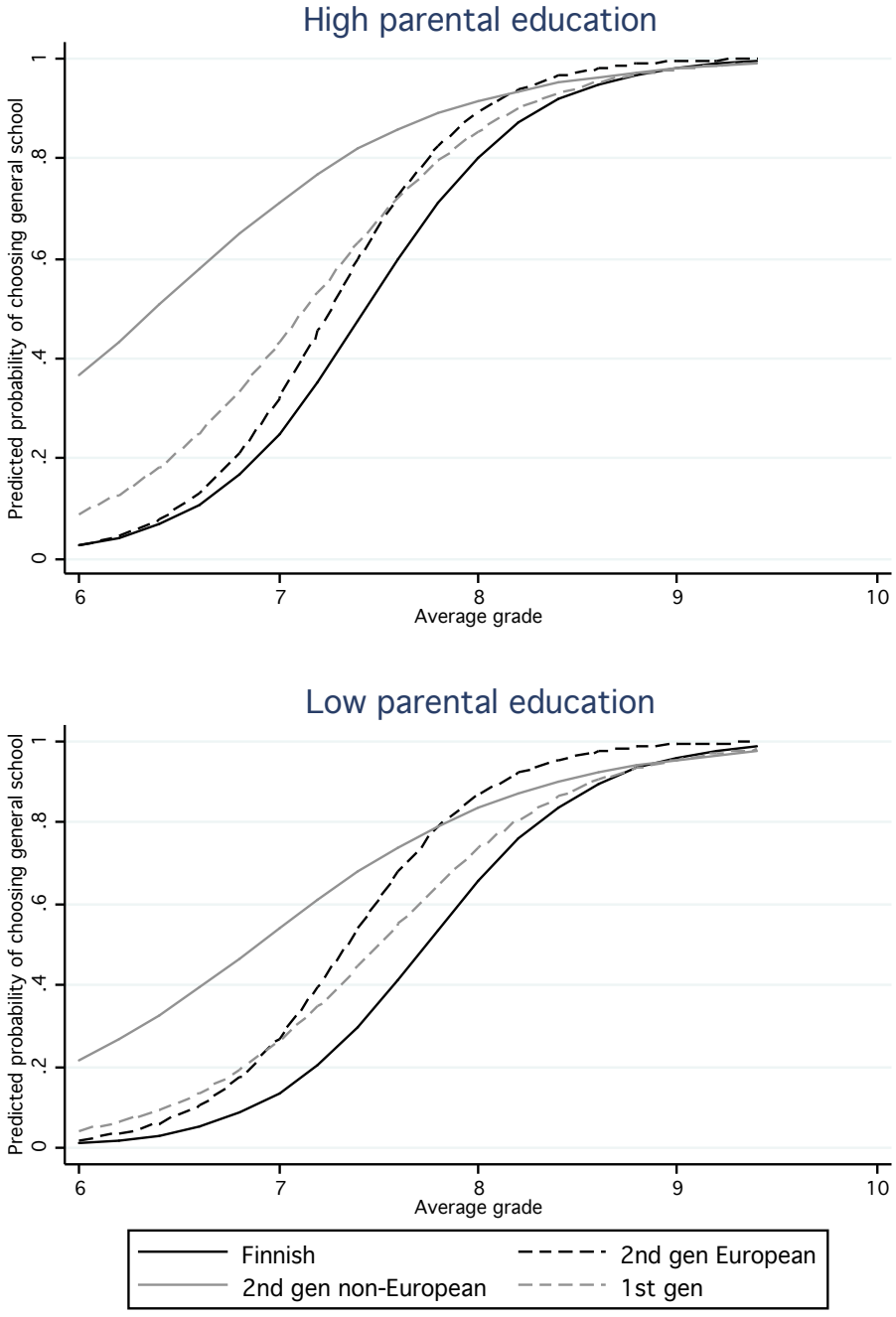



Figure 5.4: Interaction effects between generation/origin and achievement, and generation/origin and parental education for choice upper secondary schools: Expected probabilities for male students with non-manual employee parent(s) and medium income

for the $2^{nd}$ generation is that the registers have incomplete information about the educational attainment of immigrants. However, it does not explain why the same is not the case for the $1^{st}$ generation for whom this problem should be more severe as they have not had as much time to re-certify themselves with Finnish educational credentials. Moreover, the sample size for the $1^{st}$ generation is larger so any interactions should be more evident in this group. It is also surprising that this effect is only present amongst the $2^{nd}$ generation of European origin rather than the non-Europeans as this rules out the explanation related to information, given that we could expect European parents to have relatively similar information about the education system as Finnish parents.

On the other hand, it could also be argued that $2^{nd}$ generation students with European origins and highly educated parents are unlikely to have any reasons to differ from the Finnish peers and thus their continuation propensities are relatively similar. On the other hand, all other migrant groups (including the $2^{nd}$ generation students with European origins and low-educated parents) are likely to have higher aspirations relative to their family backgrounds. In other words, intergenerational mobility may be a stronger driving force for these students. Moreover, except for the $2^{nd}$ generation Europeans, parental education may still reflect parental abilities to assist their children in gaining a place in general upper secondary schools.

An interaction between achievement and generation group was found for all groups. For the $1^{st}$ generation and the $2^{nd}$ generation non-Europeans, the effect of achievement is not quite as strong as for the majority population, whereas for the $2^{nd}$ generation Europeans the effect is stronger. This is also evident in Figure 5.4. The negative interactions mean that the difference between the majority and these two groups, in particular the $2^{nd}$ generation non-Europeans, is largest at relatively low grades. One explanation for this may be that grades for the low achievement ethnic minority groups are not as good a reflection of their abilities and motivation as they are for the majority population, as well as $2^{nd}$ generation Europeans.

On the other hand, the positive interaction for the $2^{nd}$ generation Europeans means that they differ from the majority most when grades are around average and above (around an average grade of 8).

The detailed ethnic-origin categories were also added to see if the effects differ in this model compared to the main model (Model 5) discussed above. The ethnic-origin effects (when parental education is high and grades 7.5) were found to be similar in this model (Model 11 in Table D.7) and the previous one. Specific predictions will be returned to in Section 5.4.4.

### 5.4.3 Primary and secondary effects of social origin

If we look at the primary and secondary effects of parental resources on continuation into general education, we see relatively few differences between the different groups in how the total effect is divided into primary and secondary effects, at least when we compare other children of immigrants than the $2^{nd}$ generation Europeans to the majority.

Using the method first introduced in Erikson et al. (2005) and further developed by Buis (2008), the total effect of parental background can be divided into primary or indirect effects (the effect of having different achievement distributions) and secondary or direct effects (the effect of having different continuation propensities controlling for achievement). In order to divide the total effect into the direct and indirect effects, only two groups can be compared at a time. For the analyses here, three comparisons were made: the non-manual employees compared to the manual working class, the high educated compared to the low educated, and a combination of the previous two: the high educated non-manual class and self-employed compared to the low educated manual working class, non-employed and unknown. In this last comparison, the effect of parental resources is meant to be the most severe.

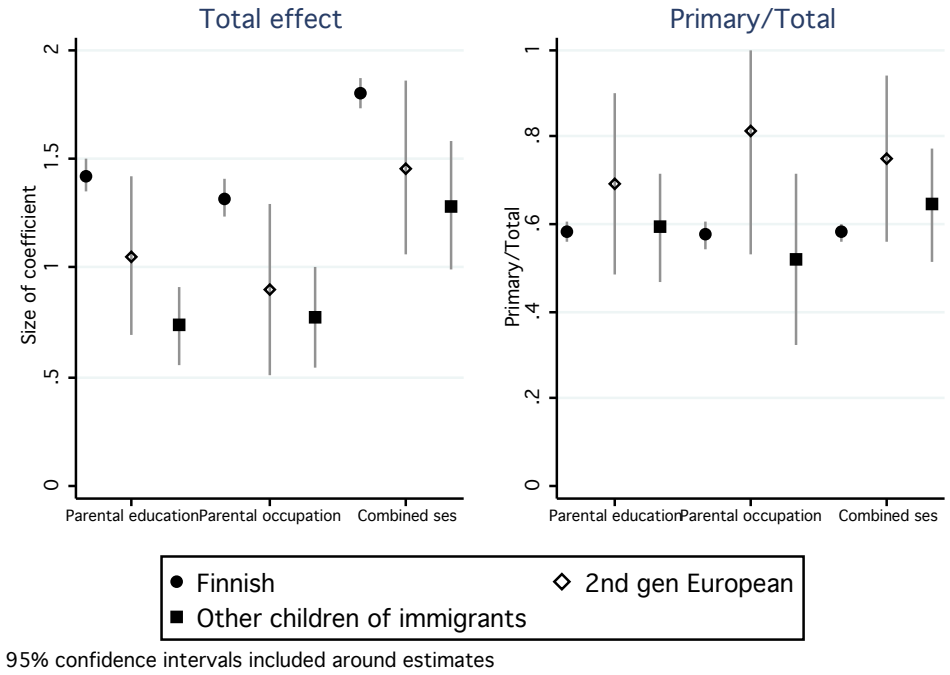



Figure 5.5: Primary and secondary effects: Total effect of parental background on choice of school (left panel) and proportion of total effect accounted for by primary effects (right panel) by different parental background measures and generation/origin groups

The results for these three analyses can be seen in Figure 5.5 (and Table D.8).[18] Within all groups, we can see that the total effect is largest for the comparison between the groups where education and class have been combined, and for the Finns it is smallest for the comparison between the non-manual employees and the manual working class. For the children of immigrants, the comparison between the two classes and the two education levels produces equal effects. Moreover, we can see that the size of the total effects is significantly lower for the children of immigrants compared to those of Finnish origin. The $2^{nd}$ generation Europeans are slightly closer to the Finns than other children of immigrants, but the difference is not significant, except for parental education.

With regards to the division between primary and secondary effects, all three comparisons within groups produce similar results for other children of immigrants

[18]These results were obtained with the Stata command ldecomp developed by Buis (2008).

and the Finns: the share of primary effects out of the total is mostly just under 60% for both groups. The share of primary effects out of the total is larger for the $2^{nd}$ generation Europeans, but the standard errors for these estimates are rather large and so the difference is not statistically significant.

The results are largely the same if choosing general schools is compared to vocational schools combined with dropping out (not shown) rather than just on its own as has been done here. The total effect in this alternative case is slightly larger, mainly for the children of immigrants, but not significantly so. Primary effects are also slightly more influential amongst both groups, but again not significantly so.

To summarize, children of immigrants do not differ from the majority population in the way that the total effect of parental background is divided into primary and secondary effects although there are some hints that primary effects may play a larger role for the $2^{nd}$ generation Europeans. However, the size of the total effects is significantly lower for children of immigrants than it is for the majority.

### 5.4.4 Gender

Gender interactions were added to the model with other interactions included, and only two were found to be even borderline significant (Model 12 in Table D.7). These were for the $1^{st}$ generation ex-Yugoslavs and East Asians. Figure 5.6 shows estimated probabilities of choosing general school for all the ethnic groups and includes the gender interactions for these two groups. For other groups, the estimated probability is for male students, but female students do not differ from their male peers. Also to note is that the probabilities have been estimated for students with low-educated parents, which makes the advantage of the $2^{nd}$ Europeans relative to the other groups greater.[19]

[19]Also to note is that the average grade chosen is 7.5, at which the advantage of children of immigrants compared to the majority is more or less the largest. However, this is also relatively near the average of averages. This is why it has been chosen. The values for the other independent

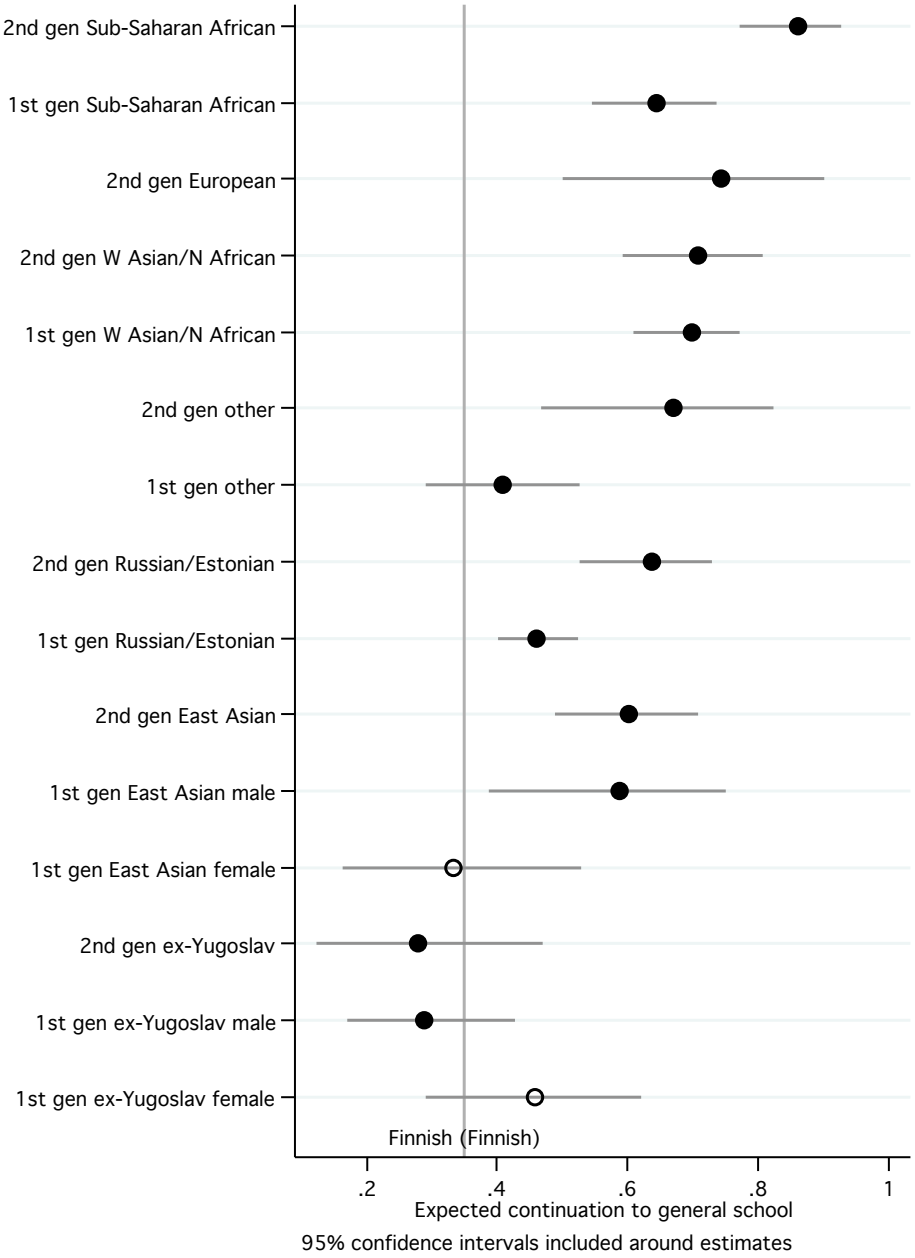



Figure 5.6: Choice of general versus vocational school by ethnic group (and gender): Estimated probabilities for male students (female estimates not significantly different except where both groups specified) with an average grade of 7.5, non-manual employee parents, medium parental income and no parents with more than vocational education (generation/origin interactions with the explanatory variables included in Model 12 have been taken into account)

Evident in this graph is the extremely high probability of Sub-Saharan Africans, in particular the $2^{nd}$ generation, to choose general upper secondary schools over vocational schools. They are followed by Europeans, West Asians and North Africans and the $2^{nd}$ generation 'other' and unknown groups. The Russians and Estonians as well as all the East Asians, except for $1^{st}$ generation females, are also more likely than the majority to choose general schools. All other groups, most notably the ex-Yugoslavs, do not differ from the majority.

Overall, all immigrant-origin groups, except for the $2^{nd}$ generation Sub-Saharan Africans and both generations of ex-Yugoslavs, are clustered quite close together with regards to their propensity to choose general upper secondary schools, whereas these two exception groups stand out at the opposite ends of the spectrum.

### 5.4.5 Citizenship

The effect of citizenship on choice of upper secondary school type was examined in the same way as in the previous chapters. Citizenship was found to have a positive effect, meaning that amongst those who had been resident in Finland for longer than five years, the students with Finnish citizenship were more likely to choose general schools than those with other citizenships (Table D.9). This is the case both before and after controlling for achievement and family resources (including the interactions presented above), and remains the case when ethnic-origin dummies are included.

The difference is illustrated in Figure 5.7 (using Model 14, with achievement and family resources but not detailed ethnic origin), and for the combination of independent variables presented there, the difference is approximately 9 percentage points. This is more or less the same as the difference between the European

variables have also been chosen on the basis that most children of immigrants can be found in these groups.

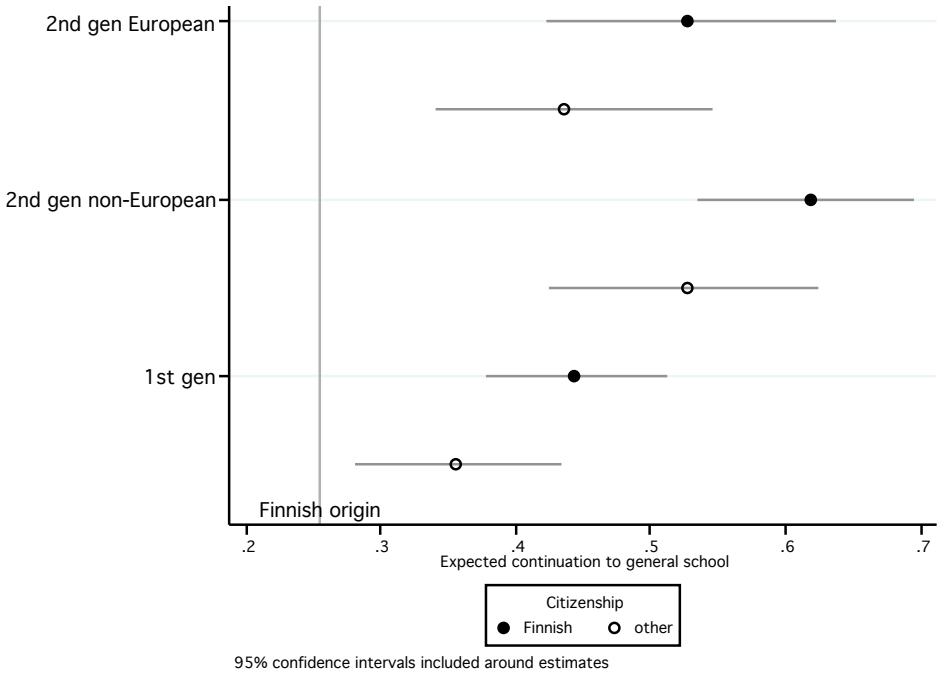



Figure 5.7: Choice of general versus vocational school by generation/origin and citizenship: Estimated probabilities for male students with an average grade of 7.5, manual employee parents, medium parental income and no parents with more than vocational education (generation/origin interactions with the explanatory variables included in Models 10 and 14 have been taken into account)

and non-European $2^{nd}$ generation, and the European $2^{nd}$ generation and the $1^{st}$ generation.[20]

Including citizenship as an explanatory variable does not change the ethnic-origin effects (Model 15). Therefore, as with achievement, citizenship has an effect within ethnic groups. This effect may be interpreted as citizenship being an indication of a motivation to seek higher education in Finland. Therefore, positive integration attitudes in this case do not seem to make students more like their Finnish counterparts but rather more ambitious.

[20] Again, this is specific to the values of the independent variables used, in particular parental education (in this case low) and average grades (in this case 7.5).

Table 5.1: Visibility gradient in choice of upper secondary school type

| Ethnic origin | Mixed | Immigrant |
|---|---|---|
| Finnish origin | reference | reference |
| Mixed: FIN-Russia/Estonia | 0.04 (0.43) | |
| Russia/Estonia | | 0.52 (0.13) *** |
| Mixed: FIN-Europe | 0.90 (0.26) *** | |
| Europe | | 1.38 (0.42) ** |
| Ex-Yugoslavia | | -0.30 (0.26) |
| Mixed: FIN-Americas | 0.38 (0.65) | |
| Americas | | 2.17 (0.88) ** |
| Mixed: FIN-Asia/Africa | 1.01 (0.64) | |
| Asia & North Africa | | 1.15 (0.15) *** |
| Sub-Saharan Africa | | 1.91 (0.20) *** |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001; N = 20,904$
controls not shown

### 5.4.6 Visibility

The effect of visibility was modelled with the same ethnic-origin categories as presented in Chapter 3. In particular, this means a more detailed categorization of mixed origin groups, and not taking the unknown and those resident in Finland for fewer than five years into account. Given the way that the ex-Yugoslavs differ so substantially (and significantly) from the other immigrant-origin groups, it was decided to take them out of the European group and have them as their own group. The results are shown in Table 5.1 (Models otherwise as Model 5 in Table D.4).

Except for the ex-Yugoslavs, there seems to be something of a gradient amongst both mixed- and immigrant-origin groups. Even though only one mixed group has a significant estimate (Finnish-European), the estimates for all mixed-origin groups are between the majority and the group itself. Moreover, most of the mixed-origin estimates do not differ significantly from the corresponding immigrant-origin group.

Therefore, there seems to be some support for the hypothesis that the more visible groups are more likely to choose general school over vocational school than the less visible ones. The ex-Yugoslavs do not fully fit this pattern, although it could be argued that their visibility is rather low. Moreover, the continuation rates of

the European-origin students are somewhat higher than would be expected from a visibility point of view.

## 5.5 Discussion

With regards to choice of upper secondary schools, we started with a rather mixed picture: there were groups that, compared to the Finnish-speaking Finns, were relatively more likely to continue to vocational schools (mostly $1^{st}$ generation groups and the ex-Yugoslavs), those who were more likely to continue to general schools (mostly other Finns, including those of mixed origin, and some $2^{nd}$ generation groups), and those no different to them. However, school choice decisions are driven largely by grades, and controlling for grades only $2^{nd}$ generation ex-Yugoslavs are left favouring vocational schools relatively more than the majority. All other groups favour general schools relatively more or are no different to the Finnish speakers.

In addition to grades, family resources have a clear effect on the choice between general and vocational schools, with parental education possibly having the largest effect. Controlling for prior achievement and family resources, almost all immigrant-origin groups are significantly more likely to continue in general upper secondary schools than Finnish-speaking Finns (and other Finns for that matter) from similar backgrounds. The students with origins in Sub-Saharan Africa, North Africa and West Asia stand out particularly in this regard. Overall, Europeans (including ex-Soviet Union and ex-Yugoslavia) are closer to Finns in their continuation decisions than non-European visible minorities. A slight exception to this are the East Asians, but this is largely due to the fact that they do not underachieve during comprehensive school.[21]

[21] As discussed in the Chapter 3, they are the only non-European group not to do so, and the only immigrant group to overachieve after controlling for family resources.

After controlling for achievement and parental resources, ethnic-minority coefficients are in the same region of magnitude as the parental education ones. At their highest, in other words for the $2^{nd}$ generation Sub-Saharan Africans, the effect is similar to a difference of slightly over one grade in average grades.

With regards to interactions, the $1^{st}$ generation and the $2^{nd}$ generation non-Europeans were found to be less affected by grades than the two other groups. This means that their higher rate of choosing general schools compared to the majority is most evident when grades are average to low. On the other hand, the $2^{nd}$ generation Europeans were found to be less affected by parental education. This means that their higher rate of choosing general schools compared to the majority is most evident when parental education is low. This result reflects previous international results (Bauer & Riphahn, 2007; Gang & Zimmermann, 2000; Kristen & Granato, 2007), although no clear explanation exists for this effect.

Overall, children of immigrants were found to be less affected by parental resources than students of Finnish origin. Moreover, there were some hints that primary effects, in other words the indirect effects of parental resources, played a larger part for the $2^{nd}$ generation Europeans than for the majority or other children of immigrants, but this difference was not statistically significant. In general, primary effects play a larger part in continuation to general schools in Finland than do secondary effects. This results is similar to the English and Swedish results (Erikson, 2007; Jackson et al., 2007), although the relative size of primary effects was smaller in these Finnish results than the international ones.

Gender interactions do not change the general conclusions here either, although it is interesting to note the interaction for the $1^{st}$ generation East Asians for both continuation and choice as they go in different directions. Within this group, boys are more likely to drop out, but they are also more likely to choose general schools than the majority, whereas the girls are no different to the majority in either case.

For those who have been resident in Finland for long enough, citizenship is linked to higher odds of choosing general schools. It should be noted though that all citizenship groups of immigrant-origin students were found to be significantly different from Finns, and differences in citizenship status did not change the relative ordering of immigrant-origin groups. In some ways this is a rather suprising finding if we assume that those with citizenship would be closer to Finnish-origin students in their behaviour. However, it may reflect a higher motivation of those with Finnish citizenship to want to advance in Finnish society, or higher unobserved resources.

One interpretation of the finding that there are positive ethnic estimates after controls, even though there is little or no difference to begin with, is that children of immigrants compensate through their continuation decisions for their lower family resources and underachievement in prior schooling. For most groups, this compensation is particularly relevant for their lower achievement. $2^{nd}$ generation students with origins in Sub-Saharan Africa can be seen to even go so far as to overcompensate.

On the other hand, many $1^{st}$ generation students are unable to fully compensate for their less advantaged starting points. One possible explanation for this is that they may not have quite as much social capital as their $2^{nd}$ generation peers. Social capital has been given by Modood (2004) as an explanation for the overrepresentation of ethnic minorities in higher education in the UK, as well as by Lauglo (2000) for the high engagement with schools of ethnic minorities in Norway. It may be one reason for the ethnic premiums in continuation in academic education found in this chapter.

Students originating from ex-Yugoslavia differ from all other immigrant-origin groups in their preference for vocational education. Even though they do not differ significantly from Finns after achievement and family resources have been

controlled for, they do differ significantly from all other $2^{nd}$ generation groups. This could be taken as a sign of integration into Finnish society: whatever is driving the other ethnic groups to continue along the academic route as far as possible does not have the same effect for the ex-Yugoslavs. On the downside, this means that they are not compensating for their lower achievement in the same way as the other ethnic minority groups.

This peculiarity of the ex-Yugoslav group is not mirrored in Swedish results (Jonsson & Rudolphi, 2009). On the other hand, Albanian-speaking ex-Yugoslavs in Switzerland tend to have lower rates of continuation to tertiary education than other groups, including Serbo-Croatian-speaking Yugoslavs (Fibbi et al., 2007). These differences remain after controls for citizenship, parental education, and contextual characteristics of the municipality of residence. Therefore, the difference between Finland and Sweden may be due to a different composition of the ex-Yugoslav group in the two countries. The majority of ex-Yugoslavs are likely to be Albanian-speaking in Finland, and therefore the educational choices of this group seem to be similar to the choices of the same group in Switzerland.

Many of the other results found here with regards to ethnic groups are similar to the ones found in Sweden (Jonsson & Rudolphi, 2009), which in many ways has a comparable education system. In particular, the highest rates of continuation to academic or general upper secondary education were found amongst the $2^{nd}$ generation with origins in the Horn of Africa both in Sweden and in Finland, given that Somalians are likely to make up the majority of the Sub-Saharan Africans. Moreover, as in Sweden, non-European groups in Finland were found to have higher continuation rates to general schools than European groups. However, the possible existence of gender interactions in Sweden was not found in Finland, where controlling for grades, boys and girls tend to have similar continuation rates to the two types of education.

Although children of immigrants are more likely to continue in general upper secondary schools than majority students from similar backgrounds, there is still the question of whether they will succeed or drop out. It has also been assumed that continuation in general upper secondary schools is better than continuation in vocational schools. This may not be the case if students then either fail to complete the school or if they are unable to obtain a place in higher education. Whereas students completing vocational upper secondary education may enter the labour market immediately, those completing general upper secondary education do not have qualifications that are readily useable in the labour market.

The research by the National Board of Education also included a longitudinal view of the completion of upper secondary education and entry into the labour market. This only looked at the students who completed comprehensive school in 1996, comparing foreign-language speakers to Finnish speakers, and is therefore rather limited. However, it shows that those who had entered general schools were quite likely to have an upper secondary degree 8.5 years after finishing comprehensive school.[22] However, amongst all continuation groups foreign-speakers were less likely to have completed an upper secondary degree than the majority population. What is more, even amongst those who had, the proportion in employment or studying in 2004 was lower than for the majority population. On the other hand, the largest proportion of students at this time was amongst the foreign-language males with an upper secondary degree. (Karppinen, 2008)

## 5.6 Conclusion

This chapter has found largely comparable results compared to previous international research results: children of immigrants are more likely than the majority

[22] 93% of foreign-language speakers who had entered general school had gained an upper secondary degree, whereas in total only 74% of foreign-language speakers had done so.

to continue in academic than vocational education, when the effect of prior educational achievement and family background has been controlled for. In other words, structural explanations play a great part, although in this case it is mainly to highlight the differences between groups rather than bring them closer to the majority. In this way, the largely refugee-based immigrant-origin population of Finland does not differ from the largely labour-migrant-based populations in other European countries.

On the other hand, there were some indications that family background, and parental education in particular, have less of an effect for children of immigrants than the majority. This may, however, be at least partly due to problems in the registration of foreign qualifications in Finland.

Contrasting to the previous chapters, we see that not only can secondary effects of ethnicity be different to the primary effects, but that the two different types of secondary effects (continuation versus dropping out, and choice of school type) may also be different. This seems to point to a divergence within immigrant-origin groups that will be discussed further in the concluding chapter.

In contrast to the previous chapter, parental socioeconomic status and income were once again seen to have an explanatory effect on the educational choices of children. In other words, it is only for dropping out that the mechanisms related to more straightforward cost-benefit analyses do not seem to be appropriate for. This may be largely due to the Finnish labour market, which penalizes people without upper secondary degrees heavily.

Citizenship was again seen to have an effect in this chapter, in the same way as it had an effect on school achievement in Chapter 3. The interpretation given to this finding is that students in families that have obtained citizenship orient themselves more towards a future in Finland than those who have not, and thus have more motivation to seek higher education.

Students of Sub-Saharan African origins were found to have the highest continuation rates in general upper secondary schools. A possible explanation for this is their high visibility, which leads them to expect the greatest amount of discrimination in the labour market. This in turn may lead them to seek higher levels of education. It could also be argued that the high levels of discrimination will eventually lead them to leave Finland, and in that case a general education may be more transferable than a country-specific vocational degree.

Overall, the high rates of continuation to general schools, in combination with relatively low average grades, may be seen as a sign of educational resilience or persistence amongst children of immigrants. The reasons behind this phenomenon will be explored further in the next chapter, where interview material from students who are just about to make their continuation decisions or who have just made them is used. Given the strong link between family background and grades with choice of school type found in this chapter, when choosing the students to be interviewed every effort was made to interview comparable groups of children of immigrants and majority students.

# Chapter 6

# Applying to upper secondary school – The student's perspective

This chapter builds on the findings from the previous chapter and explores further the choice between academic and vocational upper secondary schools. In particular, the focus is on the decision-making process that students go through before they apply. By looking at both immigrant-origin students and matched majority students, the aim is to uncover reasons for the differences in transition propensities found in the previous chapter.

The previous chapter found that, although there is a considerable amount of heterogeneity amongst immigrant-origin groups in terms of their probabilities of choosing each type of school, the consistent finding is that, after controlling for prior achievement and parental resources, children of immigrants are more likely to choose general rather than vocational schools as compared to the majority. This can most strikingly be seen when referring back to Figure 5.4.

Overall, $2^{nd}$ generation students with origins outside of Europe have the highest probabilities of continuing in general school. This is followed by a cluster with the $1^{st}$ generation non-Europeans, the $2^{nd}$ generation Europeans and the mixed-origin group. Slightly lower down, but significantly higher than the majority

nevertheless, are the $1^{st}$ generation students with origins in Europe. Finally, the Finnish-origin students have lower continuation rates to general upper secondary than any other group at each level of achievement.

In this chapter, children of immigrants will be studied as one group. However, the quotes used will indicate whether the student's parents are European or non-European, and whether the student is $1^{st}$ or $2^{nd}$ generation or of mixed origin. Some of these groups will also be referred to in the analysis. The students with two Finnish-born parents will be referred to as the majority.

Social capital was given as a possible explanation in the previous chapter for what can be termed the educational resilience of children of immigrants. Higher aspirations of children of immigrants and their parents compared to the majority have also been highlighted in previous literature. Both of these will be discussed in this chapter. Overall, a major focus in the analyses of this chapter will be on the role of 'others' in the decision making of both children of immigrants and the majority. Other possible mechanisms such as orientations towards education and expectations of discrimination will also be discussed.

The methodology and data collection of this chapter have been described in Chapter 2. A summary of who was interviewed is also included in this chapter. Before this, some aspects of the transition process are described. This section is based on both official information and observations made by the researcher at the researched schools.

After these two sections, the accounts of the students' decision-making process is described in the way that it came across in the interviews. Some differences between children of immigrants and the majority are already pointed out at this stage. However, the main analysis of why the decisions of these two groups differ from each other comes after this. These analyses consider the role of others for the decisions of students, the sources of information that students use, their orientation

towards education, and expectations of discrimination.

One of the main differences between children of immigrants and the majority that comes out of the analyses is the strong reliance of children of immigrants on the opinions of their parents as compared to the strong voicing of independence of majority students. Related to this, children of immigrants tend to follow friends and family to schools that are known to them in this way to a larger extent than amongst the majority. Possible reasons for this will be discussed towards the end of the chapter.

## 6.1 The transition process in Finland

In the $9^{th}$ and final grade of comprehensive school, students need to decide where they want to continue the following year. The application process (*yhteishaku*) is national and takes place in March every year, and there is a supplementary application process in July for those who did not secure a place in the main process.[1] In 2007, over 98 percent of all $9^{th}$ graders applied,[2] and over 93 percent continued in education the following autumn.[3] Overall, somewhat more students tend to apply to, and continue in, general upper secondary education, although over the past decade the popularity of vocational school has increased and that of general school decreased.[4] In Vantaa, where this research took place, more people put down vocational school as their first choice in spring 2008, although in 2009 general schools were more popular again (Helsingin Sanomat, 2009).[5]

Education and careers advisers have the main responsibility of guiding students

[1]There is also an autumn application process in October for courses that start the following January.

[2]Source: Statistics Finland website (`http://www.stat.fi/til/khak/2007/khak_2007_2008-12-12_tau_002.html`, in Finnish, last accessed 25.9.2009).

[3]Source: Statistics Finland website (`http://www.stat.fi/til/khak/2007/khak_2007_2008-12-12_tie_001_en.html`, in English, last accessed 25.9.2009).

[4]Source: Statistics Finland website (`http://www.stat.fi/til/khak/tau.html`, in Finnish, last accessed 25.9.2009).

[5]In spring 2009, 50.4% applied to general schools and 48% to vocational schools as their first choice.

through the application process. Education and careers guidance is included in the national curriculum, and a total of 76 hours are to be taught over the three years of lower secondary education (National Board of Education, 2004). Schools have their own part-time or full-time education and careers advisers, who should have a master's degree in education, with guidance as a minor subject at least.[6] A full-time adviser should be responsible for approximately 200 pupils, although in practice this varies widely between schools (Numminen, 2003).

The two schools at which I observed guidance lessons began their application processes in late autumn. A large part of the transition process is for the students to find out about the different options that they have, and in particular, the different schools that they can go to. The two schools that I was at went about this in quite different ways. In one of the schools, all students visited the nearest vocational school with their class and their adviser. In addition to this, visitors from specific general schools came to give presentations to each class, and again the whole class was present. The other school also had visitors from both vocational and general schools, but these were given to the whole $9^{th}$ grade, and only those students who were interested in that specific school attended.

Upper secondary schools also have open days when prospective students can see the schools for themselves. Students from both schools attended these open days. It was apparent in interviews that open days had had a large influence on many pupils for deciding which school they wanted to attend. No student said that this had had an effect on the type of school (general or vocational) they wanted to attend, although some students said that they had been influenced in this regard by visitors to their schools.

Overall, education and careers advisers are often the most important source of information for students when it comes to school choice. In addition to the advice

[6]Primary school teachers in Finland should also have a master's degree in education whereas subject teachers in lower and upper secondary schools should have a master's degree in the subject they teach and education as a minor subject.

and information that advisers give during their lessons, in most schools they meet every $9^{th}$ grade student individually to discuss their application with them. This guidance continues all the way through the application process: if students do not gain a place to study in the main stage, their advisers will tend to help them find a place in the supplementary stage and possibly even later on. Nationwide in 2001, over 75 percent of education and careers advisers gave post-application guidance (Numminen, 2003), and this was also the case in both schools at which I talked to the advisers.

The students I interviewed also recognized the value of the information that they gained from their education and careers advisers. Not only did most students state that their adviser had been one of the best, if not the best, sources of information for them regarding their decisions, but also no students wanted to be absent from these lessons in order to be interviewed. They were, however, happy to be absent from many other lessons.

This next quote from a majority boy reflects what many other students said about the sources of information that they had used, and the fact that the education adviser is often the best source of personalized advice.

> "*From where have you got information about the different places to study?*
> The education adviser, from school and then the brochures that have been given out and then I've gone to the presentations when they've had them. That's about it. And then maybe on the internet a bit too.
> *Which one has been the best information, what's helped you with your decision the most?*
> Probably the information from the adviser. You can book an appointment and go and talk to them. Then you can ask whatever you want to know about all the general schools and get information from them." (Majority boy 3)

Sources of information will be returned to in the analysis. Overall, most students seemed happy with the information that they had received from official sources. Nevertheless, there were students who felt that they had not received enough support from school or who would have wanted more information about different schools. These were often students who were trying to decide between the two

Table 6.1: Interviewed students according to ethnic origin and school choice

| | Ethnic origin | | |
|---|---|---|---|
| | Finnish | European | Non-European |
| General school | 8 | 4 | 4 |
| Vocational school | 4 | 3 | 1 |
| Uncertain/both | 5 | 3 | 4 |

Uncertain/both includes students aiming to do double degrees

school types although some were also trying to decide between schools of a certain type.

## 6.2 Data

The whole process of data collection has been described in Chapter 2. Table 6.1 reproduces the table in which the interviewed students are classified according to the type of school they were applying to and their ethnic origin. Only the distinction between European and non-European origin will be made in this chapter in order to ensure the anonymity of students. Based on the results from the previous chapter, this is a natural distinction to make.[7]

The three choice categories in this table are general and vocational school as well as the category 'uncertain/both'. This category includes not only those who were considering doing both at the same time (a double degree),[8] but also those who were undecided at the time of the interview, as well as those who had considered both types of school seriously even though by the time of the interview they had

[7]However, it could be argued that those with ex-Yugoslav origins should not be included with the other Europeans as they do not differ from the majority group. Nevertheless, as they are too small a group to study on their own, they are included in the European group. It can be noted, however, that the few students of ex-Yugoslav origins who were interviewed for this research resembled their Finnish peers to a greater extent than most of the other immigrant-origin students interviewed.

[8]Double degrees have been described previously in this thesis, for example in the introduction to Chapter 5. Essentially, they allow students to complete the two qualifications together. In Vantaa, this means that students enrol in vocational schools but exchange some of their vocational studies with courses from general schools as well as taking additional ones. At the end, they take the normal matriculation examinations of general schools.

decided to apply to just one.

### 6.2.1 Interviews as narratives

The main question asked in the interviews was how the student had made/was making their decision of the upper secondary school they were going to apply to or had applied to. The idea was to get to the student's own account of their decision-making process. This would then have been supplemented with more specific questions based on prior theories and previous interviews. In terms of being an account of a critical period in the student's life, the interview materials could be seen as autobiographical narratives. The biographical approach is also relevant to this research as the emphasis in the interviews and their analysis is on the social influences on students' decisions and their life experiences (Miller, 2003).

However, not all students built their decision making around a narrative. As will be made clearer later on in this chapter, the decision was really a non-issue for some of the students in the sense that they had never really considered the other alternative (vocational or general school, depending on the student). On the other hand, it may be relatively difficult to construct a narrative about a transition process when one is still living through it. Even students who had more to tell about their decision-making process had to be probed for most of the information.

Moreover, the data here is not analysed using narrative analysis; the aim is to use the students' accounts as real information about their decisions, rather than constructed for the listener (Riessman, 1993). There are, however, some important observations that have been made by narrativists that are worth considering. One of these is that people do not, maybe even cannot, tell the whole truth about their lives when talking about it. When talking about their own lives, people may interpret events in a way that suits them and forget to talk about some aspects

of their lives that may have been relevant (Riessman, 1993). In terms of reasons behind certain decisions, all we can access are accounts of decision making without knowing the full chain of causality. It is highly probable that the interviewees themselves do not know or realize the full chain of causality.

Nevertheless, these accounts will be used as the basis for both developing and, to some extent, exploring theories of why the decisions of children of immigrants and the majority differ.

The timing of the interviews is interesting in this respect. On the one hand, in two of the schools students had replied to surveys on their application intentions in November and were interviewed in February, before the applications were filled in. On the other hand, one of the schools was only contacted later on, which meant that students returned a survey on where they had applied to in April and were interviewed the same month. If the students' accounts of their decision making are treated as narratives, it may be rather difficult to construct narratives when decisions are still being made. In this sense the students interviewed in April may have been in a better position to discuss their decisions. At the same time, they may have already forgotten some aspects of their decision making that students still in the process were more able to discuss.

Overall, the accounts that students gave of their decision making did not differ widely between the three schools and the two timings of interviews. At both time points there were students who had first considered applying to one school type but finally decided on another and were willing to discuss their reasons for doing so. Moreover, at both time points there were students, in fact the majority of students, who were in no doubt of the type of school they wanted to go to. In this regard, it seems that the timing of the interviews made relatively little difference. However, I would argue that students were more willing to discuss their decisions after they were relatively sure of what they wanted to do, whether this was before

or after the applications had been handed in, rather than when they were still trying to decide.

I also believe that there is good evidence of saturation in the material. The decision to include the third school in the research was taken to increase the reliability of the results. Even though this school was in a rather different neighbourhood compared to the first two (see Section 2.2.1), the interviews done in this school supported the conclusions drawn from the first two schools rather than providing major new results.

### 6.2.2 Issues with language and translation

The interviews were done in Finnish, which is the first language of the researcher and of approximately half of the interviewees but not of all. By and large, the students whose first language was not Finnish did not seem to have problems in understanding the questions. However, amongst some of the interviewees who had been resident in Finland for fewer than four or five years, the answers that they gave may have been shorter due to not being fully fluent in Finnish. On the other hand, some of the shortest answers came from native Finnish speakers.

Although students seemed to understand the questions fully and, by and large, gave answers that made sense to the interviewer, there is nevertheless the possibility that some of the interpretations are based on misunderstandings. This is more likely amongst students whose first language is not Finnish, but it is also possible for native speakers. This is also linked to the fact that the quotes presented in this chapter are translated from Finnish to English by the researcher. This means that a certain amount of interpretation is involved in this stage too, and it is more difficult for readers to make their own interpretations from the quotes.

In order to minimize the risks of too much of the researcher's interpretation going into the translations, the Finnish quotes and their English translations have been

checked by another native Finnish-speaker fluent in English, who has experience of translation. This should ensure that the quotes in this thesis accurately reflect what the students originally said.

It should also be noted that, for the sake of clarity, the translations are 'corrected' versions of the original interview material. This means that, for the most part, grammatical errors have been corrected and conversation fillers, such as 'erm' and 'you know' have been taken out.[9] This is because the focus in the quotes is on the content of the quotes rather than the form of the language. However, the aim has not been to polish the quotes completely, and except for these minor corrections, the translations aim to stay close to the original words of the interviewees. Therefore, there are still likely to be parts that do not make perfect sense or that are ambiguous in their interpretation.

In summary, there are two issues to do with language that should be kept in mind when reading this chapter: Firstly, not all students are using their first language, and so care should be taken when interpreting their answers. This should mainly affect the $1^{st}$ generation though. Secondly, the quotes are translations and, as such, already contain some inherent interpretations, even though care have been taken to minimize this.

Two further things to note about the quotes: Firstly, square brackets are used for additions made by the researcher for the quote to make more sense, whereas double square brackets are explanations by the researcher. Square brackets have also been used where a specific school, course, occupation, or other detail has been removed and just a description, such as [vocational course], has been left in order to protect the anonymity of the students. Three dots in square brackets mean that text has been taken out, whereas three dots on their own mark a pause in the interviewee's speech. Secondly, the quotes are numbered with four sets of numbers: majority girls (1–9), majority boys (1–8), minority girls (1–11), and

[9]Not all of these were even included in the original transcription.

minority boys (1–7).[10]

## 6.3 The general process of decision making from the students' point of view

This section is mainly descriptive in its purpose and concentrates on the majority students. As was already implied in Table 6.1, students could roughly be divided into three groups based on the certainty of their choices and how natural they felt them to be. At one end were students who barely hesitated in their decision to go to general school. At the other end were students who had decided to apply to vocational school without much consideration of general school. In the middle were students who were actually contemplating, or had contemplated, the two options.

Generally speaking, the decision between general and vocational school is largely determined by grades. Not only does a student need higher grades to get into general schools, but also those better at school are naturally more inclined to want to continue in the more academic general schools, whereas those who do less well tend to want to focus on the more practical subjects in vocational schools.[11] However, there is some overlap in grades between students orienting themselves towards general school and those towards vocational, and a lot of overlap in the grades of students hesitating between options and the two other groups.

The two unhesitating groups will be discussed first, starting with the students applying to general schools. The focus will be on majority students, although to the extent that their experiences are similar, immigrant-origin students will also

[10] One of the minority girls did not allow for her interview to be recorded. Therefore, although her interview informs the analyses, there are no quotes from her.

[11] It should be noted that some of the more popular vocational courses may have higher entrance requirements than some general schools. Therefore, every year, there is a small proportion of students who would have preferred to go to vocational school but end up in general school.

be mentioned.

### 6.3.1 Students applying to general schools without doubts

As was mentioned above, the group of students who were relatively certain about their decision to apply to general school were quite good at school, and sometimes expressly stated that they enjoyed reading or doing maths exercises. Coupled with this was a sense that the courses and occupations on the vocational side would not suit or interest them. These were the two main factors pulling them towards general school and at the same time pushing them away from vocational education. The next quote is one example of this kind of reasoning:

> "I'm going to go to general school [...] I just don't think I really have any other option. The things on the vocational side just don't fit [...] They just don't interest me and on the other hand the different kind of studying [...] Academic subjects have normally just gone better." (Majority girl 4)

Given that students continuing to general school do not have to make many decisions about the subjects that they are going to study, it is perhaps unsurprising that many of them use their uncertainty over their future occupation as another reason for their choice of school type.[12] In a national survey carried out in 2001, approximately half of the students applying to general schools stated that getting three more years to think about their options was their main reason for applying to general school (Numminen, 2003).

Coupled with the possibility of deferring decision making for another three years or so, another attraction of general schools, as stated by the students, is the breadth of the education that you get, which allows you to continue almost anywhere afterwards, with a few caveats relating to the courses taken.[13] There is a specific

[12] Finnish general schools have a rather broad core curriculum that all students have to follow, although there are possibilities of taking advanced and applied courses in many subjects. The main decision that students have to make on entering general schools is whether they follow the short or long maths curriculum. Entry into some university courses, such as medicine, is restricted to those who have followed the long curriculum.

[13] Again this relates mostly to the maths courses, as described in the previous footnote.

Finnish word that refers to this all-round education that you get in general schools (*yleissivistys*), but unfortunately I have yet to find an equivalent with similar connotations in English. Therefore the term 'all-round education' will be used when students refer to it in their interviews.[14] The next quote is from a girl who included this all-round education as one of the reasons why she was happy to be applying to general schools despite having had doubts at certain points:

> "Basically [I'm applying to general school] because I don't know at all what I want to do. Just because, like everyone says, you get three more years to figure out what you want to do [...] And then my mum has been saying ever since I was about three years old that you'll be going to general school. But I like going there [...] I've thought about [applying to vocational schools] quite a few times and when we've been to visit and people say that it's a lot easier, that you get to know the occupation directly. And in general schools you just sit and do something like maths exercises so at that stage I've been like 'mum, what if I don't go to general school?' But then mum was just: 'you go to vocational school if you know what you want to do but if you don't know what you want to do then you go to general school'. And then I was: 'ok, I'm going to general school. I don't know what I want to do so I'm going to general school.' And anyway, I enjoy going to school and I like being in school, I enjoy reading and doing those exercises [...] And then it hits you when you've been to general school for one year: now I know, why didn't I go to vocational school! But no. I think this is how it's going to be. Anyway, you get so much general knowledge in general school, you get an all-round education and that kind of stuff in any case." (Majority girl 9)

Only one of the Finnish students interviewed stated that they were applying to general school with specific occupations in mind. On the other hand, many immigrant-origin students had rather clear ideas of occupations that they were aspiring to after general school. However, there were also some Finnish students who had a vague sense of the field that they might be interested in in the future. The next quote is from the student who already had a clearer idea of the occupations that he was aspiring to:

> "The occupations that I'm interested in require general school [...] [I'm interested in them] mainly because, they've been my dream occupations since I was little. That's about it. I've basically had a look at what these other occupations are, and had a look for example that my mum is in IT, that I wouldn't be able to do the same job all day long. There needs to be a bit of variety to the job." (Majority boy 4)

[14]This translation has been taken from the WSOY Finnish-English Dictionary (1984).

The students' orientation to education, which we have seen two almost opposite examples of in the two quotes above, will be discussed further below.

As could already be seen in the quote of Majority girl 9 above, parents can often have a strong opinion about the type of school they would prefer their child to attend. In particular, this seemed to be the case for the parents who had themselves graduated from general upper secondary schools, and often also university, and wanted their children to attend general school too. However, as will be discussed later on, despite this expectation, Finnish students tended to feel that they could make their own decisions regardless of their parents' stated preference, and that their parents would respect their choice. However, it is likely that for students who are good at school and whose parents expect them to attend general school, this adds to their sense of certainty with regards to their decision to apply to general school. An example of this negotiation between parental pressure and independence in decision making can be seen in the next quote:

> "I don't know for sure [what I want to do in the future]. But it was a bit, mum was like 'you're going to general school' and that way. But I did feel that I wanted to go to general school [...] Mum would probably want, mum said that I have to go to general school but I don't know, she wants me to get a good education probably [...] But at the end of the day it's about my future and nobody else's." (Majority girl 8)

To summarize, there were two reasons for continuing to general school that came out most strongly in the interviews: Firstly, many students could not see themselves in vocational schools or in occupations that vocational schools lead to. Secondly and related to the first reason, students wanted three more years to think about their future and what occupation they wanted.

### 6.3.2 Students applying to vocational schools without doubts

Moving to the students who were quite certain about their application to vocational schools, students in this group often expressly stated that they did not

enjoy reading,[15] or they felt that general schools would be too much work. Some students also recognized that their grades would not be good enough to apply to general schools and they had, therefore, not even thought about this option but had focused on finding a suitable vocational course. As with the boy from whom the next quote is taken, a number of students were quite upbeat about the fact that they would not have to read as much in vocational schools:

> "*You haven't thought at all about applying to general school for example?*
> No, no. [[Laughs]]
> *Why not?*
> I don't know, I'm trying to get to do things more, away from books [...] Myself I've never even considered general school. I can't do that kind of reading." ($2^{nd}$ generation European boy 3)

Along with a dislike of the more academic side of studying, which pushed students away from general schools, an interest in one or more vocational courses pulled students towards vocational schools. These interests stemmed from a variety of sources such as school subjects (for example IT or woodwork) or activities that the students enjoyed doing (for example 'fiddling with computers' or cooking). On the other hand, they were sometimes also directly linked to the occupation that the students expected to enter at the end of the course, as exemplified in the next quote:

> "I've looked on the internet what the jobs [that I'm interested in] are like and they're pretty interesting [...] I think they're kind of good basic jobs and the pay is also pretty good. I'm not that interested in horrible paperwork and all that kind of stuff, more like manual work [...] I'm not sure yet [what I want to do after vocational school]. Probably if I got a job then I could go [into employment] straight away." (Majority boy 1)

Some students had already been able to get work experience in their chosen field, either through a two-week work-experience period that all Finnish students undertake in the $9^{th}$ grade (*työelämään tutustumisjakso*) or through a one-day experience where money is raised for charity (*taksvärkki*). The next quote is from a boy who

[15]It should be noted at this stage that the fact that students associate general school with reading so strongly may come from the closeness of the Finnish word for general school (*lukio*) to the word for reading (*lukea*). The term *lukio* implies that it is a place for reading.

had found his chosen field of study through the work-experience period and the ensuing discussions in class:

> "When I was at work experience at a [work place], I got the impression that it was actually quite fun to be there. If you look at all the professions, there are quite a lot of them, and when I listened to other people's stories about where they'd been, I realized that where I'd been had been the best. I didn't know it before, only after I came back from work experience I knew where I would be applying to [...] If I go through [vocational rather than general school] then I can go straight to employment. I don't want to read that much maybe but if I end up in general school then I'll read and then I'll try and go to a polytechnic or something." (Majority boy 5)

The quote above also illustrates that for some students the decision to apply to vocational school is not completely dictated by their grades, and that they use general school as a fall-back option if they fail to get into the vocational courses they want to. The informational value of work experience, hobbies, and school subjects will be discussed further below.

Parental involvement was less directly evident than in the previous group. However, parents with a general school degree would have wanted their children to attend general school too, whereas parents with less education were more willing to allow their children to decide according to their own interests. The next two quotes illustrate the two positions that parents took, the first being from a boy with relatively low-educated parents, whereas in the second one, the boy's father has a university degree:

> "I've asked [my parents] if these [choices] are good. Then they've said 'yes, these are really, in a way quite good, these choices'." ($2^{nd}$ generation European boy 2)

> "[My parents] haven't really [said] anything, or they'd want me to go to general school. Or my dad would want me to but not my mum but I don't really know. I'm going to go to vocational school." (Majority, boy 6)

To summarize, students in this group were relatively sure of their occupational interests, and even more sure that they would not be suited to studying in general schools. These two aspects made their decision to apply to vocational schools relatively unproblematic.

### 6.3.3 Students unsure of their choices

In contrast to the students in the two groups described above, the last set of students was relatively unsure about their decisions. The majority students in this group were good enough to apply to either type of school and mostly the issue was about figuring out what they were interested in, and whether that interest was strong enough to commit to.

One of the concerns that these students had with regards to general school was the workload. Whereas the students applying to vocational school had decided that the workload in general schools was too much for them, and the students applying to general school were relatively certain that they could cope with it, the students in this group were still unsure. This is exemplified in the next two quotes:

> "I don't really know if electronics [in vocational school] is good or if I should continue reading [...]
> *So you have to decide what you're interested in.*
> It's a bit like you'd have to keep on reading more in general school [...] I don't know, reading isn't really that nice." (Majority boy 8)

> "I'm not completely sure [of where I'll apply] yet. I'm thinking about general school and business college [[at upper secondary level]] [...] General school probably [is stronger]. It's just that I'm not completely sure if I can cope with studying so much. But I think I probably can. So [I'm planning to go] there at the moment [...] It's probably because [in general school] you get a lot of knowledge and it's got better English and languages and so on. So you get the subjects more broadly than in vocational school. And then there are better, or at least I'd imagine so, that there's better continuation opportunities afterwards." (Majority girl 7)

As expressed in these two quotes, as a counterbalance to the workload in general schools were doubts about the 'goodness' of vocational courses (Majority boy 8) and the benefits of attending general school (Majority girl 7). It is unclear what exactly is meant by a vocational degree being 'good' or not. However, based on other interviews, I would imagine that this mainly refers to whether it is interesting and if the person taking the course will enjoy it. On the other hand, it could also refer to the opportunities after the course has finished, either in terms of employment or further education.

The second quote mirrors some of the reasons given by students applying to general schools without doubts with regards to the breadth of the curriculum. However, she also mentions the continuation opportunities relating to tertiary education, which were implicit in the reasoning of some of the students applying to general schools but relatively rarely voiced explicitly, possibly because they are taken for granted. Some of the students who had been considering vocational school, possibly with a double degree, but who had by the time of the interview decided to apply to general school instead, gave as one of their main reasons for changing their minds the fact that with general school you are keeping your continuation options more open. This is also the reason given by the girl in the next quote:

> "I did think about [applying to vocational school] but then I wasn't at all sure what field [[of study or employment]] I'd want to go into so I didn't dare to go there because I thought if I want to change my mind and I don't want to go into a particular field. So now I've got three more years to think about it [...] I thought about going to business college [[at upper secondary level]] but then I thought what if I don't want to do economics at university then at least from general school I can go directly to do economics so general school is better so I can still change my mind." (Mixed origin girl 11)

To summarize, the students wavering between the two choices displayed many of the characteristics of the students applying to vocational school in that they were somewhat tired of studying and had at least some idea of the kind of course that they would take in vocational school. However, if this interest in a vocational course was not strong enough, the students often tended to go with what they saw as the 'safer' option: general school. Together with the students who did not doubt their choice of general school, the students in this group tended to see this as three additional years to come to a decision about their future.

### 6.3.4 Overview

As mentioned at the beginning of this section, students could be placed on a continuum of decision-making certainty and school type. In addition to this con-

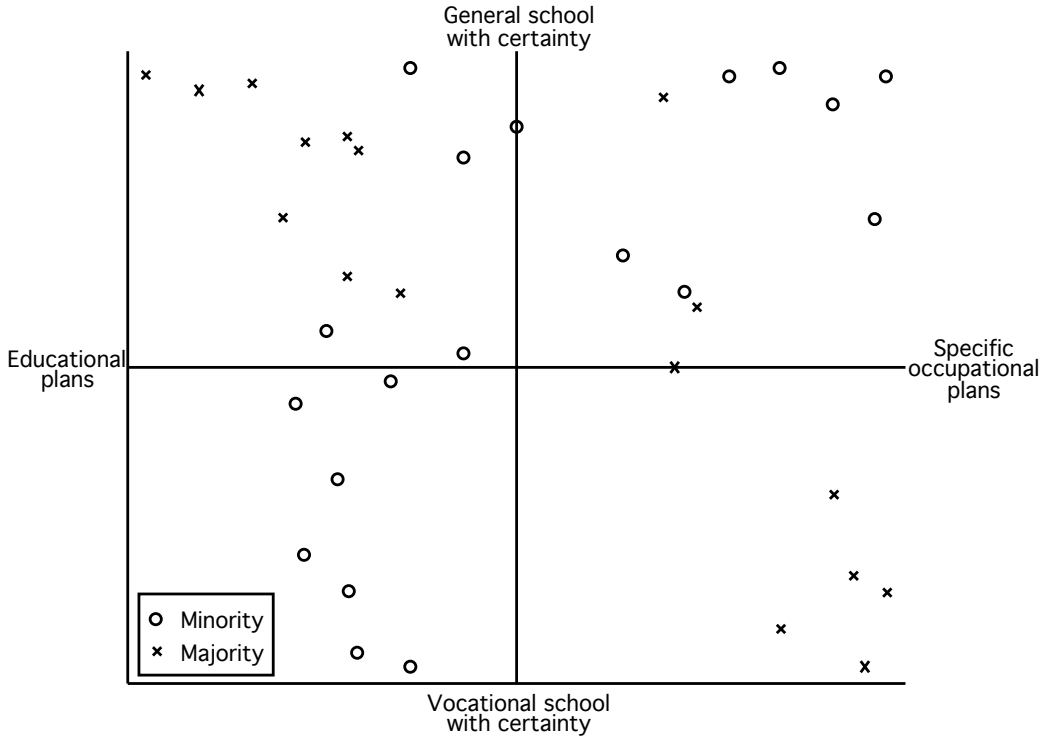



Figure 6.1: Typology of students and their decision making

tinuum, students can also be placed along another one, which relates mainly to their plans: educational or occupational (Figure 6.1).[16] Occupational plans relate to having one or several specific occupations or vocational courses in mind. The stronger the attachment to a specific occupation, the further to the right a student is placed on the x-axis. Being on the educational plans side of the graph means that a student only really has plans for the educational level that they want to attain rather than the content. Moreover, the further a student is to the left, the more strongly they are seen to identify with academic education whereas those relatively close to the y-axis are the ones who most strongly state that they need three more years to decide.

According to this typology, majority students in Finland either have educational plans and are aiming for general school, or have specific occupational plans and are

[16]This is by no means the only way to categorise the students, and their positioning on this graph is not mean to be the only possible one. However, the aim of the figure is to show general patterns evident in the data.

aiming for vocational school, although some are in-between. As will be discussed in the next section, children of immigrants are in many ways in rather different decision-making positions compared to majority students.

These two different types of plans could also be seen as different orientations to education: On the one hand, those with educational plans could be seen as having an intrinsic valuation of education, whereby education is valued as a good in itself. On the other hand, those with occupational plans could be seen as having an extrinsic valuation of education, whereby education is used as a means towards obtaining something else, often a (good) job. However, this interpretation is not straightforward. This is partly because, amongst students applying to general schools, there are both those who state that these schools provide an all-round education or lots of knowledge (intrinsic), and those who are aiming for 'good' occupations (extrinsic), even if they do not know what those occupations are. Moreover, for some of the interviewed students, it is rather difficult to determine what their orientation to education is.

Amongst all students, there was relatively little pre-planning for the future in terms of getting experience of occupations that interested them. This could have included work experience, related hobbies or taking optional courses in the area. Some students may have used the work-experience period at school for this purpose, but very few brought it up in interviews, and all the students who talked about it having an effect were aiming for vocational school. On the other hand, hobbies seemed to have an effect on many students' school choices. The way this seemed to work was that some of the students applying to vocational school chose their course on the basis of what they enjoyed doing, which was often also their hobby. Most often this meant they were applying to do a vocational IT degree. Amongst students applying to general schools, their hobbies occasionally guided their choice of school so that they could take optional courses in a subject related to their hobby in upper secondary school. However, they rarely thought that their

hobbies would be related to their future occupations.

Another unifying feature of the decision making of majority students was their strongly stated independence. Although decisions were often discussed with parents and education and careers advisers – and some students were well aware of their parents' preferences with regards to their choices – all majority students insisted that the choice was their own. The role of others, and the differences between majority and minority students in this regard will be discussed further below.

### 6.3.5 Some differences between majority and minority students

Overall, minority and majority students were quite similar: those who were good at school, and enjoyed it, were applying to general school, and those who were not so good at school, and often were not enjoying it very much, were applying to vocational school. However, amongst the minority students applying to vocational school, there were students who would have wanted to go to general school but did not have realistic chances of getting in. Except for their lower school achievement, they were in many ways more like their peers applying to general schools. In Figure 6.1, they are placed on the educational plans side but very near the x-axis.

The existence of this group of students, who with relatively low grades wanted to continue to general schools, is the main reason for the higher continuation propensities of minority students as compared to the majority. The main reason behind their desire to go to general schools seems to be their parents' wishes, and the fact that they would like to fulfil those wishes. The ways that others are included in the decision-making process is the focus of the next section.

There were also some other discernible differences between the two groups. As was already mentioned above, within the group of students continuing to general school

without a doubt, minority students more often had a certain occupation that they were aiming for. This puts them further towards the right than most majority students at the top of Figure 6.1.[17] For example, several of the interviewed children of immigrants were aiming to become doctors. The main reason they gave for this was their interest in the occupation:

> "I like maths, physics, chemistry and biology a whole lot so my dream occupation is to become a doctor, so after [general school] I'd want to apply to medical school. But it's not certain but I've thought that it would be super cool to be a doctor when you can help people if you're good [...]
>
> *So is it the school subjects that have got you interested in it or the work?*
>
> Actually it's rather the work. I'm pretty good at almost all subjects and that's given me some pressure that I don't really know what subject I like. Doctors are pretty common [[possibly referring to good opportunities for doctors to be employed nationally and internationally]] and I've thought that it would be super cool to be a doctor. And then I've noticed that I like those subjects, that's just been a plus, so I haven't really chosen according to the subjects." ($2^{nd}$ generation non-European girl 1)

On the other hand, within the group of students continuing to vocational school without a doubt, in which the students already knew more or less the occupations that they were aiming for, minority students tended to express more wishes for further education than their majority peers. This puts them to the left of the majority students at the bottom of Figure 6.1. However, even though their plans contained more educational elements than their majority peers', the main reason for wanting higher education was to increase their employment opportunities either in terms of being less likely to be unemployed or to have better access to higher status jobs. The next quote illustrates the importance of employment prospects for one $2^{nd}$ generation boy applying to business college at upper secondary level:

> "It's a general degree and you can find work from it, so you don't have to live without work. So the employment of course [...]
>
> *Have you got any thoughts about what you'd like to do after school, if you want to go straight to work or study some more?*
>
> Still study more.
>
> *Why?*

[17] For some of these students it was extremely hard to determine a suitable position for them given that they expressed strong opinions valuing general education in itself but also had strong occupational plans. Most of these students can be found relatively near the y-axis.

For better employment." ($2^{nd}$ generation European boy 5)

This focus on specific occupations on the part of children of immigrants applying to general schools, and better employment through higher education on the part of those applying to vocational schools, could be seen as a different orientation to education compared to majority students. It could be argued that majority students tend to display an intrinsic valuation of education either in the sense that the students who continue to general education enjoy learning or in the sense that majority students choose the type of school or their course according to their own interests. On the other hand, the children of immigrants' orientation could be described as extrinsic since they tend to be more focused on occupations and employment.

One reason for this difference could be an expectation of discrimination on the part of children of immigrants. This argument has been discussed in the Visibility sections of the previous two chapters, and prior to the interviews there was an expectation that minority students would cite this as a consideration for their own decision making. However, no minority student brought up experiences or expectations of discrimination unprompted, and only a few of those students who were asked specifically about 'not being treated equally' stated that they had experiences or expectations of discrimination.[18] Even in these cases, discrimination did not seem to have affected the decision making of the student.

It may be that this was not something that the students wanted to bring up with the interviewer, who was probably seen as part of the majority population. Previous Finnish research has found that almost all children of immigrants seem to have experiences of racism, prejudice or discrimination, even those of mixed origin (Honkasalo et al., 2007). Even though in that research students were willing to

[18]The reasons for possibly not being treated equally were left for the student to decide, and when a student asked what this referred to, a list of possible reasons why some people might feel discriminated against, such as age, gender and ethnic origin, were given.

write about these topics in a paper-and-pencil survey, they were less willing to talk about it in face-to-face interviews. However, it may also be that children of immigrants aged 16 do not widely think that they will be treated any differently because of their minority status even if they have experienced racism. Nevertheless, one of the reasons why their parents emphasize the value of education may relate to their experiences of discrimination. This will be discussed later in the chapter.

Returning to the different orientations to education, it is by no means clear from the interviews that children of immigrants differ from the majority. On the one hand, it has already been argued that the majority population exhibit a variety of views regarding their valuation of education, even within the group of students applying to general school. On the other hand, amongst the children of immigrants applying to general schools with specific occupations in mind, many displayed a strong intrinsic valuation of education. This could be seen in the same ways as amongst the majority students, for example the mentions of gaining an all-round education, but also in an emphasis on the importance of going through the whole education system, where general schools are seen as an extension of compulsory schools but vocational schools are not.

In addition to this, two students mentioned the idea that general schools made you 'wiser'. It is unclear whether this reflects a genuine difference in orientation to education – it is unlikely that most people would consider general schools as making one wise – or if it is due to language difficulties. Both of these students had moved to Finland during their school years so it could be related to language. On the other hand, both students came from countries that, in my opinion, value education extremely highly, which may be reflected in their parents' views and projected onto the children.

To summarize, many children of immigrants differed from their majority peers in

terms of their farther-reaching plans for the future. Whereas majority students applying to general school were very much undecided as to what they would do in three years' time, children of immigrants had rather specific occupational plans. Moreover, whereas majority students applying to vocational schools were primarily aiming for employment in three years' time, children of immigrants were largely thinking ahead to further education. However, with regards to the higher continuation of children of immigrants to general schools that was found in the previous chapter, the main reason for this lies in the fact that a higher proportion of those children of immigrants who do not do well in school nevertheless wish to apply to general schools compared to similarly performing majority students. This seems to relate largely to family influence, which will be discussed in the next section.

## 6.4 The role of others in the decision making of the students

Traditionally, decision making has tended to be seen as something that individuals should do independently. For example, one widely cited study on decision making identifies three decision-making styles: rational, intuitive and dependent (Harren, 1979). Only the dependent decision-making style talks about the influence of others, and this influence is viewed as negative in the sense that the individual passes responsibility for their own decision to others. The ideal decision maker is viewed as rational: one who recognizes the need to make decisions in advance, seeks out information, makes a realistic assessment of the situation, and carries the decision through logically. This style of decision making only recognizes the role of others indirectly in that they may be asked for information.

However, as has already become evident, students do not make their decisions alone. Despite the stress that students place on the independence of their decision making, they normally at least discuss their decisions with others, and often either

seek out, or involuntarily receive, information and advice from others.

Previous Finnish research also points out the stress that young people put on their view that they make their decisions independently (Vanhalakka-Ruoho, 2007). However, there are many varieties of independence ranging from actively ignoring the advice that other people (often parents) are trying to give to trying to accommodate this advice into something that also suits oneself. Independence in decision making can also go hand-in-hand with seeking information and advice from others.

Two sources of influence have already been mentioned: parents and school, particularly the education and careers advisers. In addition to discussing the role of parents somewhat further, the role of friends and siblings will also be discussed in this section. After discussing these different sources of influence more generally, the role that others play for children of immigrants will be explored more thoroughly.

### 6.4.1 Parents, friends and siblings

#### Parents

The influence of parents has already been mentioned above. Most students who recognized that their parents had a preference for their education tended to dismiss that this had had an influence on their decision even if they were choosing what their parents wanted them to. The next quote gives one such example from a majority girl who was applying to general school:

> "My mother thinks it's obvious that I'll go to general school, but I haven't really let that affect me, I've made the decision all on my own." (Majority girl 6)

There were also students who were going against their parents' wishes when their parents (or at least one parent) wanted them to attend general school but the

student was more interested in going to vocational school, as illustrated in the next quote:

> "[My parents] haven't really [said] anything, or they'd want me to go to general school. Or my dad would want me to but not my mum but I don't really know. I'm going to go to vocational school." (Majority, boy 6)

Not all students were as dismissive about their parents' efforts to help them choose a school. Some students had discussed the pros and cons of different options with their parents, whereas others had received suggestions about certain courses from their parents. In particular, the option of doing a double degree had been suggested to a few students by their parents. The following quote illustrates a more co-operative view of making decisions, in which the student, nevertheless, retains control over the final decision:

> "We've talked [with my parents] of where I should go and apply. Mum and dad both maybe want me to go to [specialist general] school, that I'd get in. And so I applied there because I wanted to go there too. We've thought about it together." (Majority boy 3)

Finally, not all parents seemed to take part in their children's decision-making process. Some parents expressed no preferences to their children, whereas some supported any decision their child wanted to make. The next quote is from a boy applying to vocational school, whose parents either have no preference for their son's education or have not wanted to voice one:

> "[My parents] said that they have no opinion about what I do, it's my own business, where I apply to. So they don't have anything against what I apply [to do] and where I apply to." (Majority boy 5)

### Friends

Many students had also discussed their choices with their friends. For majority students, the role of friends tended to be less about information or advice and more about friends wanting to continue to the same upper secondary school together.

However, some students had heard about the schools they were applying to from older friends in those schools. Amongst the students that I interviewed, continuing to the same upper secondary school as close friends was only the case for students who were applying to general schools. The next quote is from one of the students who stated that where her friends were applying to had had an effect on her decision:

> "[The school] felt really nice when they had the open day, where we went to visit. I just thought it felt really nice. Then it's also pretty close and seems good [...] We've been thinking with friends that everyone's going to [the school] so that's had an effect too." (Majority girl 2)

However, even amongst the students who had considered following their friends to a certain school not everyone finally made their decision on that basis. The next quote is from a girl who was torn between a school that she liked more and one that her friends were going to. She finally decided to apply to the one that she liked more:

> "Basically [I chose the school] on the basis of the atmosphere and it looked really nice. We also went to [another school] and I thought it was really institution-like. I didn't really, it wasn't a nice place [...] Many of my best friends are going to [the other school] so I was thinking if I should put that [first on the application]. I was undecided for a long time, even on the day [when the applications were due] I was unsure which one I should put because a lot of my friends are going to [the other school] and I know other people there too. But still I think [the school I applied to] is a nicer place." (Majority girl 6)

Overall, the influence of friends was one factor amongst others, but factors such as the specialization of schools or their 'atmosphere' as felt by the students, or even the distance to the school, were often more powerful.

### Siblings

The role of older siblings was relatively minimal for majority students, although it is not certain whether many of the students had older siblings as family sizes

tend to be quite small in Finland.[19] In any case, for immigrant-origin students, older siblings were a good source of information about different schools. This was the case regardless of whether the student was applying to general or vocational schools. Almost all the students who mentioned their siblings in interviews, whether majority or minority, were aiming to attend the same school as their sibling had. The next two quotes are from two such students:

> "My sister has been [at first choice school] and she's said that it's quite a good school. And I live quite close to it so I don't have to wake up so early." ($1^{st}$ generation non-European girl 3)

> "I've heard a lot about [chosen course] and it's interesting for me, it would fit me well. You get to work with machines and do all these things, electronics and everything [...] My older brother is in the same school and he has been telling me about it and so I'm going to go there too." ($2^{nd}$ generation European male 2)

The possible reasons for following older siblings into the same schools are discussed further towards the end of this chapter.

### 6.4.2 Children of immigrants and the role of others

Up until now, the focus has been on the majority students and how they, despite advice and pressure from various sources, largely view their decision making as being independent. However, children of immigrants reported being more heavily influenced by others, particularly their parents, and more likely to actively seek information from friends.

This section discusses the experiences of children of immigrants using the framework developed by Phillips et al. (2001). They divide the role that others take in decision making into three broad categories: the actions of others, the recruitment of others, and pushing others away. Within the first two categories, there is a broad spectrum of actions ranging from nonactive support to criticism in the

[19]The exception to this was Majority girl 3, who was applying to the specialist school that her older brothers had attended.

first, and from weighing options with others to the unsuccessful recruitment of others in the second category.

For the immigrant-origin students interviewed, the actions of others tended to concentrate around either being providers of information or having a more influential role in pushing them towards a certain choice, even forcefully guiding them. Some students also talked about their parents criticizing their options. Other types of actions such as support (both nonactive and unconditional) were also brought up.

In terms of recruitment of others, the focus for the children of immigrants was on seeking information from others. However, other types of recruitment, such as using others for weighing options or as sounding boards, also came up.

Finally, pushing others away was more frequent amongst the Finnish students, but there was one particularly strong case amongst the immigrant-origin students too.

The rest of this section gives a case study for each of the three broad types of roles that others can play, using particular immigrant-origin students as examples. A discussion of others in similar – or in some cases completely opposite – situations will also be included. The three students whose situations are discussed in the case studies have been given fictional names.

### 6.4.3 Case study: Being 'acted on' by others

Leyla is a $2^{nd}$ generation non-European girl (2) with grades that are unlikely to be high enough to gain entry into general schools. In the autumn survey on application intentions, she was very much undecided about where she would apply to, stating that she was relatively likely to apply to both types of schools. By the time of the interviews, Leyla was coming to the conclusion that her aim would be to do a business course in vocational school with general school in addition to

this, in other words to do a double degree.

However, she still seemed to be relatively unsure about her decision, probably because of the strong wishes of her parents for her to attend general school that are expressed in the next quote from the beginning of the interview:

> *"Do you know at the moment where you're going to apply to?*
> I don't know at all yet. [[Sounding slightly desperate]]
> *What kind of thoughts have you got about it?*
> I'd personally want to do a double degree [...]
> *And why specifically do you want to do a double degree?*
> My family's forcing me that I have to get the white cap [[that you get when you graduate from general upper secondary schools]]. On the other hand, it's much easier to get the vocation at the same time [...] It's a bit like my family wants general school and I want vocational school and I'm completely sure that I won't cope in general school. It's a bit like...
> *A compromise?*
> Yes.
> *Do you know why your family wants [you to go to general school]?*
> Because all my brothers and sisters have been to general school and I'm now the last one there is. So I should now go to general school and get the white cap."

As well as the family tradition of attending general school mentioned in the quote above – in addition to Leyla's older siblings, her father also had an upper secondary degree – there was also a perception within the family that general schools were better than vocational schools. Amongst the interviewed students, there was a variety of views as to which type of education was better appreciated in Finnish society. Most students, regardless of their views, did not seem to be too influenced by what they viewed as being more appreciated. However, there were a few children of immigrants for whom this seemed to matter more, and Leyla was one of them, as can be seen in the next quote:

> "General school has always been a bit like, my parents appreciate people who've been to general school much more. I don't know, some people say that it doesn't matter [whether you attend general or vocational school] but it does matter, it matters a lot. It's just that general school is much better than vocational school.
> *Do you think this affects what your parents think and how you'll choose?*
> No, I mean my parents, now that they've still got time to say what they want, but deep down inside they'll eventually listen to me more [...] My parents aren't forcing me in that way, and they won't respect me any differently if I go to general

> or vocational school. But they'd want me to go to general school because they've been to general school and they've got good jobs. They'd want me to get something similar, same thing as happened to them. But sometimes it's just a bit impossible."

For Leyla, general school had been a childhood dream, but she was slowly coming to the realization that this was not going to happen, not only because her grades were not good enough to gain entry, but also because she was unlikely to cope in general school, even if she did manage to get in. The next quote shows that she had realized that if she is unable to raise her grades in compulsory school, she is also unlikely to do well in general school:

> "I've tried to raise my grades but it's a bit difficult [...] I know I won't cope [in general school] so there's no sense in going there if you don't kind of cope there."

Fortunately, Leyla seemed to have found a course that she was interested in amongst the options in vocational schools. This was business studies, which appeared to be a popular choice amongst children of immigrants due to its broad continuation opportunities in terms of both employment and education. This was also the reason Leyla gave for wanting to take the course:

> "I've known for half a year now that I want to do business studies. You have so many choices with it of what you want to do afterwards.
> *Do you already know what you want to do afterwards?*
> No, it's just that there are a lot of options of what you can do after it."

In addition to the actions of her parents, Leyla was one of the many immigrant-origin students who had received information about specific schools from friends or siblings:

> "One of my friends is in [a business college] and he/she is going to be a business graduate and he/she thinks it's pretty easy and a lot better than some other thing, that you have so many options of what you can do afterwards."

In addition to Leyla, there were two boys whose parents were exerting pressure on them to get them to go to general school and who were also unlikely to have good enough grades to get in. One of the boys is a $2^{nd}$ generation student with

non-European origins (1) who found it very difficult to discuss the whole issue of decision making at the interview. His situation seemed very similar to Leyla's, although he did not bring up the possibility of doing a double degree.

The other boy is $1^{st}$ generation European (7) and had only arrived in Finland one or two years prior to the interviews. Although it seemed that he had had good grades in his country of origin, he was not sure whether he would achieve good enough grades in his last year of comprehensive school in Finland to be able to go to general school. Therefore, he was also going to apply to vocational schools in case he would not be able to get the necessary grades. The next quote summarizes his decision making and the strong influence that his parents seemed to have on his reasoning:

> "*Why do you want to go to general school?*
> Because my parents want me to go there, and then it's sort of better or how do you say [...] I'll become wiser [...] My parents want [me to go to general school] so that I'd still have time to think if I want to go into [vocational field] or not. When I was younger I wanted to go to the army to study but you need citizenship for that. That's why I'm applying, like my parents said, go to general school first, go there for three years, then I'll be older and I'll still have time to think [...] [My parents] have told me earlier that they want me to study a normal education, that's general school, so that if I study twelve years in a normal school then I can go and study something else. Then I become wiser." ($1^{st}$ gen European boy 7)

Naturally, there were also students with similar parental pressures who did not have problems at school, and for whom the transition was not as difficult despite their parents' strong preferences. The next two quotes are from two students who did well at school and who were applying to general school, both because of their own interests and the preferences of their parents:

> "Both of my parents have got a, what is it, they've gone through university and dad's a [high status occupation] and mum's a [high status occupation] so they've taught me since I was little that you always have to be wise and go to university. Then you get a good job and everyone respects and appreciates you. So that's why I'm going to general school and then university." ($1^{st}$ generation European girl 10)

> "My parents came to Finland for my sake, so that I would study in Finland. So that's the most important thing." ($1^{st}$ gen European boy 4)

In summary, parental wishes were a strong determinant of the decision making of children of immigrants. Despite the parental pressure expressed by many students, in particular Leyla, none of the students thought that their parents were making the decision for them. For example, although Leyla began her interview by stating that her parents were 'forcing' her to get a general upper secondary degree, towards the end she said that at the end of the day it would be her decision and that her parents were not "forcing me in that way".

Overall, in Leyla's interview, as well as in other interviews with children of immigrants, parents' valuation of education, both extrinsically and intrinsically, comes out, and it seems to have been internalized by the children. Leyla talked about her parents wanting her to get a good job through education, which would point to an extrinsic valuation. But the emphasis on the white cap, which can be seen as a status symbol, would suggest that general education can also be seen as an end in itself, an intrinsic valuation. Finally, despite her difficulties in school, Leyla stated that attending general school has been a childhood dream of hers, which suggests that her parents' views of the importance of education have been strongly internalized by Leyla.

The same internalization of parental values can also be seen in the quotes of the two students who stated that they should go to general school to become "wise". The use of this word has already been discussed earlier in this chapter. What is important to note here is the strong belief in the, particularly intrinsic, value of education and how this has been passed on from parent to child.[20]

[20]It could also be argued that this same process of internalization happens amongst many majority students. In particular, the majority students who were following their parents' wishes and nevertheless stressed their independence of decision making can be regarded as having internalized their parents' wishes.

### 6.4.4 Case study: Recruiting others for information and advice

Lisa is a $2^{nd}$ generation non-European girl (1) with high grades. She takes school very seriously, so much so that she gets extremely stressed about schoolwork at times. There was no question really about whether she would continue to general school, even if she had at times thought about not doing so, so that she would not have to stress about school so much.

Her problem was that she was the first-born in her family and thus the first in the family to go through the Finnish school system. Therefore, her family could not help her choose amongst general schools, and she had to seek information from friends and school:

> "I've talked to my friends and asked for advice from our education adviser. Because my parents don't know Finnish so well so it's been quite tough that I don't really know where I want to go. So my question has been that as I've got a really good average should I be going to a school that requires a higher average? Now I've found out that it doesn't matter whether the average of the school is good or not. You get the same compulsory courses everywhere and the final exams are the same everywhere.
>
> *So your education adviser has been quite important since your parents haven't been able to help?*
>
> Yeah, and my friends and teachers. My parents don't really know much about general schools in Finland and I'm their first-born, I'm the eldest, I've got a little sister. So I've got no-one and I'm the first from our family so it's been quite difficult to tell my mum. Mum has thought that because I've got a high average, if I went in our country, then it would be the very best school. But because in Finland it's a bit different and it's difficult to explain it to mum because I'm not completely sure myself."

The quote above also reflects the reality of many children of immigrants, whereby they have to partly take on the role of parents due to their better language skills. This can also lead to more serious role reversals and loss of authority on the part of parents, which may be damaging for the child's schooling. However, there was no evidence of serious role reversals amongst the interviewees.

In addition to feeling the pressure to go into the most competitive general schools, Lisa had also considered applying to a specialized natural sciences general school

in Helsinki. This was because she was aiming to become a doctor. However, after careful consideration and discussions with others, she had decided to apply to a general school near her home that she liked the atmosphere of. She explains her decision-making process in the next quote, where again the role of the education adviser is important:

> "I've also thought about the natural sciences general school in Helsinki but when I went to have a look at the school I didn't get a good feeling about the school [...] I went to the natural sciences school so I could try all general schools [...] but I'm not even sure if I want to become a doctor and if I go to a natural sciences school then that might be too much pressure. But then our education adviser said that if I want to become a doctor then I should go to general school and take a lot of maths courses and a lot of physics courses. If you're a doctor you don't have to have gone to the natural sciences school in Helsinki, that's not a requirement. So I thought that's a nice normal general school and that affected my decision."

The help of friends and various teachers at school came out strongly from Lisa's interview, and also the fact that she had been active in seeking their help, as shown in the next quote:

> "I've had to [ask for information] a whole lot because I don't know myself. I have to go and ask because I don't get very much help from home.
>
> *Where have you got the best advice from? What's helped the most in making your decision?*
>
> Of course amongst my friends I've tried to talk to everyone whether this decision is ok. And then the education adviser, I've talked to them too. So I don't really know, maybe the friends, having talked to all my friends, you know that you've understood all these things. I'm pretty sure about my general school, that I'll like it."

The way that Lisa mobilized her friends and teachers for information and advice can be contrasted to the situation of another $2^{nd}$ generation non-European girl (7), who was also planning to attend general school in order to become a subject teacher. In contrast to Lisa, this girl had relatively low grades, albeit good enough to enter general school. This may have been one of the reasons why she had not been able to recruit others into helping her as much. The next quote summarizes her decision making and the fact that she did not have many people to turn to for advice:

> "[Making the decision] was really difficult for me because my average isn't so high. School has given me lots of [[incomprehensible, but probably referring to difficulties]]. But still I want to go to general school because I really want to be a [subject] teacher. And so I have to choose general school [...] I don't really care at all [what school I go to] as long as I get into some general school [...] The school [I put as my first choice] is probably the school I know best and it's also the closest. [The second choice] is also really close and also one I know best out of the five that I've chosen [...]
>
> *Where have you got information from for your choices and about the different schools?*
>
> From education and careers advisers, their guidance lessons, where they go through a lot of these things. Not really from anywhere.
>
> *Have you talked to other people apart from the adviser about these things?*
>
> Maybe just my mum but my mum doesn't really know anything about education in Finland so mainly probably just the adviser." ($2^{nd}$ generation non-European girl 7)

In summary, Lisa's case study, as well as the contrasting case, show how difficult making decisions can be when parents have little knowledge of the education system. This seems to be the case particularly for children of immigrants without older siblings, which means that no-one within the family has prior experience of the Finnish education system. This often puts the stress on the children themselves to find out about the different opportunities that they have. Naturally, students are likely to vary in their capacities to seek out this information, as illustrated by the two contrasting students discussed here.

### 6.4.5 Case study: Pushing others away

Soraya is also a $2^{nd}$ generation non-European girl (9) who, like Leyla, is unlikely to have good enough grades to attend general school. At the time of the autumn survey, Soraya was still aspiring to attend general rather than vocational school, although she was thinking of applying to both. By the time of the interview, she had settled on the idea of doing a double degree and was quite adamant, and upbeat, about following her own interests with regards to the vocational degree that she had chosen to apply to. The next quote illustrates why she wishes to follow her own interests rather than those of her mother:

> "[My mother] doesn't really like me studying to become an [occupation leading on from a vocational course]. But on the other hand, when I think that if I just go according to their wishes then I'll become nothing. Because when I don't like it but I'm forced to study and I wouldn't cope at all. When I like it myself then of course I want to learn and then I will also learn."

In addition to thinking that she would not cope at general school, Soraya was also thinking about the future and wanted to get an occupation that she would enjoy rather than one that her family wanted her to get. She contrasted her wish to follow her own interests to what she saw people in her own culture doing, which was to follow their families' wishes:

> "Because some people are like, at least in our country, where we have a bit of a different culture and everything, some people have just studied because their families wanted them to. They've wanted to go just according to their families' wishes. So they've become doctors or something, they've just been forced to become [doctors]. You know that it doesn't make sense when you don't enjoy your job. And anyway when you think about it, you live with your job in a way."

Soraya's idea to do a double degree had not come from a need to compromise her own wishes with those of her family, but rather because there were certain occupations that she was interested in that required a general school degree. Also, despite her lack of success in school so far, she did have an ambition to attend university at some point in the future. The following quote illustrates part of the reason why, in addition to studying a course that interested her, she also wanted to keep her options open by doing a general upper secondary degree at the same time:

> "Since I was little I've always liked [certain activities]. But then I thought that it's pretty difficult and you need to be good and it requires so many other things [[to become a professional in those fields]]. Well, [chosen field] is pretty close [...] So that's why. So at least I get to be close to the dreams I used to have [...]
>
> *Why do you want to go to general school too?*
>
> I think it's just nice if I want to go to university and all that kind of stuff. I've also thought that maybe, I'm not at all sure, but maybe I might become a police officer at some point, so that's also an option.
>
> *Does that require completing general school?*
>
> It does, at least my sister, when she tried they required it and you also need to be really sporty, you need to have lots of hobbies. So at least I'll have started slowly, so that if later I want to be a police officer I don't have to do lots of work then. So at least I'm doing something.

*So you're keeping the doors open in a way?*
Yes! Then at least I'll have more options."

Although Soraya's older siblings did come up in the interviews, she did not mention specifically whether or not they had attended general school. It is probable that at least one of them had not, and this may have helped Soraya to assert her independence in opposition to her mother's wishes. In addition to this, Soraya's mother did not have an upper secondary degree and also seemed to be reliant on her children taking care of practical matters for her.

Soraya was one of very few children of immigrants going against their parents' wishes. In addition to not wanting to take her mother's advice, she also seems to have been quite self-reliant in her decision making, albeit with some help from the education adviser. It is almost solely in the information that she had obtained from her sister, about becoming a police officer, that she has relied on others. Even in these two cases, assistance from her sister and the education adviser, the direction of the assistance seems to have been Soraya seeking information rather than others offering advice.

In summary, Soraya displayed an attitude towards her decision making that was rare amongst children of immigrants but displayed somewhat more frequently amongst majority students: (complete) independence in decision making. Despite going against her mother's wishes, she nevertheless was extremely ambitious in her educational plans.

### 6.4.6 Summary

Overall, most students had turned to other people, or had been 'acted on' by others at some point in their decision making. Often this meant seeking information from education and careers advisers, asking for, or receiving, parents' views, and sometimes also deciding with friends. Children of immigrants differed from

majority students in the main through their greater deference to the opinions of others, particularly those of their parents. This was illustrated in the first case study.

The second case study highlighted the fact that immigrant parents and their children often do not have as much information about the education system and the different schools as the majority. For Lisa, the girl discussed in the case study, this meant that she had to actively seek that information. However, not all students have the capacity to do so.

Children of immigrants stressed their independence in decision making rather more rarely than the majority students. However, the third case study shows that this kind of behaviour was not completely absent amongst children of immigrants. Nevertheless, Soraya, the girl in question, seemed to acknowledge that normally people in her country or from her culture tended to follow their families' wishes to a greater extent, and that what she was doing was rare.

In Finnish culture, there is a strong emphasis on the independence of children from a very early age. This is likely to be linked to high female employment rates that have meant that children have to be more independent from an earlier age than in many other countries. Even though children often follow the advice of their parents, the discourse that surrounds their decisions is one of independence.[21]

Despite the fact that there may not be quite as much difference in the role that parents and significant others play in the decision making of children of immigrants and the majority as the interviews themselves might suggest, it is clear that immigrant parents and their attitudes towards education have a high impact on the decisions of their children. Immigrant parents' views on education and possible influences on these views are discussed further in the next section.

[21] As mentioned above, this could be regarded as an internalization of parental wishes on the part of majority children.

## 6.5 Discussion of the role of others and immigrant parents' attitudes towards education

As mentioned above, parents play a large role in the decisions of their children, and this is particularly the case for children of immigrants. Given this large role, it is appropriate to discuss their views further. The data collection, however, did not include interviews with parents. Therefore, the two sources of information about parents' views come from the parental survey that included a question on the aspirations that they had for their children's education, and from what the children said in the interviews about their parents' opinions.

According to the survey responses, most parents of the students surveyed, whether minority or majority, wanted their child to get tertiary education, in other words to attend either a polytechnic or university. However, there were a few Finnish parents for whom either just a vocational degree, or either type of upper secondary education was sufficient. On the other hand, there were several immigrant parents who only wanted their child to attend general school.[22] Due to the fact that getting a good job with just a general degree can be quite difficult in Finland, where the focus is on training in schools rather than on-the-job training, this may be seen as an indication of a slightly unrealistic view of the Finnish education system and labour market.

Related to this is a result brought up in the research by the National Board of Education, namely that immigrant parents do not see the value of vocational studies in the same way as Finnish parents do (Kuusela et al., 2008).[23] However, they do not give reasons for why this may be the case.

Although not having much information is often linked to making less advantaged

[22]There was only one Finnish student, out of all those who returned the parental consent form, whose parents wanted him/her to attend just general school.

[23]It should be noted that their conclusion is based on interviews with four school principals, four teachers and 13 ninth grade immigrant students.

school choices (Kristen, 2005; van de Werfhorst & van Tubergen, 2007), it may also lead to students taking higher routes through education than they would have done if they had had more information. For example, in a system such as that of Finland, in which there is both a vocational route and an academic route to tertiary education, students from immigrant backgrounds may only perceive the academic route as leading to tertiary education.[24] This can also be seen in the ambition of becoming a doctor by many ethnic minority students in Britain, who do not perceive other medical occupations available to them – or other options with similar social status and monetary gain (Basit, 1996; Siann & Knox, 1992).

This lack of accurate information about Finnish society is discussed further next as well as a related explanation for why children of immigrants were likely to follow older siblings or friends to particular schools, that of trust. After this, high parental valuations of education based on family mobility and expected discrimination are explored.

### 6.5.1 Information and trust

The lack of information about the education system and different schools that some immigrant parents displayed has been portrayed above in the case study of Lisa. In addition to not being able to give advice, sometimes even when advice was offered, the children did not think it amounted to much, as in the next example:

> "*What have you discussed with your parents? Have they made the decision with you?*
> No, they've just said their own opinion.

[24] A lack of proper understanding of the education system could also be attributed to Leyla and Soraya's plans to take double degrees. They wanted to do this because their grades were not good enough to continue directly to general schools. In contrast to direct entry to general schools, double degrees do not necessarily have any grade requirements, except for those required for vocational degrees. However, what they did not seem to be considering was the fact that double degrees are likely to involve significantly more work than doing a vocational degree on its own. Therefore, it is unclear whether students who have had difficulties in comprehensive school are well-equipped to complete the general part of their degree. Moreover, the matriculation examinations at the end of the degree are the same as those taken by students only completing a general degree. These examinations are graded on a normalized scale, and it is likely that those who have completed the whole general school are better prepared for them.

*What is their opinion?*

Just that I should go where I want to. They just say their own opinion that... They don't really know much about the educational institutions, they just say what they can know." ($2^{nd}$ generation European boy 5)

This lack of information on the part of parents and children may be one of the reasons why so many of the interviewed children of immigrants were following their siblings to the same school. Differences in information have been found to explain primary school choices between (Turkish) immigrant families and the majority in Germany (Kristen, 2005). Immigrant families tend to perceive and evaluate fewer alternatives, and even when they evaluate multiple alternatives, they tend to be less able to do so in great detail. This is explained largely by differences in information, and amongst immigrant families by integration variables such as language proficiency. Kristen (2005) also found that decisions of reference groups are a major determinant of the perceptions and decisions of all families

Although these kinds of theories were not directly explored in this research, the way that children of immigrants were found to be more likely than majority students to follow friends or family to the same schools would support the view that their information is more limited, and that they have to rely on direct contacts rather than tacit knowledge of the education system.

The same results can also be explained by the fact that many of the immigrant parents come from societies where there are substantially lower levels of generalized trust.[25] Although generalized trust is rather low, trust is likely to be highly placed in the immediate community. A preference for schools where someone from the family, or someone known to the family, has studied may be explained by a lower general trust in schools (and society) but a greater trust in direct contacts. Although the majority of students tended to prefer schools that were

[25]For some of the countries concerned, levels of trust for the 1990s have been calculated by Delhey & Newton (2005). Using their theory, we can assume that the other countries concerned will also have low levels of generalized trust due to high ethnic fractionalization and often low levels of governance.

close to their home, this tendency was possibly slightly stronger amongst children of immigrants. This could also be due to a lack of trust in the unknown.

Similar observations had also been made by one comprehensive school principal interviewed by the National Board of Education. They had also noticed that immigrant parents sometimes suggested schools for their children based on their impressions of a school. These were often linked to the outside appearance of the school building and the fact that the building was familiar. Parents did not have information about the content of the studies and so children were sent to schools that either looked good or where someone known to the family studied. (Kuusela et al., 2008)

Related evidence comes from Hautaniemi (2004), who reports that a Somali language teacher that he interviewed believes that one of the main explanations for the problems of Somali students at school is that the Somali families do not trust Finnish schools and that these schools would understand what is best for their children. One of the education advisers that I talked to at the schools also noted that it was often quite difficult to persuade immigrant parents that their children were unlikely to be able to get into general schools, or to cope there if they did. This would suggest that parents have very strong views of what is right for their children and that they do not trust Finnish school staff if they try to tell them otherwise.

These two explanations of information and trust are likely to work together. Without much information about the school system in general, it is difficult to evaluate the different options, and if some information is obtained from sources that are trusted, this information is likely to be more influential for any decisions made. Moreover, when immigrant parents are still undergoing the process of integration, it is more difficult for them to have either trust in, or information about, the society in which they live and its education system. Although these explanations

have come up more in the context of choices between schools of a certain type, it is also applicable to decisions between school types.

### 6.5.2 Orientations to education and expected discrimination

Children of immigrants' orientations towards education were found to be relatively extrinsic or instrumental with some strong intrinsic valuations of education too. Some of these attitudes clearly come from the parents, as with the example of the two students who talked about how their parents wanted them to become wise by attending general school. Francis & Archer (2005) note in their research on British-Chinese students' and their parents' valuation of education that the children tended to have largely instrumental valuations of education whereas the parents displayed a wider variety of views, with relatively more emphasis on intrinsic aspects. They attribute this to generational differences. However, it could also be a question of age, whereby the intrinsic value of education is largely realized later on in life.

In addition to this intrinsic valuation of education, some parents had highlighted the extrinsic value to their children, such as the non-European father of this girl, who was applying to vocational school:

> "*Have you discussed your applications with your parents?*
> Yes, I have. My dad doesn't like me applying to a vocation. My mum doesn't mind where I go to.
> *Why do you think your dad doesn't like it?*
> Not getting into higher education or getting a worse job, less pay. That's what he's afraid of. " (Mixed non-European girl 8)

A further example of an extrinsic valuation of education is the preference of one set of parents for their child to attend a prestigious general school, whose name might open doors for the child in the future:

> "[My parents] would want me to go to a fancy general school in Helsinki. It would apparently be better for me in the future to say that I've gone to general school in

> Helsinki than [chosen school]. It's more impressive for them." (Mixed European girl 5)

Immigrant parents' extrinsic valuation of education may be related to experiences or expectations of discrimination in the labour market. Many immigrant parents are likely to have encountered difficulties in finding employment, which may influence the advice that they give to their children. Although they may realize that their own difficulties may be related to their foreign qualifications, they are also more likely to have heard from their (ethnic) community if those with Finnish qualifications have had difficulties, or possibly know this from experiences with their older children. Although no representative studies have been done on the employment of children of immigrants with Finnish qualifications, there is qualitative evidence that they experience difficulties. For example, Hautaniemi (2004) notes the difficulties that young men of Somalian origin have in finding employment despite Finnish educational credentials.

Moreover, based on the cohort of comprehensive-school leavers in 1996, foreign-language speakers were less likely to be in employment than the majority population in 2004, whether or not they had obtained an upper secondary qualification (Karppinen, 2008). Moreover, they were also less likely to be in education, with the exception of men with an upper secondary qualification: the foreign-language speaking men were more likely to be in education than majority men. Even though this is only a snapshot view that does not take into account the type of upper secondary education, or any further degrees, it does suggest that children of immigrants may have more difficulties in securing employment than the majority.

Therefore, even though children themselves did not explicitly mention discrimination as a factor in their decision making, it is possible that this affected their parents' views and thus influenced the children's choices. Basit (1996), based on her interviews with British Muslim girls and their parents, notes how the girls did not mention expectations of discrimination but their parents saw this as an

important reason for them to get a high education.

### 6.5.3 Family mobility and the transmission of parental values to children

A final explanation for high valuations of education, and academic education in particular, may be the idea of family mobility, and viewing migration as a project to ensure a higher quality of life for later generations. This came up directly in one of the interviews with a boy who was applying to general schools and with a relatively clear view of attending university afterwards, although unlike many other children of immigrants he did not have a precise occupation thought out:

> "My parents came to Finland for my sake, so that I would study in Finland. So that's the most important thing." ($1^{st}$ gen European boy 4)

The statement from Leyla mentioning that her parents wanted her to have what they had, which was good jobs leading on from general upper secondary education, could be taken as evidence in the same direction. Other minority students also reported similar aspirations of 'good jobs' that would come after general upper secondary education. However, no other students reported that their parents had migrated to Finland for these reasons.

Previous Finnish research has also brought up the way that immigration is a project for family mobility and education plays a special role in this. Many of the parents interviewed by Peltola (2009) referred to their children as the main reason for migration and also for remaining in Finland. Moreover, for some parents who may have experienced downward mobility due to migration, emphasis may be put on regaining the position that the family had held previously (Peltola, 2010).

In addition to having a high valuation of education, immigrant parents need to be able to transmit this value to their children for it to have an effect on the choices of the children. Another possibility is that the valuation of education itself is

not transmitted but that a certain adherence to parental wishes is. However, in practice these two are likely to go hand-in-hand.

Amongst the interviewees in the research, there seemed to be widespread respect for parental wishes amongst children of immigrants. This was seen in the case of Leyla, who was vexed by her inability to fulfil her parents' wishes. It was also evident amongst the other students mentioned in her case study. Moreover, another of the interviewed students stated that she believed her parents when they said that vocational schools would not lead to good jobs, and this was a good reason for her not to choose vocational school (Mixed European girl 5).

Previous Finnish research has also reached the conclusion that children of immigrants tend to respect their parents and family more than they feel their Finnish peers are doing (Honkasalo et al., 2007; Peltola, 2009). In particular, parental authority in immigrant families seems to be linked to the children valuing the sacrifices that their parents have had to make in migrating to a new country: "Especially the young interviewees representing the upper end of the age scale (in their late adolescence and older) often emphasized the importance of tightly knit family and parental authority as well... For many of the young interviewees, respecting their parents was a positive matter, even a source of pride and not a feature automatically restricting their lives." (Peltola, 2009, p. 17)

This has also come up in international research. Louie (2001) argues that Asian American children respond to parental sacrifices related to immigration with a sense of duty towards their school work. Modood (2004) presents a hypothesis that the higher university attendance of many ethnic minority groups in the UK is based on a form of socio-cultural capital that is high amongst ethnic minorities albeit varying across groups. The high continuation rates are caused by high parental aspirations, which are transmitted to children and internalized by them. This, in turn, is made possible by a strong familial adult-child relationship and

norms enforcement encouraged by the surrounding ethnic community. In this way mobility is seen as a family project, and the potential downward mobility of the parents when they immigrated can be redressed by the children's upward mobility.[26]

Lauglo (2000) has a very similar argument for the constructive engagement with school that children of immigrants in Norway, especially those with origins in developing countries, display. He argues that immigrant families value education for their children and that family solidarity enables the transmission of these values to the children. Family and community solidarity of immigrants is strengthened by shared distinction from the majority. This last point can be related back to the Finnish findings, whereby the most visibly distinct groups have the highest continuation rates to general school.

Nicholas et al. (2008) even go as far as to argue that Haitian children in the United States only do well when they want to do so for their parents. In contrast, individualists do not do well in education. In light of the research presented here, I would disagree with this conclusion. As the case of Soraya illustrates, individualists can have high educational ambitions of their own. On the other hand, it is likely that students supported by their families are likely to persist in education, even if faced with difficulties, more than those who have to deal with those difficulties on their own.

To summarize, the higher continuation to general upper secondary education found amongst children of immigrants may be largely related to a high valuation of education amongst immigrant parents and the transmission of this value to their children. This has a particularly large effect at the lower end of the performance scale, where most majority children tend to continue to vocational school.

[26]It should be noted that Modood's argument is theoretical and has not been tested.

## 6.6 Conclusion

This chapter has presented an overview of how majority students tend to make their educational choices and has contrasted the situation of children of immigrants to this general framework. Although the basic features of decision making were found to be similar, many differences were also pointed out.

Overall, at the age of 16, majority students tend not to have very clear plans about their future. They continue to vocational school if they do not enjoy school very much and if they have found a vocational course that interests them. On the other hand, they continue to general school if they enjoy school on the whole and do not think the vocational courses available are suitable for them. They may also have a vague sense of wanting 'better' employment through attending university.

On the other hand, minority students tend to have more precise plans for their future. In particular, those applying to vocational school differ from majority students by being determined to continue into tertiary education. What is more, those applying to general school differ from majority students by having more precise occupational plans.

The most striking difference between minority and majority students seems to be at the low end of the achievement scale, where there seem to be relatively more minority than majority students wanting to continue to general school despite their low grades. For the students interviewed here, the main reason why they wanted to do so seemed to be parental pressure to continue to general school. Whereas Finnish parents exhibited a more laissez-faire attitude toward their children's education, immigrant parents were more involved in the decision making. This is not to say that Finnish parents did not discuss the issue with their children, or that children of immigrants felt that they were being forced by their parents.

Although the hypothesis that the difference between majority and minority stu-

dents is only one of discourse rather than a 'real' difference in decision making cannot be rejected, it is important to note that this difference corresponds to the main difference found in the quantitative data. This means that there is a real difference that needs to be explained, and from these interviews, the influence of parents is the strongest explanation to come out. In addition to the influence of parents, children of immigrants also relied on others, such as friends and family, to a greater extent than majority students.

The different reasons why immigrants parents are likely to favour general school over vocational school may be linked to a lack of information about the Finnish education system, and its vocational side in particular, a lack of generalized trust, expected discrimination on behalf of their children, and family mobility. It is possible that all of these play a part and work together. Although we may assume that all parents want the best for their children, we can assume that this wish is more acute amongst immigrant parents compared to majority parents. This is likely to be linked to the reasons behind migration in the first place but also, for some families, to their own downward mobility in the receiving society compared to the one of origin.

Although mobility is possible through continuation in vocational education, this possibility may not be fully understood by immigrant parents and their children. Moreover, attempts by teachers and education advisers to instruct parents about this may fall on deaf ears if parents do not have a great deal of trust in the education system and its ability to do what is best for the child.

Prior education and labour market experiences within the family or the ethnic group may also have a large effect on the decisions of those who follow. On the one hand, if there is a reliance on information from within the family or the group about educational institutions, the decisions of the older members may build a path that younger members are more likely to follow. On the other hand, if older

members of the family or group have experienced difficulties in finding employment after graduation, this may also affect the advice that is given to younger members. In particular, it is assumed here that experiences of discrimination give a push towards getting higher levels of education.

In conclusion, this chapter has examined the processes that are behind the different continuation rates of children of immigrants and the majority that were found in the previous chapter. It was found that whereas majority students tend to be driven by their interests to a greater extent, children of immigrants tend to be driven more by their future plans and the wishes of their parents. The next chapter will summarize all the main results of this thesis and discuss further what may explain differences between groups.

# Chapter 7

# Conclusion

This thesis has examined the educational attainment of children of immigrants in Finland from many different perspectives albeit concentrating on attainment at approximately age 16. The education of children of immigrants is crucial as education is a major determinant of labour market success, and the fate of children of immigrants can be seen as a marker for the long-term integration of new ethnic minorities.

The end of compulsory education and the transition to upper secondary education are stepping stones towards final education attainment. Failure at this stage can have long-term repercussions on future opportunities. This is despite the fact that the Finnish education system has no dead-ends, and there are many opportunities for returning to education at later stages. In the labour market, a large emphasis is placed on educational credentials, and training happens more in schools rather than on the job.

In other words, although this thesis is limited to looking at just this first transition, it is potentially one of the most important ones and deserves to be focused on. This chapter will bring together the results from the earlier chapters that considered various aspects of educational attainment at this stage.

The two major questions that have been considered in this thesis, and that will be returned to in this chapter, are how the educational attainment of children of immigrants differs depending on the educational outcome under consideration, and how far structural explanations focusing on parental resources can explain these differences. In addition to this, this thesis has also considered whether visibility explains differences between groups and whether citizenship can explain differences within or between groups. The results from these analyses will also be returned to and will be linked to discussions of other explanatory mechanisms that have the potential to explain differences between groups.

Comparisons to older Finnish ethnic minorities will also be made in this chapter, as well as comparisons to other European countries. Additionally, some policy implications of the results will be highlighted.

## 7.1 Primary and secondary effects of ethnicity

The thesis began with an examination of what may be called the primary effects of ethnicity, in other words, the effect of ethnic origin on achievement in schools. The measure that was used for this was the school-leaving average grade of students. This was followed by an examination of two different types of secondary effects, in other words, the effect of ethnic origin on continuation into upper secondary education. Chapter 4 considered the differences between groups in whether students made the transition at all, whereas Chapter 5 considered the differences in the type of school that students chose. The possibilities for students at this stage are to follow a vocational route in a vocational school or an academic route in a general school. There are large differences in the content of the studies in the two types of school, but both give access to tertiary education, and both last approximately three years.

Table 7.1: Primary and secondary effects of ethnic origin compared to majority (First column for each outcome is raw difference and the second column is net difference after relevant controls)

| Ethnic origin | | Primary effects Av. grades | | Secondary effects Dropping out | | School type | |
|---|---|---|---|---|---|---|---|
| Finnish (other language) | | 0 | 0 | – – | B:– –/G:0 | + | 0 |
| Mixed origin | | 0 | 0 | 0 | 0 | + | + |
| Russian/Estonian | 2nd gen | – | 0 | – – | 0 | 0 | + |
| | 1st gen | – | B:–/G:0 | – – | + | – | + |
| Ex-Yugoslav | 2nd gen | – – | B:0/G:– – | – – | 0 | – – | 0 |
| | 1st gen | – – | – | – – | 0 | – | 0 |
| European | 2nd gen | – | 0 | – – | 0 | + | ++ |
| W Asian/N African | 2nd gen | – – | B:0/G:– | – – | 0 | 0 | ++ |
| | 1st gen | – – | B:0/G:– | – – | 0 | 0 | ++ |
| East Asian | 2nd gen | 0 | ++ | – – | (–) | 0 | + |
| | 1st gen | 0 | ++ | – – | B:– –/G:0 | 0 | B:+/G:0 |
| Sub-Saharan African | 2nd gen | – – | B:0/G:– | – – | 0 | + | ++ |
| | 1st gen | – – | B:0/G:– | – – | B:0/G:– – | – | + |
| Other/unknown | 2nd gen | – | 0 | – – | B:– –/G:0 | 0 | + |
| | 1st gen | – – | 0 | – – | 0 | – | 0 |

B: boys; G: girls; 0: not significantly different from majority
–/+: significantly different from majority but difference relatively small
– –/++: significantly different from majority and difference relatively large

Table 7.1 summarizes the differences between all immigrant-origin groups studied in this thesis and the Finnish-speaking Finnish majority for all three outcomes. For each outcome, the difference before controls is shown first, and the difference after the relevant controls for family resources and prior achievement (for the secondary effects) is shown second. The size of the difference is relative to other differences found to be significant, such as those between different levels of parental education and the two genders.

### 7.1.1 Overall results

Across all immigrant-origin groups, the main conclusions are that what seem to be negative primary effects turn out to be largely insignificant ones after appropriate controls have been introduced; and what seem to be negative secondary effects turn out to be either insignificant (for continuation versus dropping out) or positive (for choice of general versus vocational school). The first conclusion is reinforced by

the fact that although many immigrant-origin girls tend to have lower grades than similar majority girls, they do not differ from the majority boys.

These general conclusions point to a rather optimistic picture about the educational attainment of children of immigrants: after controlling for parental resources, being of immigrant origin has either no effect or a positive one. However, it also highlights the fact that children of immigrants are severely hindered by their low parental resources, in particular parental integration in the labour market, or lack thereof.

Nevertheless, in terms of continuation to academic education, children of immigrants show a significant amount of resilience. Possible reasons for positive secondary effects with regards to choice of general upper secondary education were explored in Chapter 6 with interview material. The reasons driving the decisions of children of immigrants seemed to differ somewhat from those of the majority. In particular, whereas majority students seem to make decisions largely based on their interests, children of immigrants tend to have more specific plans for the future, which determine the type of education that they are seeking. In particular, knowing that an occupation that they are interested in requires a university degree gives them greater motivation to continue into general schools.

In addition to this difference, there is a great deal of divergence in the way that significant others have an effect on the decisions of children of immigrants and the majority. Whereas majority students stress their independence in decision making, children of immigrants are more influenced by friends and family. Most important of these is the influence of parents and the preference that many immigrant parents have for general school. This preference is likely to come from a strong wish for the social mobility of their children. It is also likely to be linked to having less information about the education system – the vocational side of the system in particular – and the labour market, as well expectations of discrimination on

behalf of their children.

Whereas average- to high-performing children of immigrants tend to make similar choices as their majority peers, a polarization seems to be taking place amongst the low-performing ones. This is seen in the interactions between immigrant origin and average grades for the two continuation decisions in Chapters 4 and 5. In both of these chapters, the differences between the majority and children of immigrants were found to be largest (or present only) for those whose grades are low. However, the differences go in different directions: whereas low-performing children of immigrants are more likely to drop out of education than majority students, they are also more likely to continue in general schools than majority students.[1] This could indicate that there is a certain avoidance of vocational school amongst children of immigrants.

### 7.1.2 Differences between groups and educational mobility

In addition to the overall results described above, some significant differences between groups were found. The most disadvantaged group is possibly the students with former Yugoslavian origins. Both genders tend to have lower averages than the majority, and although they do not differ from the majority in terms of dropping out or choice of school type, they do not show the same pattern of educational resilience as other children of immigrants.

Other groups that could be considered disadvantaged are those that have high rates of dropping out of education between compulsory and upper secondary education. These are the other-language-speaking Finns, the $1^{st}$ generation boys of East Asian origin, and the $1^{st}$ generation girls of Sub-Saharan African origin. The latter two

[1]For example, majority students with average grades under 7 have continuation rates of 6% to general school, 78% to vocational and 16% dropping out. However, amongst $2^{nd}$ generation non-Europeans, they are 21%, 43% and 37% respectively. The trend is not as clear amongst the $2^{nd}$ generation Europeans or the $1^{st}$ generation, but it is in the same direction. This is without taking into account any differences in parental resources.

groups are also ones that most notably show a divergence in continuation in terms of a clear avoidance of vocational school and higher propensities to choose the other two options.

Most other groups do relative well. Possibly one of the most surprising findings of this research is how well the $2^{nd}$ generation Sub-Saharan Africans fare in the educational sphere. This mainly comes out in terms of continuation to general school, but they do not differ that much from the majority in terms of the other outcomes either.

The students of mixed origin, who have one Finnish-born and one foreign-born parent, have not been discussed much in this thesis. On the whole, they were not found to differ from the majority, although judging from the results where they have been disaggregated (the visibility results in each of the chapters), they do not normally differ significantly from the relevant immigrant-origin group either. Nevertheless, due to the fact that they do not face the same disadvantages as children of two foreign-born parents, it has been a good idea to keep them separate so that their inclusion in the immigrant-origin groups does not affect these estimates. However, it seems that the mixed-origin students are more similar to those fully of immigrant origin than to the majority when it comes to choice of school type. Within the mixed-origin group, it seems that those with one Russian/Estonian parent are slightly disadvantaged, whereas those with one American or Oceanian parent are the most advantaged. However, due to relatively small numbers, these differences are not significant.

In order to highlight how far many children of immigrants have come, Table 7.2 shows the educational distribution of immigrant parents and their children. The focus in this table is on the $2^{nd}$ generation. Naturally, the education of the children is not complete at this stage: some children may not finish the degree for which they are studying, but at the same time, many more will complete a higher level

Table 7.2: Education of parents and children by ethnic origin for majority and $2^{nd}$ generation

| | Parents | | | Children | | |
|---|---|---|---|---|---|---|
| | Compul-sory/ lower sec. | Vocatio-nal ed. | General & higher | Compul-sory (out of ed.) | Vocatio-nal | General |
| Finnish language | 0.09 | 0.40 | 0.51 | 0.06 | 0.40 | 0.54 |
| Swedish language | 0.08 | 0.30 | 0.63 | 0.05 | 0.38 | 0.58 |
| Other language | 0.19 | 0.18 | 0.63 | 0.15 | 0.28 | 0.57 |
| Mixed origin | 0.08 | 0.29 | 0.63 | 0.06 | 0.29 | 0.65 |
| Russian/Estonian | 0.20 | 0.34 | 0.46 | 0.09 | 0.36 | 0.55 |
| Ex-Yugoslav | 0.37 | 0.39 | 0.24 | 0.18 | 0.67 | 0.15 |
| European | 0.19 | 0.19 | 0.62 | 0.15 | 0.24 | 0.61 |
| West Asian/N African | 0.43 | 0.21 | 0.36 | 0.18 | 0.33 | 0.49 |
| East Asian | 0.67 | 0.26 | 0.07 | 0.10 | 0.32 | 0.58 |
| Sub-Saharan African | 0.36 | 0.33 | 0.32 | 0.19 | 0.19 | 0.63 |
| Other | 0.54 | 0.20 | 0.26 | 0.17 | 0.35 | 0.48 |

of education. Overall, the proportion in each ethnic minority group continuing to general schools is at least as great as amongst the majority. However, most groups still lag behind in terms of higher proportions finishing education at the end of compulsory education.

Comparing the children with their parents, what is clear is that, whereas there is very little change in the education distribution of Finnish parents and their children, there is a considerable amount of change for immigrant parents and their children, in particular those of non-European origin. The change can be seen in both a drop in the proportion with only compulsory education and a rise in the proportion with general education.

An extreme example of the first change can be seen amongst the $2^{nd}$ generation East Asians, amongst whom 10% drop out of education whereas 67% of their parents only have compulsory education. The same group is also an extreme example of the second phenomenon: whereas only 7% of East Asian parents have a degree from a general upper secondary school or higher, 58% of their children continue in general education. Amongst Sub-Saharan Africans, the proportion studying for a general upper secondary degree is almost double the proportion of

parents with a degree at that level or higher.

Figure 7.1 also illustrates how educational mobility happens to a large degree amongst all groups. The three panels show the three parental education levels: at the top the parents with only compulsory education, in the middle those with a vocational degree, and at the bottom those with a general upper secondary degree or higher. The top panel shows that only a minority of students whose parents only have compulsory education follow in their footsteps. Moreover, amongst children of immigrants the proportion continuing to general school is substantially larger than amongst the majority. This same phenomenon is also noticeable in the middle panel, although not as strongly. In the bottom panel it is also present but again to a lesser extent and amongst fewer groups.

Noticeable in the figure is also the exceptionalism of the ex-Yugoslav group compared to any of the other groups. The East Asian and Sub-Saharan African groups stand out in having high proportions continuing to general school and relatively low proportions continuing to vocational school. The Russian/Estonian group, on the other hand, is relatively close to the Finnish-speaking majority group, albeit with higher general school continuation rates for students with low-educated parents. However, the ex-Yugoslav group is exceptional in its extremely strong continuation rates to vocational school, particularly in the higher-educated group.

The fact that continuation to vocational school is strongest amongst the children of high-educated ex-Yugoslavs could be an indication that this is a strategy that they have chosen rather than not being able to access general schools. Other explanations for between-group differences will be discussed later in this chapter, in Section 7.1.4.

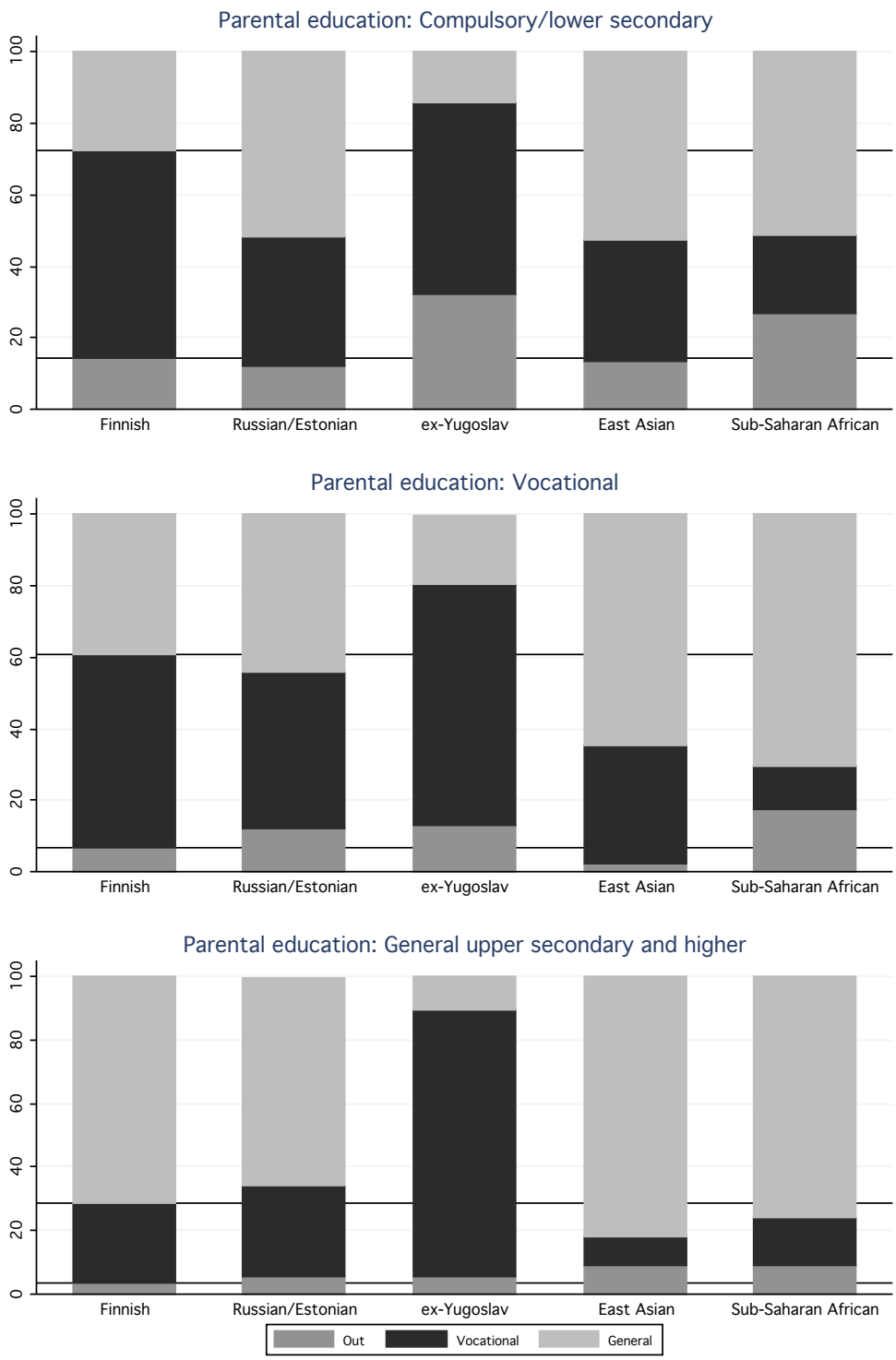



Figure 7.1: Educational continuation by parental education and ethnic origin for majority and $2^{nd}$ generation

### 7.1.3 Gender interactions

Gender interactions were considered for all of the outcomes and some of the results have already been mentioned above. Gender differences amongst the majority vary depending on the outcome considered: whereas Finnish girls tend to get higher grades than Finnish boys, they are less likely to continue into upper secondary education than boys and are no different to boys when it comes to school type. In the case of these last two outcomes, this is after prior school achievement has been controlled for.

On the other hand, amongst many immigrant-origin groups, girls do not differ from boys in their school achievement. As for the two measures of continuation, gender interactions tend to be group-specific and differences go in both directions.

Gender interactions that cancel out the main effects of gender on average grades were found for $2^{nd}$ generation ex-Yugoslavs and East Asians, and both generations of West Asians, North Africans and Sub-Saharan Africans.[2] The interactions for all these groups, apart from the East Asians, mean that the girls in these groups differ significantly from the majority girls, although they do not differ significantly from majority boys.

The lack of a gender effect amongst these groups can either be interpreted as the girls doing less well than expected or the boys doing better than expected. In this thesis, the emphasis has been on the former. A possible explanation put forward for the lower achievement of girls in these groups is that they may not receive as much support from their families or in schools as do other girls, thus holding back their educational performance. It may also be that they do not have as many contacts with the majority as girls in other groups or boys in their own groups, which holds back their language development. This is an area that requires further

[2]Small gender interactions in the other direction were also found amongst the Swedish-speaking Finns and the $1^{st}$ generation Russians/Estonians, for whom the gender difference is slightly larger than for the Finnish-speaking Finns.

research.

As mentioned above, Finnish girls tend to be more likely to drop out than Finnish boys when prior achievement is taken into account. Amongst most immigrant-origin groups, the same pattern was replicated. However, amongst the $1^{st}$ generation ex-Yugoslavs, as well as the other-language Finns, no differences between the genders were found, whereas amongst the $1^{st}$ generation East Asians and the $2^{nd}$ generation other and unknown group, girls were found to be less likely to drop out than boys.[3] However, amongst the $1^{st}$ generation Sub-Saharan Africans, the difference between the genders was found to be even larger than amongst the majority.

The group that stands out the most in these results is the $1^{st}$ generation Sub-Saharan African girls. It is possible that a pressure to marry early is one of the reasons that leads to the high drop-out rate in this group. It is significant to note though, that a gender interaction was not found for the $2^{nd}$ generation, or in other groups where this pressure may also be expected. Another possible explanation for the high drop-out rates may be that the opportunities of these girls to get education before arriving in Finland may have been rather limited. Therefore, their resources in terms of continuing in education may be rather limited.

Finally, two gender differences were found for choice of school type, whereby amongst the majority there are no gender differences after controlling for prior achievement. Amongst the $1^{st}$ generation ex-Yugoslavs, girls are found to be somewhat more likely to continue into general schools than boys, whereas the opposite is the case amongst $1^{st}$ generation East Asians. There are no clear explanations for these findings, but again what is significant is that they were not found amongst the $2^{nd}$ generation.

Overall, the effect of gender seems to be different amongst many non-European

[3]Strictly speaking, the difference between the genders in these two cases is not significant.

groups compared to the majority and European groups for school achievement, but further gender interactions are not found when transition propensities are considered.

### 7.1.4 Summary

In summary, many of the results found in this thesis are comparable across almost all immigrant-origin groups. However, some between-group differences exist and further explanation of these will be attempted in the section that follows the next one that summarizes the results of the effects of parental resources.

Although the focus in this chapter is on groups, it should be noted that there is by far more variance within groups than there is between groups. Taking school achievement as an example, the models used in Chapter 3 (Model 4) explain about 26% of the variance within the Finnish-speaking majority group. When looking at students of immigrant origin, the models used explain 18% of the variance between pupils (and taking into account the ethnic origin and generation groups used, 21%).[4] Moreover, the remaining differences that exist between ethnic groups are rather small compared to the effects of parental resources.

## 7.2 Primary and secondary effects of parental resources

This thesis has followed many well-established theories and results in the sociology of education that link parental resources to children's education. The focus has been on the effects of parental education, socioeconomic status and income, with additional analyses of parental labour force status and household composition. Much as expected, these measures have been found to explain differences between students and also between groups, as reviewed above. This section summarizes

[4]The variance in average grades is approximately the same to begin with for these two groups.

the results with regards to the effect that these measures were found to have on educational attainment, and whether the effect is different amongst children of immigrants compared to the majority.

For school achievement, parental education was found to have the largest effect amongst the majority. The fact that education has greater explanatory power than socioeconomic status or income can be linked to arguments relating to the homogeneity of Finnish society, where it is widely regarded that classes no longer exist. This is unlikely to be completely the case, and as seen in the results, parental socioeconomic status does explain some of the differences between students above and beyond the effects of parental education. Moreover, the small effect of income may be linked to the almost non-existent private school sector and the high quality education given in Finnish comprehensive schools, whereby parents have less of an incentive to pay for additional educational services. In line with previous international research (Marks et al., 2006; OECD, 2004), parental resources were found to explain relatively little of overall variance between students.

Significant interactions between immigrant origin and parental resources were found when looking at school achievement. Whereas parental education was found to have less of an effect for children of immigrants, parental income was found to have more of an effect than for the majority. The most likely explanation for these two trends is that there are high-ability immigrant parents in the low education groups, and that income then takes over the role of education in explaining differences between children. The presence of high-ability parents in the low education group may be due to problems in registering foreign qualifications in the Finnish system. It may also be partly due to limited educational opportunities in some countries of origin.

Children of self-employed immigrants were found to have lower grades on average than majority students of self-employed parents. This is likely to be linked to

the kinds of self-employment that immigrants are engaged in compared to the majority.

With regards to continuation into upper secondary education, socioeconomic status and income were not found to have any effect. This may be due to the fact that attending upper secondary education is crucial for future employment so that it is imperative for students from any class background to attend. However, parental education was found to have a slight effect so that children with parents who had only completed compulsory schooling themselves were somewhat more likely to drop out of education at this stage too. However, children of two university-educated parents were also found to be as likely to drop out, which may be to do with rebelling against a strong family tradition of education.

The main explanatory variable for continuation was found to be parental labour force participation. Children of employed parents were found to have an advantage over other students. However, amongst majority children with fathers outside the labour force, this difference was not found, whereas amongst the $2^{nd}$ generation students in the same situation, a quite large disadvantage was found. This may be linked to the idea that the children of immigrants who do not continue are discouraged students, and those whose fathers have faced such large difficulties that they have withdrawn from the labour market may be more likely than other students to become discouraged. This may also be linked to the social resources that the family has to offer its children when they are (re)applying to upper secondary education.

As with school achievement, the effect of parental resources is rather small for explaining continuation. Whereas the significant effects of parental resources produce odds ratios in the area of 1.5, the odds ratio for gender is approximately 2.1 and a half-a-grade difference in school achievement is also in the same region of magnitude.[5]

[5]As a reminder, grades in this data have a range of 3.5, although their range is wider in

With regards to choice of upper secondary school type, the effect of parental education again comes out as the strongest predictor amongst the parental resource measures. However, as with continuation, this is trumped by the effect of prior school achievement. Nevertheless, both socioeconomic status and income produce significant differences between students in these models. The odds ratios between different socioeconomic and income categories are in the same region of magnitude as the parental resource variables for continuation. However, parental education differences give odds ratios of up to 4, which is almost the same as the effect of a half-a-grade difference in school achievement.

For children of immigrants, there was again an indication that parental education might have less of an effect than for the majority. The interaction was found to be significant for the $2^{nd}$ generation Europeans, and it also existed, but was not strong enough to be significant, for the $2^{nd}$ generation non-Europeans. Again, this may be linked with issues to do with the registration of foreign qualifications.

Finally, comparing the primary and secondary effects of parental resources on choice of general schools, the result amongst the majority is that approximately 58% is due to primary effects. Given that primary effects are likely to be relatively small in Finland compared to other countries, the parental resource effects on continuation are also likely to be relatively small in comparison to other countries. This has been found in other research (Hertz et al., 2007).

Amongst children of immigrants, the effects of parental resources is possibly slightly smaller, mainly due to the smaller effects of parental education. However, the division into primary and secondary effects is not significantly different from that of the majority, albeit with possibly a larger relative primary effect.

In summary, this section has argued that parental resource differences are relatively small in Finland and that children's education is not fully determined by

reality.

their family background. This is an advantage for children of immigrants, who tend to come from lower family backgrounds. Moreover, the remaining ethnic minority disadvantages that were found for achievement were no larger than these differences, and in most cases smaller. Furthermore, those for continuation were somewhat larger than the effects of parental resources but no larger than the effect of gender. Finally, with regards to choice, there are many ethnic minority advantages that were found to be larger than even the effect of parental education.

## 7.3 Explaining remaining differences between ethnic minority groups

This section looks at some other explanatory factors that could explain differences between and within ethnic minority groups. The majority of analyses in this thesis have focused on the effect of parental resources on children's education. Although these effects are significant and explain most of the ethnic differences, they also leave a lot of variation within groups unexplained. This is one of the downsides of using register data. One potential explanatory factor that is not related to parental resources can be analysed with register data: the effect of citizenship. These results will be reviewed in this section.

In addition to mechanisms that focus on within-group differences, some explanatory factors that are explicitly at the group level will also be considered. The discussions here are limited by the data that can be used, which in some cases restricts the number of groups that can be discussed.

The explanations that should work at an individual level (although mostly group-level data is available here) relate to language use and proficiency, integration attitudes, and social networks. Citizenship may also be seen as an indication of integration attitudes. On the other hand, the explanations that should work at the group level relate to the context of reception, both from the government and

Table 7.3: Education outcomes and potential explanatory factors by ethnic origin for $2^{nd}$ generation (Groups numbered from best to worst with regards to each outcome or factor)

| | Outcomes | | Explanatory factors | | | | |
|---|---|---|---|---|---|---|---|
| | Av. grades | Gen. school | Parents' edu. | Parents' empl. | School segr. | Govt'al recept. | Finns' prejudice[1] |
| East Asian | 1 | 4= | 6 | 3 | 3= | 3 | 3 |
| Russian/Estonian | 2= | 4= | 2 | 1 | 2 | 1 | 2 |
| Sub-S. African | 2= | 1 | 3 | 5 | 6 | 6 | 6 |
| European | 2= | 2= | 1 | 2 | 1 | 2 | 1 |
| W.Asian/N.African | 5 | 2= | 4 | 4 | 3= | 5 | 5 |
| Ex-Yugoslav | 6 | 6 | 5 | 6 | 3= | 4 | 4 |

| | Explanatory factors | | | | | |
|---|---|---|---|---|---|---|
| | Finnish proficiency[2,3] | Finnish at home[2] | Finnish friends[2] | Integration attitudes[3] | Housing situation[4] | Experienced violence[5] |
| Vietnamese | 3 | 2 | 2 | 1 | 2 | 1 |
| Russian/Estonian | 1 | 1 | 1 | 2 | 1 | 2 |
| Somalian | 2 | 3 | 3 | 3 | 3 | 3 |

Information from own data, or judgement, unless otherwise indicated
[1] Source: Jaakkola (2000) Figure 3
[2] Source: Tarnanen & Suni (2005) Figures 1 and 3 and p.14
[3] Source: Pohjanpää & Paananen (2003) Tables 11.3 and 18.2
[4] Source: Juntto (2005) Tables 3 and 8
[5] Source: Honkatukia (2005)
2, 3, 4, 5 all based on same survey from 2002 (Pohjanpää et al., 2003)

from the Finnish people, as well as the context of the co-ethnic group. These are also explanations put forward in the segmented assimilation literature that was discussed in the introductory chapter. The visibility arguments that have been discussed in this thesis may also be seen as related to these.

Table 7.3 summarizes the ordering of the $2^{nd}$ generation groups with regards to the two outcomes of interest: school achievement in terms of grades and continuation into general schools. Given that the groups did not differ from the majority in terms of dropping out, this has been left out of the table. It should be noted at this stage that the groups are not ordered in the same way for the two outcomes. Therefore, no single explanation can be used to explain both outcomes. The table also summarizes the ordering of the groups with regards to the explanatory factors that will be discussed below.

### 7.3.1 Integration into Finland: language, friends and attitudes

The language use of immigrant families may be one factor that affects the education of children of immigrants. Although it is often assumed that the $2^{nd}$ generation is fluent in the majority language, the language problems that their parents face may have a detrimental effect on the children (for a review of the literature on how this affects the education of children of immigrants, see Heath et al., 2008).[6] Based on Table 7.3, language proficiency of adult immigrants and the use of Finnish at home do not seem to correlate with the outcomes of interest particularly strongly. On the other hand, in a study of Vietnamese students in Finland, Finnish language proficiency was found to be the most consistent predictor of school achievement and final educational attainment (Kosonen, 2008). However, this study focused on the $1^{st}$ generation and the language proficiency of the children rather than the parents.

Finnish networks may also be important for the education of children of immigrants. As discussed in Chapter 3, a lack of Finnish friends may account for some of the problems that Muslim girls face in school. Moreover, Wiley (1967) has argued that having social capital outside one's own group is important because opportunities and resources within ethnic minority groups may be rather limited. He calls this an 'ethnic mobility trap'. Again, the Finnish networks of immigrant adults do not show a strong association with the education of the children. Neither do the differences in school segregation between groups, which could be assumed to relate to the possibilities for students to have Finnish friends. This is unsurprising since, as mentioned in Chapter 2, there are no significant differences

[6]This assumption that the $2^{nd}$ generation is fluent in the majority language may not be as unproblematic as it seems. In particular, although their day-to-day speech is unlikely to differ from that of the majority, they may nevertheless face problems when new concepts need to be learned in school. This is likely to be compounded by the fact that their parents may not be able to help them understand these concepts. The continued problems that $2^{nd}$ generation students face with the new language came up in some of the interviews that were done for this research.

between schools that are related to the proportion of students that have registered as foreign-language speakers. It is, nevertheless, possible that, although a larger proportion of foreign-language students does not affect the overall school achievement of students in the school, having many co-ethnics in the same school has an effect on children of immigrants.

Finally, integration attitudes show a possible link with school achievement in so far as they identify the Vietnamese as the group with the most positive integration attitudes. However, the difference in attitudes between the Russian/Estonian group and the Somalian group is relatively large whereas there is no difference in school achievement.

Overall, this section has not found much evidence for the effect of various measures of integration on the education of children of immigrants. However, the problem may lie in the fact that individual-level measures have largely not been used. The next section discusses the effect of citizenship, which may be linked to integration and for which individual-level measures exist in the data.

### 7.3.2 Citizenship

The effect of having Finnish citizenship was examined for all the educational outcomes. As discussed in the introductory chapter, the exact causal mechanism of this measure is somewhat unclear. For adults, it can have an effect on their employment opportunities by actually excluding them from some jobs, but the education a child receives should not be affected by their citizenship status. On the other hand, because of its effect on parental employment, as well as the official requirements of obtaining citizenship requiring evidence of (parental) ability to take care of the family financially, it may be assumed that any effects of citizenship would be erased after controlling for parental resources. However, this is largely not the case.

Finnish citizenship was found to have a positive effect on school achievement and choice of school type, even after controls for parental resources. On the other hand, no effect was found on dropping out after controls for parental resources. These results are not sensitive to the control variables used: adding parental labour force participation to the models for grades and choice of school type does not reduce the effect of citizenship in these models, nor does using the other control variables instead of parental labour force participation increase its effect in the models for continuation versus dropping out. However, the significant effects were not estimated to be particularly large: they were in the same region of magnitude as some of the smaller effects of parental resources.

In addition to having an effect independent of parental resources, the effect of citizenship is also not affected by adding controls for ethnic origin, nor does it explain remaining differences between different ethnic minority groups. Therefore, we can say with some confidence that the effect of Finnish citizenship on the education of children of immigrants is not due to different propensities to obtain citizenship amongst different groups.

The effect of citizenship may, therefore, be seen as being related to integration and an orientation towards building one's future in Finland rather than returning to one's country of origin. Given that minors cannot apply for citizenship on their own, this attitude is primarily a parental one but can be assumed to be somewhat transmitted to children. Moreover, as has been discussed above, parental ability to assist their children and their valuation of education are likely to be important for the educational success of children, and both of these may be related to integration and citizenship.

The finding that citizenship is not related to dropping out suggests that dropping out of education is not necessarily due to a lack of integration. As was discussed in Chapter 4, dropping out may best be explained by a lack of resources and

becoming discouraged after failure to gain entry into education despite applying.

### 7.3.3 Context of reception and discrimination

Governmental reception is closely linked to how groups have arrived in the country. This was discussed to some extent in the introductory chapter. In terms of the welcome accorded to different groups by the state, Ingrian Finns could be seen as having had the best reception. They have a special right to arrive in Finland and get more assistance from the state than normal migrants. Many amongst the group of Russians and Estonians are likely to have arrived as Ingrian Finns, and so they have been classified as having had the best governmental reception.

Following the groups of Finnish descent are probably those who migrated mainly for work. This is likely to be the case for the majority amongst the European group and the Chinese amongst the East Asians. It is also possible that there is a substantial proportion of employment-related migration within the West Asian and North African group.[7]

Finally, there are the refugees, which make up a large proportion of Finnish immigrants. Refugees can be divided into those who arrived as quota refugees (chosen by the Finnish government before arrival) and those who arrived as asylum seekers. All refugee groups are likely to include both types of refugees as well as people who have arrived through family reunification. However, I would assume that the Vietnamese amongst the East Asians have the largest proportion of quota refugees, followed by the ex-Yugoslavs, whereas the Sub-Saharan Africans are likely to have the largest proportion of asylum seekers followed by the West Asians and North Africans. Given that the reception given by the government is better for the

[7] Amongst Europeans and West Asians and North Africans, there are also many people who have come because of marriage to a Finn. However, because children of mixed marriages are kept separate in these analyses, it can be be assumed that the groups studied here consist of non-marital related migration to a larger extent than amongst the whole adult $1^{st}$ generation from this area.

quota refugees than the asylum seekers, this forms the basis for the ordering of these groups.[8]

The reception by the Finnish people can be operationalized with the attitudes that Finns have towards different groups and the prospect that more people from a certain group will migrate to Finland. This follows relatively closely the ordering of governmental reception. Although in many groups the different countries of origin do not differ from each other in terms of people's preferences, this is not the case amongst the Russian/Estonian group (Jaakkola, 2000). Whereas Ingrian Finns are at the top of the 'ethnic hierarchy', the Estonians are near the middle and the Russians are almost at the bottom. This means that there is a great deal of heterogeneity within the group, and it is likely that many migrants who have arrived as Ingrian Finns are categorized as Russians in day-to-day interactions and may face more hostility than indicated in the ordering used here. One indication of this is the violence experienced by different groups. Based on survey results from Russian, Estonian, Vietnamese and Somalian immigrants, the Vietnamese experience the least violence in Finland and Somalians experience the most.[9]

The effect of discrimination on the education of children of immigrants also came up in several chapters albeit somewhat indirectly. In terms of the register data, visibility was used as a measure of discrimination. In addition to this, some of the interviewed students were asked about discrimination directly and its potential effects on their educational decisions.

Overall, the categorizations of context of reception here and visibility discussed in the chapters are not particularly strong explanations for the educational attainment of children of immigrants. The school achievement of different groups

[8]Overall, the ordering of groups has been done on a subjective basis and could be disputed. In particular, it could be argued that the ordering of the ex-Yugoslavs and the West Asians and North Africans should be reversed given the possibility of labour migrants in the latter. On the other hand, it could also be argued that the governmental reception given to quota refugees is better than that given to labour migrants.

[9]More recent survey evidence from the European level indicates that the Somalians living in Finland experience the most racial harassment in Europe (EU, 2009).

has some commonalities with the context of reception. However, Sub-Saharan Africans seem to do relatively well compared to their hostile reception whereas the ex-Yugoslavs perform much worse than one would expect.

If one believes that the context of reception should explain continuation more than achievement, then the explanation seems to work almost in reverse: the more hostile the reception, the higher the continuation propensity to general school. The effects of discrimination, or expectations thereof, did not come up in the interviews. Nevertheless, in Chapter 6, it was argued that parental experiences or expectations of discrimination might play a part in educational choices, even if the children did not think about them. Moreover, the visibility gradient partially evident in terms of choice may be explained by the fact that more visible parents are more likely to have experienced discrimination in the Finnish labour market and are thus more likely to stress the importance of education to their children.

For these explanations based on discrimination and prejudice, it is important to remember that what counts is the way that individuals or groups respond to them (Modood, 2004). Therefore, the effect may be negative in some groups, whereas it may be positive in others. The effect may also differ between individuals in the same group. This could, to some extent, explain the polarization in educational choices within some of the most visible groups: whereas most of the students are pushed towards higher education by the prejudice that they face, others may become discouraged by it and drop out of education altogether. Amongst the Vietnamese group, it has been found that perceived discrimination in childhood may decrease final educational attainment (Kosonen, 2008).

In summary, discrimination has the potential to explain continuation decisions both within and between groups. However, for a proper test of this hypothesis, we would need not only individual-level data on experiences of discrimination but also some measure of how individuals respond to the discrimination that they face.

Given the important role that parents play in the educational decisions of children of immigrants, these questions should also be asked from them.

### 7.3.4 Context of co-ethnic group

In addition to the context of reception from the government and the people, the segmented assimilation approach also highlights the importance of the co-ethnic group and the social capital that immigrant families have. However, social capital explanations are beyond the scope of this thesis due to limitations of the data. Nevertheless, it may be argued that the context of the co-ethnic group, in terms of its education and employment levels, can have an effect on the education of children within that group.

These two factors are considered here.[10] One complication that arises is that the groups considered here are not singular ethnic groups. Therefore, the co-ethnic context for the Vietnamese may not be the same as for the Chinese, for example.

Overall, group-level education seems to be related to achievement with the notable exception of the East Asian group, who have the lowest levels of parental education but the highest levels of school achievement. Parental employment is also related to school achievement, but this time with the exception of the Sub-Saharan Africans. It may well be that these two work together so that disadvantages in one area may be compensated by advantages in the other. Group-level employment also seems to be inversely related to choice of general schools, with the exception of the ex-Yugoslavs. This could link to the explanations based on discrimination discussed above.

[10]Employment levels can also be seen as an indication of the wider economic situation of the groups. For example, they seem to be related to the housing situation of the groups that this information is available for. The housing situation in this case is assessed by home ownership and levels of overcrowding within residences.

### 7.3.5 Summary

Several explanatory factors have been discussed here that have the potential to explain differences both within and between groups. None of the explanations has received particularly strong supporting evidence, but this is partly to do with the lack of individual-level data. On the other hand, at the group level, the employment situation of the group as a whole does seem to be relatively strongly related to continuation rates to general upper secondary schools: the worse the employment situation, the stronger the continuation to general school. This is likely to be related to a desire to overcome the discrimination faced by the parental generation with higher education credentials in the $2^{nd}$ generation.

## 7.4 Potential lessons from older ethnic minorities

At this stage, it is interesting to return to Finland's older ethnic minority groups. It seems that these groups have taken, or been forced to take, two different routes. One of these could be characterized as being advantaged and the other one disadvantaged.

The advantaged route is one that the Tatars, Old Russians and Jews have taken. Although they were often discriminated against by the majority, they were able to advance in society through self-employment and education (Ekholm, 2005; Leitzinger, 2006; Pulma, 2005b). Many members of these groups started off as merchants but later generations were encouraged to move into other fields of employment. Religion and ethnic organisations established to help the disadvantaged in one's own ethnic group may have played an important role in increasing ethnic solidarity and retaining an ethnic identity despite discrimination (Ekholm, 2005; Korhonen, 2005; Kirmo, 2005; Leitzinger, 2006). Social mobility seems to have been based on education and a subsequent diversification of occupations.

On the other hand, the disadvantaged route is the one that is linked to the Sámi and the Roma. They were, and in the case of the Sámi are, largely nomads or travellers. Their occupations were/are largely based in the primary sector, either directly or as services to the primary sector. In addition to discrimination by the majority population, both of these groups were targeted by the state with policies of forceful assimilation until the 1950s/60s (Pulma, 2005a,b). These policies targeted children and young people in particular, by placing Roma in children's homes, and forbidding the Sámi from speaking their own language in the boarding houses that they lived in to attend school. Both groups were relatively late in establishing their own organisations, possibly due to not having permanent abodes. Both groups have also had more difficulties in advancing through education, which may be because of distrust in state education caused by the earlier assimilation policies. On the part of the Sámi, it may also be due to a stronger desire to carry on the traditional livelihoods and is possibly one of the reasons why the other-language-speaking Finns were found to have such high rates of dropping out of education in Chapter 4.

Drawing from the experiences of the older groups, a few lessons seem to stand out. To begin with, parental employment is key to integration. The successful earlier groups were self-employed. However, the important point to note is that self-employment was not necessarily transmitted through generations, and children were not expected to become employed in 'ethnic' jobs. Parental employment supports children's education, which in turn allows for social mobility. The new immigrant groups have internalized this concept of mobility through education, the problem is that the parents are not as able to assist their children as they would be if they were employed.

Another lesson from older groups is the positive effect of self-organisation. Historically self-organisation has been important for providing resources for those worse-off within the group, but now this role has been taken over by the state.

The additional importance of self-organisation, which is still applicable, is in assisting in the preservation of a positive image of one's ethnic identity. This seems to have been somewhat easier for those groups which have been able to organize around religion. Related to this is the conclusion – fortunately reached several decades ago – that forceful assimilation does not work. An appreciation of one's own ethnic identity and a respect for that of others seem to be important for social mobility and integration into the surrounding society.

To some extent, these conclusions echo those of the segmented assimilation approach: individual resources are a large determinant of integration, but strong co-ethnic communities can also be important when individual resources are not high. When neither individual nor community resources are strong, mobility seems to stall. Moreover, due to the way that Finnish society works, education is almost the only way for social mobility to be achieved.

## 7.5 Policy implications

A few of the findings from this thesis stand out with regards to their policy implications.

With regards to school achievement, the potential underachievement of girls in many groups deserves more attention. However, without more information about the mechanisms that lead to this, it is difficult to develop measures that would address this.

With regards to continuation into upper secondary education, there is a significant problem with the students at the low end of the achievement scale. This may be related to the language tests that those registered as foreign-language speakers have to take in order to access vocational schools. The necessity of these language tests for those who have attended school in Finnish for several years may be

debated. Moreover, the fact that the administration of the test is based solely on the basis of registered language gives an incentive for children of immigrants to change their registered language.

It is also possible that there is an aversion of vocational schools in some immigrant-origin groups. This could be addressed by more information about the education system for both children of immigrants and their parents. Given the relatively high drop-out rates from upper secondary education that have been found in previous research (Karppinen, 2008), this increased information before choices are made could also help students avoid choosing schools or courses that they will not complete.

General upper secondary schools should also recognize that children of immigrants enter general schools with, on average, lower school achievement and lower parental resources than majority students. Moreover, given the previous research finding that foreign-language students may get higher grades with lower test performance (Kuusela & Etelälahti, 2008), children of immigrants may be used to showing their learning in other ways than just examination performance. Therefore, they are likely to require more support in general schools than majority students do.

Finally, one of the most important policy implications to come out of this research is the importance of parental resources for the education of children of immigrants, as for other students. In particular, improvements in the employment opportunities of immigrants is one of the best ways to increase the educational attainment of their children.

## 7.6 Finland compared to other countries

The results from Finland can be compared to those of at least four countries: France, the Netherlands, UK, and Sweden. However, given that the models used in the literature vary quite widely, any conclusions need to be drawn cautiously

and are thus only preliminary.

In terms of school achievement, the Finnish results mirror those found in France (Brinbaum & Cebolla-Boado, 2007), the Netherlands (van de Werfhorst & van Tubergen, 2007), and Sweden (Jonsson & Rudolphi, 2009), whereby most differences between immigrant-origin groups and the majority may be accounted for by differences in parental resources. Moreover, in Finland, as in Sweden and the Netherlands, the remaining differences are rather small when compared to the effects of parental resources.[11] In contrast, in the UK, parental resources do not necessarily explain differences between groups, at least not for all groups (Rothon, 2007). Moreover, the remaining ethnic differences are in the same order of magnitude as some of the social class differences.

With regards to continuation to general upper secondary education, Finland is similar to the same three countries in that after controlling for parental resources and prior school achievement, children of immigrants are more likely to choose general education rather than vocational as compared to the majority. However, in France this tendency is possibly seen amongst fewer ethnic minority groups than in the other countries. Moreover, the tendency is possibly stronger amongst some groups in Finland than in the ones in France or the Netherlands. On the other hand, the results from Sweden are relatively close to the ones from Finland.

Many of the patterns with regards to specific groups are also similar in Finland to those in Sweden. The main exception to this is the ex-Yugoslavs with regards to their choice of school type. As discussed in Chapter 6, this may be due to differences in the ethnic composition of this group between the two countries. The main groups in the other countries differ so much from the Finnish ones that it is not possible to make proper comparisons. Overall, despite the differences in the composition of the immigrant-origin population in Finland and many European

[11] On the other hand, in France, even though the ethnic differences are not significant, the estimated ethnic minority coefficients themselves are quite a lot larger than the significant parental education coefficients.

countries due to different migration histories, the stratification processes within the education system are relatively similar in Finland compared to these countries.

In terms of the effects of parental resources, the Netherlands is similar to Finland with regards to the finding that parental education has a stronger effect than parental socioeconomic status. Comparisons with other countries cannot be made with the research cited here, as they only include either one or the other in their models rather than both. However, looking at other education levels, the same seems to be the case in Belgium (Phalet et al., 2007) and Germany (Kristen & Granato, 2007), and in Norway parental education has a greater effect than parental income (Fekjaer, 2007).

It has been argued that children of immigrants are in a better position in countries where economic inequality is low and where there is a comprehensive system with late selection to ability tracks (Heckmann, 2008). Both of these apply to Finland. Moreover, socioeconomic differences in children's education and the explanatory power of these factors for educational attainment are both rather smaller in Finland than in many other European countries (Hertz et al., 2007; OECD, 2004; Marks et al., 2006). This puts children of immigrants in Finland in a rather better position than those in many other countries.

## 7.7 Conclusion

This thesis has found that the equality of the Finnish education system is largely extended to the children of immigrants. Ethnic minority disadvantages are rather small or nonexistent after other relevant factors have been controlled for, and children of immigrants show a great deal of educational resilience and mobility in terms of their high continuation rates to general upper secondary schools.

In terms of school achievement and dropping out of education, children of immigrants are hindered to a large extent by their parents' low status in the labour

market. Rather than the education system, it is the labour market that seems to be the main obstacle for the integration of new ethnic minorities in Finland. Therefore, it will be important to study the transitions of children of immigrants from education to work in the future. There is a worry that despite being fully educated in Finland and proficient in the language, their ethnic minority backgrounds will lead to discrimination.

Positive integration attitudes, as measured by the acquisition of citizenship, seem to help children of immigrants succeed in the education system. Children of immigrants were also found to have very high ambitions for their own education and so it will be important to study whether they succeed in fulfilling these ambitions.

Nevertheless, substantial barriers remain for those with rather low school achievements, who have high probabilities of dropping out of education altogether. The mechanisms that lead to drop-out should also be studied in more detail in the future.

In terms of future research on the children of immigrants in Finland, this thesis has highlighted the importance of being able to disaggregate groups according to ethnic origin. If possible, more specific groups should be used in the future than has been possible here. Moreover, it is important to properly identify children of immigrants, and for this purpose only using registered language is not advisable. What is more, when these young people come to have children of their own, parental country of birth will no longer be sufficient for identifying their children. This is already seen in the inability to fully identify older ethnic minorities in the register data.

Moreover, despite the fact that social differences are rather small in Finland, this thesis has shown their importance in affecting, and thus explaining, the educational attainment of children of immigrants compared to the majority. Future research should not overlook the power of these explanatory mechanisms even as

it seeks new mechanisms that may explain more of the variance within groups.

# Appendix A

# Additional Tables and Figures for Chapter 2

Table A.1: Countries of birth in ethnic origin groups, number of Finnish residents aged 30–59 born abroad by country, and proportions within ethnic groups in 2002

| Group | Country | N | % | Group | Country | N | % |
|---|---|---|---|---|---|---|---|
| Former USSR | Belarus | 30 | 0.1 | East Asia | China | 1,514 | 43.9 |
| and successor | Estonia | 4,510 | 18.4 | | Indonesia | 88 | 2.5 |
| states | Ex-USSR | 18,851 | 76.8 | | Malaysia | 143 | 4.1 |
| | Kazakstan | 20 | 0.1 | | Singapore | 43 | 1.2 |
| | Latvia | 155 | 0.6 | | South Korea | 94 | 2.7 |
| | Lithuania | 95 | 0.4 | | Vietnam | 1,557 | 45.1 |
| | Russia | 725 | 3.0 | Sub-Saharan | Angola | 80 | 2.1 |
| | Ukraine | 107 | 0.4 | Africa | Cameroon | 26 | 0.7 |
| Former | Albania | 22 | 0.8 | | Congo (DRC) | 212 | 5.4 |
| Yugoslavia | Bosnia & Herz. | 90 | 3.3 | | Ethiopia | 345 | 8.9 |
| and successor | Croatia | 62 | 2.3 | | Gambia | 180 | 4.6 |
| states | Ex-Yugoslavia | 2,303 | 84.3 | | Ghana | 242 | 6.2 |
| | Serbia & Mont. | 235 | 8.6 | | Ivory Coast | 39 | 1.0 |
| Europe | Austria | 163 | 0.8 | | Kenya | 109 | 2.8 |
| | Belgium | 101 | 0.5 | | Liberia | 33 | 0.8 |
| | Bulgaria | 378 | 1.8 | | Mauritius | 22 | 0.6 |
| | Cyprus | 49 | 0.2 | | Nigeria | 245 | 6.3 |
| | Denmark | 354 | 1.7 | | Senegal | 40 | 1.0 |
| | Ex-Czechoslovakia | 174 | 0.8 | | Sierra Leone | 41 | 1.1 |
| | France | 580 | 2.7 | | Somalia | 1,849 | 47.5 |
| | Germany | 1,967 | 9.3 | | South Africa | 117 | 3.0 |
| | Great Britain | 1,850 | 8.7 | | Tanzania | 121 | 3.1 |
| | Greece | 322 | 1.5 | | Zambia | 43 | 1.1 |
| | Hungary | 511 | 2.4 | Other and | unknown | – | 24.1 |
| | Iceland | 54 | 0.3 | unknown | Argentina | 107 | 1.2 |
| | Ireland | 154 | 0.7 | | Australia | 328 | 3.7 |
| | Italy | 615 | 2.9 | | Bolivia | 47 | 0.5 |
| | Netherlands | 481 | 2.3 | | Brazil | 180 | 2.0 |

Continued on next page

Table A.1: Countries of birth in ethnic origin groups, number of Finnish residents aged 30–59 born abroad by country, and proportions within ethnic groups in 2002 (continued from previous page)

| Group | Country | N | % | Group | Country | N | % |
|---|---|---|---|---|---|---|---|
| (Europe continued) | Norway | 375 | 1.8 | (Other and unknown continued) | Cambodia | 57 | 0.6 |
| | Poland | 850 | 4.0 | | Canada | 531 | 5.9 |
| | Portugal | 108 | 0.5 | | Chile | 169 | 1.9 |
| | Romania | 451 | 2.1 | | Columbia | 83 | 0.9 |
| | Spain | 424 | 2.0 | | Costa Rica | 20 | 0.2 |
| | Sweden | 10,891 | 51.5 | | Cuba | 135 | 1.5 |
| | Switzerland | 269 | 1.3 | | Dominican Rep. | 24 | 0.3 |
| West Asia and North Africa | Afghanistan | 314 | 3.8 | | Ecuador | 38 | 0.4 |
| | Algeria | 383 | 4.6 | | India | 729 | 8.1 |
| | Bangladesh | 323 | 3.9 | | Jamaica | 22 | 0.2 |
| | Egypt | 350 | 4.2 | | Japan | 454 | 5.1 |
| | Iran | 1,418 | 17.2 | | Mexico | 101 | 1.1 |
| | Iraq | 1,594 | 19.3 | | Myanmar | 62 | 0.7 |
| | Israel | 310 | 3.8 | | Nepal | 53 | 0.6 |
| | Jordan | 102 | 1.2 | | New Zealand | 60 | 0.7 |
| | Kuwait | 25 | 0.3 | | Nicaragua | 20 | 0.2 |
| | Lebanon | 206 | 2.5 | | Peru | 159 | 1.8 |
| | Libya | 49 | 0.6 | | Philippines | 594 | 6.6 |
| | Morocco | 901 | 10.9 | | Sri Lanka | 225 | 2.5 |
| | Pakistan | 264 | 3.2 | | Thailand | 1,125 | 12.6 |
| | Sudan | 73 | 0.9 | | Uruguay | 31 | 0.3 |
| | Syria | 140 | 1.7 | | USA | 1,351 | 15.1 |
| | Tunisia | 253 | 3.1 | | Venezuela | 38 | 0.4 |
| | Turkey | 1,538 | 18.6 | | | | |

Source: Statistics Finland website (Table: Country of birth according to age and gender by region 1990–2008 from `http://pxweb2.stat.fi/database/StatFin/vrm/vaerak/vaerak_en.asp`, in English, last accessed 12.1.2010). No countries with fewer than 20 immigrants shown.

Table A.2: Independent variables by ethnic origin: parental socioeconomic status and parental income

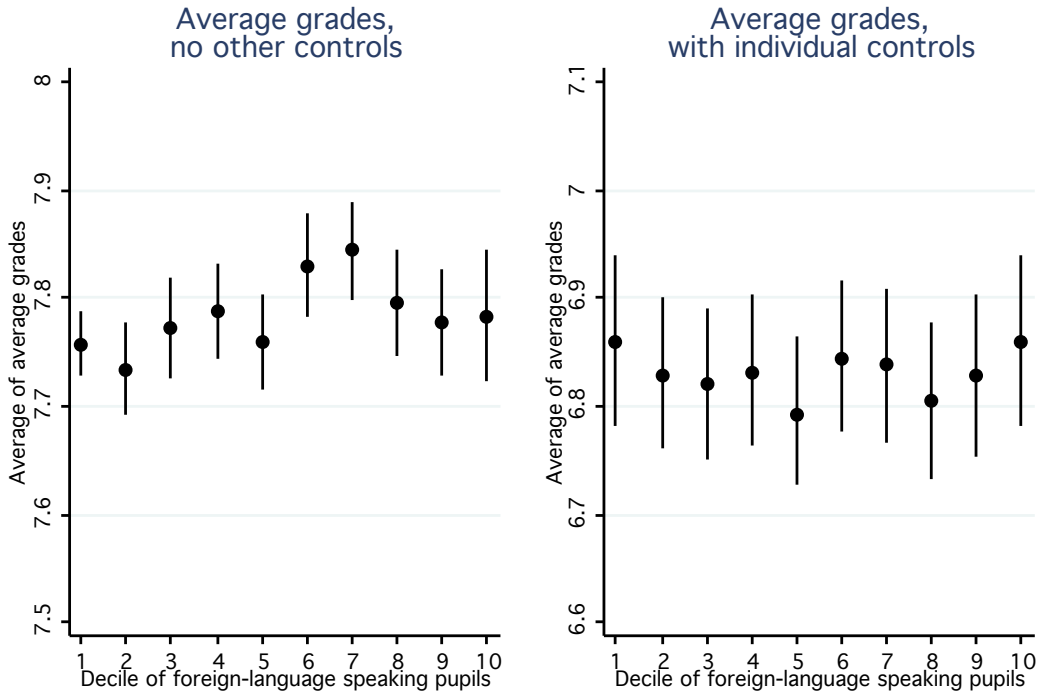
| | Parental Socioeconomic Status | | | | | Parental Income | | |
|---|---|---|---|---|---|---|---|---|
| | Senior employees | Lower employees | Self-employed | Manual workers | Outside l.f. and unkown | High | Medium | Low |
| Finnish (Finnish language) | 0.25 | 0.37 | 0.12 | 0.20 | 0.07 | 0.49 | 0.31 | 0.20 |
| Finnish (Swedish language) | 0.35 | 0.36 | 0.14 | 0.12 | 0.03 | 0.60 | 0.27 | 0.13 |
| Finnish (other language) | 0.39 | 0.24 | 0.13 | 0.09 | 0.15 | 0.42 | 0.17 | 0.41 |
| Mixed origin | 0.36 | 0.33 | 0.08 | 0.20 | 0.03 | 0.48 | 0.33 | 0.19 |
| 2nd gen Russian/Estonian | 0.18 | 0.25 | 0.04 | 0.28 | 0.25 | 0.18 | 0.34 | 0.48 |
| 1st gen Russian/Estonian | 0.09 | 0.15 | 0.04 | 0.21 | 0.51 | 0.06 | 0.19 | 0.75 |
| 2nd gen ex-Yugoslav | 0.04 | 0.08 | 0.01 | 0.11 | 0.76 | 0.01 | 0.08 | 0.91 |
| 1st gen ex-Yugoslav | 0.03 | 0.06 | 0.04 | 0.16 | 0.72 | 0.02 | 0.10 | 0.88 |
| 2nd gen European | 0.27 | 0.09 | 0.08 | 0.15 | 0.41 | 0.29 | 0.18 | 0.53 |
| 2nd gen West Asian/N African | 0.08 | 0.10 | 0.22 | 0.08 | 0.52 | 0.11 | 0.08 | 0.81 |
| 1st gen West Asian/N African | 0.01 | 0.02 | 0.11 | 0.05 | 0.80 | 0.02 | 0.03 | 0.95 |
| 2nd gen East Asian | 0.03 | 0.03 | 0.12 | 0.45 | 0.37 | 0.08 | 0.18 | 0.74 |
| 1st gen East Asian | 0.08 | 0.04 | 0.16 | 0.23 | 0.49 | 0.07 | 0.05 | 0.88 |
| 2nd gen Sub-Saharan African | 0.07 | 0.08 | 0.00 | 0.19 | 0.65 | 0.06 | 0.11 | 0.83 |
| 1st gen Sub-Saharan African | 0.03 | 0.04 | 0.00 | 0.09 | 0.83 | 0.01 | 0.03 | 0.96 |
| 2nd gen other | 0.04 | 0.13 | 0.17 | 0.37 | 0.30 | 0.11 | 0.26 | 0.63 |
| 1st gen other | 0.11 | 0.06 | 0.13 | 0.17 | 0.52 | 0.06 | 0.08 | 0.86 |
| TOTAL | 0.25 | 0.36 | 0.12 | 0.20 | 0.07 | 0.48 | 0.31 | 0.21 |

Table A.3: Independent variables by ethnic origin: parental education, and number of adults and children in household

| | Parental Education | | | | | | Adults | | Children | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Both university | Both sec./ tertiary | One sec./ tertiary | Vocational | Compulsory ed. | Unknown | Two | One or none | One to three | Four or more | None |
| Finnish (Finnish language) | 0.07 | 0.22 | 0.22 | 0.40 | 0.09 | 0.00 | 0.78 | 0.22 | 0.86 | 0.13 | 0.01 |
| Finnish (Swedish language) | 0.12 | 0.29 | 0.22 | 0.30 | 0.08 | 0.00 | 0.84 | 0.16 | 0.86 | 0.14 | 0.01 |
| Finnish (other language) | 0.08 | 0.34 | 0.22 | 0.18 | 0.19 | 0.00 | 0.61 | 0.39 | 0.85 | 0.11 | 0.04 |
| Mixed origin | 0.12 | 0.31 | 0.20 | 0.29 | 0.08 | 0.00 | 0.78 | 0.22 | 0.88 | 0.12 | 0.00 |
| 2nd gen Russian/Estonian | 0.10 | 0.22 | 0.14 | 0.34 | 0.20 | 0.01 | 0.68 | 0.32 | 0.91 | 0.06 | 0.03 |
| 1st gen Russian/Estonian | 0.05 | 0.25 | 0.14 | 0.31 | 0.24 | 0.02 | 0.68 | 0.32 | 0.90 | 0.05 | 0.05 |
| 2nd gen ex-Yugoslav | 0.01 | 0.09 | 0.14 | 0.39 | 0.37 | 0.00 | 0.80 | 0.20 | 0.49 | 0.48 | 0.03 |
| 1st gen ex-Yugoslav | 0.04 | 0.14 | 0.15 | 0.29 | 0.37 | 0.01 | 0.80 | 0.20 | 0.62 | 0.36 | 0.03 |
| 2nd gen European | 0.10 | 0.27 | 0.22 | 0.18 | 0.18 | 0.05 | 0.62 | 0.38 | 0.75 | 0.22 | 0.03 |
| 2nd gen West Asian/N African | 0.04 | 0.13 | 0.18 | 0.21 | 0.42 | 0.02 | 0.65 | 0.35 | 0.49 | 0.46 | 0.05 |
| 1st gen West Asian/N African | 0.03 | 0.13 | 0.10 | 0.12 | 0.57 | 0.05 | 0.70 | 0.30 | 0.41 | 0.49 | 0.11 |
| 2nd gen East Asian | 0.01 | 0.04 | 0.02 | 0.26 | 0.67 | 0.00 | 0.71 | 0.29 | 0.58 | 0.38 | 0.04 |
| 1st gen East Asian | 0.01 | 0.13 | 0.04 | 0.10 | 0.71 | 0.01 | 0.63 | 0.38 | 0.66 | 0.22 | 0.13 |
| 2nd gen Sub-Saharan African | 0.03 | 0.17 | 0.11 | 0.31 | 0.34 | 0.04 | 0.62 | 0.38 | 0.19 | 0.72 | 0.08 |
| 1st gen Sub-Saharan African | 0.01 | 0.10 | 0.07 | 0.15 | 0.53 | 0.15 | 0.42 | 0.58 | 0.24 | 0.52 | 0.24 |
| 2nd gen other | 0.02 | 0.13 | 0.11 | 0.20 | 0.54 | 0.00 | 0.59 | 0.41 | 0.74 | 0.20 | 0.06 |
| 1st gen other | 0.01 | 0.17 | 0.07 | 0.24 | 0.47 | 0.04 | 0.64 | 0.36 | 0.70 | 0.18 | 0.12 |
| TOTAL | 0.07 | 0.22 | 0.22 | 0.39 | 0.09 | 0.00 | 0.78 | 0.22 | 0.86 | 0.13 | 0.01 |

Table A.4: Independent variables by ethnic origin: parents' labour force participation and students' citizenship

| | Father's labour force participation | | | | Mother's labour force participation | | | | Citizenship | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Em-poyed | Uem-ployed | Out of l.f. | Un-known | Em-ployed | Unem-ployed | Out of l.f. | Un-known | Short resi-dence | Long res., Finnish | Long res., other |
| Finnish (Finnish language) | 0.79 | 0.07 | 0.06 | 0.07 | 0.81 | 0.09 | 0.05 | 0.05 | n/a | n/a | n/a |
| Finnish (Swedish language) | 0.87 | 0.03 | 0.04 | 0.06 | 0.88 | 0.04 | 0.03 | 0.05 | n/a | n/a | n/a |
| Finnish (other language) | 0.53 | 0.05 | 0.06 | 0.36 | 0.67 | 0.12 | 0.06 | 0.16 | n/a | n/a | n/a |
| Mixed origin | 0.77 | 0.09 | 0.08 | 0.06 | 0.77 | 0.10 | 0.04 | 0.09 | n/a | n/a | n/a |
| 2nd gen Russian/Estonian | 0.48 | 0.14 | 0.01 | 0.37 | 0.61 | 0.23 | 0.05 | 0.10 | n/a | 0.66 | 0.34 |
| 1st gen Russian/Estonian | 0.32 | 0.10 | 0.04 | 0.54 | 0.46 | 0.25 | 0.13 | 0.17 | 0.49 | 0.21 | 0.30 |
| 2nd gen ex-Yugoslav | 0.25 | 0.47 | 0.04 | 0.24 | 0.14 | 0.49 | 0.14 | 0.23 | n/a | 0.38 | 0.62 |
| 1st gen ex-Yugoslav | 0.30 | 0.39 | 0.07 | 0.24 | 0.16 | 0.50 | 0.16 | 0.19 | 0.36 | 0.22 | 0.42 |
| 2nd gen European | 0.55 | 0.01 | 0.04 | 0.39 | 0.46 | 0.04 | 0.12 | 0.38 | n/a | 0.66 | 0.34 |
| 2nd gen West Asian/N African | 0.45 | 0.35 | 0.07 | 0.13 | 0.26 | 0.35 | 0.13 | 0.25 | n/a | 0.90 | 0.10 |
| 1st gen West Asian/N African | 0.26 | 0.34 | 0.14 | 0.26 | 0.08 | 0.42 | 0.18 | 0.32 | 0.50 | 0.24 | 0.26 |
| 2nd gen East Asian | 0.39 | 0.28 | 0.09 | 0.24 | 0.45 | 0.31 | 0.11 | 0.12 | n/a | 0.91 | 0.09 |
| 1st gen East Asian | 0.32 | 0.17 | 0.06 | 0.45 | 0.35 | 0.27 | 0.06 | 0.31 | 0.39 | 0.45 | 0.17 |
| 2nd gen Sub-Saharan African | 0.30 | 0.31 | 0.07 | 0.31 | 0.19 | 0.30 | 0.07 | 0.44 | n/a | 0.70 | 0.30 |
| 1st gen Sub-Saharan African | 0.12 | 0.28 | 0.07 | 0.54 | 0.10 | 0.32 | 0.06 | 0.53 | 0.40 | 0.25 | 0.36 |
| 2nd gen other | 0.44 | 0.11 | 0.06 | 0.39 | 0.54 | 0.19 | 0.15 | 0.13 | n/a | 0.70 | 0.30 |
| 1st gen other | 0.25 | 0.10 | 0.03 | 0.62 | 0.38 | 0.32 | 0.10 | 0.19 | 0.61 | 0.22 | 0.17 |
| TOTAL | 0.78 | 0.08 | 0.06 | 0.08 | 0.80 | 0.09 | 0.05 | 0.06 | | | |




Note: 95% confidence intervals included around the estimates

Figure A.1: Estimated average grades of students in different types of school defined by the proportion of students who are foreign-language speakers. For the graph with individual controls, the average grade has been estimated for a male Finnish-origin student, who has parents with only compulsory education, a low income, and outside the labour force or unknown. These parental characteristics are the modal ones for children of immigrants.

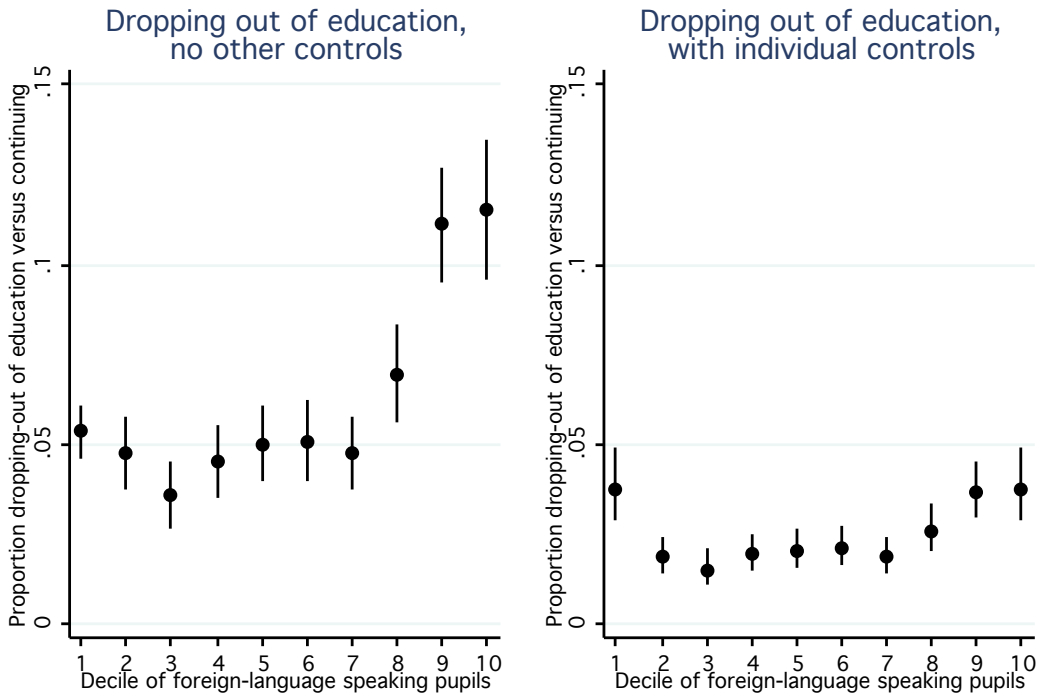



Figure A.2: Estimated probabilities for dropping out of education versus continuing in different types of school defined by the proportion of students who are foreign-language speakers. For the graph with individual-level controls, the proportion has been estimated for a male Finnish-origin student with an average grade of 7.5, who has two parents who are employed, and a maximum of two siblings. These characteristics are the modal ones for children of immigrants.

# Appendix B

# Additional Tables for Chapter 3

Table B.1: Average grades at the end of $9^{th}$ grade by ethnic origin and gender, 2000–2004

| Ethnic origin | Female | | Male | | N |
|---|---|---|---|---|---|
| Finnish origin | | | | | |
| Finnish origin, Finnish language | 8.07 | (0.01) | 7.51 | (0.01) | 14,327 |
| Finnish origin, Swedish language | 8.18 | (0.02) + | 7.51 | (0.02) | 4,786 |
| Finnish origin, other language | 7.97 | (0.10) | 7.66 | (0.10) | 173 |
| Mixed origin (one parent Finnish) | 8.14 | (0.07) | 7.54 | (0.07) | 590 |
| Immigrant origin | | | | | |
| 2nd gen Russia/Estonia | 7.83 | (0.07) – | 7.36 | (0.08) | 527 |
| 1st gen Russia/Estonia | 7.81 | (0.04) – | 7.12 | (0.03) – | 1,260 |
| 2nd gen Former Yugoslavia | 6.99 | (0.13) – | 6.93 | (0.11) – | 79 |
| 1st gen Former Yugoslavia | 7.44 | (0.10) – | 6.93 | (0.07) – | 193 |
| 2nd gen Europe | 7.68 | (0.16) – | 7.37 | (0.18) | 58 |
| 2nd gen West Asia and North Africa | 7.30 | (0.12) – | 7.15 | (0.10) – | 118 |
| 1st gen West Asia and North Africa | 7.34 | (0.07) – | 7.17 | (0.06) – | 296 |
| 2nd gen East Asia | 7.99 | (0.11) | 7.66 | (0.09) | 151 |
| 1st gen East Asia | 7.95 | (0.13) | 7.50 | (0.12) | 96 |
| 2nd gen Sub-Saharan Africa | 7.34 | (0.10) – | 7.27 | (0.10) – | 108 |
| 1st gen Sub-Saharan Africa | 7.14 | (0.07) – | 6.98 | (0.06) – | 250 |
| 2nd gen other or unknown origin | 7.77 | (0.20) | 7.23 | (0.17) | 54 |
| 1st gen other or unknown origin | 7.49 | (0.12) – | 7.22 | (0.10) – | 139 |
| TOTAL | 8.07 | (0.01) | 7.50 | (0.01) | 22,442 |

+ higher than Finnish-origin, Finnish-language group at 5% level, within gender
– lower than Finnish-origin, Finnish-language group at 5% level, within gender

Table B.2: Linear regression results for analyses of average grades: effect of ethnic origin, gender, parental socioeconomic status, income and education

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Ethnic origin (Finnish (Finnish) as reference) | | | | |
| Finnish (Swedish) | 0.05 (0.01) *** | -0.05 (0.01) ** | -0.04 (0.01) *** | -0.06 (0.01) *** |
| Finnish (other) | 0.02 (0.07) | -0.05 (0.07) | -0.01 (0.07) | -0.02 (0.07) |
| Mixed origin | 0.05 (0.05) | -0.02 (0.05) | -0.01 (0.05) | -0.05 (0.05) |
| 2nd gen Russian/Estonian | -0.19 (0.06) *** | -0.07 (0.06) | -0.02 (0.06) | -0.07 (0.06) |
| 1st gen Russian/Estonian | -0.33 (0.03) *** | -0.08 (0.03) ** | -0.02 (0.03) | -0.10 (0.03) *** |
| 2nd gen Ex-Yugoslav | -0.82 (0.09) *** | -0.48 (0.09) *** | -0.42 (0.09) *** | -0.41 (0.09) *** |
| 1st gen Ex-Yugoslav | -0.60 (0.06) *** | -0.26 (0.06) *** | -0.21 (0.06) *** | -0.23 (0.06) *** |
| 2nd gen European | -0.26 (0.12) ** | -0.16 (0.12) | -0.13 (0.11) | -0.19 (0.12) |
| 2nd gen West Asian/N African | -0.53 (0.08) *** | -0.32 (0.08) *** | -0.26 (0.08) *** | -0.24 (0.08) ** |
| 1st gen West Asian/N African | -0.52 (0.05) *** | -0.18 (0.05) *** | -0.13 (0.05) ** | -0.10 (0.05) * |
| 2nd gen East Asian | 0.03 (0.07) | 0.34 (0.07) *** | 0.40 (0.07) *** | 0.52 (0.07) *** |
| 1st gen East Asian | -0.06 (0.09) | 0.19 (0.09) *** | 0.26 (0.09) ** | 0.38 (0.08) *** |
| 2nd gen Sub-Saharan African | -0.47 (0.07) *** | -0.16 (0.08) ** | -0.11 (0.08) | -0.13 (0.07) * |
| 1st gen Sub-Saharan African | -0.70 (0.05) *** | -0.35 (0.05) *** | -0.30 (0.05) *** | -0.23 (0.05) *** |
| 2nd gen other and unknown | -0.29 (0.13) ** | -0.02 (0.13) | 0.03 (0.13) | 0.09 (0.13) |
| 1st gen other and unknown | -0.45 (0.09) *** | -0.22 (0.08) ** | -0.15 (0.08) * | -0.08 (0.09) |
| Gender (female) | 0.57 (0.01) *** | 0.57 (0.01) *** | 0.57 (0.01) *** | 0.57 (0.01) *** |
| Parental SES (Upper employees as reference) | | | | |
| Lower employees | | -0.45 (0.02) *** | -0.38 (0.02) *** | -0.10 (0.02) *** |
| Self-employed | | -0.50 (0.02) *** | -0.39 (0.02) *** | -0.04 (0.03) * |
| Manual working | | -0.80 (0.02) *** | -0.67 (0.02) *** | -0.27 (0.02) *** |
| Outside labour force | | -0.85 (0.03) *** | -0.63 (0.03) *** | -0.28 (0.03) *** |
| Parental income (High as reference) | | | | |
| Medium | | | -0.16 (0.02) *** | -0.07 (0.02) *** |
| Low | | | -0.28 (0.02) *** | -0.16 (0.02) *** |
| Parental education (Two university degrees as reference) | | | | |
| Two low tertiary | | | | -0.31 (0.02) *** |

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Table B.2: Linear regression results for analyses of average grades: effect of ethnic origin, gender, parental socioeconomic status, income and education (continued from previous page)

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| One low tertiary | | | | -0.54 (0.03) *** |
| Vocational | | | | -0.76 (0.03) *** |
| Compulsory | | | | -0.98 (0.03) *** |
| Unknown | | | | -0.79 (0.13) *** |
| Constant | 7.51 (0.01) *** | 7.94 (0.01) *** | 7.97 (0.01) *** | 8.25 (0.02) *** |
| R-squared | 0.10 | 0.20 | 0.21 | 0.26 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 22,442$

Table B.3: Multilevel linear regression results for analyses of average grades (Model 5a same as Model 4 but without weights, Model 5b with addition of schools at level 2)

| | Model 5a | Model 5b |
|---|---|---|
| Ethnic origin (Finnish (Finnish) as reference) | | |
| Finnish (Swedish) | -0.06 (0.01) *** | -0.04 (0.02) ** |
| Finnish (other) | -0.02 (0.06) | -0.05 (0.06) |
| Mixed origin | -0.09 (0.03) ** | -0.10 (0.03) ** |
| 2nd gen Russian/Estonian | -0.06 (0.04) * | -0.07 (0.04) * |
| 1st gen Russian/Estonian | -0.11 (0.03) *** | -0.11 (0.03) *** |
| 2nd gen ex-Yugoslav | -0.42 (0.09) *** | -0.41 (0.09) *** |
| 1st gen ex-Yugoslav | -0.24 (0.06) *** | -0.23 (0.06) *** |
| 2nd gen European | -0.15 (0.11) | -0.14 (0.11) |
| 2nd gen West Asian/N African | -0.25 (0.08) *** | -0.27 (0.08) *** |
| 1st gen West Asian/N African | -0.12 (0.05) ** | -0.12 (0.05) ** |
| 2nd gen East Asian | 0.47 (0.07) *** | 0.45 (0.07) *** |
| 1st gen East Asian | 0.34 (0.09) *** | 0.35 (0.09) *** |
| 2nd gen Sub-Saharan African | -0.14 (0.08) * | -0.13 (0.08) |
| 1st gen Sub-Saharan African | -0.26 (0.06) *** | -0.27 (0.06) *** |
| 2nd gen other and unknown | 0.06 (0.11) | 0.03 (0.11) |
| 1st gen other and unknown | -0.06 (0.07) | -0.06 (0.07) |
| Gender (female) | 0.57 (0.01) *** | 0.57 (0.01) *** |
| Parental SES (Upper employees as reference) | | |
| Lower employees | -0.10 (0.02) *** | -0.10 (0.02) *** |
| Self-employed | -0.05 (0.02) ** | -0.06 (0.02) ** |
| Manual working | -0.27 (0.02) *** | -0.27 (0.02) *** |
| Outside labour force | -0.29 (0.03) *** | -0.29 (0.03) *** |
| Parental income (High as reference) | | |
| Medium | -0.07 (0.01) *** | -0.07 (0.01) *** |
| Low | -0.17 (0.02) *** | -0.17 (0.02) *** |
| Parental education (Two university degrees as reference) | | |
| Two low tertiary | -0.29 (0.02) *** | -0.28 (0.02) *** |
| One low tertiary | -0.50 (0.02) *** | -0.49 (0.02) *** |
| Vocational | -0.72 (0.03) *** | -0.71 (0.03) *** |
| Compulsory | -0.87 (0.03) *** | -0.86 (0.03) *** |
| Unknown | -0.65 (0.09) *** | -0.64 (0.09) *** |
| Constant | 8.22 (0.02) *** | 8.21 (0.02) *** |
| Rho | | 0.14 |

$^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.001$,
$N = 22,442$ at level 1, 808 at level 2

Table B.4: Linear regression results for analyses of average grades: effect of household composition and parental unemployment added

| | Model 6 | Model 7 | Model 8 | Model 9 |
|---|---|---|---|---|
| Ethnic origin (Finnish (Finnish) as reference) | | | | |
| Finnish (Swedish) | -0.07 (0.01) *** | -0.07 (0.01) *** | -0.04 (0.01) ** | -0.05 (0.01) *** |
| Finnish (other) | 0.01 (0.07) | 0.00 (0.07) | -0.04 (0.07) | 0.00 (0.07) |
| Mixed origin | -0.05 (0.05) | -0.04 (0.05) | -0.06 (0.05) | -0.05 (0.05) |
| 2nd gen Russian/Estonian | -0.07 (0.06) | -0.07 (0.06) | -0.17 (0.06) ** | -0.15 (0.06) ** |
| 1st gen Russian/Estonian | -0.12 (0.03) *** | -0.13 (0.03) *** | -0.27 (0.03) *** | -0.25 (0.03) *** |
| 2nd gen ex-Yugoslav | -0.45 (0.09) *** | -0.43 (0.09) *** | -0.59 (0.09) *** | -0.59 (0.09) *** |
| 1st gen ex-Yugoslav | -0.28 (0.06) *** | -0.25 (0.06) *** | -0.42 (0.06) *** | -0.42 (0.06) *** |
| 2nd gen European | -0.19 (0.12) | -0.21 (0.12) * | -0.28 (0.13) ** | -0.26 (0.12) ** |
| 2nd gen West Asian/N African | -0.24 (0.08) ** | -0.22 (0.08) ** | -0.35 (0.08) *** | -0.31 (0.08) *** |
| 1st gen West Asian/N African | -0.12 (0.06) ** | -0.11 (0.06) * | -0.26 (0.05) *** | -0.24 (0.05) *** |
| 2nd gen East Asian | 0.51 (0.07) *** | 0.52 (0.07) *** | 0.41 (0.07) *** | 0.43 (0.07) *** |
| 1st gen East Asian | 0.37 (0.08) *** | 0.37 (0.08) *** | 0.27 (0.09) ** | 0.30 (0.08) *** |
| 2nd gen Sub-Saharan African | -0.12 (0.07) | -0.11 (0.07) | -0.30 (0.07) *** | -0.24 (0.07) *** |
| 1st gen Sub-Saharan African | -0.21 (0.05) *** | -0.21 (0.05) *** | -0.39 (0.05) *** | -0.31 (0.05) *** |
| 2nd gen other and unknown | 0.10 (0.13) | 0.10 (0.14) | -0.02 (0.13) | 0.02 (0.13) |
| 1st gen other and unknown | -0.10 (0.08) | -0.10 (0.08) | -0.20 (0.09) ** | -0.18 (0.09) ** |
| Gender (female) | 0.58 (0.01) *** | 0.57 (0.01) *** | 0.57 (0.01) *** | 0.57 (0.01) *** |
| Parental SES (Upper employees as reference) | | | | |
| Lower employees | -0.10 (0.02) *** | -0.10 (0.02) *** | | |
| Self-employed | -0.06 (0.03) ** | -0.06 (0.03) ** | | |
| Manual working | -0.26 (0.02) *** | -0.25 (0.02) *** | | |
| Outside labour force | -0.24 (0.03) *** | -0.21 (0.03) *** | | |
| Parental income (High as reference) | | | | |
| Medium | -0.07 (0.02) *** | -0.06 (0.02) *** | | |
| Low | -0.13 (0.02) *** | -0.11 (0.02) *** | | |
| Parental education (Two university degrees as reference) | | | | |
| Two low tertiary | -0.30 (0.02) *** | -0.30 (0.02) *** | -0.36 (0.02) *** | -0.35 (0.02) *** |

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Table B.4: Linear regression results for analyses of average grades: effect of household composition and parental unemployment added (continued from previous page)

| | Model 6 | Model 7 | Model 8 | Model 9 |
|---|---|---|---|---|
| One low tertiary | -0.53 (0.03) *** | -0.53 (0.03) *** | -0.68 (0.02) *** | -0.66 (0.02) *** |
| Vocational | -0.75 (0.03) *** | -0.75 (0.03) *** | -0.98 (0.02) *** | -0.95 (0.02) *** |
| Compulsory | -0.96 (0.03) *** | -0.96 (0.03) *** | -1.24 (0.03) *** | -1.18 (0.03) *** |
| Unknown | -0.66 (0.14) *** | -0.72 (0.14) *** | -1.16 (0.13) *** | -0.89 (0.14) *** |
| Adults in household (Two as reference) | | | | |
| One or fewer | -0.19 (0.02) *** | -0.18 (0.02) *** | | -0.22 (0.02) *** |
| Children in household (One – three as reference) | | | | |
| Four or more | -0.04 (0.02) ** | -0.04 (0.02) ** | | -0.06 (0.02) ** |
| None | -0.04 (0.06) | -0.04 (0.06) | | -0.10 (0.05) * |
| Father unemployed | | -0.07 (0.03) ** | | |
| Mother unemployed | | -0.08 (0.02) *** | | |
| Constant | 8.28 (0.02) *** | 8.28 (0.02) *** | 8.24 (0.02) *** | 8.27 (0.02) *** |
| R-squared | 0.26 | 0.27 | 0.24 | 0.25 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 22,442$

Table B.5: Linear regression results for analyses of average grades: interactions of ethnic origin with parental resources and gender added

| | Model 10 | Model 11 | Model 12 | Model 13 |
|---|---|---|---|---|
| Non-Finnish origin | -0.08 (0.02) *** | 0.03 (0.07) | 0.14 (0.15) | 0.14 (0.15) |
| Gender (female) | 0.58 (0.01) *** | 0.58 (0.01) *** | 0.58 (0.01) *** | 0.57 (0.01) *** |
| Parental SES (Non-manual employees as reference) | | | | |
| Self-employed | -0.01 (0.02) | 0.00 (0.02) | 0.00 (0.02) | 0.00 (0.02) |
| Manual working | -0.22 (0.02) *** | -0.22 (0.02) *** | -0.22 (0.02) *** | -0.22 (0.02) *** |
| Outside labour force | -0.24 (0.03) *** | -0.23 (0.03) *** | -0.23 (0.03) *** | -0.23 (0.03) *** |
| Interactions between non-Finnish origin and parental SES | | | | |
| Non-Finnish*Self-employed | | -0.13 (0.08) * | -0.17 (0.08) ** | -0.17 (0.08) ** |
| Non-Finnish*manual working | | 0.01 (0.06) | -0.04 (0.06) | -0.03 (0.06) |
| Non-Finnish*outside labour force | | -0.09 (0.06) | -0.06 (0.06) | -0.06 (0.06) |
| Parental income (High as reference) | | | | |
| Low income | -0.24 (0.02) *** | -0.24 (0.02) *** | -0.24 (0.02) *** | -0.24 (0.02) *** |
| Mid income | -0.16 (0.02) *** | -0.16 (0.02) *** | -0.16 (0.02) *** | -0.16 (0.02) *** |
| Interactions between non-Finnish origin and parental income | | | | |
| Non-Finnish*low | | -0.18 (0.08) ** | -0.17 (0.08) ** | -0.17 (0.08) ** |
| Non-Finnish*mid | | -0.09 (0.08) | -0.08 (0.08) | -0.09 (0.08) |
| Parental education (At least one parent with upper secondary degree as reference) | | | | |
| Low education | -0.42 (0.02) *** | -0.43 (0.02) *** | -0.43 (0.02) *** | -0.43 (0.02) *** |
| Unknown education | -0.39 (0.12) ** | -0.43 (0.18) ** | -0.43 (0.18) ** | -0.43 (0.18) ** |
| Interactions between non-Finnish origin and parental education | | | | |
| Non-Finnish*low | | 0.13 (0.04) ** | 0.11 (0.04) ** | 0.11 (0.04) ** |
| Non-Finnish*unknown | | 0.24 (0.21) | 0.30 (0.21) | 0.27 (0.21) |
| Ethnic origin (Finnish (Finnish) as reference) | | | | |
| Finnish (Swedish) | | | -0.05 (0.01) *** | -0.09 (0.02) *** |
| Finnish (other) | | | -0.01 (0.07) | -0.01 (0.07) |
| Mixed origin | | | -0.02 (0.05) | -0.02 (0.05) |
| 2nd gen Russian/Estonian | | | -0.09 (0.14) | -0.09 (0.14) |
| 1st gen Russian/Estonian | | | -0.10 (0.13) | -0.15 (0.13) |

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Table B.5: Linear regression results for analyses of average grades: interactions of ethnic origin with parental resources and gender added (continued from previous page)

| | Model 10 | Model 11 | Model 12 | Model 13 |
|---|---|---|---|---|
| 2nd gen ex-Yugoslav | | | -0.43 (0.16) ** | -0.19 (0.17) |
| 1st gen ex-Yugoslav | | | -0.25 (0.14) * | -0.25 (0.14) * |
| 2nd gen European | | | -0.21 (0.17) | -0.21 (0.17) |
| 2nd gen West Asian/N African | | | -0.27 (0.15) * | -0.10 (0.16) |
| 1st gen West Asian/N African | | | -0.14 (0.14) | 0.04 (0.15) |
| 2nd gen East Asian | | | 0.42 (0.15) ** | 0.57 (0.15) *** |
| 1st gen East Asian | | | 0.29 (0.15) * | 0.29 (0.15) * |
| 2nd gen Sub-Saharan African | | | -0.15 (0.15) | 0.09 (0.16) |
| 1st gen Sub-Saharan African | | | -0.31 (0.14) ** | -0.11 (0.14) |
| 2nd gen other and unknown | | | (dropped) | (dropped) |
| 1st gen other and unknown | | | -0.13 (0.15) | -0.13 (0.15) |
| Interactions between ethnic origin and gender | | | | |
| Finnish (Swedish)*female | | | | 0.09 (0.03) *** |
| 1st gen Russian/Estonian*female | | | | 0.11 (0.05) ** |
| 2nd gen ex-Yugoslav*female | | | | -0.50 (0.17) ** |
| 2nd gen W Asian/N African*female | | | | -0.40 (0.14) ** |
| 1st gen W Asian/N African*female | | | | -0.37 (0.10) *** |
| 2nd gen East Asian*female | | | | -0.30 (0.14) ** |
| 2nd gen Sub-Saharan African*female | | | | -0.49 (0.13) *** |
| 1st gen Sub-Saharan African*female | | | | -0.44 (0.09) *** |
| Constant | 7.86 (0.01) *** | 7.86 (0.01) *** | 7.87 (0.01) *** | 7.87 (0.01) *** |
| R squared | 0.23 | 0.23 | 0.23 | 0.23 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 22,442$

Table B.6: Linear regression results for analyses of average grades: effect of length of residence

| | Model 14 | Model 15 | Model 16 |
|---|---|---|---|
| Immigrant origin | -0.36 (0.02) *** | -0.53 (0.04) *** | -0.16 (0.04) *** |
| Length of residence | | 0.022 (0.005) *** | 0.011 (0.005) ** |
| Parental SES (Upper employees as reference) | | | |
| Lower employees | | | -0.10 (0.02) *** |
| Self-employed | | | -0.04 (0.03) * |
| Manual working | | | -0.27 (0.02) *** |
| Outside labour force | | | -0.28 (0.03) *** |
| Parental income (High as reference) | | | |
| Medium | | | -0.07 (0.02) *** |
| Low | | | -0.16 (0.02) *** |
| Parental education (Two university degrees as reference) | | | |
| Two low tertiary | | | -0.31 (0.02) *** |
| One low tertiary | | | -0.54 (0.03) *** |
| Vocational | | | -0.76 (0.03) *** |
| Compulsory | | | -0.98 (0.03) *** |
| Unknown | | | -0.81 (0.13) *** |
| Gender (female) | 0.57 (0.01) *** | 0.57 (0.01) *** | 0.57 (0.01) *** |
| Constant | 7.51 (0.01) *** | 7.51 (0.01) *** | 8.25 (0.02) *** |
| R-squared | 0.10 | 0.10 | 0.26 |

$^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.001, N = 22,439$

Table B.7: Linear regression results for analyses of average grades: effect of citizenship

| | Model 17 | Model 18 | Model 19 |
|---|---|---|---|
| Non-Finnish origin | | -0.07 (0.08) | 0.06 (0.15) |
| Citizenship (Finnish origin as reference) | | | |
| Short residence | -0.46 (0.03) *** | 0.06 (0.04) | 0.02 (0.04) |
| Long residence, Finnish citizenship | -0.23 (0.03) *** | 0.14 (0.04) *** | 0.10 (0.04) ** |
| Long residence, other citizenship | -0.46 (0.03) *** | (dropped) | (dropped) |
| Gender (female) | | 0.58 (0.01) *** | 0.57 (0.01) *** |
| Parental SES (Non-manual employees as reference) | | | |
| Self-employed | | 0.00 (0.02) | 0.00 (0.02) |
| Manual working | | -0.22 (0.02) *** | -0.22 (0.02) *** |
| Outside labour force | | -0.23 (0.03) *** | -0.23 (0.03) *** |
| Interactions between non-Finnish origin and parental SES | | | |
| Non-Finnish*Self-employed | | -0.15 (0.08) * | -0.18 (0.08) ** |
| Non-Finnish*manual working | | 0.00 (0.06) | -0.03 (0.06) |
| Non-Finnish*outside labour force | | -0.08 (0.06) | -0.05 (0.06) |
| Parental income (High as reference) | | | |
| Medium | | -0.16 (0.02) *** | -0.16 (0.02) *** |
| Low | | -0.24 (0.02) *** | -0.24 (0.02) *** |
| Interactions between non-Finnish origin and parental income | | | |
| Non-Finnish*low | | -0.16 (0.08) ** | -0.16 (0.08) ** |
| Non-Finnish*mid | | -0.08 (0.08) | -0.08 (0.08) |
| Parental education (At least one parent with upper secondary degree as reference) | | | |
| Low education | | -0.43 (0.02) *** | -0.43 (0.02) *** |
| Unknown education | | -0.43 (0.18) ** | -0.43 (0.18) ** |
| Interactions between non-Finnish origin and parental education | | | |
| Non-Finnish*low | | 0.14 (0.04) ** | 0.11 (0.04) ** |
| Non-Finnish*unknown | | 0.25 (0.21) | 0.28 (0.21) |
| Ethnic origin (Finnish (Finnish) as reference) | | | |
| Finnish (Swedish) | | | -0.09 (0.02) *** |
| Finnish (other) | | | -0.01 (0.07) |

Continued on next page

Table B.7: Linear regression results for analyses of average grades: effect of citizenship (continued from previous page)

| | Model 17 | Model 18 | Model 19 |
|---|---|---|---|
| Mixed origin | | | -0.02 (0.05) |
| 2nd gen Russian/Estonian | | | -0.09 (0.14) |
| 1st gen Russian/Estonian | | | -0.11 (0.13) |
| 2nd gen ex-Yugoslav | | | -0.17 (0.17) |
| 1st gen ex-Yugoslav | | | -0.21 (0.14) |
| 2nd gen European | | | -0.21 (0.17) |
| 2nd gen West Asian/N African | | | -0.13 (0.16) |
| 1st gen West Asian/N African | | | 0.07 (0.15) |
| 2nd gen East Asian | | | 0.54 (0.16) *** |
| 1st gen East Asian | | | 0.30 (0.15) ** |
| 2nd gen Sub-Saharan African | | | 0.07 (0.16) |
| 1st gen Sub-Saharan African | | | -0.08 (0.14) |
| 2nd gen other and unknown | | | (dropped) |
| 1st gen other and unknown | | | -0.10 (0.15) |
| Interactions between ethnic origin and gender | | | |
| Finnish (Swedish)*female | | | 0.09 (0.03) *** |
| 1st gen Russian/Estonian*female | | | 0.11 (0.05) ** |
| 2nd gen ex-Yugoslav*female | | | -0.50 (0.17) ** |
| 2nd gen West Asian/N African*female | | | -0.40 (0.14) ** |
| 1st gen West Asian/N African*female | | | -0.38 (0.10) *** |
| 2nd gen East Asian*female | | | -0.29 (0.14) ** |
| 2nd gen Sub-Saharan African*female | | | -0.48 (0.13) *** |
| 1st gen Sub-Saharan African*female | | | -0.45 (0.09) *** |
| Constant | 7.79 (0.01) *** | 7.86 (0.01) *** | 7.87 (0.01) *** |
| R squared | 0.00 | 0.23 | 0.23 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 22,442$

# Appendix C

# Additional Tables for Chapter 4

Table C.1: Proportion continuing in upper secondary education one year after finishing comprehensive school by ethnic origin and gender, 2001–2005

| Ethnic origin | Total | Male | Female | N |
|---|---|---|---|---|
| Finnish origin | | | | |
| Finnish origin, Finnish language | 0.94 (0.00) | 0.95 (0.00) | 0.94 (0.00) | 14,311 |
| Finnish origin, Swedish language | 0.95 (0.00) | 0.96 (0.00) | 0.95 (0.00) | 4,779 |
| Finnish origin, other language | 0.85 (0.03) | 0.83 (0.04) | 0.87 (0.04) | 172 |
| Mixed origin (one parent Finnish) | 0.94 (0.01) | 0.93 (0.02) | 0.88 (0.02) | 588 |
| Immigrant origin | | | | |
| 2nd gen Russia/Estonia | 0.91 (0.02) | 0.89 (0.03) | 0.93 (0.02) | 525 |
| 1st gen Russia/Estonia | 0.90 (0.01) | 0.90 (0.01) | 0.90 (0.01) | 1,254 |
| 2nd gen ex-Yugoslavia | 0.82 (0.04) | 0.90 (0.05) | 0.74 (0.07) | 78 |
| 1st gen ex-Yugoslavia | 0.87 (0.02) | 0.85 (0.03) | 0.88 (0.03) | 193 |
| 2nd gen Europe | 0.85 (0.05) | 0.83 (0.07) | 0.87 (0.06) | 58 |
| 2nd gen West Asia and North Africa | 0.82 (0.04) | 0.87 (0.04) | 0.76 (0.06) | 117 |
| 1st gen West Asia and North Africa | 0.82 (0.02) | 0.83 (0.03) | 0.80 (0.03) | 290 |
| 2nd gen East Asia | 0.90 (0.03) | 0.90 (0.04) | 0.90 (0.04) | 148 |
| 1st gen East Asia | 0.80 (0.04) | 0.75 (0.06) | 0.86 (0.05) | 96 |
| 2nd gen Sub-Saharan Africa | 0.81 (0.04) | 0.81 (0.05) | 0.82 (0.05) | 108 |
| 1st gen Sub-Saharan Africa | 0.71 (0.03) | 0.79 (0.03) | 0.60 (0.05) | 249 |
| 2nd gen other and unknown origin | 0.83 (0.05) | 0.78 (0.08) | 0.89 (0.06) | 54 |
| 1st gen other and unknown origin | 0.81 (0.04) | 0.78 (0.05) | 0.84 (0.05) | 138 |

Table C.2: Logistic regression analyses of continuation in education versus dropping out, results as log odds: effect of ethnic origin and prior school achievement

| | Model 1 | Model 2 |
|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | |
| Finnish (Swedish language) | 0.20 (0.08) ** | 0.12 (0.08) |
| Finnish (other language) | -1.05 (0.22) *** | -1.06 (0.26) *** |
| Mixed origin | -0.05 (0.23) | -0.03 (0.26) |
| 2nd gen Russian/Estonian | -0.49 (0.23) ** | -0.27 (0.26) |
| 1st gen Russian/Estonian | -0.62 (0.10) *** | -0.05 (0.11) |
| 2nd gen ex-Yugoslav | -1.30 (0.30) *** | -0.42 (0.31) |
| 1st gen ex-Yugoslav | -0.97 (0.21) *** | -0.10 (0.24) |
| 2nd gen European | -1.11 (0.38) ** | -0.72 (0.39) * |
| 2nd gen West Asian/N African | -1.30 (0.24) *** | -0.67 (0.28) ** |
| 1st gen West Asian/N African | -1.33 (0.16) *** | -0.48 (0.18) ** |
| 2nd gen East Asian | -0.64 (0.28) ** | -0.82 (0.29) ** |
| 1st gen East Asian | -1.43 (0.26) *** | -1.27 (0.29) *** |
| 2nd gen Sub-Saharan African | -1.34 (0.25) *** | -0.73 (0.27) ** |
| 1st gen Sub-Saharan African | -1.95 (0.14) *** | -1.10 (0.18) *** |
| 2nd gen other and unknown | -1.21 (0.37) *** | -0.75 (0.50) |
| 1st gen other and unknown | -1.37 (0.23) *** | -0.80 (0.29) ** |
| Gender (female) | -0.12 (0.07) * | -0.82 (0.07) *** |
| Average grade | | 1.39 (0.06) *** |
| Grades missing | | -2.46 (0.11) *** |
| Constant (gpa 7.5) | 2.88 (0.05) *** | 3.60 (0.07) *** |
| Log pseudolikelihood | -5068 | -4123 |
| Pseudo R-squared | 0.01 | 0.19 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 23,158$

Table C.3: Logistic regression analyses of continuation in education versus dropping out, results as log odds: effect of parental socioeconomic status, income and education added

| | Model 3 | Model 4 | Model 5 |
|---|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | | |
| Finnish (Swedish language) | 0.08 (0.08) | 0.06 (0.08) | 0.07 (0.08) |
| Finnish (other language) | -1.01 (0.27) *** | -0.98 (0.27) *** | -0.92 (0.28) *** |
| Mixed origin | -0.06 (0.26) | -0.06 (0.26) | -0.05 (0.25) |
| 2nd gen Russian/Estonian | -0.16 (0.26) | -0.11 (0.26) | -0.10 (0.26) |
| 1st gen Russian/Estonian | 0.17 (0.12) | 0.22 (0.12) * | 0.24 (0.12) * |
| 2nd gen ex-Yugoslav | -0.15 (0.31) | -0.10 (0.31) | -0.06 (0.31) |
| 1st gen ex-Yugoslav | 0.19 (0.25) | 0.23 (0.25) | 0.28 (0.25) |
| 2nd gen European | -0.53 (0.40) | -0.49 (0.39) | -0.48 (0.40) |
| 2nd gen West Asian/N African | -0.45 (0.29) | -0.39 (0.29) | -0.31 (0.29) |
| 1st gen West Asian/N African | -0.18 (0.19) | -0.13 (0.19) | 0.00 (0.20) |
| 2nd gen East Asian | -0.62 (0.29) ** | -0.55 (0.29) * | -0.36 (0.29) |
| 1st gen East Asian | -1.04 (0.29) *** | -0.96 (0.29) *** | -0.74 (0.30) ** |
| 2nd gen Sub-Saharan African | -0.48 (0.28) * | -0.42 (0.28) | -0.35 (0.28) |
| 1st gen Sub-Saharan African | -0.79 (0.20) *** | -0.74 (0.19) *** | -0.60 (0.20) ** |
| 2nd gen other and unknown | -0.63 (0.49) | -0.58 (0.49) | -0.43 (0.48) |
| 1st gen other and unknown | -0.58 (0.30) * | -0.51 (0.30) * | -0.44 (0.28) |
| Gender (female) | -0.80 (0.07) *** | -0.79 (0.07) *** | -0.78 (0.07) *** |
| Average grade | 1.36 (0.06) *** | 1.35 (0.06) *** | 1.34 (0.06) *** |
| Grades missing | -2.42 (0.11) *** | -2.39 (0.11) *** | -2.38 (0.11) *** |
| Parental SES (Upper employees as reference) | | | |
| Lower employees | 0.20 (0.11) * | 0.25 (0.12) ** | 0.18 (0.13) |
| Self-employed | -0.03 (0.14) | 0.08 (0.15) | 0.04 (0.16) |
| Manual working | -0.08 (0.11) | 0.02 (0.12) | -0.01 (0.15) |
| Outside l.f. and unknown | -0.38 (0.13) ** | -0.15 (0.15) | -0.12 (0.17) |
| Parental income (High as reference) | | | |
| Medium | | -0.09 (0.09) | -0.09 (0.09) |
| Low | | -0.31 (0.11) ** | -0.27 (0.11) ** |
| Parental education (University degrees as reference) | | | |
| Both general upper | | | 0.31 (0.22) |
| One general upper | | | 0.47 (0.23) * |
| Vocational | | | 0.37 (0.23) |
| Lower secondary | | | -0.08 (0.24) |
| Unknown | | | 0.10 (0.45) |
| Constant (gpa 7.5) | 3.57 (0.11) *** | 3.60 (0.11) *** | 3.31 (0.20) *** |
| Log pseudolikelihood | -4106 | -4100 | -4081 |
| Pseudo R-squared | 0.20 | 0.20 | 0.20 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 23,158$

Table C.4: Logistic regression analyses of continuation in education versus dropping out, results as log odds: effect of parental labour force participation, household composition and parental education added

| | Model 6 | Model 7 | Model 8 |
|---|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | | |
| Finnish (Swedish) | 0.04 (0.08) | 0.03 (0.08) | 0.05 (0.09) |
| Finnish (other) | -0.90 (0.27) *** | -0.92 (0.27) *** | -0.85 (0.28) ** |
| Mixed origin | -0.05 (0.26) | -0.06 (0.26) | -0.06 (0.25) |
| 2nd gen Russian/Estonian | -0.06 (0.26) | -0.10 (0.26) | -0.08 (0.26) |
| 1st gen Russian/Estonian | 0.28 (0.12) ** | 0.22 (0.13) * | 0.24 (0.13) * |
| 2nd gen ex-Yugoslav | 0.00 (0.31) | -0.05 (0.31) | 0.03 (0.31) |
| 1st gen ex-Yugoslav | 0.35 (0.25) | 0.29 (0.25) | 0.37 (0.25) |
| 2nd gen European | -0.38 (0.40) | -0.42 (0.39) | -0.46 (0.40) |
| 2nd gen W Asian/N African | -0.32 (0.29) | -0.29 (0.29) | -0.22 (0.28) |
| 1st gen W Asian/N African | -0.03 (0.19) | -0.01 (0.19) | 0.12 (0.20) |
| 2nd gen East Asian | -0.50 (0.29) * | -0.50 (0.28) * | -0.30 (0.29) |
| 1st gen East Asian | -0.87 (0.29) ** | -0.85 (0.29) ** | -0.64 (0.30) ** |
| 2nd gen Sub-Saharan African | -0.23 (0.28) | -0.16 (0.29) | -0.11 (0.29) |
| 1st gen Sub-Saharan African | -0.55 (0.20) ** | -0.44 (0.20) ** | -0.38 (0.20) * |
| 2nd gen other and unknown | -0.57 (0.50) | -0.58 (0.49) | -0.43 (0.48) |
| 1st gen other and unknown | -0.44 (0.30) | -0.47 (0.30) | -0.39 (0.28) |
| Gender (female) | -0.78 (0.07) *** | -0.77 (0.07) *** | -0.76 (0.07) *** |
| Average grade | 1.34 (0.06) *** | 1.32 (0.06) *** | 1.31 (0.06) *** |
| Grades missing | -2.41 (0.11) *** | -2.38 (0.11) *** | -2.37 (0.11) *** |
| Father's labour force status (Employed as reference) | | | |
| Unemployed | -0.41 (0.11) *** | -0.36 (0.11) *** | -0.34 (0.11) ** |
| Outside labour force | -0.12 (0.13) | -0.08 (0.13) | -0.05 (0.14) |
| Unknown | -0.38 (0.11) *** | -0.25 (0.11) ** | -0.21 (0.12) * |
| Mother's labour force status (Employed as reference) | | | |
| Unemployed | -0.36 (0.10) *** | -0.31 (0.10) ** | -0.28 (0.10) ** |
| Outside labour force | -0.39 (0.13) ** | -0.33 (0.14) ** | -0.28 (0.14) ** |
| Unknown | -0.59 (0.12) *** | -0.48 (0.12) *** | -0.46 (0.12) *** |
| Number of adults in household (Two as reference) | | | |
| One or fewer | | -0.21 (0.08) ** | -0.21 (0.08) ** |
| Number of children in household (1-3 as reference) | | | |
| Four or more | | -0.16 (0.10) | -0.16 (0.10) |
| None | | -0.54 (0.18) ** | -0.54 (0.19) ** |
| Parental education (University degrees as reference) | | | |
| Both general upper | | | 0.38 (0.22) * |
| One general upper | | | 0.57 (0.21) ** |
| Vocational | | | 0.44 (0.20) ** |
| Lower secondary | | | 0.03 (0.22) |
| Unknown | | | 0.94 (0.48) ** |
| Constant (gpa 7.5) | 3.76 (0.07) *** | 3.81 (0.08) *** | 3.41 (0.20) *** |
| Log pseudolikelihood | -4082 | -4070 | -4051 |
| Pseudo R-squared | 0.20 | 0.20 | 0.21 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 23,158$

Table C.5: Multilevel logistic regression analyses of continuation in education versus dropping out, results as log odds (Model 9a same as Model 7 but without weights, Model 9b with addition of schools at level 2)

| | Model 9a | Model 9b |
|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | |
| Finnish (Swedish) | 0.03 (0.08) | -0.01 (0.10) |
| Finnish (other) | -0.93 (0.25) *** | -0.88 (0.26) *** |
| Mixed origin | -0.43 (0.17) ** | -0.42 (0.17) ** |
| 2nd gen Russian/Estonian | -0.13 (0.18) | -0.09 (0.18) |
| 1st gen Russian/Estonian | 0.19 (0.12) | 0.24 (0.13) * |
| 2nd gen ex-Yugoslav | -0.11 (0.33) | -0.03 (0.34) |
| 1st gen ex-Yugoslav | 0.25 (0.25) | 0.28 (0.25) |
| 2nd gen European | -0.58 (0.41) | -0.57 (0.42) |
| 2nd gen W Asian/N African | -0.32 (0.28) | -0.21 (0.29) |
| 1st gen W Asian/N African | -0.04 (0.19) | -0.03 (0.19) |
| 2nd gen East Asian | -0.55 (0.29) * | -0.50 (0.30) * |
| 1st gen East Asian | -0.86 (0.31) ** | -0.80 (0.32) ** |
| 2nd gen Sub-Saharan African | -0.21 (0.30) | -0.12 (0.31) |
| 1st gen Sub-Saharan African | -0.47 (0.18) ** | -0.46 (0.19) ** |
| 2nd gen other and unknown | -0.59 (0.42) | -0.62 (0.42) |
| 1st gen other and unknown | -0.59 (0.25) ** | -0.56 (0.26) ** |
| Gender (female) | -0.70 (0.06) *** | -0.72 (0.06) *** |
| Average grade | 1.28 (0.04) *** | 1.30 (0.04) *** |
| Grades missing | -2.30 (0.09) *** | -2.29 (0.10) *** |
| Father's labour force status (Employed as reference) | | |
| Unemployed | -0.24 (0.09) ** | -0.21 (0.10) ** |
| Outside labour force | -0.08 (0.12) | -0.07 (0.12) |
| Unknown | -0.17 (0.09) * | -0.16 (0.09) * |
| Mother's labour force status (Employed as reference) | | |
| Unemployed | -0.40 (0.08) *** | -0.40 (0.08) *** |
| Outside labour force | -0.39 (0.11) *** | -0.38 (0.11) *** |
| Unknown | -0.44 (0.10) *** | -0.43 (0.10) *** |
| Number of adults in household (Two as reference) | | |
| One or fewer | -0.25 (0.07) *** | -0.25 (0.07) *** |
| Number of children in household (1-3 as reference) | | |
| Four or more | -0.16 (0.08) * | -0.17 (0.08) ** |
| None | -0.65 (0.14) *** | -0.64 (0.14) *** |
| Constant (gpa 7.5) | 3.75 (0.06) *** | 3.83 (0.07) *** |
| Rho | | 0.05 |

$^{*}p < 0.10$,$^{**}p < 0.05$,$^{***}p < 0.001$,
$N = 23,158$ at level 1 and 826 at level 2

Table C.6: Logistic regression analyses of continuation in education versus dropping out, results as log odds: interactions of ethnic origin with average grades, parental labour force participation and gender added

| | Model 10 | Model 11 | Model 12 |
|---|---|---|---|
| Collapsed ethnic origin (Finnish as reference) | | | |
| 2nd generation | 0.16 (0.19) | 0.21 (0.35) | 0.19 (0.35) |
| 1st generation | 0.16 (0.14) | 0.21 (0.22) | 0.20 (0.22) |
| Gender (female) | -0.77 (0.07) *** | -0.77 (0.07) *** | -0.77 (0.07) *** |
| Average grade | 1.31 (0.06) *** | 1.31 (0.06) *** | 1.31 (0.06) *** |
| 2nd gen*Average grade | 0.48 (0.21) ** | 0.52 (0.21) ** | 0.51 (0.21) ** |
| 1st gen*Average grade | 0.25 (0.14) * | 0.32 (0.15) ** | 0.31 (0.15) ** |
| Grades missing | -2.39 (0.11) *** | -2.39 (0.11) *** | -2.39 (0.11) *** |
| Father's labour force status (Employed as reference) | | | |
| Unemployed | -0.36 (0.11) *** | -0.36 (0.11) *** | -0.36 (0.11) *** |
| Outside labour force | -0.08 (0.14) | -0.08 (0.14) | -0.08 (0.14) |
| Unknown | -0.26 (0.11) ** | -0.25 (0.11) ** | -0.26 (0.11) ** |
| 2nd gen*outside labour force | -1.04 (0.45) ** | -0.97 (0.46) ** | -0.93 (0.45) ** |
| Mother's labour force status (Employed as reference) | | | |
| Unemployed | -0.31 (0.10) *** | -0.31 (0.10) ** | -0.31 (0.10) ** |
| Outside labour force | -0.32 (0.14) ** | -0.33 (0.14) ** | -0.33 (0.14) ** |
| Unknown | -0.49 (0.12) *** | -0.48 (0.12) *** | -0.48 (0.12) *** |
| Number of adults in household (Two as reference) | | | |
| One or fewer | -0.21 (0.08) ** | -0.21 (0.08) ** | -0.21 (0.08) ** |
| Number of children in household (1-3 as reference) | | | |
| Four or more | -0.16 (0.10) * | -0.16 (0.10) + | -0.16 (0.10) + |
| None | -0.55 (0.18) ** | -0.54 (0.18) ** | -0.54 (0.18) *** |
| Ethnic origin (Finnish (Finnish language) as reference) | | | |
| Finnish (Swedish) | | 0.03 (0.08) | 0.03 (0.08) |
| Finnish (other) | | -0.91 (0.27) *** | -1.36 (0.38) *** |
| Mixed origin | | -0.06 (0.26) | -0.06 (0.26) |
| 2nd gen Russian/Estonian | | 0.06 (0.41) | 0.07 (0.41) |

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Table C.6: Logistic regression analyses of continuation in education versus dropping out, results as log odds: interactions of ethnic origin with average grades, parental labour force participation and gender added (continued from previous page)

| | Model 10 | Model 11 | Model 12 |
|---|---|---|---|
| 1st gen Russian/Estonian | | 0.26 (0.22) | 0.26 (0.22) |
| 2nd gen ex-Yugoslav | | 0.27 (0.43) | 0.27 (0.43) |
| 1st gen ex-Yugoslav | | 0.37 (0.31) | 0.05 (0.35) |
| 2nd gen European | | -0.27 (0.51) | -0.26 (0.51) |
| 2nd gen W Asian/N African | | (dropped) | (dropped) |
| 1st gen W Asian/N African | | (dropped) | (dropped) |
| 2nd gen East Asian | | -0.35 (0.43) | -0.35 (0.43) |
| 1st gen East Asian | | -0.95 (0.34) ** | -1.50 (0.41) *** |
| 2nd gen Sub-Saharan African | | 0.00 (0.41) | 0.01 (0.41) |
| 1st gen Sub-Saharan African | | -0.42 (0.26) + | -0.10 (0.35) |
| 2nd gen other and unknown | | -0.46 (0.60) | -1.19 (0.65) * |
| 1st gen other and unknown | | -0.48 (0.36) | -0.48 (0.36) |
| Finnish (other)*female | | | 0.88 (0.52) * |
| 1st gen ex-Yugoslav*female | | | 0.78 (0.50) + |
| 1st gen East Asian*female | | | 1.36 (0.58) ** |
| 1st gen Sub-Saharan African*female | | | -0.63 (0.38) * |
| 2nd gen other*female | | | 1.77 (1.02) * |
| Constant (gpa 7.5) | 3.81 (0.07) *** | 3.80 (0.08) *** | 3.81 (0.08) *** |
| Log pseudolikelihood | -4071 | -4068 | -4067 |
| Pseudo R-squared | 0.20 | 0.20 | 0.20 |

$^{+}p < 0.15,^{*}\ p < 0.10,^{**}\ p < 0.05,^{***}\ p < 0.001, N = 23,158$

Table C.7: Logistic regression results of continuation in education versus dropping out, results as log odds: effect of citizenship

| | Model 13 | Model 14 | Model 15 |
|---|---|---|---|
| Citizenship (Finnish origin as reference) | | | |
| Short residence | -1.26 (0.09) *** | -0.07 (0.16) | -0.05 (0.16) |
| Long residence, Finnish citizenship | -0.67 (0.12) *** | 0.03 (0.17) | 0.14 (0.18) |
| Long residence, other citizenship | -1.04 (0.10) *** | (dropped) | (dropped) |
| Collapsed ethnic origin (Finnish as reference) | | | |
| 2nd generation | | 0.14 (0.21) | 0.07 (0.40) |
| 1st generation | | 0.19 (0.17) | 0.19 (0.25) |
| Gender (female) | | -0.77 (0.07) *** | -0.77 (0.07) *** |
| Average grade | | 1.31 (0.06) *** | 1.31 (0.06) *** |
| 2nd gen*Average grade | | 0.48 (0.21) ** | 0.51 (0.21) ** |
| 1st gen*Average grade | | 0.25 (0.14) * | 0.31 (0.15) ** |
| Grades missing | | -2.39 (0.11) *** | -2.39 (0.11) *** |
| Father's labour force status (Employed as reference) | | | |
| Unemployed | | -0.36 (0.11) *** | -0.36 (0.11) *** |
| Outside labour force | | -0.08 (0.14) | -0.08 (0.14) |
| Unknown | | -0.26 (0.11) ** | -0.25 (0.11) ** |
| 2nd gen*outside labour force | | -1.04 (0.45) ** | -0.93 (0.46) ** |
| Mother's labour force status (Employed as reference) | | | |
| Unemployed | | -0.31 (0.10) ** | -0.31 (0.10) ** |
| Outside labour force | | -0.32 (0.14) ** | -0.33 (0.14) ** |
| Unknown | | -0.49 (0.12) *** | -0.48 (0.12) *** |
| Number of adults in household (Two as reference) | | | |
| One or fewer | | -0.21 (0.08) ** | -0.21 (0.08) ** |
| Number of children in household (1-3 as reference) | | | |
| Four or more | | -0.17 (0.10) * | -0.16 (0.10) + |
| None | | -0.54 (0.18) ** | -0.53 (0.18) ** |
| Ethnic origin (Finnish (Finnish language) as reference) | | | |
| Finnish (Swedish) | | | 0.03 (0.08) |

Continued on next page

Table C.7: Logistic regression results of continuation in education versus dropping out, results as log odds: effect of citizenship (continued from previous page)

| | Model 13 | Model 14 | Model 15 |
|---|---|---|---|
| Finnish (other) | | | -1.36 (0.38) *** |
| Mixed origin | | | -0.06 (0.26) |
| 2nd gen Russian/Estonian | | | 0.11 (0.43) |
| 1st gen Russian/Estonian | | | 0.28 (0.22) |
| 2nd gen ex-Yugoslav | | | 0.35 (0.44) |
| 1st gen ex-Yugoslav | | | 0.05 (0.35) |
| 2nd gen European | | | -0.23 (0.51) |
| 2nd gen W Asian/N African | | | (dropped) |
| 1st gen W Asian/N African | | | (dropped) |
| 2nd gen East Asian | | | -0.35 (0.43) |
| 1st gen East Asian | | | -1.52 (0.42) *** |
| 2nd gen Sub-Saharan African | | | 0.04 (0.42) |
| 1st gen Sub-Saharan African | | | -0.10 (0.35) |
| 2nd gen other and unknown | | | -1.16 (0.64) * |
| 1st gen other and unknown | | | -0.46 (0.36) |
| Finnish (other)*female | | | 0.88 (0.52) * |
| 1st gen ex-Yugoslav*female | | | 0.77 (0.50) + |
| 1st gen East Asian*female | | | 1.33 (0.58) ** |
| 1st gen Sub-Saharan African*female | | | -0.65 (0.39) * |
| 2nd gen other*female | | | 1.78 (1.02) * |
| Constant (gpa 7.5) | 2.83 (0.03) *** | 3.81 (0.07) *** | 3.81 (0.08) *** |
| Log pseudolikelihood | -5078 | -4071 | -4067 |
| Pseudo R-squared | 0.00 | 0.20 | 0.20 |

$^{+}p < 0.15,^{*} p < 0.10,^{**} p < 0.05,^{***} p < 0.001, N = 23,158$

# Appendix D

# Additional Tables for Chapter 5

Table D.1: Proportion continuing in general upper secondary schools, vocational upper secondary schools and dropping out of education one year after finishing comprehensive school by ethnic origin and gender, 2001–2005

| | Male | | | Female | | | |
|---|---|---|---|---|---|---|---|
| Ethnic origin | Gen. | Voc. | Out | Gen. | Voc. | Out | N |
| Finnish origin | | | | | | | |
| Finnish origin, Finnish language | 0.46 | 0.48 | 0.05 | 0.63 | 0.31 | 0.06 | 14,311 |
| Finnish origin, Swedish language | 0.48 | 0.48 | 0.04 | 0.68 | 0.28 | 0.05 | 4,779 |
| Finnish origin, other language | 0.49 | 0.35 | 0.17 | 0.65 | 0.23 | 0.13 | 172 |
| Mixed origin (one parent Finnish) | 0.57 | 0.36 | 0.07 | 0.73 | 0.22 | 0.05 | 588 |
| Immigrant origin | | | | | | | |
| 2nd gen Russia/Estonia | 0.49 | 0.40 | 0.11 | 0.62 | 0.31 | 0.07 | 525 |
| 1st gen Russia/Estonia | 0.33 | 0.57 | 0.10 | 0.56 | 0.34 | 0.10 | 1,254 |
| 2nd gen ex-Yugoslavia | 0.18 | 0.72 | 0.10 | 0.13 | 0.62 | 0.26 | 78 |
| 1st gen ex-Yugoslavia | 0.18 | 0.68 | 0.15 | 0.39 | 0.49 | 0.12 | 193 |
| 2nd gen Europe | 0.52 | 0.30 | 0.17 | 0.72 | 0.16 | 0.13 | 58 |
| 2nd gen West Asia and North Africa | 0.48 | 0.39 | 0.13 | 0.51 | 0.25 | 0.24 | 117 |
| 1st gen West Asia and North Africa | 0.43 | 0.39 | 0.17 | 0.48 | 0.33 | 0.20 | 290 |
| 2nd gen East Asia | 0.51 | 0.38 | 0.10 | 0.64 | 0.26 | 0.10 | 148 |
| 1st gen East Asia | 0.46 | 0.29 | 0.25 | 0.45 | 0.41 | 0.14 | 96 |
| 2nd gen Sub-Saharan Africa | 0.60 | 0.21 | 0.19 | 0.67 | 0.16 | 0.18 | 108 |
| 1st gen Sub-Saharan Africa | 0.32 | 0.47 | 0.21 | 0.27 | 0.33 | 0.40 | 249 |
| 2nd gen other and unknown origin | 0.37 | 0.41 | 0.22 | 0.59 | 0.30 | 0.11 | 54 |
| 1st gen other and unknown origin | 0.32 | 0.46 | 0.22 | 0.33 | 0.50 | 0.16 | 138 |
| TOTAL | 0.46 | 0.48 | 0.05 | 0.63 | 0.31 | 0.06 | 23,158 |

Table D.2: Proportion continuing in general upper secondary schools one year after finishing comprehensive school by ethnic origin and gender, 2001–2005

| Ethnic origin | Total | Male | Female | N |
|---|---|---|---|---|
| Finnish origin | | | | |
| Finnish origin, Finnish language | 0.58 (0.00) | 0.49 (0.01) | 0.67 (0.01) | 13,507 |
| Finnish origin, Swedish language | 0.60 (0.01) | 0.50 (0.01) | 0.71 (0.01) | 4,557 |
| Finnish origin, other language | 0.67 (0.04) | 0.59 (0.06) | 0.74 (0.05) | 147 |
| Mixed origin (one parent Finnish) | 0.69 (0.03) | 0.61 (0.04) | 0.77 (0.04) | 537 |
| Immigrant origin | | | | |
| 2nd gen Russia/Estonia | 0.61 (0.03) | 0.55 (0.05) | 0.67 (0.05) | 478 |
| 1st gen Russia/Estonia | 0.49 (0.02) | 0.37 (0.02) | 0.62 (0.02) | 1,128 |
| 2nd gen ex-Yugoslavia | 0.19 (0.05) | 0.20 (0.07) | 0.17 (0.07) | 64 |
| 1st gen ex-Yugoslavia | 0.31 (0.04) | 0.21 (0.04) | 0.44 (0.06) | 167 |
| 2nd gen Europe | 0.72 (0.07) | 0.63 (0.10) | 0.82 (0.08) | 49 |
| 2nd gen West Asia and North Africa | 0.60 (0.05) | 0.55 (0.07) | 0.67 (0.08) | 96 |
| 1st gen West Asia and North Africa | 0.56 (0.03) | 0.52 (0.04) | 0.59 (0.05) | 237 |
| 2nd gen East Asia | 0.64 (0.05) | 0.57 (0.06) | 0.71 (0.07) | 132 |
| 1st gen East Asia | 0.57 (0.06) | 0.62 (0.08) | 0.53 (0.08) | 77 |
| 2nd gen Sub-Saharan Africa | 0.77 (0.04) | 0.74 (0.06) | 0.81 (0.06) | 88 |
| 1st gen Sub-Saharan Africa | 0.42 (0.04) | 0.40 (0.05) | 0.45 (0.06) | 176 |
| 2nd gen other and unknown origin | 0.58 (0.07) | 0.48 (0.11) | 0.67 (0.10) | 45 |
| 1st gen other and unknown origin | 0.40 (0.06) | 0.41 (0.07) | 0.40 (0.08) | 111 |

Table D.3: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: effect of ethnic origin and prior school achievement

| | Model 1 | Model 2 |
|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | |
| Finnish (Swedish language) | 0.11 (0.04) *** | 0.08 (0.05) |
| Finnish (other language) | 0.37 (0.18) ** | 0.55 (0.25) ** |
| Mixed origin | 0.50 (0.13) *** | 0.80 (0.20) *** |
| 2nd gen Russian/Estonian | 0.13 (0.15) | 0.71 (0.15) *** |
| 1st gen Russian/Estonian | -0.36 (0.07) *** | 0.22 (0.11) ** |
| 2nd gen ex-Yugoslav | -1.81 (0.33) *** | -0.84 (0.39) ** |
| 1st gen ex-Yugoslav | -1.11 (0.17) *** | -0.16 (0.25) |
| 2nd gen European | 0.67 (0.32) ** | 1.51 (0.49) ** |
| 2nd gen West Asian/N African | 0.16 (0.22) | 1.59 (0.30) *** |
| 1st gen West Asian/N African | -0.07 (0.14) | 1.23 (0.18) *** |
| 2nd gen East Asian | 0.27 (0.20) | 0.20 (0.27) |
| 1st gen East Asian | -0.03 (0.25) | -0.12 (0.32) |
| 2nd gen Sub-Saharan African | 0.95 (0.26) *** | 2.46 (0.33) *** |
| 1st gen Sub-Saharan African | -0.57 (0.16) *** | 0.90 (0.20) *** |
| 2nd gen other and unknown | -0.03 (0.31) | 0.76 (0.39) ** |
| 1st gen other and unknown | -0.79 (0.26) ** | -0.08 (0.28) |
| Gender (female) | 0.75 (0.03) *** | -0.23 (0.05) *** |
| Average grade | | 2.61 (0.04) *** |
| Grades missing | | -0.55 (0.09) *** |
| Constant (gpa 7.5) | -0.04 (0.02) * | -0.18 (0.03) *** |
| Log pseudolikelihood | -14312 | -8541 |
| Pseudo R-squared | 0.03 | 0.42 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 21,596$

Table D.4: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: effect of parental socioeconomic status, income and education added

| | Model 3 | Model 4 | Model 5 |
|---|---|---|---|
| Ethnic origin (Finnish (Finnish) as reference) | | | |
| Finnish (Swedish language) | -0.06 (0.05) | -0.09 (0.05) * | -0.14 (0.05) ** |
| Finnish (other language) | 0.41 (0.25) * | 0.48 (0.25) * | 0.37 (0.25) |
| Mixed origin | 0.75 (0.20) *** | 0.78 (0.20) *** | 0.70 (0.20) *** |
| 2nd gen Russian/Estonian | 0.86 (0.15) *** | 0.96 (0.15) *** | 0.84 (0.17) *** |
| 1st gen Russian/Estonian | 0.43 (0.12) *** | 0.55 (0.12) *** | 0.37 (0.13) ** |
| 2nd gen ex-Yugoslav | -0.63 (0.40) | -0.54 (0.41) | -0.59 (0.43) |
| 1st gen ex-Yugoslav | 0.11 (0.25) | 0.20 (0.25) | 0.03 (0.26) |
| 2nd gen European | 1.58 (0.53) ** | 1.62 (0.54) ** | 1.50 (0.53) ** |
| 2nd gen West Asian/N African | 1.75 (0.31) *** | 1.85 (0.31) *** | 1.78 (0.31) *** |
| 1st gen West Asian/N African | 1.46 (0.19) *** | 1.54 (0.19) *** | 1.48 (0.19) *** |
| 2nd gen East Asian | 0.62 (0.26) ** | 0.74 (0.27) ** | 0.81 (0.27) ** |
| 1st gen East Asian | 0.11 (0.31) | 0.25 (0.31) | 0.30 (0.32) |
| 2nd gen Sub-Saharan African | 2.66 (0.33) *** | 2.76 (0.33) *** | 2.77 (0.34) *** |
| 1st gen Sub-Saharan African | 1.15 (0.21) *** | 1.23 (0.21) *** | 1.27 (0.22) *** |
| 2nd gen other and unknown | 1.07 (0.38) ** | 1.15 (0.38) ** | 1.09 (0.37) ** |
| 1st gen other and unknown | 0.04 (0.28) | 0.17 (0.28) | 0.13 (0.28) |
| Gender (female) | -0.11 (0.05) ** | -0.09 (0.05) * | -0.04 (0.05) |
| Average grade | 2.53 (0.04) *** | 2.52 (0.04) *** | 2.47 (0.04) *** |
| Grades missing | -0.62 (0.09) *** | -0.57 (0.10) *** | -0.63 (0.10) *** |
| Parental SES (Upper employees as reference) | | | |
| Lower employees | -0.82 (0.06) *** | -0.70 (0.06) *** | -0.25 (0.07) *** |
| Self-employed | -1.06 (0.08) *** | -0.86 (0.08) *** | -0.29 (0.09) ** |
| Manual working | -1.52 (0.07) *** | -1.30 (0.08) *** | -0.64 (0.09) *** |
| Outside l.f. and unknown | -1.12 (0.10) *** | -0.73 (0.12) *** | -0.20 (0.12) * |
| Parental income (High as reference) | | | |
| Medium | | -0.35 (0.05) *** | -0.21 (0.06) *** |
| Low | | -0.53 (0.07) *** | -0.36 (0.07) *** |
| Parental education (University degrees as reference) | | | |
| Both general upper | | | -0.70 (0.14) *** |
| One general upper | | | -1.12 (0.14) *** |
| Vocational | | | -1.60 (0.14) *** |
| Lower secondary | | | -1.56 (0.16) *** |
| Unknown | | | -2.02 (0.45) *** |
| Constant (gpa 7.5) | 0.62 (0.05) *** | 0.69 (0.06) *** | 1.42 (0.13) *** |
| Log pseudolikelihood | -8216 | -8170 | -8028 |
| Pseudo R-squared | 0.44 | 0.44 | 0.45 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 21,596$

Table D.5: Multilevel logistic model of choice of general versus vocational upper secondary school, results as log odds (Model 6a same as Model 5 but without weights, Model 6b with addition of schools at level 2)

| | Model 6a | Model 6b |
|---|---|---|
| Ethnic origin (Finnish (Finnish language) as reference) | | |
| Finnish (Swedish) | -0.14 (0.05) ** | 0.06 (0.09) |
| Finnish (other) | 0.34 (0.23) | 0.39 (0.25) |
| Mixed origin | 0.47 (0.13) *** | 0.52 (0.14) *** |
| 2nd gen Russian/Estonian | 0.66 (0.13) *** | 0.61 (0.14) *** |
| 1st gen Russian/Estonian | 0.41 (0.10) *** | 0.40 (0.10) *** |
| 2nd gen ex-Yugoslav | -0.59 (0.41) | -0.57 (0.42) |
| 1st gen ex-Yugoslav | 0.02 (0.24) | -0.01 (0.25) |
| 2nd gen European | 1.24 (0.43) ** | 1.09 (0.44) ** |
| 2nd gen West Asian/North African | 1.73 (0.27) *** | 1.83 (0.28) *** |
| 1st gen West Asian/North African | 1.42 (0.18) *** | 1.52 (0.19) *** |
| 2nd gen East Asian | 0.69 (0.24) ** | 0.69 (0.25) ** |
| 1st gen East Asian | 0.25 (0.30) | 0.23 (0.31) |
| 2nd gen Sub-Saharan African | 2.69 (0.31) *** | 2.76 (0.33) *** |
| 1st gen Sub-Saharan African | 1.18 (0.20) *** | 1.18 (0.22) *** |
| 2nd gen other and unknown | 1.03 (0.41) ** | 0.94 (0.44) ** |
| 1st gen other and unknown | 0.13 (0.26) | 0.09 (0.28) |
| Gender (female) | -0.01 (0.04) | -0.04 (0.04) |
| Average grade | 2.40 (0.03) *** | 2.54 (0.04) *** |
| Grades missing | -0.57 (0.14) *** | -0.69 (0.15) *** |
| Parental SES (Upper employees as reference) | | |
| Lower employees | -0.29 (0.06) *** | -0.24 (0.07) *** |
| Self-employed | -0.39 (0.08) *** | -0.29 (0.08) *** |
| Manual working | -0.66 (0.08) *** | -0.59 (0.08) *** |
| Outside labour force | -0.33 (0.10) *** | -0.26 (0.10) ** |
| Parental income (High as reference) | | |
| Medium | -0.27 (0.05) *** | -0.24 (0.05) *** |
| Low | -0.33 (0.06) *** | -0.31 (0.06) *** |
| Parental education (University degrees as reference) | | |
| Two low tertiary | -0.69 (0.11) *** | -0.58 (0.12) *** |
| One low tertiary | -1.11 (0.12) *** | -0.98 (0.12) *** |
| Vocational | -1.55 (0.12) *** | -1.40 (0.12) *** |
| Compulsory | -1.46 (0.13) *** | -1.33 (0.13) *** |
| Unknown | -1.67 (0.32) *** | -1.52 (0.34) *** |
| Constant (gpa 7.5) | 1.44 (0.11) *** | 1.20 (0.11) *** |
| Rho | | 0.10 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001$,
$N = 21,596$ at level 1 and 805 at level 2

Table D.6: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: effect of household composition and father's employment added

| | Model 7 | Model 8 | Model 9 |
|---|---|---|---|
| Ethnic origin (Finnish (Finnish) as reference) | | | |
| Finnish (Swedish) | -0.14 (0.05) ** | -0.10 (0.05) ** | -0.10 (0.05) ** |
| Finnish (other) | 0.32 (0.25) | 0.34 (0.25) | 0.34 (0.25) |
| Mixed origin | 0.70 (0.20) *** | 0.66 (0.20) *** | 0.66 (0.20) *** |
| 2nd gen Russian/Estonian | 0.79 (0.16) *** | 0.70 (0.17) *** | 0.68 (0.17) *** |
| 1st gen Russian/Estonian | 0.31 (0.13) ** | 0.20 (0.12) * | 0.17 (0.12) |
| 2nd gen ex-Yugoslav | -0.43 (0.43) | -0.69 (0.42) | -0.49 (0.42) |
| 1st gen ex-Yugoslav | 0.13 (0.27) | -0.13 (0.26) | -0.01 (0.27) |
| 2nd gen European | 1.50 (0.50) ** | 1.42 (0.51) ** | 1.46 (0.48) ** |
| 2nd gen West Asian/N African | 1.91 (0.31) *** | 1.70 (0.30) *** | 1.86 (0.31) *** |
| 1st gen West Asian/N African | 1.63 (0.20) *** | 1.40 (0.19) *** | 1.59 (0.19) *** |
| 2nd gen East Asian | 0.91 (0.27) *** | 0.66 (0.27) ** | 0.80 (0.27) ** |
| 1st gen East Asian | 0.31 (0.32) | 0.22 (0.32) | 0.27 (0.32) |
| 2nd gen Sub-Saharan African | 3.04 (0.36) *** | 2.69 (0.35) *** | 3.00 (0.37) *** |
| 1st gen Sub-Saharan African | 1.48 (0.22) *** | 1.20 (0.21) *** | 1.46 (0.22) *** |
| 2nd gen other and unknown | 1.12 (0.39) ** | 0.96 (0.38) ** | 1.02 (0.39) ** |
| 1st gen other and unknown | 0.14 (0.28) | 0.03 (0.27) | 0.08 (0.28) |
| Gender (female) | -0.03 (0.05) | -0.06 (0.05) | -0.06 (0.05) |
| Average grade | 2.48 (0.04) *** | 2.48 (0.04) *** | 2.49 (0.04) *** |
| Grades missing | -0.62 (0.10) *** | -0.64 (0.10) *** | -0.62 (0.10) *** |
| Parental SES (Upper employees as reference) | | | |
| Lower employees | -0.26 (0.07) *** | | |
| Self-employed | -0.23 (0.09) ** | | |
| Manual working | -0.63 (0.09) *** | | |
| Outside labour force | -0.25 (0.13) ** | | |
| Parental income (High as reference) | | | |
| Medium | -0.22 (0.06) *** | | |
| Low | -0.41 (0.08) *** | | |
| Parental education (University degrees as reference) | | | |
| Two low tertiary | -0.70 (0.14) *** | -0.82 (0.14) *** | -0.83 (0.14) *** |
| One low tertiary | -1.13 (0.14) *** | -1.43 (0.13) *** | -1.43 (0.14) *** |
| Vocational | -1.61 (0.14) *** | -2.08 (0.13) *** | -2.08 (0.13) *** |
| Compulsory | -1.58 (0.16) *** | -2.08 (0.15) *** | -2.07 (0.15) *** |
| Unknown | -1.96 (0.49) *** | -2.48 (0.44) *** | -2.30 (0.49) *** |
| Number of adults in household (Two as reference) | | | |
| One or fewer | -0.03 (0.06) | | -0.05 (0.06) |
| Number of children in household (1-3 as reference) | | | |
| Four or more | -0.46 (0.07) *** | | -0.50 (0.07) *** |
| None | -0.21 (0.23) | | -0.26 (0.22) |
| Father's labour force status (Employed as reference) | | | |
| Non-employed | 0.18 (0.07) ** | | |
| Constant (gpa 7.5) | 1.46 (0.13) *** | 1.36 (0.13) *** | 1.43 (0.13) *** |
| Log pseudolikelihood | -7994 | -8097 | -8062 |
| Pseudo R-squared | 0.46 | 0.45 | 0.45 |

$^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 21,596$

Table D.7: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: interactions of ethnic origin with average grades, parental resources and gender added

| | Model 10 | Model 11 | Model 12 |
|---|---|---|---|
| Collapsed ethnic origin (Finnish as reference) | | | |
| 2nd gen European | 0.55 (0.19) ** | 0.75 (0.47) + | 0.75 (0.47) + |
| 2nd gen non-European | 1.51 (0.15) *** | 2.48 (0.32) *** | 2.48 (0.32) *** |
| 1st generation | 0.61 (0.09) *** | 0.46 (0.29) + | 0.95 (0.38) ** |
| Gender (female) | -0.07 (0.05) | -0.07 (0.05) | -0.07 (0.05) |
| Average grade | 2.50 (0.04) *** | 2.51 (0.04) *** | 2.51 (0.04) *** |
| Average grade*2nd gen European | 0.42 (0.26) + | 0.40 (0.26) + | 0.40 (0.26) + |
| Average grade*2nd gen non-European | -1.03 (0.22) *** | -0.76 (0.27) ** | -0.76 (0.27) ** |
| Average grade*1st generation | -0.44 (0.16) ** | -0.36 (0.16) ** | -0.36 (0.16) ** |
| Grades missing | -0.54 (0.10) *** | -0.56 (0.10) *** | -0.56 (0.10) *** |
| Parental SES (Non-manual employees as reference) | | | |
| Self-employed | -0.15 (0.07) ** | -0.15 (0.07) ** | -0.15 (0.07) ** |
| Manual working | -0.47 (0.07) *** | -0.47 (0.07) *** | -0.47 (0.07) *** |
| Outside labour force | -0.01 (0.11) | -0.02 (0.11) | -0.02 (0.11) |
| Parental income (High as reference) | | | |
| Medium | -0.34 (0.05) *** | -0.34 (0.05) *** | -0.34 (0.05) *** |
| Low | -0.47 (0.07) *** | -0.47 (0.07) *** | -0.47 (0.07) *** |
| Parental education (At least general upper secondary as reference) | | | |
| Low (vocational or lower secondary) | -0.75 (0.05) *** | -0.75 (0.05) *** | -0.75 (0.05) *** |
| Unknown | -1.14 (0.43) ** | -1.25 (0.44) ** | -1.26 (0.44) ** |
| Low education*2nd gen European | 0.51 (0.27) * | 0.59 (0.28) ** | 0.59 (0.28) ** |
| Unknown ed*2nd gen European | 3.80 (0.82) *** | 3.67 (0.79) *** | 3.67 (0.79) *** |
| Ethnic origin (Finnish (Finnish) as reference) | | | |
| Finnish (Swedish) | | -0.09 (0.05) * | -0.09 (0.05) * |
| Finnish (other) | | 0.47 (0.25) * | 0.47 (0.25) * |
| Mixed origin | | 0.76 (0.20) *** | 0.76 (0.20) *** |
| 2nd gen Russian/Estonian | | -0.17 (0.45) | -0.17 (0.45) |
| 1st gen Russian/Estonian | | -0.01 (0.31) | -0.50 (0.39) |
| 2nd gen ex-Yugoslav | | -1.75 (0.61) ** | -1.75 (0.61) ** |
| 1st gen ex-Yugoslav | | -0.37 (0.36) | -1.27 (0.49) ** |
| 2nd gen European | | 0.42 (0.69) | 0.42 (0.69) |
| 2nd gen West Asian/N African | | -0.97 (0.39) ** | -0.97 (0.39) ** |
| 1st gen West Asian/N African | | 0.99 (0.34) ** | 0.50 (0.42) |
| 2nd gen East Asian | | -1.45 (0.41) *** | -1.46 (0.41) *** |
| 1st gen East Asian | | (dropped) | (dropped) |
| 2nd gen Sub-Saharan African | | (dropped) | (dropped) |
| 1st gen Sub-Saharan African | | 0.76 (0.36) ** | 0.27 (0.43) |
| 2nd gen other and unknown | | (dropped) | (dropped) |
| 1st gen other and unknown | | -0.22 (0.38) | -0.71 (0.45) + |
| 1st gen ex-Yugoslav*female | | | 0.84 (0.46) * |
| 1st gen East Asian*female | | | -0.99 (0.58) * |
| Constant (gpa 7.5) | 0.48 (0.04) *** | 0.47 (0.0)4 *** | 0.47 (0.04) *** |
| Log pseudolikelihood | -8126 | -8109 | -8109 |
| Pseudo R-squared | 0.45 | 0.45 | 0.45 |

$^{+}p < 0.15, ^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.001, N = 21,596$

Table D.8: Primary and secondary effects of parental socioeconomic status and education for choice of general schools

| | | Total effects | Bootstrap Std. Error | Primary/ Total | Bootstrap Std. Error |
|---|---|---|---|---|---|
| Finnish origin | Service vs. working | -1.32 | (0.04) | 0.57 | (0.02) |
| (N=18,748) | High education vs. low | -1.42 | (0.04) | 0.58 | (0.01) |
| | High ses vs. low | -1.80 | (0.04) | 0.58 | (0.01) |
| 2nd gen European | Service vs. working | -0.90 | (0.20) | 0.81 | (0.15) |
| (N=636) | High education vs. low | -1.05 | (0.19) | 0.69 | (0.11) |
| | High ses vs. low | -1.46 | (0.20) | 0.75 | (0.10) |
| Other children of | Service vs. working | -0.77 | (0.12) | 0.52 | (0.10) |
| immigrants | High education vs. low | -0.73 | (0.09) | 0.59 | (0.06) |
| (N=2,212) | High ses vs. low | -1.29 | (0.15) | 0.64 | (0.07) |

Table D.9: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: effect of citizenship

| | Model 13 | Model 14 | Model 15 |
|---|---|---|---|
| Citizenship (Finnish origin as reference) | | | |
| Short residence | -0.51 (0.07) *** | 0.08 (0.16) *** | 0.12 (0.17) |
| Long residence, Finnish citizenship | 0.14 (0.08) * | 0.37 (0.15) *** | 0.37 (0.15) *** |
| Long residence, other citizenship | -0.49 (0.08) *** | (dropped) | (dropped) |
| Collapsed ethnic origin (Finnish as reference) | | | |
| 2nd gen European | | 0.30 (0.22) | 0.47 (0.49) |
| 2nd gen non-European | | 1.20 (0.20) *** | 2.22 (0.34) *** |
| 1st generation | | 0.48 (0.16) ** | 0.74 (0.41) * |
| Gender (female) | | -0.07 (0.05) | -0.07 (0.05) |
| Average grade | | 2.50 (0.04) *** | 2.51 (0.04) *** |
| Average grade*2nd gen European | | 0.43 (0.27) + | 0.41 (0.27) + |
| Average grade*2nd gen non-European | | -1.04 (0.22) *** | -0.76 (0.27) ** |
| Average grade*1st generation | | -0.45 (0.16) ** | -0.36 (0.16) ** |
| Grades missing | | -0.54 (0.10) *** | -0.55 (0.10) *** |
| Parental SES (Non-manual employees as reference) | | | |
| Self-employed | | -0.15 (0.07) ** | -0.15 (0.07) ** |
| Manual working | | -0.47 (0.07) *** | -0.47 (0.07) *** |
| Outside labour force | | -0.01 (0.11) | -0.02 (0.11) |
| Parental income (High as reference) | | | |
| Medium | | -0.34 (0.05) *** | -0.34 (0.05) *** |
| Low | | -0.47 (0.07) *** | -0.47 (0.07) *** |
| Parental education (At least general upper secondary as reference) | | | |
| Low (vocational or lower secondary) | | -0.75 (0.05) *** | -0.75 (0.05) *** |
| Unknown | | -1.13 (0.43) ** | -1.25 (0.44) ** |
| Low education*2nd gen European | | 0.53 (0.27) * | 0.60 (0.28) ** |
| Unknown ed*2nd gen European | | 3.93 (0.79) *** | 3.84 (0.78) *** |
| Ethnic origin (Finnish (Finnish) as reference) | | | |
| Finnish (Swedish) | | | -0.09 (0.05) * |

Continued on next page

Table D.9: Logistic regression analyses of choice of general versus vocational upper secondary school, results as log odds: effect of citizenship (continued from previous page)

| | Model 13 | Model 14 | Model 15 |
|---|---|---|---|
| Finnish (other) | | | 0.46 (0.25) * |
| Mixed origin | | | 0.76 (0.20) *** |
| 2nd gen Russian/Estonian | | | -0.15 (0.44) |
| 1st gen Russian/Estonian | | | -0.42 (0.40) |
| 2nd gen ex-Yugoslav | | | -1.63 (0.61) ** |
| 1st gen ex-Yugoslav | | | -1.21 (0.49) ** |
| 2nd gen European | | | 0.43 (0.69) |
| 2nd gen West Asian/N African | | | -1.03 (0.38) ** |
| 1st gen West Asian/N African | | | 0.55 (0.42) |
| 2nd gen East Asian | | | -1.55 (0.40) *** |
| 1st gen East Asian | | | (dropped) |
| 2nd gen Sub-Saharan African | | | (dropped) |
| 1st gen Sub-Saharan African | | | 0.34 (0.44) |
| 2nd gen other and unknown | | | (dropped) |
| 1st gen other and unknown | | | -0.67 (0.46) + |
| 1st gen ex-Yugoslav*female | | | 0.86 (0.46) * |
| 1st gen East Asian*female | | | -1.00 (0.58) * |
| Constant (gpa 7.5) | 0.32 (0.02) *** | 0.48 (0.04) *** | 0.47 (0.04) *** |
| Log pseudolikelihood | -14689 | -8126 | -8108 |
| Pseudo R-squared | 0.00 | 0.45 | 0.45 |

$^{+}p < 0.15,^{*} p < 0.10,^{**} p < 0.05,^{***} p < 0.001, N = 21,596$

# Appendix E

# Information sheets and surveys for qualitative research

Information sheet to students in all schools (in Finnish with English translation)

Survey to students in first two schools (in Finnish with English translation)

Survey to students in third school (in Finnish with English translation)

Information sheet and survey to parents in all schools (in Finnish and English)

**Department of Sociology**
*University of Oxford*
*Manor Road*
*Oxford*
*OX1 3UQ*
*UK*

*Telephone: +44 1865 286170*

**Tutkimus nuorten koulutusvalinnoista**

Arvoisa yhdeksäsluokkalainen,

Teen tutkimusta nuorten toisen asteen koulutukseen hakemisesta Suomessa. Teen tutkimustani Oxfordin yliopiston Sosiologian laitoksella. Tutkimusta varten pyytäisin Sinua täyttämään oheisen kyselylomakkeen. Pyydän myös osaa kyselyyn vastanneista haastatteluihin alkukeväällä. Tutkimukseen osallistuminen on vapaaehtoista. Voit vetäytyä pois tutkimuksesta missä vaiheessa tahansa ilmoittamalla asiasta tutkijalle.

Kaikki tutkimuksen tiedot menevät vain tutkijan käyttöön ja yksittäisten oppilaiden vastaukset pysyvät ehdottoman luottamuksellisina. Niitä ei siis kerrota koululle. Tutkimuksen tulokset tulevat olemaan julkisia siten, että yksittäisiä oppilaita ei tunnisteta tuloksista. Lisätietoja tutkimuksesta ja siitä, mihin tiedot menevät voi kysyä tutkijalta Elina Kilveltä (elina.kilpi@sociology.ox.ac.uk tai xxx xxxxxxx).

Palauta kyselylomake vanhempiesi lupalapun kanssa opinto-ohjaajalle. Lupalapun ja kyselyn voi laittaa mukana tulleeseen kirjekuoreen, jotta vastaukset säilyvät luottamuksellisina.

Kiitos avustasi tutkimuksen onnistumisessa.

Elina Kilpi

ENGLISH TRANSLATION OF INFORMATION GIVEN TO STUDENTS

Educational choices of young people

Dear ninth grader,

I'm researching the secondary education application process of Finnish young people. I'm doing my research at the Department of Sociology in the University of Oxford. As part of the research I would like to ask You to fill in this survey. I will also be interviewing some of the people who have answered the survey in early spring. Taking part in the research is voluntary. You can withdraw from the research at any point by letting the researcher know.

All the information for the research will go only to the researcher and the answers of individual students will be kept absolutely confidential. This means that they will not be told to the school. The results of the research will be made public so that no individual student will be identifiable from the results. More information about the research and how the information will be used can be obtained from the researcher Elina Kilpi (contact information).

Please return this survey along with the permission slip from your parents to your educational adviser. You can return them in the envelope provided to ensure confidentiality.

Thank you for your help in the success of this research.

Elina Kilpi

**Tutkimus nuorten koulutusvalinnoista**

Nimi _____ Luokka _____

1. Mihin koulutukseen aiot hakea ensi vuodeksi? (Voit valita useamman eri vaihtoehdon)

- ☐ Varmasti lukioon
- ☐ Luultavasti lukioon
- ☐ Mahdollisesti lukioon

- ☐ Varmasti ammattikouluun
- ☐ Luultavasti ammattikouluun
- ☐ Mahdollisesti ammattikouluun

- ☐ Johonkin muuhun koulutukseen, mihin? _____

- ☐ En aio hakea mihinkään koulutukseen

- ☐ En tiedä vielä ollenkaan

2. Jos aiot hakea useampaan eri koulutukseen, mihin niistä haluaisit tällä hetkellä mieluiten?

_____

3. Mikä on tavoitteesi koulutuksen suhteen? (Voit laittaa useamman vaihtoehdon järjestyksessä)

- ☐ Yliopisto tai muu tiedekorkeakoulu
- ☐ Ammattikorkeakoulu
- ☐ Ei opintoja lukion tai ammattikoulun jälkeen
- ☐ Ei opintoja peruskoulun jälkeen
- ☐ Muu, mikä? _____
- ☐ En tiedä vielä

4. Mikä oli keskiarvosi viimeksi saamassasi todistuksessa? (Kirjoita yhden desimaalin tarkkuudella, esimerkiksi 7,9)

Kaikkien aineiden keskiarvo: _____ Lukuaineiden keskiarvo: _____

5. Missä maassa olet syntynyt? _____

Jos et ole syntynyt Suomessa, minkä ikäisenä muutit Suomeen? _____

KIITOS OSALLISTUMISESTASI!
Palauta tämä kysely vanhempien lupalapun kanssa opolle.

ENGLISH TRANSLATION OF SURVEY FOR STUDENTS IN FIRST TWO SCHOOLS (before applications were submitted)

1. What education/training will you be applying to for next year? (You can choose multiple options)

- ☐ For certain to general upper secondary school
- ☐ Probably to general upper secondary school
- ☐ Possibly to general upper secondary school

- ☐ For certain to vocational school
- ☐ Probably to vocational school
- ☐ Possibly to vocational school

- ☐ To some other education/training, what? _____

- ☐ I won't be applying to any education or training

- ☐ I don't know at all yet

2. If you're thinking of applying to several types of education, what is your primary choice currently? _____

3. What is your goal with regards to education? (You can place several options in order)

- ☐ University
- ☐ Polytechnic/University of Applied Sciences
- ☐ No further education after upper secondary school
- ☐ No further education after compulsory school
- ☐ Other, what?_____
- ☐ I don't know yet

4. What was your average grade in your latest report?
Average overall grade _____ Average grade for non-vocational subjects: ____

5. What country were you born in? _____
If you were not born in Finland, what age were you when you moved to Finland? ___

**Tutkimus nuorten koulutusvalinnoista**

Nimi _____ Luokka _____

1. Mihin koulutukseen olet hakenut ensi vuodeksi?

Yhteishaussa:

1. _____
2. _____
3. _____
4. _____
5. _____

Yhteishaun ulkopuolella: _____

☐ En aio hakea mihinkään koulutukseen

2. Mikä on tavoitteesi koulutuksen suhteen? (Voit laittaa useamman vaihtoehdon järjestyksessä)

☐ Yliopisto tai muu tiedekorkeakoulu
☐ Ammattikorkeakoulu
☐ Ei opintoja lukion tai ammattikoulun jälkeen
☐ Ei opintoja peruskoulun jälkeen
☐ Muu, mikä? _____
☐ En tiedä vielä

3. Mikä oli keskiarvosi viimeksi saamassasi todistuksessa? (Kirjoita yhden desimaalin tarkkuudella, esimerkiksi 7,9)

Kaikkien aineiden keskiarvo: _____ Lukuaineiden keskiarvo: _____

4. Missä maassa olet syntynyt? _____

Jos et ole syntynyt Suomessa, minkä ikäisenä muutit Suomeen? _____

KIITOS OSALLISTUMISESTASI!
Palauta tämä kysely vanhempien lupalapun kanssa luokanvalvojalle.

ENGLISH TRANSLATION OF SURVEY FOR STUDENTS IN THIRD SCHOOL
(after applications were submitted)

1. What education/training have you applied to for next year?

In the common application process

1. ___
2. ___
3. ___
4. ___
5. ___

Outside the common application process: _____

☐ I won't be applying to any education or training

2. What is your goal with regards to education? (You can place several options in order)

- ☐ University
- ☐ Polytechnic/University of Applied Sciences
- ☐ No further education after upper secondary school
- ☐ No further education after compulsory school
- ☐ Other, what?_____
- ☐ I don't know yet

3. What was your average grade in your latest report?
Average overall grade _____ Average grade for non-vocational subjects: ____

4. What country were you born in? _____
If you were not born in Finland, what age were you when you moved to Finland? ___

**Department of Sociology**
*University of Oxford*
*Manor Road*
*Oxford*
*OX1 3UQ*
*UK*

*Telephone: +44 1865 286170*
*Email: assistant@sociology.ox.ac.uk*

**Tutkimus nuorten koulutusvalinnoista**

Arvoisa vanhempi,

Lapsenne koulu osallistuu tutkimukseen nuorten toisen asteen koulutukseen hakemisesta. Tutkimus on osa väitöskirjaani, jota teen Oxfordin yliopiston Sosiologian laitoksella Englannissa. Tutkimustani rahoittaa Britanniasta Economic and Social Research Council sekä Suomesta Koneen Säätiö. Tutkimuksen on hyväksynyt Oxfordin yliopisto sekä Vantaan kaupungin Sivistystoimi.

Väitöskirjassani tutkin nuorten koulumenestystä ja toisen asteen koulutukseen hakua, erityisesti maahanmuuttajataustaisten ja kantaväestöön kuuluvien nuorten eroja.

Pyydän nyt lupaa, että lapsenne saisi osallistua tutkimukseen. Siksi pyytäisin teitä täyttämään lupalapun sekä vastaamaan muutamaan taustakysymykseen. Olen myös pyytänyt oppilaita vastaamaan lyhyeen kyselyyn, joka palautetaan yhdessä lupalapun kanssa. Alkukeväällä teen haastatteluja, joihin pyydän osaa luvan saaneista oppilaista. Haastattelut nauhoitetaan, jos oppilas antaa siihen luvan.

Tutkimukseen osallistuminen on vapaaehtoista sekä vanhempien että oppilaiden osalta. Oppilaat voivat osallistua vain vanhempiensa luvalla. Oppilaat ja vanhemmat voivat halutessaan vetäytyä tutkimuksesta milloin tahansa ilmoittamalla asiasta minulle.

Kaikki tutkimuksen tiedot ja aineistot menevät vain tutkijan käyttöön ja yksittäisten oppilaiden vastaukset pysyvät ehdottoman luottamuksellisina. Niitä ei siis kerrota koululle. Tutkimuksen tulokset tulevat olemaan julkisia siten, että yksittäisiä oppilaita ei tunnisteta tuloksista. Vastaan mielelläni kysymyksiin tutkimuksesta yleisesti ja siitä mihin tiedot menevät. Yhteystietoni löytyvät alta.

Lupalappu ja oppilaiden kysely tulee palauttaa opinto-ohjaajalle. Ne voi laittaa mukana tulleeseen kirjekuoreen, jotta vastaukset säilyvät luottamuksellisina.

Kiitos avustanne,

Elina Kilpi

Sosiologian laitos, Oxfordin yliopisto, Englanti
Sähköposti: elina.kilpi@sociology.ox.ac.uk Puhelin: xxx xxxxxxx

**Department of Sociology**
*University of Oxford*
*Manor Road*
*Oxford*
*OX1 3UQ*
*UK*

*Telephone: +44 1865 286170*
*Email: assistant@sociology.ox.ac.uk*

**Educational choices of young people**

Dear parent,

Your child's school is taking part in research looking at the secondary education applications of young people in Finland. The research is part of my doctoral thesis that I am preparing at the Sociology Department of the University of Oxford in England. My research is funded from Britain by the Economic and Social Research Council and from Finland by the Kone Foundation. My research plan has been approved by the University of Oxford and the City of Vantaa.

My doctoral research is about the school performance and continuation in upper secondary education of young people with an immigrant background and those from the majority population.

I am now asking for permission for your child to take part in the research. Therefore, I would like to ask you to fill in the permission slip and to answer a few questions. I have also asked students to answer a short questionnaire that should be returned with the permission slip. I will be interviewing some of the students who have received permission in early spring. The interviews will be recorded if the student agrees.

Taking part in the research is voluntary for both parents and students. Students can only take part if they have permission from their parents. Parents and students can withdraw from the research at any point if they want to by letting me know.

All the information from the research will go only to the researcher and the answers of individual students will be kept absolutely confidential. This means that they will not be told to the school. The results of the research will be made public so that no individual student will be identifiable from the results. If you have any questions about the research in general or how the collected information will be used, please do not hesitate to contact me. My contact details can be found below.

The permission slip and the students' questionnaire should be returned to the school's educational adviser (*opinto-ohjaaja*). They can be returned in the envelope provided to ensure confidentiality.

Thank you for your cooperation.

Elina Kilpi

Department of Sociology, University of Oxford, England
E-mail: elina.kilpi@sociology.ox.ac.uk Mobile phone: xxx xxxxxxx

**Tutkimus nuorten koulutusvalinnoista – Vanhempien kysely ja osallistumislupa**

Lupa osallistua tutkimukseen: Annan lapselleni luvan osallistua tutkimukseen koulutusvalinnoista

☐ Kyllä
☐ Ei

Vanhemman allekirjoitus _____

Oppilaan nimi _____ Luokka _____

**Taustakysymyksiä vanhemmille**

Vastatkaa niiden vanhempien osalta, joiden kanssa lapsi asuu tai joihin hän on usein yhteydessä.

1. Mikä on koulutuksenne?

| **Yleiskoulutus** | **Äiti** | **Isä** |
|---|---|---|
| Peruskoulu tai vähemmän (0-9 vuotta koulua) | ____ | ____ |
| Ylioppilas (noin 12 vuotta koulua) | ____ | ____ |

| **Ammatillinen koulutus** | **Äiti** | **Isä** |
|---|---|---|
| Ammattikoulu tai opisto | ____ | ____ |
| Korkeakoulu tai yliopisto | ____ | ____ |

2. Mikä on ammattinne?

Äidin ammatti: _____

Isä ammatti: _____

3. Missä maassa olette syntynyt?

Äidin syntymämaa: _____

Isän syntymämaa: _____

4. Minkälaisen koulutuksen haluaisitte lapsenne hankkivan?

☐ Yliopisto tai muu tiedekorkeakoulu
☐ Ammattikorkeakoulu
☐ Lukio
☐ Ammattikoulu
☐ Ei opintoja peruskoulun jälkeen
☐ Muu, mikä? _____
☐ En tiedä vielä

KIITOS VASTAUKSISTANNE!

**Educational choices of young people – Parental questionnaire and permission slip**

Permission for child to take part in research: I give my child permission to take part in the research about educational choices

☐ Yes
☐ No

Parent's signature _____

Student's name _____ Class _____

**Questions for parents**

Please reply for parents who live with the child or who the child has regular contact with.

1. What is your education?

| **General education** | **Mother** | **Father** |
|---|---|---|
| Comprehensive school or less (0-9 years) | _____ | _____ |
| General upper secondary education (about 12 years) | _____ | _____ |

| **Vocational education** | **Mother** | **Father** |
|---|---|---|
| Vocational school or institute | _____ | _____ |
| University | _____ | _____ |

2. What is your occupation?

Mother's occupation: _____

Father's occupation: _____

3. What country were you born in?

Mother's country of birth: _____

Father's country of birth: _____

4. What education would you like your child to get?

☐ University
☐ Polytechnic/University of Applied Sciences
☐ General upper secondary school (*lukio*)
☐ Vocational upper secondary school (*ammattikoulu*)
☐ No further education after comprehensive school
☐ Other, what?_____
☐ I don't have any preferences

THANK YOU FOR YOUR ANSWERS!

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