Chapter 1. Austria: Intergenerational mobility among children of immigrants

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This chapter examines the intergenerational socio-economic mobility of immigrants' offspring in Austria, and shows how the transmission from parents to their children differs between native parents and immigrant parents. The analysis focuses on children of Yugoslav and Turkish descent, since these two groups comprise the largest set of immigrants' children in Austria. Besides offering information on the main characteristics of the Austrian immigration system and some historical and institutional information, it presents empirical findings on the educational attainment of immigrants' offspring using EU-SILC data. The Austrian preschool system is identified in view of its strong relevance in determining one's educational path, and results are presented on the role parents' education plays in deciding which education route the children are likely to take. A concluding section summarises the three strongly interlinked "dividing lines" that greatly hinder the upward mobility of the native children of immigrants, and notes a striking contrast between those of Yugoslav and Turkish descent.

Note by Turkey:
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Main findings

- Austria has a longstanding presence of immigrants, with important influences coming from the recruitment of so-called "guest workers" during the post-War economic boom, the dissolution of the former Yugoslavia, and Austria's accession to the European Union (EU). Today the largest group of immigrants in Austria comes from Germany.
- This chapter focuses on the intergenerational transmission of educational outcomes and school-to-work transition of persons whose parents immigrated from the former Yugoslavia and Turkey.
- The results reveal important differences between the children of natives and those of Turkish and Yugoslav immigrants: Not only do those from Turkey and the former Yugoslavia achieve lower levels of education, but their children are also less likely than other groups to be upwardly mobile and achieve a higher level of education than their parents. 77% of the children of natives move upward if their parents have only compulsory education, compared to only 51% among the offspring of immigrants.
- While the sons of immigrants (both Turkish and Yugoslav) are *more* likely to obtain a higher level of education compared to their parents than natives' sons, the daughters of immigrants are *less* likely than the daughters of native-born parents to be upwardly mobile. 63% of daughters of native-born parents compared to only 46% of the daughters of immigrants obtain a higher level of education than their mothers. The greater upward mobility of immigrants' children is thus largely driven by sons. It is not entirely clear what causes this gender gap but the better accessibility for boys in entering vocational training (which represents an important opportunity to climb the social ladder), families' investment choices and gender role norms are part of the story.
- In the thirty years between 1981 and 2011, chances of attending an academic-stream education at the age of 12 decreased for pupils holding Turkish citizenship. The gap to pupils holding Austrian citizenship thereby increased from -57% to -62%.
- The probability of achieving an apprenticeship certificate is 61% for those of native descent if the highest level of their parents' education is at most compulsory schooling, compared to just 37% among the native children of immigrants. The mobility gap has narrowed across birth cohorts, but persists and remains sizeable.
- Three "dividing lines" largely account for the different mobility patterns between children of immigrants and natives' children. The first is the participation rate in preschool education. In 2011, children whose parents were born outside of the EU were six times less likely to attend preschool than children whose parents were born in Austria (13% and 79% respectively). However, the former group's participation rate has increased during the past two decades, both in absolute terms and relative to those with native-born parents.
- A second "dividing line" appears around the age of 10, when pupils (and their parents) have to decide whether they will attend a (less prestigious) lower secondary school or a (more prestigious) secondary school with an academic

focus. In 2011, students holding Turkish citizenship were 68% less likely to attend an academic secondary school than students holding Austrian citizenship. The gap for students holding a citizenship from the former Yugoslavia was 44%.

- The third "dividing line" comes around the age of 15, when pupils finish compulsory schooling and have to decide whether to join the labour force, move to vocational education, or continue with academic secondary education. The chances of joining college, which prepares students for university, were almost four times higher for Austrian students than for Turkish students in 2015/16, and still more than two times higher than for students holding a citizenship from a former Yugoslav country.

Introduction

The purpose of this chapter is to compare the intergenerational mobility of natives' and immigrants' children in Austria. The focus is on educational mobility as opposed to, say, income mobility or mobility in accessing the labour market, for two reasons. First, the data on education (and educational mobility) are not just more readily available, but also more reliable. Second, education is an excellent proxy for later income and social class, so it is perhaps the most comprehensive measure to study social mobility.

The report is structured as follows. It first provides a brief summary of an international study on intergenerational educational mobility for natives and immigrants, to furnish a helpful context for understanding mobility. The main point in this section is that in many European countries, intergenerational educational mobility is higher for the native children of immigrants than for offspring of native descent, because immigrant parents have lower levels of education and thus present a lower threshold for their descendants to pass in order to be upwardly mobile. The chapter then presents the main characteristics of the Austrian immigration system. This section also provides some historical and institutional information that is essential for a proper grasp of the empirical findings regarding immigrants and their children in Austria. The following section offers empirical findings on intergenerational educational mobility for children of immigrants and of natives. Here the focus is placed on native-born children of Yugoslav and Turkish descent, who together comprise the largest share of immigrant offspring in Austria. Another focal point of this section is the preschool system, which seems to be of strong relevance for one's educational path. It is followed be a section that looks at some results on the choice of schooling by parents' education, and notes a striking contrast between those of Yugoslav and Turkish descent. A final section summarises and concludes.

Overall context: Differences in intergenerational educational mobility for eleven European countries

How does intergenerational educational mobility differ by migration background within Europe? A recent paper studies this question for the children of native-born versus immigrant parents in eleven European countries.[1] Consistent with the existing academic literature on the topic, authors Oberdabernig and Schneebaum (2017) find that overall, the children of immigrants have *higher* rates of intergenerational mobility – in other words, this group is more likely than natives' children to have more education than their parents. (In this case, there are four classes of education – illiterate; ISCED 0-2; ISCED 3-4; and ISCED 5-6; upward mobility means that the descendant's educational class is at least one higher than the parents'.) A main finding in this chapter is that this

higher mobility of the offspring of immigrants is in very large part driven by the fact that immigrant parents have, on average, lower education than native parents. Thus, their children need to attain less education than the children of natives in order to be considered upwardly mobile.

Oberdabernig and Schneebaum (2017) show that the children of immigrants, as well as the children of natives in all countries, have a fairly high probability of achieving greater education than their parents. In the United Kingdom for example, there is a probability of over 90% that the children of at least one immigrant parent who does not have the highest educational class will be upwardly mobile (children of parents who already have the highest education class cannot be upwardly mobile, by definition). This means that more than 90% of the children of immigrants in the United Kingdom have higher education than their parents. These rates of upward mobility for immigrant offspring are also very high in France (82%), Belgium (71%), and the Czech Republic (69%). Of the 11 countries studied, the only ones in which the rates are lower than 50% are Austria, Estonia and Latvia.

The probability that children of native-born parents will have higher educational attainment than their parents is also fairly high. In France for example, 77% of natives' children achieve higher education than their parents, as do 72% of natives' children in the United Kingdom and 66% in the Czech Republic. The lowest rates of upward mobility for natives' children are in Switzerland (38%) and in Germany (40%). Thus, upward intergenerational educational mobility is fairly high, regardless of a person's migration background. In the United Kingdom, France and the Czech Republic, the rates of mobility for both groups was among the highest, while they were lowest in Austria (47% for native children of immigrants and 44% for natives' children), Germany (54% and 40%, respectively), and Luxembourg (59% and 40%, respectively). These findings raise the question: how does the mobility gap differ across countries? Do the offspring of immigrants and of natives have similar probabilities of upward mobility across countries?

In all but two of the eleven European countries analysed, the children of immigrants were more likely than the children of native-born parents to achieve a higher level of education than their parents. However, rates of upward mobility by migration background do indeed differ dramatically by country. Oberdabernig & Schneebaum (2017) calculate so-called mobility gaps, which measure the difference in the probability of immigrants' offspring having more education than their parents versus the probability of natives' children having further education than their parents. The largest of these gaps were in Switzerland, the United Kingdom, Luxembourg and Germany. Switzerland had the biggest mobility gap: there, 62% of children of immigrants were upwardly mobile, compared to 38% of natives' children. The children of immigrants are thus 24 percentage points more likely than the children of natives to be upwardly mobile. In the United Kingdom and in Luxembourg the mobility gap is also high at 19 percentage points each, while the gap is 14 percentage points in Germany. In Belgium and France, there is also a large and statistically significant mobility gap favouring immigrants' children**.** In three countries – Austria, the Czech Republic and Croatia – while the children of immigrants have higher rates of upward mobility than natives (i.e. have a positive mobility gap), this gap is not large enough to be statistically significant.

There are two countries in the study in which the children of natives were more likely to be upwardly mobile than the children of immigrants: Croatia and Latvia. Of these two countries, the mobility gap is statistically significant only in Latvia: six percentage points in favour of natives' children.

Thus for most countries, the chances that an immigrant's child will be more highly educated than the parent are high, and often greater than the probability of this being true for natives' children. An interesting aspect of Oberdabernig and Schneebaum's (2017) paper is that the authors investigate which personal- and household-level characteristics are related to the probability of upward mobility for the two groups, and which of those characteristics may be driving the mobility gap. The authors thus study how, for example, the number of siblings, the economic circumstances of the household in which one grew up, the age of the parents when the respondent was born and the age difference between the parents are related to the chances of upward mobility across countries. As mentioned above, in almost all countries, by far the most important characteristic related to the fact that immigrants' children were more likely to be upwardly mobile than natives' children is the education level of the immigrant parents being lower than the education level of the native parents. In other words, the children of immigrants had a lower threshold to surpass in order to attain more education than their parents. Details of the results for Austria are discussed below.

General characteristics of immigrants in Austria

Immigrants by countries of origin

Since immigrants in Austria are a rather heterogeneous group of people in terms of their country of origin and the reason and time that they came to Austria, this section begins with a few general features before discussing the issue of intergenerational mobility in more detail.

Austria has a long history of immigration. The first migration movement started during the 1960s and 1970s, when the economy suffered from severe labour shortages due to the booming economy. At that time, the Austrian Economic Chamber established labour recruitment centres in Turkey and the former Yugoslavia. That marked the beginning of the *Gastarbeiter* (guest worker) policy. During the first years of this period only male employees were recruited on a temporary basis. Quickly however, the project changed, introducing permanent employment contracts; family reunification ensued.

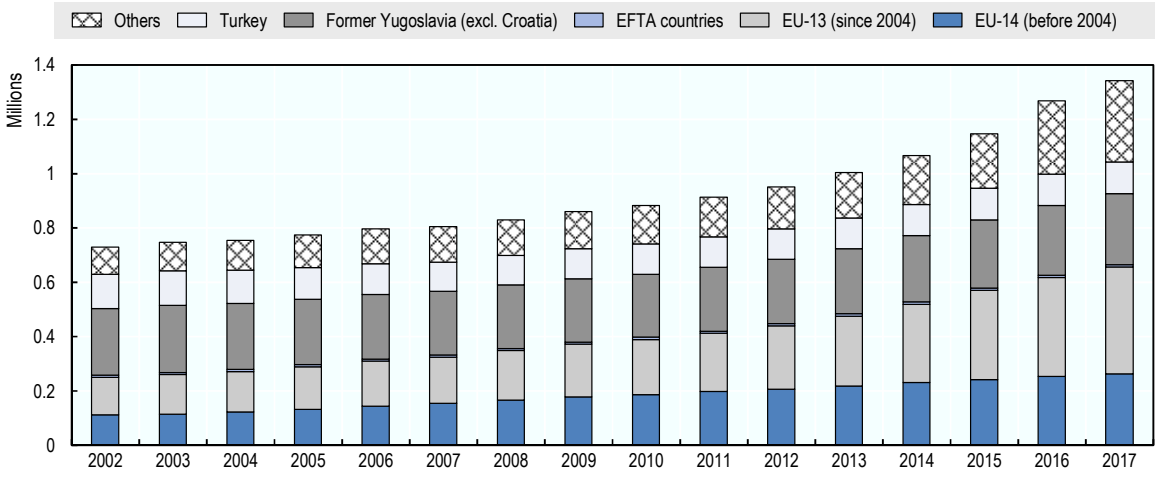
While the strong inflow of immigrants during the early 1990s was caused by civil war in the former Yugoslavia, the pattern of immigration into Austria changed considerably due to the enlargement of the European Union in 2004 and 2007.

The number of people in Austria without Austrian citizenship (foreigners) increased from 730 000 (2002) to 1 345 000 in 2017[2] (for more details see Annex Table 1.A.1). The share of foreigners thus increased from 9.1% to 15.1%. Since the focus of this chapter are immigrants, it is useful to take a closer look at the structural features of migration, beginning with the citizenship (Figure 1.1) using available data for the period 2002-17 (Statistik-Austria, 2017a).

For this period four important changes can be observed. First, the number of foreigners from the "old" EU (EU-14) increased from 15.2% to 19.6%. The largest group were Germans, numbering over 180 000 in 2017. Second, after the enlargements of the EU in 2004 and 2007, the stock of foreigners from the "new" EU increased from 140 000 to 392 000 (or from 19.1% to 29.3%).[3] Third, although in absolute terms the number of foreigners from the former Yugoslavia (excluding Croatia) and Turkey remained nearly constant (roughly at 375 000), their share of total foreigners in Austria decreased, from 50.9% to 28.2%. Hence the population of guest workers from the 1960s greatly diminished.[4] Fourth, the number of foreigners with citizenship from other countries

increased threefold, from 100 000 (2002) to 300 000 (2017). These foreigners are frequently refugees from Afghanistan, Syria, Iraq and Iran, who mainly came to Austria in 2015 and 2016.

Figure 1.1. Stock of foreigners by citizenship, Austria, 2002-17

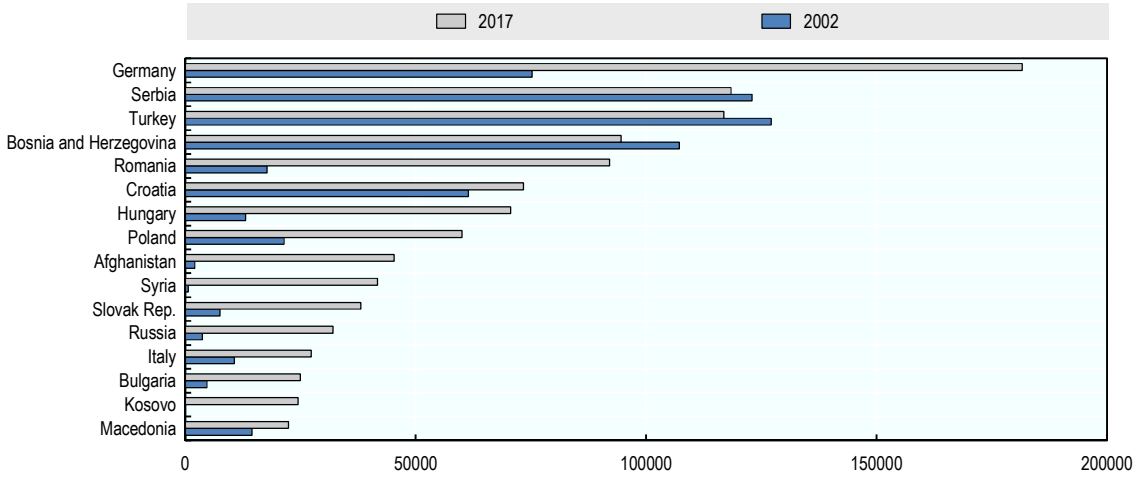


Note: The EU14 (before 2004) comprises the following 14 countries: Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom. The EU13 (since 2004) comprises the following 13 countries: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia.
Source: Statistik-Austria, 2017a; authors' own calculations.

Figure 1.2 presents the numbers of foreigners for 2002 and 2017 from the 12 predominant countries of origin. The figure shows the strong increase of Germans; the stagnation of foreigners from Serbia, Turkey, Bosnia and Herzegovina, and Croatia; the strong increase of most of the new EU member countries Romania, Hungary, Poland, the Slovak Republic and Bulgaria;[5] and the strong increase of foreigners from Afghanistan and Syria.

This general division by four clusters of countries (EU-14, EU-13, the former Yugoslavia and Turkey, and "Others") is of importance, since the characteristics of these four groups of foreigners differ from each other.

Figure 1.2. Foreigners by citizenship, Austria, 2002 and 2017



Source: Statistik-Austria, 2017a; authors' own calculations.

For comparison, Table 1.1 also presents the figures for "persons with an immigration background", i.e. immigrants or native-born offspring of immigrants. Native offspring is defined as persons who were born in Austria and have parents that were both born abroad (UNECE, 2015, p. 136). The term "immigration background" pays no attention to citizenship, whether foreign or native.

Table 1.1. Population with migration background, Austria, 2008-16

	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Thousands								
Total	8 210.7	8 229.3	8 245.5	8 269.2	8 302.9	8 350.2	8 415.1	8 491.0	8 599.2
Without immigration background	6 784.3	6 769.9	6 717.3	6 721.2	6 739.8	6 727.8	6 700.5	6 678.1	6 701.1
With immigration background	1 426.4	1 459.4	1 528.2	1 548.0	1 563.0	1 622.4	1 714.6	1 812.9	1 898.0
Immigrants	1 063.1	1 072.9	1 123.9	1 132.0	1 151.2	1 192.8	1 254.4	1 334.3	1 414.9
Native offspring of immigrants	363.3	386.5	404.4	416.0	411.9	429.5	460.2	478.7	483.1
	Percentages								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Without immigration background	82.6	82.3	81.5	81.3	81.2	80.6	79.6	78.6	77.9
With immigration background	17.4	17.7	18.5	18.7	18.8	19.4	20.4	21.4	22.1
Immigrants	74.5	73.5	73.5	73.1	73.6	73.5	73.2	73.6	74.5
Native offspring of immigrants	25.5	26.5	26.5	26.9	26.4	26.5	26.8	26.4	25.5

Note: "Immigration background" refers to both immigrants and the native-born offspring of immigrants.
Source: Statistik-Austria, 2016a.

While the share of persons with an immigration background in 2016 was 22.1%, the share of persons with foreign citizenship was just 14.6% (see Annex Table 1.A.1). This difference is due to the naturalisation of persons with an immigration background. Further, it can be seen that in 2016, three-quarters of people with an immigration background were born abroad (immigrants) while only one-quarter were themselves born in Austria. Since the subject here is intergenerational mobility, the chapter will focus in

particular on persons who were born and raised in Austria, as these people theoretically had the same access to education as those with native-born parents.

The composition of the children of immigrants in terms of country of origin is displayed in Table 1.2. It can be seen that only one-quarter of people with an immigration background were born in Austria. However, these shares differ a great deal by countries of origin. High shares of immigrants' offspring show up in families from the former Yugoslavia (30.0%) and in particular from Turkey (43.2%). In contrast, a very low share of immigrants' offspring is from the EU-14.

Table 1.2. Countries of origin of the population with a migration background, Austria, 2015

	Total	Immigrants	Children of immigrants	Children of immigrants (% of total)	Children of immigrants by regions
With immigration background	1 813	1 334	479	26.4%	100.0%
EU-14, Switzerland, Norway	253	223	30	11.9%	6.3%
EU-Enlargement 2004	251	197	54	21.5%	11.3%
EU-Enlargement 2007	198	149	49	24.7%	10.2%
Former Yugoslavia	513	359	154	30.0%	32.2%
Turkey	273	155	118	43.2%	24.6%
Others	324	250	74	22.8%	15.4%

Note: Immigration background means that both parents have been born abroad. Roughly 40% of these people do have already Austrian citizenship (see Statistik Austria 2016b, p.22).
Source: Statistik-Austria, 2016a, p. 27.

To study the patterns of intergenerational mobility of immigrants more closely, the focus needs to be on older cohorts. Such older cohorts can be found only in *Gastarbeiter* families, who migrated during the 1960s and 1970s. Hence the following part of the chapter centres mainly on the children of immigrants from the former Yugoslavia and Turkey. They account for 32.2% and 24.6% of all children of immigrants, respectively.[6]

Migrants by level of education

Table 1.3 presents the level of education for immigrants and their native-born offspring in comparison to natives. Of all adults, 23.6% (1.12 million people) have a migration background, and of that group, only 9.6% (107 000 people) were born in Austria with two foreign-born parents. Persons who immigrated themselves are far more numerous than the native-born offspring of immigrants.

As established earlier, the chapter distinguishes between four different levels of education. Although on average the level of education is very similar between natives and immigrants, there are considerable differences across immigrant sub-groups. People with an immigration background from the former Yugoslavia and in particular from Turkey have strikingly low levels of education. In contrast, immigrants from the EU-14 exhibit rather high levels and have a remarkably large share of people with tertiary education.

The comparison of immigrants and their native Austrian offspring by level of education is surprising, in that the latter group has a slightly lower level of education. One explanation

for that unexpected pattern may be that a large share of immigrants – mainly from the EU-14 – has tertiary qualification. Further, the offspring of immigrants have much higher shares of ISCED 3-education, an indicator that they have good access to apprenticeship training.

Table 1.3. Level of education for native-born adults, immigrants, and the native-born offspring of immigrants, aged 15 to 65, 2015

	Numbers (thousands)	ISCED 0-2 (percentages)	ISCED 3 (percentages)	ISCED 3-4 (percentages)	ISCED 5-6 (percentages)	Average level of ISCED education
Total population	4 747	14.4	52.2	15.9	17.5	2.37
Without immigration background	3 628	10.8	57.4	15.2	16.6	2.38
With immigration background (immigrants + native offspring)	1 119	26.0	35.5	18.2	20.3	2.33
Immigrants	1 012	26.9	33.7	18.5	20.9	2.33
Immigrants' offspring	107	18.2	51.7	15.3	14.9	2.27

Source: Statistik-Austria, 2016b, p. 51.
Note: Immigration background means that both parents have been born abroad. Roughly 40% of these people do have already Austrian citizenship (see Statistik Austria 2016b, p.22).

Table 1.4 takes a closer look at the different types of schools chosen by pupils with foreign citizenship. There is no information on the country of birth here, so only citizenship is considered in this section. The table distinguishes between nine different types of schools. Primary school takes four years and starts at age six (*Volksschule*); lower secondary school takes equally four years and follows at the age of ten. A number of different schools are available for lower secondary school but the most important distinction is between the academically oriented college (*AHS Unterstufe*) and the less prestigious schools including basic secondary schools (*Hauptschule*) and the new secondary school (*Neue Mittelschule)*. Following a recent educational reform, all lower secondary schools (*Hauptschule*) will shortly be transformed into new secondary schools (*Neue Mittelschule*). Special schools (*Sonderschulen*) are for disadvantaged pupils, while polytechnic education lasts for just one year and follows lower secondary education at the age of 14. This is the ninth mandatory school year and is attended in particular by those pupils who will continue with an apprenticeship. The three vocational schools listed (to the right of colleges) begin at the age of 15. However, only the vocational college is equal to a university-geared education. Importantly, only completion of the academic secondary school or the vocational college qualifies students to study at university. The rates of attendance at these schools differ dramatically by migration background, as well as by the country of origin for students with a migration background.

Table 1.4 reveals a first "dividing line" in the Austrian educational system which occurs around the age of 10. Compared to students holding Austrian citizenship, pupils with citizenship from the former Yugoslavia and Turkey have comparatively high enrolment rates at the less prestigious secondary schools, namely the new secondary school (*Neue Mittelschule*), and much lower enrolment rates at the academically-oriented college (*AHS Unterstufe*). Furthermore, their rates of enrolment in special needs schools (*Sonderschule*) are high. The second "dividing line" appears around the age of 15 when students choose whether to pursue upper secondary school in college that prepares them for university (*AHS Oberstufe*), or to enrol in a polytechnic school. Table 1.4 shows that the share of students with a Turkish or former Yugoslav citizenship enrolling in polytechnic school is

two times higher than that of students with Austrian citizenship. Once students have chosen to attend a polytechnic school, and thus to pursue an apprenticeship education, it is nearly impossible to later get a qualification that would allow them to enter university. As can clearly be seen, both dividing lines separate pupils from the former Yugoslavia and Turkey from native pupils in terms of educational path.

Table 1.4. Pupils/students by citizenship, gender and types of school, aged six to 18, 2015/16

	Primary school	Basic secondary (*Hauptschule*)	New secondary school (*Neue Mittelschule*)	Special needs school	Polytechnic	College (lower and upper academic secondary school)	Vocational school I	Vocational school II	Vocational college
					Males, percentages				
Austria	29.2	2.6	16.2	1.5	1.7	17.3	14.2	4.6	12.7
Turkey	34.7	2.6	25.0	3.6	3.3	4.8	13.9	5.1	6.9
Former Yugoslavia	34.3	2.6	22.5	3.7	3.2	7.8	12.9	4.5	8.5
Slovak Republic	47.3	2.7	17.7	2.2	2.0	13.1	6.1	2.1	6.8
Hungary	42.5	2.0	22.1	1.4	1.8	13.7	6.2	2.8	7.5
Czech Republic	37.4	3.9	13.4	1.5	1.4	15.6	5.3	8.7	12.8
Poland	41.3	2.1	16.4	1.2	1.7	17.1	7.3	4.3	8.5
Italy	32.7	1.1	12.3	0.7	0.9	24.5	15.4	3.6	8.6
United States	27.8	1.7	18.6	2.1	2.2	25.1	10.7	3.9	7.9
Germany	30.3	1.7	12.1	2.1	1.2	25.4	13.4	4.6	9.1
					Females, percentages				
Austria	29.6	2.7	15.7	0.8	1.0	22.1	7.8	5.0	15.3
Turkey	34.6	2.6	25.4	2.7	2.6	9.1	7.5	6.8	8.7
Former Yugoslavia	32.5	2.5	22.0	2.4	2.4	12.1	8.1	6.2	11.9
Slovak Republic	41.7	3.3	16.3	1.0	1.7	19.0	3.8	5.2	7.9
Hungary	41.1	2.2	19.2	0.8	1.5	16.1	4.3	3.8	11.0
Czech Republic	32.2	2.1	10.7	0.9	0.9	16.2	2.3	12.9	22.0
Poland	43.1	1.4	13.1	0.6	0.8	23.4	4.2	3.9	9.3
Italy	33.0	1.2	13.4	0.8	1.2	28.6	7.2	3.3	11.3
United States	27.6	2.3	16.9	1.0	1.5	28.9	6.1	6.4	9.3
Germany	31.1	1.9	10.9	1.1	0.9	28.8	9.8	5.1	10.3

Source: Statistik-Austria, 2017b; authors' own calculations.

However, there is one striking difference having to do with gender. While females from all countries of origin have higher enrolment rates for colleges than males do, males attend vocational schools at much higher rates than females. These patterns also result in higher education entrance qualification for females than for males which is not shown here.[7] With the exception of Poland, all pupils from the new EU member countries are

(far) below the level of those of native descent. Only Italy, Germany and the United States have higher levels of college attendance rates than natives.

Intergenerational mobility among the children of immigrants in Austria

Strong differences between those of native and foreign descent

The following section specifically addresses educational mobility by migration background. As mentioned in the introduction, there are two reasons for placing the focus there rather than on mobility in other outcome measures. First, the available data concerning intergenerational issues are much more reliable for education than for income. Second, the level of education is on average a good predictor of upcoming job prospects as well as prospective income.

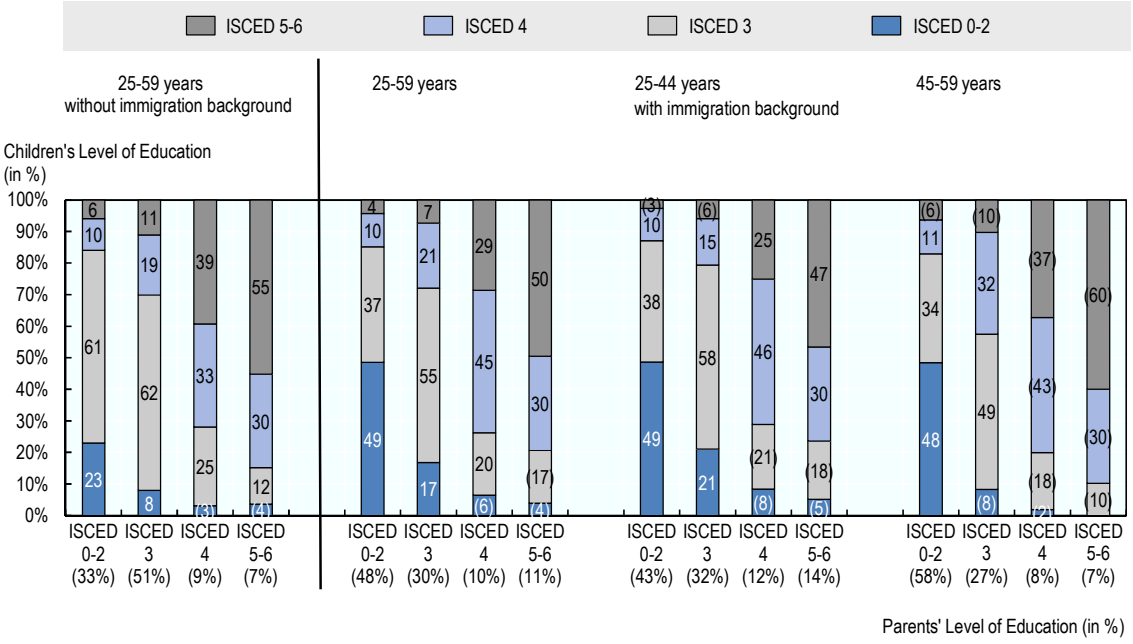
To analyse the transmission of education, the chapter utilises 2011 data from the European Union Statistics on Income and Living Conditions (EU-SILC) for Austria; the "special module" of the EU-SILC data concentrated on the issue of intergenerational mobility.[8] All adults between the ages of 25 and 59 were asked about the highest level of education of their parents as well as about their own level, along with several other questions relating to important background variables.[9] These data enable the study of the transmission of educational attainment between parents and their children by different characteristics. In particular, they distinguish between persons with and without an immigration background. Although the module does not differentiate between immigrants and the offspring of immigrants due to data constraints, separate calculations can be made by the age of immigrants. For simplicity, the sample is divided into two age groups, 24-44 and 45-59. While the former group was born between 1967 and 1986, the latter was born between 1952 and 1966. Since the *Gastarbeiter* cohort migrated during the 1960s and 1970s, those in the older group (45-59 years) are nearly all persons who actually migrated themselves. In contrast, those who were born between 1967 and 1986 are to a large extent the children of immigrants. Hence the distinction by age may provide a rough proxy for immigrants and the native children of immigrants.

Figure 1.3 presents the pattern of intergenerational mobility by natives and immigrants for three different age groups. Comparing only the left two blocks, i.e. persons with and without an immigration background aged 25-59, it can be seen that the level of parental education is in general low. However, the older age of these parents should be kept in mind.[10] The share of parents with no more than a compulsory education was 33% and 48% for respondents without and with an immigration background, respectively.[11] In contrast, the share of parents with apprenticeship education was 51% for natives and 30% for people with an immigration background. This important structural difference should be kept in mind in further considering the educational mobility of the two populations.

A rather low intergenerational mobility can be seen for both groups of people. On average (not shown here), the probability of receiving a university degree if one's parents have only compulsory schooling is a mere 6%. In contrast, if at least one of the parents has a university degree, the probability of their children also receiving a university degree is 54%. As can be seen in Figure 1.3, these characteristics are similar for both natives and immigrants. However, strong differences in mobility between these two groups appear when it comes to ISCED 3, under which apprenticeship and intermediate technical and vocational school are subsumed. The probability of achieving an apprenticeship certificate for natives is 61% if the highest level of parents' education is compulsory schooling (ISCED 0-2), and 62% if parents have an apprenticeship certificate themselves.

The comparable figures for people with immigration background are just 37% and 55%, respectively. Since the highest level of education for roughly 80% of both native and immigrant parents is either ISCED 0-2 or ISCED 3, these "educational gaps" are decisive for the disparate educational careers of natives' and immigrants' children.

Figure 1.3. Intergenerational educational mobility by age and immigration background, Austria, 2011



Note: Immigration background refers to immigrants and the native-born offspring with two foreign-born parents. If a subsample has 20 or less observations, the percentage is reported in parentheses.
Source: Altzinger et al., 2013, p. 59.

Comparing further the mobility patterns of people with an immigration background by different age cohorts (24-44 and 45-59 years old), it can be seen that this gap declines for the younger cohort, although it remains high in comparison with natives' children's mobility. In particular, the diverging probability of moving upward if the parents have only compulsory education is remarkable. While for the children of natives this probability is 77%, it is only 51% for the children of immigrants. Moreover, this pattern did not change between the older and the younger cohorts. Hence if policy makers wish to enhance the integration of the children of immigrants, it is important to improve their access to apprenticeship training.

Finally, a look at the upper end of the educational ladder shows that these features depend strongly on parents' education. Here too we can find strong differences between natives and the children of immigrants. If the parents' highest education is academic secondary education, the probability that their children achieve tertiary education is 39% for native's children but only 25% for those of immigrants. The difference is similar if parents' highest education is tertiary education (55% and 50%, respectively). Interestingly, people with an immigration background are more likely to have parents with tertiary education than natives are (11% and 7%, respectively). Moreover, for people with an immigration background, this share increased for the younger cohort. Generally, these patterns reflect

the strong heterogeneity of immigrants and the strong and recent influx of immigrants from the EU-14, in particular from Germany and Italy. However, parents from the former Yugoslavia and Turkey rarely have tertiary education.

Intergenerational mobility by socio-economic characteristics

The study by Oberdabernig and Schneebaum (2017) takes a closer look at the socio-demographic characteristics of the sample of natives, immigrants, and their children; in doing so it considers how these characteristics may be related to the chances of mobility for each group, and how they might be related to the mobility gap across groups. It will be helpful to keep in mind that the data analysed in this chapter also come from the 2011 sample of the EU-SILC survey data. The population of immigrants and their children may have changed in the six years since those data were collected.

Above it was shown that across the 11 countries analysed in Oberdabernig and Schneebaum (2017), the children of immigrants have higher rates of upward intergenerational educational mobility than natives in almost all countries, including Austria. However, of the countries in which that group is more likely to be upwardly mobile, the gap in mobility rates between immigrants' offspring and natives' offspring is the lowest in Austria. Indeed, while the children of immigrants are 2.7 percentage points more likely than native descendants to be upwardly mobile, this difference is not statistically significant in Austria. Nonetheless, it is possible to analyse the drivers behind the gap.

In particular, it can be asked which characteristics impact the difference in the probability of upward mobility for the children of immigrants versus that for persons of native descent. As discussed above, the most important factor driving the difference in Austria is the education of the parents. On a scale of 0-3, with zero being illiterate (basically no one in the Austrian sample has this outcome), 1 being attainment of lower secondary schooling (ISCED 0-2), 2 being upper secondary school (ISCED 3-4),[12] and 3 being tertiary schooling (ISCED 5-6), the average highest education level among native parents is 1.6, while it is 1.5 for immigrants.[13] The "highest education level" is the education of the more highly educated parent in a couple, usually the father. This seemingly small difference in the average education of the native and migrant parents actually has a large positive impact on the mobility gap between the two sets of offspring.

Along with the overall level of the parents' education, one can see differences in the education level of each parent, separately. Again using the sample only of those parents without the highest educational class, the native fathers have an average education level of 1.6, while immigrant fathers have an education level of 1.3. Immigrant mothers are also less educated than their native counterparts: their education level is 1.2, while the level is 1.4 for native mothers. That migrant parents are less educated than native parents becomes especially clear when comparing the immigrant and native mothers and fathers separately. Overall, this lower education level means that the children of immigrants have a lower threshold to pass in order to be upwardly mobile, which drives their higher rates of upward mobility.

A number of other background characteristics also play a role, however. After parental education levels, the next most important characteristic is the age of the mother when she gave birth. On average, the immigrant mothers were almost a year older than the native mothers when they gave birth, and this difference corresponds to the higher probability that the immigrant mothers' offspring will be upwardly mobile. The next most important background characteristic in the mobility gap is the difference in the reported financial

situation when the respondent was 14 years old. Interestingly, in this sample for Austria, the children of immigrants reported having a better financial situation at home when they were 14 than native descendants did. On a scale of 1 ("very bad") to 6 ("very good"), the average response for the offspring of immigrants was 3.72, while it was only 3.63 for natives. This seemingly small difference is the third-most important fact explaining the higher intergenerational mobility of the children of immigrants.

It is interesting to look at the final distribution of educational attainment for the offspring of natives and of immigrants, knowing that the latter are more likely to be upwardly mobile than the former, and that that difference is driven mostly by the fact that immigrant parents have less education than native parents. Recall that both immigrant parents and their descendants have lower average levels of education compared to natives of the same generation. More worrisome, though, is the fact that relatively more children of immigrants than natives' children get "stuck" in lower education classes. Of parents with education at the ISCED 0-2 level, a greater share of natives' descendants (80%) are able to move up and out of that education class, while less than two-thirds (64%) of immigrants' children are upwardly mobile. The latter are somewhat more likely than their peers without an immigration background to move from ISCED 3-4 to the highest education class, and overall, a greater share of them is upwardly mobile. However, these results once again strongly emphasise that the children of immigrants appear in particular to "get stuck" in the lowest education class (Oberdabernig and Schneebaum, 2017).

There are several possible causes for this problematic finding. For one thing, if they do not speak the national language (German) at home, the children of immigrants are likely to be at a strong disadvantage in school. Indeed, research on test scores for them and for those of native descent in 40 countries shows that speaking the national language at home is one of the biggest predictors of success on standardised tests (Schneeweis, 2011). Secondly, there could be an element of teacher bias or discrimination against immigrants' offspring. Especially in Austria, where there are two points of streaming students onto a vocational or academic track – a decision in which the teacher plays a large role – any bias or prejudice against the abilities of these pupils could hurt them. Literature for Germany shows that that may happen there (Lüdemann and Schwerdt, 2013); it could happen in Austria as well.

One final element of the differences in upward mobility for the children of native-born and immigrant persons in Austria has appeared in the academic literature – namely, the role of the descendants' gender. Indeed, Schneebaum, Rumplmaier and Altzinger (2016) show that analysing intergenerational educational mobility by gender of the descendants makes a tremendous difference in the overall mobility patterns discussed above. While the sons of immigrants are more likely to obtain more education than their parents than natives' sons are, the daughters of immigrants are *less* likely than the daughters of native-born parents to be upwardly mobile. Table 1.5 shows the exact figures: 49% of sons of native-born parents had more education than their fathers and 68% had more education than their mothers; 51% of sons of immigrants had more education than their fathers and 77% had more education than their mothers. The opposite pattern is true for daughters: 48% of daughters of native-born parents are more highly educated than their fathers while 63% have more education than their mothers. Of the daughters of immigrants, though, only 35% obtain more education than their fathers and 46% obtain more education than their mothers.

Table 1.5. Directions of educational class mobility by gender, Austria

	Upwardly mobile (%)	Downwardly mobile (%)	Not mobile (%)
Native parents:			
Father-son	49.2	8.6	42.4
Mother-son	67.5	4.0	28.6
Father-daughter	47.7	7.7	44.6
Mother-daughter	63.2	3.5	33.3
Immigrant parents, native-born children:			
Father-son	50.7	18.6	30.7
Mother-son	76.7	3.5	19.8
Father-daughter	34.6	3.9	61.5
Mother-daughter	45.8	8.0	46.2

Source: Adapted from Schneebaum, Rumplmaier and Altzinger, 2016.
Note: Educational levels are captured in three ISCED groups: 0-2, 3-4 and 5-6.

Thus, the apparent advantage that the children of immigrants have in the chances of surpassing their parents' educational attainment is specific to boys. It is not clear exactly why this is the case, but one possible element of the story is that immigrant families may be more resource-constrained, meaning that they can invest in the education of fewer of their children (Schneebaum, Rumplmaier and Altzinger, 2016). These families may also have more traditional gender role norms and expectations, meaning that they may expect their sons to be financial providers – making the sons' education more important or financially valuable than the daughters'. Another element of the story could be that it is primarily males in the families with a migration background who have access to Austria's system of vocational training (Schneebaum, Rumplmaier and Altzinger, 2016). As many of the jobs in these training programmes are typically male-dominated, social norms dictate that females have more difficulty accessing many of the apprenticeship programmes. However, given the data used in this study, it is impossible to know why exactly the daughters of immigrants do not achieve the same upward mobility as their brothers.

Pre-school attendance and intergenerational mobility

Since one's educational career starts well before the first day of school, the discussion now turns to preschool education in Austria. Unfortunately, data on this important issue are sparse. Official data show that the participation rates of children below the age of six at kindergarten are very similar between native and children with foreign citizenship. However, no participation rates for children by countries of origin are available. Hence, the interpretation of these data should be handled with care. At least two stylised facts can be identified. First, the share of children who need language guidance differs strongly between those who speak German in daily life and those who use another language. While this share is 10% for children whose colloquial language is German, it is 58% for the children whose colloquial language is not German. Secondly, children who do not attend kindergarten have higher needs for supplementary language programmes (16% of children who speak German in their daily life and 80% of children who speak a language other than German in their daily life) (Statistik-Austria, 2016b, p. 44).

Such strong differences concerning the different levels of language fluency require further research. The possibilities for learning German may be insufficient either at home (inside the family) or at the kindergarten – or, probably, in both places. While the former

depends on the parents' language proficiency, the latter depends on the quality and endowments of the kindergartens. Both variables certainly differ strongly by the social and economic standards of households, and are strikingly heterogeneous. To get a better grasp of this issue, it helps to look again at the EU-SILC data from 2011.

The EU-SILC sample covers 4 097 000 people between the ages 25-59 in Austria. The total population consists of 79% natives and 21% people with an immigration background, here defined as having two parents born outside of the EU. The definition does not distinguish between Austrian-born and EU-15-born children of immigrants. Within the latter, three cases are distinguished: first, the case of respondents who were themselves born in Austria or another EU-15 country and whose parents were born outside of Austria but in the EU-15 (13% of all people with an immigration background); second, the case where only the respondents were born in Austria or another EU-15 country but both parents were born outside the EU-15 (9%); and finally, the third and by far largest case, in which both the respondents and the parents were born outside the EU-15 (78%). The data further distinguish between two age cohorts (25-44 and 45-59 years old). The results are presented in Table 1.6.

In 2001 the preschool attendance rate for the total population was only 56%. However, this rate is strikingly different for natives' children (60%) and the children of immigrants (43%). A distinction within the group of people with an immigration background displays dramatic differences. The group of families in which both the parents and the children were born outside of the EU-15 shows by far the lowest preschool attendance rates (36%). This comes as no surprise since these people were all born abroad. If the respondents were born in the EU-15 (mainly in Austria), the attendance rate increases to 59%. Moreover, if additionally one parent was born in the EU-15, the attendance rate increases further up to 76%.

Comparing the two different age groups, the results illustrate the strong increase in attendance rates of the younger cohort. However, the increase was much stronger for natives (from 41% to 78%) than for respondents with an immigration background (from 32% to 50%).[14] Once again it must be kept in mind that the largest share of these people by far were born abroad and thus could not join the Austrian preschool system. But looking at the development of children born in the EU-15 whose parents were not born in EU-15, it is clear that the improvement for natives has been much greater. Only respondents with an immigration background in which at least one parent was born in the EU-15 show higher attendance rates than natives.

Concerning policy implications, it can be concluded that at least for the generation captured in this sample (respondents born between 1952 and 1986) the preschool attendance rate is generally much lower for people with an immigration background than for natives. The lower rate of kindergarten attendance is especially alarming for children with an immigration background, who would benefit most from the training they would receive there.

Table 1.6. Preschool attendance rates by age and immigration background, persons aged 25-59, Austria, 2011

Immigration background	Total (thousands)	Total (%)	Preschool attendance rate (%)
Total	4 097	100	56
25-59 years			
No immigration background	3 217	79	60
Immigration background (total)	880	21	43
Children and (at least) one parent born in EU-15	118	13	76
Children born in EU-15; parents not born in EU-15	76	9	59
Neither children nor parents born in EU-15	686	78	36
25-44 years			
No immigration background	1 656	75	78
Immigration background (total)	559	25	50
Children and (at least) one parent born in EU-15	72	13	87
Children born in EU-15; parents not born in EU-15	54	10	64
Neither children nor parents born in EU-15	432	77	42
45-59 years			
No immigration background	1 561	83	41
Immigration background (total)	321	17	32
Children and (at least) one parent born in EU-15	46	14	57
Children born in EU-15; parents not born in EU-15	22	7	46
Neither children nor parents born in EU-15	253	79	26

Source: Altzinger et al., 2013, p. 60.
Note: "Immigration background" indicates that both parents were born outside of Austria. EU-15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. Children born in Austria with immigrant parents (regardless of EU or non-EU origin) are considered to be born in EU-15.

Choice of schooling by parents' education

Finally, results are presented here from a recent study of the impact of parents on the choice of schooling for the years 1981 and 2011 (Statistik-Austria, 2015).

As pointed out above, there are three distinct moments that impact educational careers in Austria: pre-school education; the separation between lower and higher secondary education at the age of 10; and the separation between either joining apprenticeship training or pursuing academic education at age 15. The focus here is on the second and the third decisions.

Table 1.7 presents the probabilities of 12-year-old pupils attending the academic educational stream, compared to a reference person who is male, has Austrian citizenship, goes to school in Vienna, and has parents with a university degree (ISCED 5-6). For this comparison, the authors have calculated odds ratios, which give the odds of joining the academic schooling stream through various demographic characteristics, holding all other characteristics constant – including the parents' level of education. In this case, the probability of females joining an academic stream education instead of a lower secondary education (*Hauptschule*) in 1981 in Austria was 6% lower than for males. However, this difference changes markedly in favour of females 30 years later. In 2011, the odds for a female entering the academic stream instead of a lower secondary education were 30% higher than for males.

Table 1.7. Odds ratios of attending the academic secondary stream for 12-year-old pupils, Austria, 1981 and 2011

	Estimate	Std. error	Sig.	Odds ratio	Estimate	Std. error	Sig.	Odds ratio
	1981				2011			
(Intercept)	2.12	0.04	***	8.31	1.38	0.03	***	3.98
	Gender (reference: male)							
Female	-0.06	0.02	***	0.94	0.27	0.02	***	1.30
	Citizenship of father (reference: Austria)							
EU-14	0.32	0.1	***	1.38	-0.07	0.05		0.93
Former Yugoslavia	-0.88	0.13	***	0.42	-0.41	0.04	***	0.66
Turkey	-0.85	0.17	***	0.43	-0.96	0.08	***	0.38
Others	-0.49	0.14	***	0.62	-0.61	0.05	***	0.54
	Size of community (reference: Vienna)							
0-4 999	-1.44	0.02	***	0.24	-1.41	0.02	***	0.24
5 000-19 999	-0.95	0.03	***	0.39	-0.92	0.02	***	0.40
20 000-99 999	-0.42	0.03	***	0.66	-0.48	0.03	***	0.62
100 000-999 999	-0.29	0.03	***	0.75	-0.17	0.03	***	0.84
	Highest educational level of a parent (reference: ISCED 5-6)							
ISCED 0-2	-3.7	0.04	***	0.02	-2.56	0.03	***	0.08
ISCED 3	-2.63	0.04	***	0.07	-1.99	0.02	***	0.14
ISCED 4	-0.85	0.04	***	0.43	-0.78	0.02	***	0.46

Note: The reference category is 1 in the odds ratio. Odds ratios below 1 therefore correspond to a lower probability and odds ratios above 1 to a higher probability than the reference group. Note that the reference group of pupils is male, has a father who holds Austrian citizenship, is located in Vienna and has a father with a university degree (ISCED 5-6).
Interpretation: In 1981, 12-year-old pupils in Austria holding an EU-14 citizenship were 38% more likely than pupils holding Austrian citizenship to enter the academic educational stream, all other socio-demographic characteristics held constant.
Source: Statistik-Austria, 2015, p. 5.

For the issue of intergenerational mobility, it is interesting to look more closely at students from the former Yugoslavia and Turkey, who are studied separately in this study. For pupils holding citizenship from those two countries we can see that in 1981 their chances of joining an academic stream education at the age of 12 were much lower than that for natives (-58% and -57%, respectively). However, comparing the results for 2011, it can be seen that pupils with citizenship from the former Yugoslavian made considerable progress, but are still far below the reference group (-34%). What is truly alarming however is the increasing gap (from -57% to -62%) for pupils with Turkish citizenship.

It can also be seen that the chances of attending the academic stream in school at the age of 12 are close to impossible if the highest level of parent's education is below ISCED 4 – that is, if parents have neither a "Matura" (academic stream background) nor a tertiary education. These results strongly accord with Altzinger et al., 2013, who also emphasise that upward mobility is very low if parents' highest level of education is only ISCED 0-2 or ISCED 3.

It is further possible to compare the odds of a 17-year-old attending college. Table 1.8 shows that girls' chances of obtaining higher education improved during the period 1981 and 2011. Interestingly, the odds of pupils with citizenship from the former Yugoslavia

deteriorated over this period, from 0.81 to 0.46. For pupils with Turkish citizenship, the odds remained relatively stable on a very low level (0.49 in 1981 and 0.53 in 2011).

These data show that access to higher levels of education is particularly difficult for the children of both of these groups of immigrants and – more importantly – that their chances have not improved much over the past three decades. However, this pattern can be interpreted only jointly with the observation that the parents' highest level of education is a key determinant in children's access to a college education. If the highest level of parent's education is only ISCED 0-3, the chances of getting a college education are practically non-existent (see Table 1.8). Since parents from the former Yugoslavia and Turkey have rather low levels of education, the upward mobility for their children is hampered in particular.

Table 1.8. Odds ratios of college attendance for 17-year-old pupils, Austria, 1981 and 2011

	Estimate	Std. error	Sig.	Odds ratio	Estimate	Std. error	Sig.	Odds ratio
	1981				2011			
(Intercept)	0.93	0.04	***	2.54	0.43	0.03	***	1.54
	Gender (reference: male)							
Female	0.26	0.02	***	1.3	0.56	0.02	***	1.76
	Citizenship of father (reference: Austria)							
EU-14	0.5	0.11	***	1.65	0.25	0.06	***	1.28
Former Yugoslavia	-0.21	0.14		0.81	-0.77	0.06	***	0.46
Turkey	-0.72	0.19	***	0.49	-0.64	0.1	***	0.53
Others	0.29	0.15	*	1.34	-0.2	0.06	***	0.82
	Size of community (reference: Vienna)							
0-4 999	-0.61	0.03	***	0.55	-0.95	0.03	***	0.39
5 000-19 999	-0.37	0.03	***	0.69	-0.67	0.03	***	0.51
20 000-99 999	-0.12	0.03	***	0.88	-0.52	0.04	***	0.6
100 000-999 999	0.23	0.03	***	1.25	0.03	0.04		1.03
	Highest educational level of a parent (reference: ISCED 5-6)							
ISCED 0-2	-3.51	0.04	***	0.03	-2.61	0.04	***	0.07
ISCED 3	-2.63	0.04	***	0.07	-2.16	0.02	***	0.12
ISCED 4	-0.97	0.04	***	0.38	-0.99	0.03	***	0.37

Source: Statistik-Austria, 2015, p. 5f.

Lastly, looking at the different odds of people attending an apprenticeship at the age of 17, we can see several complementary patterns (Table 1.9). First of all, the odds ratio for females was 0.33 in 1981 and has not changed that much through to 2011 (0.39). That result indicates that apprenticeship is strongly dominated by males. Since this kind of dual education system is in general very successful in preventing youth unemployment, it should be encouraged first for females and second for disadvantaged people such as youths from the former Yugoslavia and Turkey. For these two groups of people, the odds ratios improved strongly (from 0.38 to 0.83 for the former and from 0.08 to 0.81 for the latter) but still remain below the attendance probability of natives. Finally, the probability of attending an apprenticeship increases dramatically if parent's education is rather low.

Table 1.9. Odds ratios of apprenticeship attendance for 17-year old pupils, Austria, 1981 and 2011

	Estimate	Std. error	Sig.	Odds ratio	Estimate	Std. error	Sig.	Odds ratio
	1981				2011			
(Intercept)	-2.47	0.07	***	0.08	-2.39	0.04	***	0.09
	Gender (reference: male)							
Female	-1.10	0.01	***	0.33	-0.94	0.02	***	0.39
	Citizenship of father (reference: Austria)							
EU-14	-0.43	0.10	***	0.65	-0.14	0.06	*	0.87
Former Yugoslavia	-0.96	0.09	***	0.38	-0.19	0.04	***	0.83
Turkey	-2.54	0.13	***	0.08	-0.22	0.06	***	0.81
Others	-0.44	0.14	**	0.64	-0.72	0.06	***	0.49
	Size of community (reference: Vienna)							
0-4 999	0.12	0.02	***	1.13	0.61	0.02	***	1.84
5 000-19 999	0.06	0.02	**	1.07	0.44	0.03	***	1.55
20 000-99 999	-0.04	0.03		0.96	0.28	0.03	***	1.33
100 000-999 999	-0.07	0.03	*	0.93	0.14	0.04	***	1.15
	Highest educational level of a parent (reference: ISCED 5-6)							
ISCED 0-2	2.96	0.07	***	19.29	2.19	0.04	***	8.90
ISCED 3	2.69	0.07	***	14.76	2.14	0.03	***	8.51
ISCED 4	1.01	0.07	***	2.74	0.93	0.04	***	2.53

Source: Statistik-Austria, 2015, p. 9.

Conclusions

This chapter focused on the intergenerational mobility of immigrants' offspring in Austria and in particular on those of Yugoslav and Turkish descent, since these two groups comprise the largest set of immigrants' children in Austria. On average, immigrants and their children have lower educational outcomes than natives. For those emigrating from the former Yugoslavia and Turkey, the average level of education is particularly low; the latter group has the lowest levels of educational attainment. Interestingly, some data show that the children of immigrants in Austria perform worse than those who emigrated themselves.

One of the main reasons that immigrants' offspring have such low levels of educational attainment is that their parents also have poorer educational outcomes. In Austria, the children of immigrants are not as successful in surpassing the educational level of their parents as in other countries. The relatively low level of upward mobility for this group has at least three causes. First, the overall lower rates of preschool attendance for the children of immigrants have given them a disadvantage from the outset of their schooling and human capital development. It is a good sign that the preschool attendance rate of the children of immigrants has grown rather markedly during the past decades; these days, attendance rates are more similar for those of native and foreign descent. However, the language deficiencies faced by immigrants' children may make the quality of the preschool experience less potent than it is for natives' children. These difficulties can be improved only by special assistance, first at preschool and further on in primary school. However, such assistance needs high-quality personnel as well as an upgrading of endowments for schools.

The second major issue that hinders the ability of immigrants' offspring to be upwardly mobile occurs at age ten. After the first four years of primary school, parents (in collaboration with their child's teachers) must decide if their children will join a lower secondary school (*Hauptschule*) or upper secondary school (*Allgemeinbildende Höhere Schule*; *AHS*). Pupils with parents from the former Yugoslavia and Turkey have very high rates of enrolment at lower secondary schools. These pupils also have rather high rates of enrolment in "special schools" (*Sonderschulen*). This early school streaming and the fact that the children of immigrants are more likely to join the non-academic stream mean that there is an educational segregation within the population as early as at the age of ten, which is very difficult to overcome later.

The third step where educational careers become separated occurs at age 15 when children (and their families and teachers) must decide whether they will join polytechnic schools, which usually continue with an apprenticeship, or instead join academic secondary schools. Only a certificate from these latter schools grants access to university education. The descriptive empirical data here (that is, not accounting for parental education) show that the decision for an apprenticeship education is much higher for pupils from the former Yugoslavia and Turkey than for native pupils. These streaming choices at age 15 further perpetuate the inability of immigrants' children to surpass their parents' levels of education.

To conclude, these three strongly interlinked "dividing lines" are major barriers to the ability of immigrants' offspring to be upwardly mobile. The starting point of general separation of children of foreign and native descent begins in the very early days of the child's development. The focus of every educational and developmental policy should therefore be to strongly encourage the further development of preschool education, with additional resources for language training for the children of immigrants.

Notes

1. These countries are Austria, Belgium, Switzerland, the Czech Republic, Germany, Estonia, France, Croatia, Luxembourg, Latvia, and the United Kingdom. The parents were born in a country other than the descendant's current place of residence (that is, there is no differentiation between those with an EU or a non-EU migration background).
2. Numbers are calculated from 1 January of each year.
3. Croatia has been allocated to the "new" EU Member Countries and not to the former Yugoslavia.
4. Note that these numbers account for citizenship and not naturalised persons.
5. Russia is a unique case that is beyond the scope of this chapter.
6. Table 1.2 does not present any information about the age of the immigrants' offspring. However, those from the former Yugoslavia and Turkey are by far the oldest cohort on average.
7. More details can be seen in Annex Table 1.A.2, where the enrolment rates by type of schools are calculated for pupils with foreign citizenship by many more countries of origin.
8. The following section relies to a large extent on Altzinger et al., 2013.
9. For the level of education the module used the International Standard Classification of Education (ISCED). ISCED 0-2: Compulsory school; ISCED 3: Apprenticeship, intermediate technical and vocational school; ISCED 4: Academic secondary school, higher technical and vocational college; ISCED 5-6: Post-secondary college, Fachhochschule, university.
10. If for example the respondents' parents had their children on average at age 22, then the parents were born at some point between 1930 and 1964. Hence they are a clearly older cohort in this dataset.
11. The past decades have shown a general rise in the educational attainment levels of the Austrian population. While in 1971 57.8% of the Austrian population between 25 and 64 had completed compulsory education only, in 2014 this share decreased to 19.1%. All forms of education subsequent to compulsory schooling showed significant gains (Statistik-Austria, 2017a).
12. In contrast to the ISCED classification used elsewhere, Oberdabernig and Schneebaum combined ISCED 3 and ISCED 4 into one group.
13. Note that these figures come from calculations for the subsample whose parents do not have the highest education level (that is, for the descendants who could be upwardly mobile).
14. It is important to be aware that also the younger age group was born between 1967 and 1986, and hence joined preschool in the period between 1967 and 1992. In comparison with more current figures, the attendance rates during that period were relatively low. Actually the attendance rate of 3-5 year-old children is above 90% for both natives' and immigrants' children.

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Annex 1.A. Additional tables

Annex Table 1.A.1. Population by citizenship, Austria, 2002-17

Citizenship	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	**8 063 640**	**8 100 273**	**8 142 573**	**8 201 359**	**8 254 298**	**8 282 984**	**8 307 989**	**8 335 003**	**8 351 643**	**8 375 164**	**8 408 121**	**8 451 860**	**8 507 786**	**8 584 926**	**8 700 471**	**8 772 865**
Austrians	**7 333 379**	**7 353 520**	**7 388 357**	**7 426 958**	**7 457 632**	**7 478 205**	**7 478 310**	**7 474 999**	**7 468 064**	**7 461 961**	**7 456 692**	**7 447 592**	**7 441 672**	**7 438 848**	**7 432 797**	**7 430 935**
Non-Austrians	**730 261**	**746 753**	**754 216**	**774 401**	**796 666**	**804 779**	**829 679**	**860 004**	**883 579**	**913 203**	**951 429**	**1 004 268**	**1 066 114**	**1 146 078**	**1 267 674**	**1 341 930**
Share of Non-Natives (%)	9.1	9.2	9.3	9.4	9.7	9.7	10.0	10.3	10.6	10.9	11.3	11.9	12.5	13.3	14.6	15.3
EU-27 and EFTA	**257 855**	**267 758**	**278 694**	**297 275**	**316 614**	**331 313**	**356 116**	**379 832**	**397 314**	**420 249**	**447 971**	**483 288**	**527 369**	**579 163**	**625 488**	**664 729**
EU-27	250 544	260 556	271 339	289 708	308 877	323 356	348 098	371 659	389 130	411 843	439 464	474 641	518 670	570 298	616 401	655 524
EU-14 (before 2004)	110 861	115 090	122 394	131 839	143 473	154 033	165 872	177 746	186 375	196 948	206 349	217 776	230 730	241 231	253 055	262 803
Germany	75 262	78 227	83 592	91 194	100 439	109 193	118 942	128 706	136 021	144 102	150 867	157 793	164 820	170 475	176 463	181 618
Italy	10 656	10 859	11 305	11 727	12 178	12 680	13 197	13 868	14 544	15 387	16 212	17 831	20 195	22 465	25 327	27 290
Others	24 943	26 004	27 497	28 918	30 856	32 160	33 733	35 172	35 810	37 459	39 270	42 152	45 715	48 291	51 265	53 895
EU-13 (since 2004)	139 683	145 466	148 945	157 869	165 404	169 323	182 226	193 913	202 755	214 895	233 115	256 865	287 940	329 067	363 346	392 721
Bulgaria	4 690	5 335	5 856	6 284	6 480	6 419	7 605	8 881	9 846	11 172	12 472	14 144	15 942	19 607	22 411	24 923
Croatia	61 422	62 478	62 163	61 869	61 126	59 632	59 229	58 946	58 505	58 279	58 297	58 619	61 959	66 475	70 248	73 334
Poland	21 433	21 750	22 249	26 554	30 580	33 319	35 347	36 563	37 231	38 577	42 089	45 965	50 271	54 262	57 589	60 079
Romania	17 750	19 482	20 483	21 314	21 942	21 882	27 654	32 214	36 004	41 586	47 315	53 261	59 702	73 374	82 949	92 095
Slovak Republic	7 508	8 516	9 484	11 322	12 982	14 223	15 768	17 928	19 211	20 381	22 547	25 333	28 612	32 052	35 326	38 094
Slovenia	7 036	6 979	6 905	7 063	7 137	7 229	7 502	7 688	7 838	8 033	8 593	9 592	11 289	13 507	15 487	17 312
Czech Republic	6 231	6 597	6 896	7 360	7 733	7 986	8 564	8 925	9 061	9 274	9 635	10 232	10 908	11 631	12 269	12 629
Hungary	13 069	13 684	14 151	15 133	16 284	17 428	19 233	21 276	23 342	25 627	29 832	37 004	46 264	54 939	63 550	70 584
Baltic States, Malta,Cyprus	544	645	758	970	1 140	1 205	1 324	1 492	1 717	1 966	2 335	2 715	2 993	3 220	3 517	3 671
EFTA	7 311	7 202	7 355	7 567	7 737	7 957	8 018	8 173	8 184	8 406	8 507	8 647	8 699	8 865	9 087	9 205
Former Yugoslavia & Turkey	**371 878**	**374 741**	**365 716**	**356 396**	**351 884**	**343 012**	**342 479**	**342 843**	**343 695**	**346 707**	**348 824**	**353 147**	**359 229**	**366 251**	**372 961**	**377 979**
Former Yugoslavia (excl.	244 731	247 585	242 673	239 852	238 816	234 823	233 717	232 858	232 393	234 246	235 907	239 477	244 489	250 818	256 935	261 141

Citizenship	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Croatia)																
Serbia	123 009	124 836	122 203	123 205	125 371	123 353	122 705	110 025	109 377	110 469	110 439	111 280	112 477	114 289	116 626	118 454
Bosnia and Herzegovina	107 248	107 046	103 981	99 557	96 128	93 380	92 557	91 831	90 528	89 575	89 578	89 925	90 963	92 527	93 973	94 611
Kosovo								12 159	13 502	14 694	16 091	17 943	19 872	22 007	23 386	24 445
Macedonia	14 474	15 703	16 489	17 090	17 317	17 251	17 542	17 929	18 095	18 620	18 883	19 377	20 135	20 852	21 723	22 354
Montenegro						839	913	914	891	888	916	952	1 042	1 143	1 227	1 277
Turkey	127 147	127 156	123 043	116 544	113 068	108 189	108 762	109 985	111 302	112 461	112 917	113 670	114 740	115 433	116 026	116 838
Others	**100 528**	**104 254**	**109 806**	**120 730**	**128 168**	**130 454**	**131 084**	**137 329**	**142 570**	**146 247**	**154 634**	**167 833**	**179 516**	**200 664**	**269 225**	**299 222**
Asia	36 889	41 668	45 392	48 726	50 987	52 606	56 763	58 856	61 946	64 024	69 113	77 623	84 167	98 172	156 973	180 335
Afghanistan	2 065	2 692	3 086	3 306	3 093	3 139	3 957	4 484	5 662	6 688	9 353	12 380	14 016	16 779	35 618	45 259
Syria	633	708	760	910	921	940	1 144	1 237	1 459	1 591	1 913	2 689	4 268	11 255	33 313	41 672
Iraq	1 319	1 306	1 396	1 384	1 292	1 342	1 774	1 975	2 255	2 454	2 720	3 015	3 240	3 873	13 884	14 802
Iran	5 643	5 639	5.646	5 387	5 081	5 256	5 733	5 560	5 693	5 844	5 950	7 196	7 980	8 459	11 637	13 764
China	5 122	6 478	7 605	8 275	8 765	8 925	9 295	9 409	9 501	9 476	9 669	10 191	10 765	11 374	12 161	12 685
India	5 047	5 518	5 690	5 698	5 950	5 884	6 005	6 060	6 177	6 228	6 547	7 026	7 406	7 853	8 340	8 639

Source: Statistik-Austria, 2017a, authors' own calculations.

Annex Table 1.A.2. Pupils by citizenship and type of school, percentages in Austria and differences in percentage points to Austria

	Primary school	Lower secondary	Secondary school	Special school	Polytechnic	**College**	Vocational school I	Vocational school II	Vocational college
Austria	**30.2**	**2.6**	**16.5**	**1.3**	**1.5**	**19.0**	**10.8**	**4.8**	**13.4**
Unknown	18.5	1.1	15.9	1.3	2.2	**-15.6**	-8.2	-3.1	-12.2
Turkey	5.2	-0.1	9.3	2.0	1.7	**-12.8**	-0.2	1.1	-6.2
Former Yugoslavia	1.3	-0.1	6.3	1.1	1.5	**-9.6**	0.2	1.2	-2.0
Slovenia	5.7	-1.5	1.0	-0.7	0.7	**-4.9**	-5.0	-0.8	5.4
Africa	9.1	-0.2	3.8	1.6	1.0	**-4.7**	-4.7	2.3	-8.1
Hungary	12.4	-0.6	4.7	-0.1	0.3	**-4.7**	-5.9	-1.5	-4.7
Asia	8.3	0.2	4.5	0.3	2.1	**-4.7**	-4.2	0.2	-6.7
Other EU members	13.7	-0.2	3.6	0.5	0.8	**-4.5**	-5.0	-1.1	-7.8
Croatia	-2.7	-0.2	3.1	-0.3	0.7	**-4.4**	-0.9	1.7	3.0
Other Europe	6.2	-0.5	4.2	1.0	0.8	**-4.3**	-3.4	0.5	-4.4
Czech Republic	5.1	0.2	-4.0	0.0	-0.3	**-3.7**	-7.5	6.2	4.0
Slovak Republic	15.1	0.3	1.1	0.4	0.5	**-3.6**	-6.1	-1.2	-6.6
EU-27 (without Austria)	7.2	-0.5	0.6	0.2	0.3	**-0.7**	-3.1	-0.2	-3.8
Poland	12.8	-0.9	-1.1	-0.3	0.0	**0.5**	-5.3	-0.7	-5.0
Italy	3.5	-1.5	-3.1	-0.4	-0.3	**6.9**	0.3	-1.3	-4.0
Germany	1.3	-0.8	-4.4	0.4	-0.3	**7.4**	0.6	0.0	-4.3
America	-1.7	-0.6	1.8	0.4	0.5	**7.4**	-2.8	0.4	-5.3
Australia / Oceania	0.3	0.6	-7.1	1.0	-0.2	**24.3**	-8.9	-3.7	-6.3

Note: Line 1 shows the structure of pupils with Austrian citizenship by different types of schools. All other percentages are deviations from the Austrian pattern. i.e. only 6.2% of all pupils with Turkish citizenship attend colleges. Hence the deviation to Austrian pupils is -12.8 percentage points.
Source: Statistik-Austria, 2017a, authors' own calculations.