

The educational attainment of second-generation immigrants in The Netherlands

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Abstract. Since the mid-1960's the Netherlands has had a positive net immigration, mainly because of manpower recruitment from Turkey and Morocco and immigration from the former Dutch colony of Surinam. Immigrants have a weak labor market position, which is related to their educational level and language skills. Children and grandchildren of immigrants are expected to have a better chance of integration into Dutch society. In this paper we investigate whether this is true with respect to the educational attainment of second-generation immigrants from Turkey, Morocco, Surinam and the Dutch Antilles.

JEL classification: J15, J61

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1. Introduction

The Netherlands is among the few European countries that experienced a rapid decline of unemployment in the second half of the 1990's. Whereas in the beginning of the 1990's (registered) unemployment rate went up from 5.9% in 1990 to 7.0% in 1995, it went down to 4.0% in 1998. Not every group in the Dutch labor market experiences a low unemployment rate,

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Table 1. Labor market participation, unemployment rates and educational level by immigrant status; age group 15–64 years, 1998 (%)

	Unemployment rate		Labor market participation		Educational level ^a	
	Males	Females	Males	Females	Males	Females
Turks	17.1	18.8	65	28	1.47	1.12
Moroccans	19.1	21.2	59	23	1.08	0.84
Surinamese	9.3	9.9	74	60	2.17	2.15
Antilleans	8.5	16.6	70	55	2.38	2.08
Natives	3.3	4.2	81	57	2.66	2.60

Source: Martens (1999).

^a Educational level on a scale from 0 to 4.

though. Whereas native Dutch males had an unemployment rate of 3.3% in 1998, the unemployment rate among Surinamese and Antillean males was 8–9% while among Turkish and Moroccan males it was 17–19% (Table 1). Also for females, the level of the unemployment rates of immigrants is far above that of native Dutch people. In terms of labor market participation, the immigrant groups have a less favorable position too. As shown in Table 1, labor market participation among native Dutch males was about 80% in 1998, whereas for Surinamese and Antillean males this was 70–75% and for Turkish and Moroccan males 60–65%. Labor market participation among Turkish and Moroccan females was even lower than 30%. Consequently, immigrants' employment rates are drastically lower than those of native workers.

Most immigrants have a disadvantaged socio-economic position. This is one of the reasons why these immigrant groups are considered to be ethnic minorities, who can be defined as “those groups who originally come from other countries with other cultures, and who on average have a disadvantaged socio-economic position for at least two generations” (Van Amersfoort 1974). A relatively unfavorable position of immigrants is exactly what one could expect, since the Netherlands is a rather young immigrant country. This implies that the general picture is largely determined by the first generation: those who actually migrated. At the moment of migration most of them lacked Dutch language proficiency and knowledge of Dutch society (Van Ours and Veenman 1999). Moreover, they differed in culture and had hardly any contact with native Dutch people. Taken together, they have a typical ‘starters position’ in Dutch society which means that it is very difficult for them to acquire a favorable socio-economic position. In this respect, immigrants in the Netherlands do not differ from immigrants in many other European countries.

As Table 1 indicates the educational level of immigrant groups is lower than that of native Dutch people. From a policy point of view an important question is whether – and if so, to what extent – the children of the first-generation immigrants are capable of acquiring a better socio-economic position. Since educational attainments are a strong determinant of the labor market position and related variables like income, we focus on the educational achievements of the second-generation, that is immigrant children born in the Netherlands or those who immigrated into the Netherlands at a

very young age. In particular we focus on the educational attainment of second-generation immigrants in comparison with first-generation immigrants and native Dutch people.

There is a long tradition of education studies in the Netherlands. In the 1960's and 1970's most of these studies focused on the disadvantageous position of native Dutch children from families with a low socio-economic status. In the last two decades research has focused on the unfavorable educational achievements of ethnic minority children. Both the analysis of survey data and more anthropological research methods were used to find out why immigrant children lagged behind native Dutch youngsters. Without going into detail now (see for an overview Veenman 1996), we conclude from the results of the first kind of studies (mostly regression analyses on data from cohort studies) that socio-economic status, usually proxied by the educational level of the parents, is an important determinant of educational achievements.

The second type of studies based on in-depth interviews and participant observations at home and in the classroom emphasizes the importance of other factors. Among these factors are: (a) problems related to the migration itself, such as inadequate language proficiency and lack of information on schooling opportunities, (b) cultural aspects, such as pre-school informal teaching within the family, norms towards the relationship between parenting and formal education, and (c) school characteristics, such as the quality of the teaching program and the adaptation of intercultural teaching methods. Since cultural characteristics, migration history and socio-economic status are mutually related it is difficult to answer the question how important each of the aforementioned factors are for the educational achievements of immigrant children (Martens and Veenman 1998).

Using data from a 1994 nationwide survey Martens and Veenman (1996) conclude that second-generation youngsters have better educational achievements than first-generation youngsters, but still lag behind their native Dutch contemporaries. The educational achievements of pupils and students between 12 and 25 years were regressed on their age, gender, whether or not they have their own room (to do homework), and the educational level of their parents. These factors explain about 75% of the difference in educational level between second-generation Turks and Moroccans on the one hand, and the native Dutch youth on the other, 90% of the difference between the second-generation Surinamese and the indigenous youth, and almost the whole difference between the second-generation Antilleans and the native Dutch contemporaries. In-depth interviews among immigrant and native youngsters in districts in Amsterdam and Rotterdam with high concentrations of ethnic minorities showed the significance of language proficiency, social contacts and cultural factors in the family, such as schooling ambitions, career planning and orientation on return migration. Since these factors strongly correlate with the educational level of the parents, it is difficult to reveal the separate meaning of socio-economic characteristics of the family and cultural characteristics.

In their overview of the determinants of children's attainments, Haveman and Wolfe (1995) conclude that the most fundamental factor describing children's educational attainment is the human capital of parents, typically measured by the number of years of schooling attained. The human capital of the mother is usually more closely related to the attainment of the child than

is that of the father. Children of better-educated immigrants have higher education and earn higher wages. Card et al. (1998) indicates that in the US, children of immigrants tend to have noticeably higher education and wages than the children of natives, controlling for parental background. Borjas (1995) indicates that there is a correlation between parental skills and the skills of children but this correlation is not sufficiently high to remove ethnic skill differentials quickly. Borjas explains the slow rate of convergence by ethnic spillovers: the skills of ethnic children depend not only on the mean skills of the ethnic group but also on the mean skills of the ethnic group in the parents' generation (see also Borjas 1992).

In Europe there is research on intergenerational mobility and the relevance of educational attainment in this, but not so much in relation to immigrants. Couch and Dunn (1997) conclude that German children's education has very weak correlations with their mothers. Dearden et al. (1997) find that the education of both parents has a strong impact on the education of their children but, whereas father's education is more important for sons, mother's education is more important for daughters. Gang (1997) concludes on the basis of an analysis of German, Hungarian and Soviet data that there are large differences in the human capital formation across ethnic groups and gender. While there is some assimilation across generations, it is far from complete. Gang and Zimmermann (2000) analyze a sample of second-generation immigrants in Germany. They define second-generation immigrants as children of first-generation immigrants born in Germany or arriving in Germany before the age of 16 and who were at the time of the survey 17–38 years old. They investigate to what extent the parental human capital (defined as the educational attainment of parents) influences the educational attainment of children. They conclude that for foreign-born parental schooling plays no role in the educational choice of their children. Furthermore, they conclude that there is convergence in the acquisition of education taking place. However, ethnicity still has a strong effect on educational attainment, which indicates that social and cultural differences persist.

We conclude from previous studies that in the beginning of the 1990s in terms of educational attainment second-generation immigrants did better than first-generation immigrants but not as well as native Dutch people. On the basis of a 1998 national survey among four immigrant groups, we investigate whether this has changed in the meantime. This article is set up as follows. In Sect. 2 we describe the position of immigrants in the Netherlands in more detail and we present our data. In Sect. 3 we discuss the set-up of our statistical analysis. Section 4 presents the estimation results. Section 5 concludes.

2. Immigrants in the Netherlands

2.1. Second generation

Since the beginning of the 1960s the Netherlands has had a positive net immigration. The immigration of the past decades originates from two rather different processes. The de-colonization caused peaks in immigration in specific years while the hiring of immigrant workers – because of cyclical labor shortages – turned out to have a structural character. Current labor market

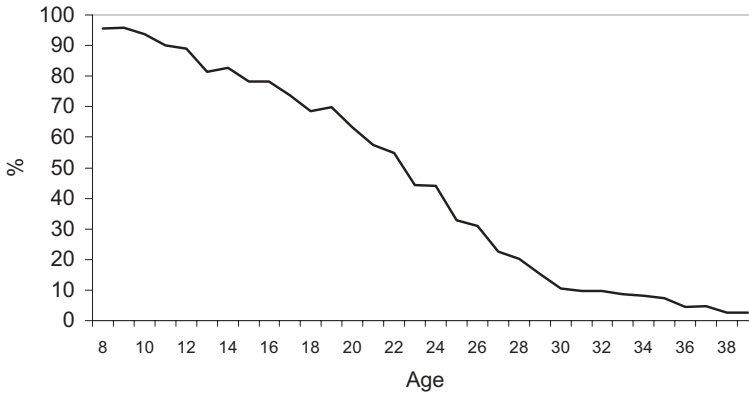


Fig. 1. Second generation immigrants (% of total)

problems are to some extent related to the shift in immigration from a business cycle phenomenon to a structural process. In the 1960's immigrant workers were hired because the Dutch labor market was booming. The immigrant workers got jobs in industries with low paid labor. Since these industries were particularly hit by the economic recession of the 1980's, many immigrant workers lost their jobs to become long term unemployed.

Now, at the beginning of the new millennium about 2.9 million people live in the Netherlands, who by their own birthplace or that of at least one of their parents are considered to be immigrants. Together they comprise about 18% of the total population. As counted in 2001, the largest groups of immigrants are Turkish (320,000), Surinamese (310,000), Moroccan (270,000), Antilleans (120,000) and people from (former) Yugoslavia (70,000). Immigrants from the southern European countries comprise about 90,000 people, who have different nationalities. Even more diversity of nationality is found among the political refugees, who comprise about 180,000 people. As far as immigrants are concerned we focus on Turks, Moroccans, Surinamese and Antilleans.

Until now, the second generation has been loosely defined. To adequately answer our central research question, we have to be more precise. We define the second-generation as (a) those who were born in the Netherlands from at least one parent whom came as an immigrant and (b) those who arrived as an immigrant in the Netherlands at a very young age. From previous research (Martens and Veenman 1996) we know that a strong determinant of the educational careers of immigrant is the moment they start to participate in the educational system of the immigrant country. It was calculated that in the Netherlands the decisive age limit for significant drawbacks from migration, is 6 years. We therefore include those immigrants who arrived in the Netherlands at an age under 6 years in the second generation. Figure 1 shows how in 1998 the share of second-generation immigrants in the total group of immigrants declines rapidly with age. At the age of 10 about 95% are second generation, at age 20 this is 60% and at age 30 only 10% of the immigrants belong to the second generation. To get a sufficient number of second-generation immigrants we focus on the age category 15 to 29.

Table 2. Characteristics of the sample

	First generation (%)	Second generation (%)	Natives (%)	Total (%)	Obs.
<i>a. Individuals by age, gender and immigrant status</i>					
Females					
Age 15–20	25	64	11	100	551
Age 21–29	61	27	12	100	1324
Males					
Age 15–20	23	64	13	100	477
Age 21–29	60	27	13	100	1076
Obs.	1702	1304	422	–	3428
<i>b. At school</i>					
Females					
Age 15–20	59	82	76	75	551
Age 21–29	14	29	23	19	1324
Males					
Age 15–20	73	82	80	80	477
Age 21–29	16	30	30	21	1076

2.2. Data

Our data are from a nationwide survey (SPVA-1998) among Turks, Moroccans, Surinamese, Antilleans (including Arubans) and native Dutch reference groups in 13 of the largest cities in the Netherlands. Given the presence of ethnic minorities in the largest cities, the survey may be considered to be representative for the four ethnic minorities. The same does not hold for the native Dutch population, since they are spread more evenly over the whole country. This is not a disadvantage, since the native Dutch sample is explicitly used as a reference group for the ethnic minorities in the largest cities. The response rates are comparable with those of other surveys in the largest Dutch cities, although special measures were taken to increase the response rate among the lower educated immigrants (matching on ethnicity of interviewers and respondents, translation of questionnaires, et cetera).

In each household the head of household was asked to answer the general questions on the composition of the household and (if relevant) on its migration history. All members of the household being older than 11 years were asked to answer the other questions, with the exception of a series of questions on cultural integration and social contacts. These questions were asked alternately in interviews with the head of household and his/her partner and in interviews with the eldest child present during the interview. In this way information was gathered among different numbers of respondents for each set of items.

Because we focus on the relationship between the education of children and the education of their parents we use a net sample that contains information about all these educational levels. Table 2 gives some general characteristics of this sample. We distinguish males and females in two age categories, 15–20 and 21–29. The upper part of the table gives the distribution over first generation, second generation and native Dutch. As shown there is not much difference between males and females. The main

difference in the distribution is according to age. Of the younger age category about 25% belongs to the first-generation immigrants, while for the older age category about 60% belongs to the first generation. The share of native Dutch is about the same in each of the groups distinguished. The lower part of Table 2 gives for each group the share of individuals that is still at school. As shown in each category for both males and females the percentage at school is substantially lower for the first-generation immigrants. Conditional on age there is not a lot of difference between males and females, with the exception of first-generation females for which the percentage at school is substantially lower than for the first-generation males.

The focus of this study is on educational attainment and a relevant indicator of the process by which people go through the educational system is whether, conditional on the age of the person involved, he or she goes to school or not. The upper part of Table 3 shows the percentage of people that were attending full-time education in 1998 distinguished by age group. Up to 15 years of age children have to attend full-time education. From 16 years onwards people can leave full-time education. As indicated, not many 16 and 17 year olds leave full-time education. Starting from age 18 onwards, the number of people in full-time education is rapidly declining. The differences between immigrant groups are substantial, but there is no clear difference between immigrant groups on the one hand and native Dutch people on the other hand, up to the age of 21. Then, for 21–23 years old, attendance of full-time education among Turks and Moroccans on the one hand and Surinamese, Antilleans and native Dutch people on the other hand is substantially different.

Secondary education in the Netherlands is composed of two main branches: general and vocational (see Oosterbeek 1992 from which we borrow this description). Within the secondary general branch, a number of different levels are distinguished each of which can be entered immediately after primary education. These levels involve different numbers of years of education. The secondary vocational branch is divided into a lower and an intermediate level (each within different sectors). Only the lower level can be entered directly after primary education. Intermediate vocational education can be attended after graduation from lower vocational education, but some years of general secondary education may also suffice as a qualification. The top of the educational pyramid consists of higher vocational education and university. Virtually any pattern is permissible, but not every path through the educational system is equally efficient. Here, educational paths are not part of our analysis. Our focus is on educational level attained. We distinguish four levels of education (Note that the category level 0 (= no education) is a relevant category only for the parents of immigrants):

- 1 = Primary education.
- 2 = Lower secondary education (lower vocational or lower general).
- 3 = Intermediate education (intermediate vocational, GCSE and A-levels).
- 4 = Higher education (higher vocational and academic).

For purposes of illustration, we calculate the average educational level based on this scale for the different groups in our dataset.

The lower part of Table 3 shows that the completed level of education of schoolleavers in each of the groups of immigrants – as well as of the native Dutch people – increases until the age of 24. However, in the age group

Table 3. Full-time education and average completed education; by age group, 1998^a

Age	Turks	Moroccans	Surinamese	Antilleans	Natives
<i>a. People attending full-time education (%)</i>					
15–17	93	93	95	100	93
18–20	55	65	68	51	67
21–23	20	29	51	70	57
24–26	8	8	22	44	20
27–29	6	3	11	26	12
Total	29	36	45	49	41
Obs.	1169	879	612	346	422
<i>b. Average completed level of education of schoolleavers (standard deviation)</i>					
15–17	1.41 (0.51)	1.27 (0.47)	1.50 (0.84)	1.00 (–)	2.00 (0.71)
18–20	1.63 (0.70)	1.46 (0.68)	2.09 (0.91)	1.91 (0.81)	2.24 (0.83)
21–23	1.83 (0.90)	1.83 (0.95)	2.13 (0.85)	2.26 (0.90)	2.49 (0.82)
24–26	1.88 (0.93)	1.72 (0.92)	2.52 (1.00)	2.68 (0.96)	3.08 (0.82)
27–29	1.83 (1.01)	1.71 (0.97)	2.51 (0.97)	2.78 (1.10)	2.98 (0.98)
Total	1.82 (0.93)	1.71 (0.93)	2.40 (0.98)	2.58 (1.05)	2.84 (0.94)
Obs.	878	581	381	201	285

^a Educational level on a scale from 1 to 4.

15–17 years old there is already a difference in educational level of the schoolleavers. Native Dutch people in this age group have a higher educational level than immigrant groups have. Also, for people age 24 and older there is a difference in the level of education. Native Dutch people have the highest educational level, Turks and Moroccans the lowest, while Surinamese and Antilleans are in between. Averaged over all age groups from 15–29 years the pattern is similar.

The stylized facts presented here are in line with results from previous research. It turns out that in primary education Surinamese pupils achieve better results in language and mathematics tests than Turkish, Moroccan and Antillean pupils. Nevertheless, they also lag behind native Dutch pupils. These test results lead to ethnic minority youth ending up in lower forms of secondary education more than native Dutch youth. Moreover they achieve less favorable results there, which contributes to the fact that more than 20% of ethnic minority youths leave school without a certificate.

2.3. Education of parents and their children

To give a first idea about the information in our data Table 4 presents the average level of education of the parents of the individuals in our sample. As shown for both first and second-generation immigrants from Turkey and Morocco the educational level of the fathers is higher than that of the mothers. Especially the educational level of Moroccan mothers is low. For each of the immigrant groups the parental level of education of second-generation immigrants is higher than the parental level of education of first-generation immigrants. The parental level of education of second-generation immigrants from Surinam is only somewhat below the educational level of the parents of native Dutch, while the parental level of education of Antilleans is even higher than that of native Dutch parents.

Table 4. Average educational level of parents by immigrant group, 1998^a

	Level of education		Obs.
	Mother	Father	
Turks			
First generation	0.51	0.84	675
Second generation	0.67	1.04	494
Moroccans			
First generation	0.16	0.38	522
Second generation	0.21	0.48	357
Surinamese			
First generation	1.62	1.67	288
Second generation	2.01	2.13	324
Antilleans			
First generation	1.95	2.12	217
Second generation	2.64	2.82	346
Native Dutch	2.39	2.58	422

^a Educational level on a scale from 0 to 4.

Table 5. Average completed level of education of children (age 15–29) distinguished by the educational level of their parents, 1998^a

Parental education	Females – generation			Males – generation		
	1 st	2 nd	natives	1 st	2 nd	natives
0	1.43	1.86	–	1.72	2.00	–
1	1.74	1.89	2.30	1.96	2.03	1.87
2	2.12	2.60	2.78	2.04	2.62	2.63
3	2.57	2.86	2.97	3.00	2.67	2.64
4	2.73	3.26	3.39	3.09	2.88	3.38
Average	1.74	2.26	2.92	1.96	2.27	2.73
Obs.	789	350	157	617	285	128

^a Educational level of the parents: if the parents have different educational levels the highest educational level is used.

Table 5 shows the difference in educational attainment between first and second-generation immigrants and natives conditional on parental education. The average completed educational level of first-generation female schoolleavers is 1.74, for second-generation females this is 2.26, while among native females it is 2.92. For males there is a similar ranking. For the first-generation young males the average educational level is higher than for the first-generation young females. This gender difference is not present for second-generation immigrants or for natives.

As discussed in the introduction an important determinant of the educational achievement of immigrant groups is the socio-economic status of the parents. As is customary in this kind of analysis, we use the educational level of the parents as an indicator of the socio-economic status of the

family. Table 5 also shows the relationship between the average educational level of children and the educational level of their parents. If the parents have different educational levels, the highest educational level of either parent is used.

Table 5 shows that irrespective of the group there is a positive relationship between the educational level of the parents and the educational level of the children. Furthermore, it appears that for young females the ranking in terms of educational attainment that is present at the aggregate level also holds conditional on the educational level of the parents. If for example the parents have educational level 2, their daughters have on average educational level 2.12 when first-generation immigrants, 2.60 when second-generation immigrants and 2.78 when they are natives. For young males this situation is somewhat different. If for example the parents have educational level 2, their sons have on average educational level 2.04 when first-generation immigrants, 2.62 when second-generation immigrants and 2.63 when they are native Dutch people. So, there is not a lot of difference between second-generation immigrants and natives. This does not hold for every educational level of the parents but it is clear that the educational position of second-generation young males does not differ a lot from young natives.

3. Statistical model

We distinguish between the desired level of schooling and the observed level of schooling, which is completed for schoolleavers and incomplete for people that are still at school. We assume that the desired level of education s^* of individual i depends on his or her observed characteristics x :

$$s_i^* = \beta' x_i + \varepsilon_i \quad (1)$$

where β is a vector of parameters and ε is an error term. The desired level of education is unobserved. Furthermore, since the actual level of (completed or incomplete) schooling s is a discrete variable we apply an estimation procedure that combines an ordered probit model for completed schooling and a probit model for individuals that are still at school. We assume that ε is normally distributed across observations. Then, we know for individuals that left school that their desired level of education is equal to the level of complete education. So, $s_i = 1$ if $s_i^* \leq 0$, $s_i = 2$ if $0 < s_i^* \leq \mu_1$, $s_i = 3$ if $\mu_1 < s_i^* \leq \mu_2$, $s_i = 4$ if $\mu_2 < s_i^*$. Therefore

$$\begin{aligned} \text{Prob}(s_i = 1) &= \Phi(-\beta' x_i), \\ \text{Prob}(s_i = 2) &= \Phi(\mu_1 - \beta' x_i) - \Phi(-\beta' x_i), \\ \text{Prob}(s_i = 3) &= \Phi(\mu_2 - \beta' x_i) - \Phi(\mu_1 - \beta' x_i), \\ \text{Prob}(s_i = 4) &= 1 - \Phi(\mu_2 - \beta' x_i). \end{aligned} \quad (2)$$

where the μ 's are unknown parameters, which are estimated jointly with the elements of vector β . For individuals that are still at school we know that the desired level of education is at least equal to the current level. So, $s_i = 1$ if $s_i^* > -\infty$, $s_i = 2$ if $s_i^* > 0$, $s_i = 3$ if $s_i^* > \mu_1$, $s_i = 4$ if $s_i^* > \mu_2$. Therefore

$$\begin{aligned}
\text{Prob}(s_i = 1) &= 1, \\
\text{Prob}(s_i = 2) &= 1 - \Phi(-\beta'x_i), \\
\text{Prob}(s_i = 3) &= 1 - \Phi(\mu_1 - \beta'x_i), \\
\text{Prob}(s_i = 4) &= 1 - \Phi(\mu_2 - \beta'x_i).
\end{aligned}
\tag{3}$$

Our explanatory variables are the following:

- Education of the father, for which we use a series of dummy variables representing primary education, lower secondary education, intermediate education and higher education. No education is the reference category.
- Education of the mother, specified in the same way as the education of the father.
- First-generation immigrants; we use four dummy variables, one for each immigrant group.
- Second-generation immigrants; we use four dummy variables, one for each immigrant group.
- Age: to account for the effect of age we use dummy variables to cover each age between 16 and 29. In combination with the dummy variables for first and second-generation immigrants and for gender this means that native male Dutch age 15 are the reference group. To save space we do not report the values of the coefficients that relate to the age dummies.

The parameters are estimated using maximum likelihood, where the likelihood consists of the various probabilities of (2) and (3).

4. Estimation results

4.1. Parameter estimates

All estimations are done separately for males and females according to the same set-up. First we present results without the educational attainment of the parents. Then, we include the educational attainment of both mother and father, to illustrate the contribution of these variables in the explanation of differences between the groups.

The estimation results are presented in Table 6. The first column shows that for females in terms of educational attainment we can distinguish three groups. The first are native Dutch people and second-generation Surinamese and Antillean immigrants that have the highest educational attainment. The second group are the second-generation Moroccan females and the first-generation Antillean and Surinamese female immigrants that do worse than the first group but better than the third group, which consists of first-generation Moroccan females and first and second-generation Turkish females. From the second column of Table 6 it appears that the educational level of parents is positively correlated with the educational level of their daughters. Both educational levels seem to be equally important. If we introduce the educational level of both parents the relative position of the different immigrant groups changes. It is still the case that first-generation females from Turkey and Morocco do worse than native

Table 6. Educational attainment individuals age 15–29^a

		Females		Males	
<i>Parental education</i>					
Mother	Level 1	–	0.10 (1.2)	–	0.22 (2.2)*
	Level 2	–	0.60 (4.7)*	–	0.30 (2.0)*
	Level 3	–	0.92 (5.4)*	–	0.42 (2.5)*
	Level 4	–	0.98 (6.2)*	–	1.09 (5.2)*
Father	Level 1	–	0.20 (2.4)*	–	0.01 (0.1)
	Level 2	–	0.46 (3.7)*	–	0.22 (1.7)
	Level 3	–	0.58 (3.0)*	–	0.70 (4.1)*
	Level 4	–	1.23 (8.7)*	–	0.74 (4.7)*
<i>First generation</i>					
	Turks	–1.51 (13.9)*	–0.68 (5.3)*	–0.97 (8.8)*	–0.33 (2.1)*
	Moroccans	–1.55 (13.6)*	–0.58 (4.1)*	–1.13 (9.9)*	–0.41 (2.6)*
	Surinamese	–0.57 (4.6)*	–0.12 (0.9)	–0.39 (2.8)*	–0.12 (0.7)
	Antilleans	–0.36 (2.9)*	–0.07 (0.5)	0.27 (1.8)	0.35 (2.1)*
<i>Second generation</i>					
	Turks	–1.85 (7.2)*	–0.01 (0.1)	–0.54 (4.6)*	0.06 (0.4)
	Moroccans	–0.59 (4.4)*	0.45 (2.9)*	–0.28 (2.0)*	0.42 (2.3)*
	Surinamese	–0.15 (1.2)	0.06 (0.5)	–0.08 (0.6)	0.08 (0.5)
	Antilleans	0.21 (1.3)	0.04 (0.2)	0.38 (1.9)	0.17 (0.8)
μ_1		0.50 (17.2)*	0.55 (17.1)*	0.66 (18.7)*	0.69 (18.6)*
μ_2		1.40 (28.5)*	1.59 (28.9)*	1.39 (27.1)*	1.48 (26.9)*
-Loglikelihood		1879.8	1745.1	1646.0	1584.9
Observations			1875		1553

^a The estimates include dummy-variables for every age-year from 16–29; absolute *t*-values in parentheses.

* Significant at a 95% level.

Dutch people females, but the other groups do not do worse than native Dutch people females, while female Moroccan second-generation immigrants even do better.

The estimation results for males are shown in the third and fourth column of Table 6. From the third column it appears that apart from Antillean males and second-generation Surinamese males all immigrant groups perform worse than native males. The fourth column however shows that also for males parental education affects their educational attainment. If we account for the level of education of the parents we find the same results as for females. Only first-generation male immigrants from Turkey and Morocco do worse than native Dutch males. So, for most young immigrants we may conclude that conditional on the education of their parents, their educational attainment is similar to that of native Dutch youngsters.

4.2. Sensitivity analysis

To investigate the sensitivity of our estimation results we performed a number of additional analyses. First, we investigated whether including an indicator for language proficiency of the parents influences the results. The variable “problems of the parents in speaking Dutch” has three values with a high number meaning few problems: 0 = (almost) always, 1 = sometimes,

Table 7. Educational attainment individuals age 15–29; alternative definition second-generation immigrants^a

	Females	Males
<i>Parental education</i>		
Mother Level 1	0.09 (1.0)	0.21 (2.2)*
Level 2	0.57 (4.5)*	0.29 (1.9)
Level 3	0.90 (5.2)*	0.39 (2.3)*
Level 4	0.97 (6.1)*	1.09 (5.0)*
Father Level 1	0.19 (2.2)*	0.02 (0.2)
Level 2	0.45 (3.7)*	0.24 (1.9)
Level 3	0.57 (3.9)*	0.72 (4.3)*
Level 4	1.20 (8.5)*	0.76 (4.8)*
<i>First generation</i>		
Turks	-0.58 (4.7)*	-0.22 (1.4)
Moroccans	-0.44 (3.2)*	-0.23 (1.4)
Surinamese	-0.08 (0.6)	-0.05 (0.4)
Antilleans	-0.02 (0.2)	0.40 (2.5)*
<i>Second generation</i>		
Turks	0.04 (0.3)	0.00 (0.0)
Moroccans	0.65 (3.7)*	0.31 (1.4)
Surinamese	0.10 (0.6)	0.09 (0.5)
Antilleans	-0.08 (0.4)	-0.01 (0.0)
μ_1	0.54 (17.1)*	0.68 (18.6)*
μ_2	1.58 (29.2)*	1.45 (27.1)*
-Loglikelihood	1759.6	1602.0
Observations	1875	1553

^a The estimates include dummy-variables for every age-year from 16–29; absolute *t*-values in parentheses.

* Significant at a 95% level.

2 = never. We specify this variable using two dummies. For females language proficiency of the parents has no effect on their educational attainment, while for males we find a positive effect.¹ So, the better parents are in speaking Dutch, the higher the educational attainment of their sons is. However, the results concerning the effects of parental education and the differences between the groups distinguished hardly change.

Second, we investigated to what extent the educational level of parents has a different effect for different groups. We did this by removing the restriction that the effects of the educational level are the same for all groups (natives, first generation immigrants, second generation immigrants) involved. Both for females and males we cannot reject the hypothesis that parental education has the same effect for each of the groups we distinguish.² The main conclusion that conditional on the educational level of the parents there are hardly any differences between immigrant groups does not change.

Third, we investigated to what extent our results are driven by our specific definition of second-generation immigrants. As an alternative we defined second generation as those who were born in the Netherlands from at least one parent who came as an immigrant. This means that persons who came to the Netherlands at an age under 6 years are now considered to be first-generation immigrants. The estimation results based on this alternative definition are shown in Table 7. The differences with previous results are small.

Both for males and females there is, again conditional on age and parental education, no difference between second-generation immigrants and native Dutch people. The same conclusion now holds for first-generation males, but first-generation female immigrants from Turkey and Morocco still perform worse than native Dutch females.

5. Conclusions

In the current article we focus on the educational position of young second-generation immigrants in the Netherlands in comparison to first-generation immigrants and native Dutch youngsters. In our analysis we use a unique dataset containing information about the four main immigrant groups of Turks, Moroccans, Surinamese, Antilleans (including Arubans) and about a native Dutch reference group. We find that conditional on the education of their parents most immigrant groups have an educational attainment that is similar to native Dutch. To the extent that there are differences between these groups at the aggregate level these are related to differences in education of the parents: the lower the education of the parents the lower school attendance of the children. Only for first-generation immigrants from Turkey and Morocco we find that even conditional on the educational level of their parents they have a lower educational attainment than native Dutch have.

From a sensitivity analysis it appears that the results are robust to the introduction of language proficiency of the parents, changes in the definition of the second-generation immigrants and whether or not the effect of the educational level is imposed to be the same for all the groups we distinguish. Language proficiency of the parents has a positive effect on the educational attainments of their sons but no effect on the educational attainment of their daughters.

Our main conclusion is that a lot of second-generation immigrants have a lower educational attainment because their parents on average have a lower level of education. If we take these differences into account, the differences between second-generation immigrants and native Dutch people vanish to a large extent. This does not mean that the gap between second-generation immigrants and natives will close automatically. Educational decisions are also determined by factors such as language proficiency, social contacts schooling ambitions, career planning and orientation on return migration. Also, although the gap in educational attainment between native Dutch people and immigrants is vanishing, the speed at which this process occurs is measured in terms of generations. From a policy point of view a positive finding of our research is that second-generation immigrants do not seem to be a group that is more problematic in terms of educational attainment than native Dutch people are. This means that if time goes by and the composition of the immigrant group changes in favor of the second-generation current problems will fade away. An important conclusion from our research is also that first-generation young Turkish and Moroccan immigrants are doing worse than native Dutch youngsters are and other young immigrants are doing. Given that these Turks and Moroccans are still rather young this means that problems may persist for a long time in the future.

Endnotes

- ¹ To account for unobserved language proficiency the estimates also include a dummy variable for missing observations. The value of the loglikelihood for females is -1741.6 , which implies that the Likelihood Ratio statistic is equal to 7.0. For 3 degrees of freedom this is not significant at a 95% level. For males we find a loglikelihood value of -1575.7 , which implies a LR-statistic of 18.4, meaning that we cannot accept the hypothesis that language proficiency of the parents does not matter.
- ² The value of the loglikelihood for females is -1733.9 , which implies that the Likelihood Ratio statistic is equal to 15.4. The value of the loglikelihood for males is -1565.1 , which implies that the Likelihood Ratio statistic is equal to 21.2. For 16 degrees of freedom neither of these is significant at a 95% level.

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