Long-term labour market consequences of dropping out of upper secondary school: Minority disadvantages?

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Abstract

In this study, I compare the labour market outcomes for school completers and school dropouts ten years after they entered upper secondary education. I compare second-generation immigrant youth from Turkey, Morocco, Pakistan, Vietnam, India and Chile with native majority youth, both in terms of economically inactivity, employment probability and educational enrolment. I use register data from Statistics Norway, which contains information on all students who entered upper secondary school in the years between 1994 and 1998. The results show that youth who drop out of school have lower probability of being employed than school completers. However, the labour market penalty of dropping out is not more excessive among second-generation immigrant youth than among native majority youth.

Keywords

Minority, employment, school dropouts, upper secondary education

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Introduction

A number of youth experience problems at school. As a result, many drop out of upper secondary school without formal qualifications. In Norway, approximately one-third of students do not complete the three or four years of upper secondary schooling within five years after they enter (Statistics Norway, 2010). One of the main concerns about school dropouts is their ability to obtain employment. It is widely recognised in Norway and in other European countries that dropouts from upper secondary school have difficulties finding employment (Bäckman et al.,2011;Bratsberg et al., 2010; Falch et al., 2010; McNeal, 2011) and if they secure work they are more likely to have a non-standard contract (van der Velden and Wolbers, 2007). They experiencing longer periods outside the labour market (Rumberger and Lamb, 2003) and earn less (Opheim, 2009; Vries and Wolbers, 2005) than school completers. Research also shows that school dropouts have worse labour markets prospects than school completers even after adjusting for grades in lower secondary school (Falch et al., 2010).

A long line of research from several Western countries have shown that children of immigrants face problems regarding entry into the labour market, see for example (Heath et al, 2008). However, looking at occupational attainment the picture is more diverse. In some countries, there are cumulative disadvantages, whereas in others the great barriers are on entry into the labour market (Heath et al, 2008). Hermansen (2012) found that children of non-European immigrants experience weaker labour market attachments compared to the natives in Norway. However, he found no evidence to suggest ethnic disadvantage in access to advantaged occupational positions.

Ethnic differences in labour market outcomes after dropout in upper secondary education have received much less attention. Two studies from Norway (Bratsberg et al., 2010; Støren et al., 2009) found that children of immigrants who have dropped out from upper

secondary school tend to face severe difficulties when entering the labour market and they earn less compared with their native majority counterparts. However, the observed penalty among children of immigrants is mainly explained by less privileged social background among minority youths (Bratsberg et al., 2010). Moreover, Fekjær and Brekke (2009) found small ethnic differences in labour market outcomes after dropout. Similar results were found by Reisel (2013). She shows that there were no earnings disadvantage among second-generation immigrants when looking at those who never have completed high school.

A comparative research report on students in upper secondary school and labour market attachment in Scandinavia shows that dropouts and school completers with non-western immigrant parents have higher probability of being economically inactive in Denmark and Sweden, but in Norway and Finland the effect of having non-western immigrant parents was insignificant (Backman, et al., 2011:30).

From the literature, it is less clear how school dropouts with different countries of origin fare in the labour market on the long term, and whether dropping out of school pose more harm to second-generation immigrant youth than to native majority youth. The objective of this study is to examine how dropouts and school completers with different countries of origin fare in the labour market ten years after they have entered upper secondary education. In addition, the present study examines whether formal qualifications from upper secondary school are particularly important for certain country groups. Specifically, I examine whether dropping out of school has different labour market consequences for second-generation immigrants and native majority. I compare descendants of Turkey, Morocco, Pakistan, Vietnam, India and Chile with the Norwegian born native majority. I focus specifically on the realms of economically inactivity, employment probability and educational enrolment ten years after they enter upper secondary education.

One of the main strengths of this article is the use of register data that contains detailed information on education linked to information on subsequent periods inside and outside the labour market the first ten years after entering upper secondary education. A related advantage of the present study is that there are ample cases in the study sample to distinguish between different country groups. Most of the research studies mentioned above have tended to focus on the second- generation immigrants as a broad aggregate and do not distinguish among individuals with different countries of origin. Labour market disadvantage among children of immigrants, in general, is found in several studies, but the disadvantage varies according to the parents' country of origin (see, for instance, Heath et al., 2008). It would therefore seem that further investigation is needed in order to obtain more knowledge about how school dropouts and school completers with different country backgrounds fare in the labour market on the long term.

Norwegian context

In Norway, the duration of primary and lower secondary education is 10 years. Both levels operate within a common governmental framework and a national programme of study. Children enter primary school at age 6 and finish lower secondary education at approximately age 16. After finishing lower secondary education, a vast majority of students proceed to upper secondary education (95 per cent), however around 30 per cent fail to complete within five years (Statistics Norway, 2010). Since 1994, all students have been entitled to three years of upper secondary education after finishing lower secondary education. Upper secondary education provides students with either an academic or vocational education. The nominal duration time is three years in academic track and four years in vocational track. After finishing upper secondary education, students can continue in colleges or universities (Markussen, 2009). This transition is most easily made from the academic tracks, however

graduates from vocational tracks can continue in higher education if they complete the supplementary programme for general university admissions certification.

As of January 2011, the number of individuals in Norway with immigrant backgrounds (immigrants and those born in Norway to immigrant parents) was approximately 600,000. The immigrant population accounts for 12.2 per cent of the entire Norwegian population (Statistics Norway, 2012). The largest descendant groups originate from Pakistan, Vietnam, Sri Lanka and Turkey. These groups are very young: in 2008, 73 per cent were younger than 15 (Statistics Norway 2008). In the present study, I include children of immigrants who originate from Turkey, Morocco, Pakistan, Vietnam, India and Chile, which are the largest group of descendants who have commenced upper secondary education in Norway between 1994 and 1998. Pakistanis, Turks, Indian and Moroccans came to Norway as migrant workers (mostly unskilled labourers) in the late 1960s and early 1970s. However, some Indian immigrants who have arrived later are highly skilled labourers. The first Vietnamese immigrants to Norway came as refugees after 1975, as a result of the Vietnam War. Chilean immigrants came after the military coup in 1973. Some also arrived later, in the period from 1987 to 1999, due to economic and political crises in Chile.

Norway provides an interesting context for the analyses of employment differences between school completers and school dropouts with parents from different countries of origin. Unemployment statistics indicate that compared with other European countries, Norway has a low unemployment rate of approximately 3 per cent (OECD, 2008). Consequently, job opportunities for school dropouts may be fairly high. However, the unemployment rate for second-generation immigrant youth is 36 per cent higher than that among native majority youth (Olsen, 2011:30), which suggests that the minority disadvantage in labour market opportunities for those who have dropped out of upper secondary school may be quite large in the country.

Theoretical background and research questions

There are several reasons to expect school dropouts to face more problems in the labour market compared with those who have completed upper secondary education. According to human capital theory (Becker, 1964), skills acquired in school represent an individual's human capital resources and contribute to their productivity in the labour market. Human capital theory emphasises how education increases the productivity and efficiency of workers by increasing their cognitive abilities. Education improves job skills and prepares youth for employment.

Moreover, education may also provide a positive 'signal' to the employer who is screening the labour market for workers. According to Spence (1973), education does not increase youths' productivity; education is used as a signal in the hiring process. Students use education to signal that they are bright and productive, while employers use education to screen potential employees. Employers rely on education when less is otherwise known about an applicant. Individuals show their productivity and drive by graduating from an educational institution. Employers see school completers as more productive workers. As such, educational completion serves as a positive signal to employers. Following this theoretical arguments completing upper secondary school makes an individual more attractive in the workforce and more employable than school dropouts.

One reason why some youth choose to drop out of school may be because they have a job offer waiting for them. In this particular case, dropout does not necessarily lead to unemployment or economically inactivity. In Norway, the labour market is relatively tight; thus, job opportunities might be relatively decent even for those youth without formal qualifications. However, even if youth drop out of school due to a pending job offer, this may not lead to a stable labour market career on the long term. The labour market experience for dropouts ten years after they have entered upper secondary education may be sporadic and

unstable. Therefore: Hypothesis 1: School dropouts have lower employment probabilities compared with school completers ten years after they enter upper secondary education.

There are a number of possible explanations for why children of immigrants without formal qualifications may be less likely to be employed compared with their majority counterparts. Dropouts do not have an education to signal to employers and may also lack important skills that are essential in the labour market. Therefore, this group of youth is vulnerable in the labour market and may need support to gain access to employment. Social networks and parental resources may be helpful in this process.

Social networks support workers to obtain jobs, and employers to find employees. Being part of a network might reduce the search costs and increase the chance of getting a job (Granovetter, 1995). According to Portes and Rumbaut (2001), children whose parents have low human capital resources have less access to social networks and to strategic resources compared with children whose parents have high human capital resources (Portes and Rumbaut, 2001). Kramarz and Skans (2010) also argue that family networks may be significant for youths' chances of getting a job. Because children of immigrants have limited membership in influential social networks and due to their disadvantaged socioeconomic backgrounds, second-generation immigrants may be viewed unfavourably in the labour market. Although, I control for parental education and parental income in the present study, a substantial number of the immigrant parents have foreign education and are holding jobs below their educational level. Moreover, many immigrant parents have also limited work experience in the host country and insufficient language skills and are therefore expected to have a smaller network than native majority parents. Following this there are reasons to believe that second-generation immigrants have less access to to the kind of network that would improve their chances in the job market compared with youth with Norwegian born parents.

Discrimination is another factor that might contribute to minority disadvantage. Using field experiment design, previous research from Sweden, Germany and Norway (e.g.,Carlsson 2010; Kaas and Manger 2012; Midtbøen and Rogstad, 2012) has found evidence of discrimination among second-generation immigrants in the labour market. Statistical discrimination theory assumes that employers who have inadequate information on the productivity of workers base their hiring decisions on information about the average productivity of the groups to which the workers belong (Arrow, 1973). If employers cannot rely on workers' educational qualifications, the uncertainty in the hiring process rises. As a result, employers who are initially reluctant to hire youth with immigrant background may be even more resistant to hire dropouts with immigrant background. As a result, discrimination among children of immigrants increases. Reskin (2002) suggests that discrimination in the labour market is, to a large extent, unintended. Similarly, there is reason to believe that unintended discrimination is more widespread among youth with immigrant background who lack formal qualifications.

The negative "credential" associated with dropping out of school may cause children of immigrants to be particularly vulnerable to discrimination or social exclusion. Pager (2003) found that black individuals face much more difficulties obtaining a job than their white counterparts. Moreover, the study shows that having a criminal record is particularly negative for blacks compared with whites in terms of employment probabilities. Similarly, dropping out of school is a negative signal (although not as strong as having a criminal record), which may have worse consequences for children of immigrants than for native majority youth. Following this, it might be that employers that already are reluctant to hire children of immigrants, are even more wary of those who have not completed upper secondary education.

Given all of these, there is reason to believe that second-generation immigrant dropouts are more disadvantaged in the labour market than their native majority counterparts.

Adding one disadvantage to another, such as disadvantaged social background, insufficient social networks, discrimination and lack of formal education, results in multiple marginalized statuses, which might reduce the second-generation immigrants' chances in the labour market. Moreover, there is also likely that different marginalized statuses can influence each other, e.g, poor social network might exacerbate the impact of discrimination (or vice versa). Therefore: Hypothesis 2: The differences in employment probabilities between school completers and school dropouts are larger among second-generation immigrant youth compared with native majority youth.

Data and methods

The data used in this paper originate from several public registers from Statistics Norway. Information on education is taken from "The National Educational Data Base" (*NUDB*). NUDB includes individually based statistics on education since 1970. Demographic information, labour market outcomes and earnings are taken from FD-trygd. FD-trygd contains panel data for all individuals in Norway from 1992 onwards and also contains information on individuals' labour market participation. Due to its large sample size, the data can be used to analyse relatively small population groups. The structure of NUDB is equal to FD-Trygd. Data extracted from FD-Trygd and NUDB can be merged in a straightforward manner.

The sample in the present study contains all native majority youth and children of immigrants with origin from Turkey, Morocco, Pakistan, Vietnam, India and Chile who commenced upper secondary education in Norway between 1994 and 1998. Native majority youth are defined as those born in Norway and who have at least one parent born in Norway. Second-generation immigrants are defined as those born in Norway with parents born outside Norway or those who migrated before school age. I define dropout in upper secondary

education as non-completed education 5 years after entering upper secondary education. In the analyses, I compare children of immigrants with origin from Turkey, Morocco, Pakistan, Vietnam, India and Chile with the native majority group. I have information on all of these individuals for each year up to 2008.

Dependent variables

The dependent variable is the individual's labour market outcome ten years after entering upper secondary education. The variable is coded as 0) economically inactive 1) fully employed, 2) partly employed and 3) in education. For the purposes of this study, a person is considered as fully employed if he/she works more than 30 hours a week[i] and is registered as employed for at least 300 days. A person who works for less time, but for at least 50 days a year, is defined as partly employed. Individuals who work less than 50 days a year, are unemployed, receive health related welfare, receive social assistance or are not found in any official register are considered economically inactive. Information on employment is based on reports given to the national insurance register, which includes information on the number of days worked and on the expected working hours. For the self-employed, information on days worked and working hours is not available. To take this under-reporting into account, the study codes individuals whose annual earnings exceed the lowest paid grade in state jobs as fully employed and those who earn half of this sum as partly employed. Those who earn less than half of the lowest salary grade in the state salary tables are coded as economically inactive[ii]. Those who are enrolled in education ten years after they commence upper secondary education are coded as in education.

Independent variables

Country of origin is categorised as follows: 1) Turkey, 2) Morocco, 3) Pakistan, 4) Vietnam 5) India and 6) Chile. Gender is coded 0 for males and 1 for females. Age is measured when

the student commences upper secondary school. The variable distinguishes between the age groups 16–17 years and 18–20 years. 18–20 years is the omitted category. Persons older than 20 years when entering upper secondary education are excluded from the sample. The study program distinguishes between vocational and academic track. Social background is measured by parental education and income. Parental education is the education level of the parent with the highest education or of the only parent who is present. Parental education is divided into four levels: compulsory school or less, upper secondary school, bachelor's level and master's level. Compulsory school or less is the omitted category. Missing educational information is included as a separate category. Parental income is measured as both parents' combined mean incomes during the years that the persons in the sample were 10–16 years of age. This includes salary, income from self-employment and some state support benefits, such as unemployment benefits, sickness benefits and maternity benefits. Parents' income is measured in the Norwegian currency (NOK). If only one parent is present, we use this income. If the income information is missing for some of the years, we use the average income from the years where information is available. Unemployment rate in the local labour market (county) is measured ten years after entry into upper secondary education. Dropout is defined as incomplete upper secondary education within five years. Youth have the right to complete upper secondary education within a period of 5 years after being enrolled. When upper secondary education is not completed within five years, it is also unlikely that it will be completed later (Falch and Nyhus, 2009). Thus, the definition of five years seems appropriate. I also control for entry year, using the year 1994 as the omitted category.

Statistical methods

I estimate a multinomial logistic regression to analyse labour market outcomes ten years after entry into upper secondary education for school completers and school dropouts. Native

majority youth and second-generation immigrant youth are analysed separately. To test whether the impact of dropping out of school varies according to country of origin t- tests are used to compare the second-generation immigrant group to the native majority group. Because the coefficients in logistical regression not only reflect the effects of the independent variables but also the size of the unobserved heterogeneity (Mood, 2010), I have computed AME after multinomial logistic regression (I use the margins command in Stata 12). The marginal effects for the categorical variables indicate how P (Y=1) is predicted to change as the categorical independent variable changes from 0 to 1, holding all other independent variables equal. For continuous independent variables, the marginal effect measures the instantaneous rate of change (Williams, 2011).

Problems of causal inference must be considered. Differences in employment probabilities among dropouts and school completers do not necessarily reflect the effect of a completed upper secondary education. There might be systematic differences between individuals apart from their education level which are important for labour market outcomes. I will not be able to take such selection effects into account in the present analyses. However, I control for parental education and parental income, factors that have turned out to be strongly correlated with children's educational performance (e.g., Erikson and Jonsson, 1996).

The other main focus in the present article is whether dropping out of school causes more harm to second-generation immigrant youth than to native majority youth. In this respect, confounding selection effects are only problematic if the selection effect operates differently for second-generation immigrants than for the native majority.

Results

Descriptives

Figure 1 shows the cumulative proportion of minority youth and majority youth in employment

and in education ten years after entering upper secondary education (unadjusted for control variables) for school completers. Among school completers, youth with Chilean origins have the lowest proportion of economically inactivity, while youth with Pakistani origins have the highest proportion in this category. Youth with parents from Norway, Morocco, Turkey and Chile have the highest shares in employment, while youth with parents from Pakistan and India have the lowest proportion of employed youth. Moreover, Figure 1 demonstrates that youth with Indian origin have the highest proportion in education, while Turkish and Moroccan youth have the lowest. However, the general finding is that the main activity ten years after starting upper secondary school is quite similar for children of immigrants and native majority youth who have completed school. Differences in labour market outcomes were tested with chi-squared tests. Significant differences can only be found between native majority youth and youth with origins from India and Pakistan.

Looking at dropouts (figure 2), we see that there are substantially more youth who are economically inactive compared with the school completers, as shown in Figure 1. This result is applicable to all of the country groups. Figure 2 shows that among youth with Pakistani origins, 41 per cent are inactive, while only 31 per cent of native majority and Chilean youth are inactive. Youth with Chilean and majority origins are those with the highest share of employment, while Pakistani youth have the lowest share of employed youth. Chi-squared tests show significant differences in labour market outcomes between native majority youth and youth with origins from Turkey and Pakistan.

[Figure 1 and 2 about here]

Table 1 lists the means and standard deviations by parents' country of origin. The native majority group and youth with Indian origin have the lowest dropout rates, while youth

with Moroccan origins has the highest dropout rates. The gender distribution is relatively equal between children of immigrants and native majority youth. The age when starting upper secondary education is quite similar for the different country groups. The distributions across educational tracks, however, are very different. Preference for the vocational track is highest among youth from Turkey and Morocco and lowest among the children of Indian immigrants. Table 1 shows that parental earnings are highest among the native majority group and lowest among youth with origin from Morocco. Parental educational level is highest among Indian second-generation and lowest among Turkish second-generation youth. Finally, we see that compared with the group of descendants, the number of siblings is lower among the native majority.

[Table 1 about here]

Employment probabilities ten years after entering upper secondary education

Tables 2 reports average marginal effects (AME) from multinomial logistic regressions for school completers and school dropouts. The analyses were estimated separately for second-generation immigrant youth and native majority youth. The dependent variable is the main activity (fully employed, partly employed, in education and economically inactive) ten years after entering upper secondary education. Economically inactive is the baseline category. First, table 2 shows that youth with native majority origin and those with immigrant origins who have dropped out of school are less likely to be fully employed, partly employed and in education relative to being economically inactive when compared with their counterparts who have completed school. Those who have dropped out of school have 8 percentage points lower probability of being fully employed compared to those who have completed school. This result applies to both native majority youth and children of

immigrants. This represents a difference of 21 % for the native majority and 26 % for the second-generation immigrants.

Looking at the probability of being partly employed versus economically inactive, table 2 shows that that those who have dropped out of school have lower probability of being partly employed; 4 percentage points (12%) for the native majority and 6 percentage points (15%) for the second-generation immigrants. Moreover, table 2 shows that dropping out of school is associated with a decreases of the probability of being in education by 0.8 percentage points (14 %) for the native majority and 0.9 percentage points (41%) for the second-generation immigrants.

In figure 3, I show estimated probabilities of being in various states 10 years after starting upper secondary education, conditional on completing school or not. The estimated probabilities are population averaged over the independent variable in the model

[Figure 3 about here]

The figure shows that school dropouts experience lower employment probabilities than school completers and the probability of being economically inactive are marked higher among school dropouts. The results apply to both children of immigrants and native majority youth. This result support hypothesis 1, which assumed that school dropouts have lower employment probabilities than school completers ten years after they have entered upper secondary education. The findings confirm that dropouts are in fact less likely to be employed compared with school completers on the long term. This result applies to both second-generation immigrant youth and native majority youth

[Table 2 about here]

Moreover, table 2 shows that there were no significant differences between children of immigrants and native majority youth in labour market participation when comparing school

dropouts and school completers[iii]. However, when looking at the probability of being in education; the differences between dropouts and school completers are more evident among second-generation immigrants compared with native majority, and the results are significant. These results are also illustrated in figure 3.

Figure 3 shows that school dropouts have lower employment probabilities and higher probabilities of being economically inactive. However, the figure also illustrate that the differences in the employment probabilities between school dropouts and school completers are comparable for second-generation immigrant youth and native majority youth. These results give no support to hypothesis 2. Hypothesis 2 assumed that the differences in employment probabilities between school completers and school dropouts were more pronounced among children of immigrants than among native majority youth. The results in the present study demonstrate that the labour market penalty among dropouts is more or less comparable for second-generation immigrant youth and native majority youth and thus give no support to hypothesis 2.

Furthermore, table 2 demonstrates that for native majority youth, age of entry has a significant negative impact on youths' probability of being fully employed. Table 2 also indicates that women are less likely to be fully employed than men. This result applies to both children of immigrants and native majority youth. Native majority women have a 17 percentage points lower probability of being fully employed compared with native majority men. The corresponding number for the second-generation immigrant women was 10 percentage points. The values are reversed when we look at the probability of being partly employed. Native majority women are more likely than native majority men to be partly employed versus economically inactive. For the children of immigrants there was no significant gender differences related to partly employment. Moreover, table 2 shows that native majority youth who have started in a vocational track are more likely to be fully

employed compared with native majority youth who have started an academic track. Majority youth who started in a vocational track have 7 percentage points higher probability of being fully employed compared to majority youth who started in a vocational track. The corresponding number for second-generation immigrants is 3 percentage points, but the result was not significant. For youth, entering an academic track is more likely to result in partly employment or school enrolment. For the second-generation immigrants this result only applies for partly employment.

Moreover, table 2 shows that there is a significant positive correlation between parental education and parental income on youth's probability of being employed and remaining in school. Those who have parents with higher educational levels are less likely to be fully employed than those who have parents with a primary education or less. The table also shows that parental education has a positive influence on partial employment and school enrolment. Having parents with a master's degree or higher is associated with an increases in the probability of being in education rather than being economically inactive by 7 percentage points for the native majority youth and 6 percentage points for the second-generation immigrant youth. Finally, table 2 demonstrates that there is a positive relationship between parental income and employment and parental income and school enrolment among native majority youth. For the second-generation immigrant youth parental income was only significant in relation to partly employment.

Discussion

In the present study, I have examined the impact of parents' country of origin on labour market outcomes for school dropouts and school completers in upper secondary school. I proposed two hypotheses, as follows: hypothesis 1 was derived from Becker (1964) and Spence (1973) and predicted school dropouts to have lower employment probabilities than school completers. Hypothesis 2 was derived from social network theory (Granovetter, 1995)

and theory of discrimination (Arrow, 1973; Reskin, 2002), and predicted that the labour market penalty of dropping out are more excessive among second-generation immigrant youth than among native majority youth.

In the empirical analyses that followed, I found that youth who have dropped out of school have lower employment probabilities than school completers ten years after they have entered upper secondary education. The result support hypothesis 1 and demonstrate that dropouts are less likely than school completers to be fully employed, partly employed and in education. The results applied to both native majority and second-generation immigrant youth. These result corroborate previous research that has found that those who leave school are more disadvantaged in the labour market than school completers in terms of employment probabilities, job security and wages (e.g.,Brzinsky-Fay, 2007; van der Velden and Wolbers, 2007; Bratsberg et al., 2010; Vries and Wolbers, 2005; McNeal, 2011; Falch and Nyhus, 2009; Falch et al., 2010).

One possible explanation for the negative relationship between dropping out of school and employment is that school dropouts are less productive in the labour market due to a lack of educational training and skills. For this reason, they are less employable than school completers. A second possible explanation is that because school dropouts lack a formal education, they cannot provide a positive signal to employers who prefer school completers to school dropouts. Finally, a third possible explanation is that dropouts are negatively self-selected and that they would have had problems gaining employment even if they had completed school. Unfortunately, the present article is not able to distinguish among these three explanations. However, Van der Velden and Wolbers (2007) and Falch et al. (2010) found that completing upper secondary education has positive influence on labour market outcomes even after adjusting for grades in lower secondary education. This finding indicates that the lack of a formal education maybe one of the reasons that dropouts were found to be

more disadvantaged in the labour market than school completers ten years after entering upper secondary education.

The second major finding in the empirical analyses is that the labour market penalty among dropouts is more or less comparable for second-generation immigrants and native majority. These results reject hypothesis 2. Hypothesis 2 assumed that the differences in employment probabilities between school completers and school dropouts were more pronounced among children of immigrants than among native majority youth.

The main conclusion from this study is that the negative relationship between dropping out of school and employment probabilities is fairly similar for children of immigrants and native majority youth. This result is consistent with previous research from Norway showing small differences in the labour market between children of immigrants and native majority with low competence level (Bratsberg et al., 2010; Fekjær and Brekke, 2009; Backman, et al., 2011). In a cross national Nordic perpective (Backman, et al., 2011:30), it seems that children of immigrants with low educational levels in Norway are somewhat less disadvantaged in the labour market compared to otherwise similar countries like Denmark and Sweden.

Although previous research have shown that second-generation immigrants experience discrimination in the Norwegian labour market (Midtbøen and Rogstad, 2012) and that they have more difficulty getting access to employment compared to the native majority (Hermansen, 2012), the results in the present study indicate that the ethnic penalty among children of immigrants in Norway is not more pronounced among school dropouts than among school completers. The ethnic penalty is comparable for school completers and school dropouts. Another possible explanation for why dropping out of school does not harm second-generation immigrant youth harder than native majority youth might be due to similar access to social networks, or that youth generally do not have an extensive relevant network.

In the present study, I also find that the employment and school trajectories of children of immigrants are shaped by resources from their own families. Both parental income and parental education are significant for youths' partial employment and school enrolment. The former is especially important for youths' probability of remaining in school. Those with parents with high educational levels are much more likely to be in education ten years after they have entered upper secondary education compared with those whose parents have low educational levels. These results are consistent with previous research (Bratsberg et al., 2010; Fekjær and Brekke, 2009) indicating that the children's performance is dependent on parental resources. Moreover, the result also shows that having parents with bachelor education and higher reduces the probability of being fully employed. This result reflect the fact that youth with advantaged social background to a larger degree continuing in education compared to youth with disadvantaged social background.

Conclusion

This article has shown that youth who drop out of school have a lower probability of being employed and in education compared with school completers ten years after they have entered upper secondary education. This result applies to both second-generation immigrant youth and native majority youth. Moreover, the analyses show that dropping out of school does not seem to pose more harm to second-generation immigrant youth than to native majority youth. This result indicates that second-generation immigrant disadvantages are not more pronounced among school dropouts than among school completers in Norway. Given these results, there is reason to believe that completing an upper secondary education is important for employment probabilities on the long term. More research is needed, however, in order to come closer to answering the question of how important completing an upper secondary education is for youth's labour market participation on the long term. In addition,

future work should also focus on the quality of the jobs obtained by dropouts and school completers. Other aspects of employment such as wage and temporal/permanent contracts are interesting in this respect.

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Notes

1 Statistics Norway distinguishes between 1) 4–19 hours, 2) 20–29 hours, and 3) > 30 hours (37,5 hours per week is standard in Norway). In this paper, we combine category 1 and category 2 and distinguish between full-time (≥ 30 hours) and part-time (< 30 hours).
2 The lowest pay grade in the state salary table increased from NOK 167, 500 in 2004 to NOK 198,400 in 2008.
3 T- tests are conducted with the native majority group compared with second-generation immigrant group , t-value 1.96.

Author biography

Idunn Brekke obtained a Phd in Sociology from the University of Oslo in 2008. Brekke's primary research concerns ethnic minorities in the labour market, sickness absence, education and health. She is a senior researcher at Institute for Social Research and an assistant Professor at Oslo and Akershus University College of Applied Sciences.

Table 1. Descriptive statistics for native majority and children of immigrants. All, completed and dropouts are included in the analysis.

	Native majority		Turkish origin		Moroccan origin		Pakistani origin		Vietnamese origin		Indian origin		Chilean origin	
	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
Women	0.49	0.50	0.49	0.50	0.46	0.50	0.47	0.50	0.51	0.50	0.49	0.50	0.46	0.49
Dropout	0.29	0.45	0.50	0.50	0.52	0.50	0.48	0.50	0.30	0.46	0.29	0.45	0.44	0.50
Age	16.04	0.24	16.14	0.49	16.21	0.56	16.23	0.59	16.09	0.29	16.09	0.34	16.09	0.38
Vocational track (=1)	0.46	0.50	0.56	0.50	0.54	0.50	0.38	0.48	0.30	0.46	0.22	0.42	0.50	0.50
Parents' compulsory ed (=1)	0.11	0.32	0.65	0.48	0.54	0.50	0.46	0.50	0.55	0.50	0.18	0.39	0.23	0.42
Parents' upper secondary (=1)	0.55	0.50	0.17	0.38	0.26	0.44	0.26	0.44	0.27	0.45	0.19	0.39	0.40	0.49
Parents' bachelor degree (=1)	0.25	0.43	0.08	0.28	0.07	0.25	0.16	0.37	0.12	0.33	0.44	0.50	0.27	0.44
Parents' master degree (=1)	0.09	0.28	0.02	0.15	0.02	0.14	0.02	0.15	0.03	0.18	0.15	0.35	0.08	0.28
Parents' ed unknown (=1)	0.00	0.02	0.08	0.26	0.10	0.31	0.09	0.29	0.02	0.14	0.04	0.19	0.02	0.15
Parents yearly income (in 1000 NOK)	249.94	112.39	136.31	85.95	97.37	94.12	101.01	75.06	153.32	94.88	226.94	131.54	188.95	96.24
Oldest sibling	0.53	0.50	0.73	0.45	0.75	0.43	0.80	0.40	0.75	0.43	0.63	0.48	0.62	0.49
Number of siblings	0.91	0.97	1.43	1.12	2.05	1.54	2.22	1.56	1.83	1.29	1.05	0.89	1.07	0.93
N (individuals)	224080		408		306		1699		667		374		360	

Table 2. Average marginal effects from multinomial logistic regression of the impact of dropping out of upper secondary school on main activity 10 years after starting upper secondary school, adjusted for gender, age, educational track, oldest sibling, number of siblings, parents' education, parents' yearly income and unemployment rate in county. Computed separate for native majority youth and second-generation immigrant youth *(economically* inactive *is the baseline category)*.

	Native majority						Second-generation immigrants					
	Fully employed		Partly employed		In education		Fully employed		Partly employed		In education	
	AME	SE	AME	SE	AME	SE	AME	SE	AME	SE	AME	SE
Parents' country of origin (ref: Turkey)												
Morocco							-0.046	0.037	0.058	0.039	-0.003	0.017
Pakistan							-0.074 **	0.027	0.017	0.028	0.019	0.013
Vietnam							-0.054	0.030	0.028	0.031	0.031 *	0.015
India							-0.051	0.037	0.010	0.037	0.032	0.017
Chile							-0.036	0.037	0.046	0.038	0.019	0.017
Women	-0.174 ***	0.002	0.108 ***	0.002	0.003 *	0.001	-0.101 ***	0.015	0.003	0.016	0.003	0.008
Dropout (ref: school completers)	-0.078 ***	0.002	-0.038 ***	0.003	-0.008 ***	0.001	-0.083 ***	0.016	-0.060 ***	0.017	-0.03 ***	0.009
Age 18-20 years	-0.101 ***	0.024	-0.029	0.024	0.000	0.014	0.010	0.059	-0.084	0.067	-0.026	0.042
Vocational track	0.073 ***	0.002	-0.035 ***	0.002	-0.039 ***	0.001	0.028	0.016	-0.039 *	0.018	-0.011	0.009
Entry year	yes		yes		yes		yes		yes		yes	
Oldest child	yes		yes		yes		yes		yes		yes	
Number of siblings	yes		yes		yes		yes		yes		yes	
Parents' education (ref: compulsory)												
Upper secondary ed.	0.010 **	0.010	-0.005	0.004	0.016 ***	0.002	-0.026	0.019	-0.002	0.020	-0.003	0.011
Bachelor	-0.060 ***	-0.060	0.013 **	0.004	0.046 ***	0.003	-0.051 *	0.024	0.019	0.025	0.029 **	0.011
Master	-0.128 ***	-0.128	0.018 ***	0.005	0.074 ***	0.003	-0.190 ***	0.050	0.021	0.046	0.060 ***	0.016
Parents' yearly income (in 10000 NOK)	0.130 ***	0.010	0.002 *	0.002	0.024 ***	0.000	0.037	0.100	0.214 *	0.106	0.027	0.050
Unemployment rate in county	yes		yes		yes		yes		yes		yes	
LL			-243945.62						-4266.078			
Pseudo R squared			0.041						0.04			
N (individuals)			207234						3554			

Note: *** p<.001, ** p<.01, * p<.05

Figure 1. Main activity 10 years after starting upper secondary school for school completers (N=161 675), by parents' country of origin, per cent, unadjusted results.

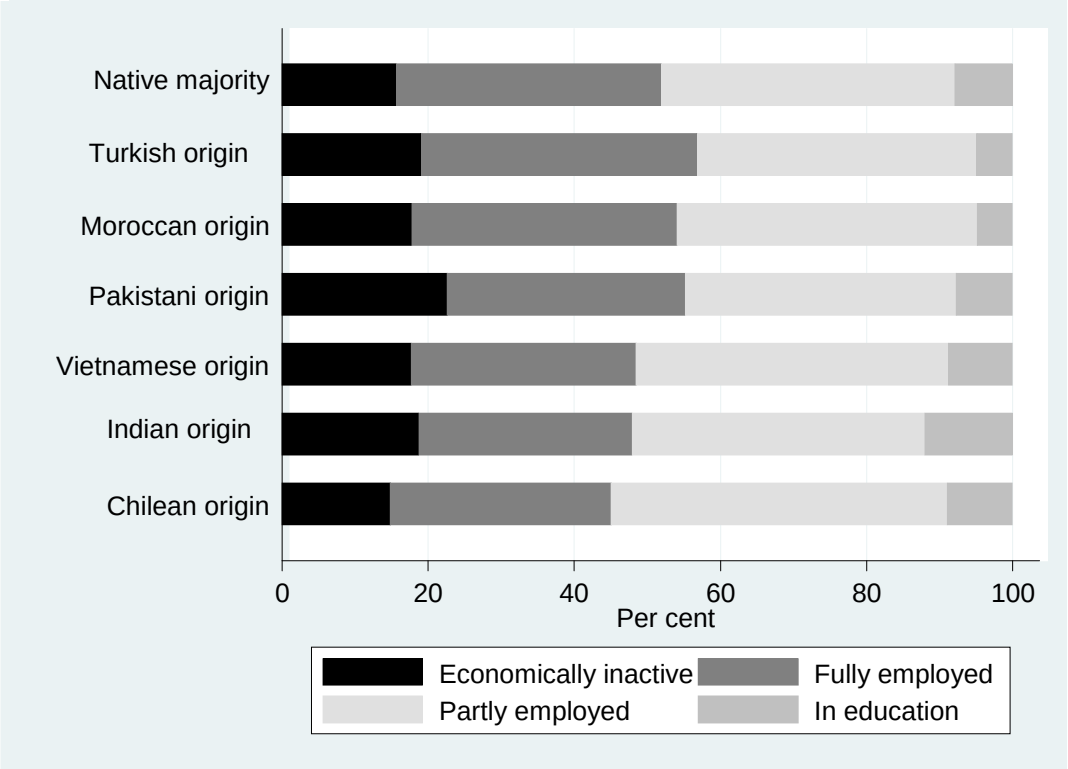

Figure 2. Main activity 10 years after starting upper secondary school for school dropouts (N=66 260), by parents' country of origin, per cent, unadjusted results.

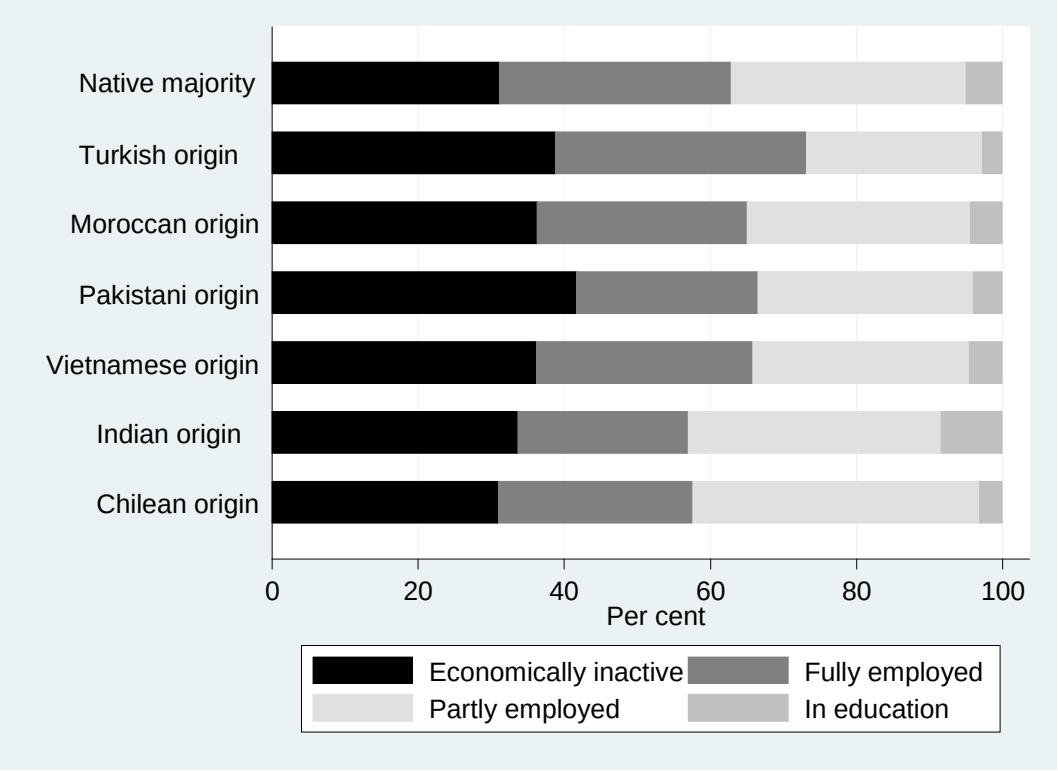

Figure 3. Estimated probabilities of main activity 10 years after starting upper secondary school for school completers and school dropouts. Based on estimates in table 2.