

*Child welfare clients' first step away from higher education. The influence of school performances, educational aspirations and background factors on choosing the vocational track after compulsory school.*

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## Abstract:

This article addresses the concern that the educational attainment of child welfare clients (CWCs) is generally poor. Drawing upon previous research showing that former CWCs lack higher education, this study argues that it is necessary to examine the first educational transition that directs students away from higher education. In Norway, this first transition point occurs in the transition from lower secondary school to the vocational track in upper secondary school. This educational transition is studied by means of analysis of longitudinal survey data on youths in Oslo. The sample consists of 1 500 teenagers in Grade 10 in lower secondary school and in the second year of upper secondary school, of whom about five per cent had had contact with child welfare services. The results show that CWCs' high enrolment on the vocational track – and consequently away from higher education – cannot be understood only from the characteristics that previous research has reported as general explanations for the differences in educational transitions. Even though the results show that school performances, educational aspirations and background factors like parental education and sex had an impact on the probability of vocational secondary education, the probability of CWCs choosing the vocational track was still higher than with their peers. Consequently, to increase the transitions of CWCs to the academic track in upper secondary school, and thereby hopefully to higher education, specific measures for the CWCs are required. If professionals should advice CWCs against the vocational track, is also discussed.

## Introduction

Research over several decades from many countries has shown that few Child Welfare clients (CWCs) enter adult life with a diploma from a higher educational institution. The poor educational records among CWCs has been described in several quantitative studies (e.g. Vinnerljung, Öman, and Gunnarson 2005; Cheung and Heath 1994; Clausen and Kristofersen 2008; Courtney and Dworsky 2006) but the majority of studies in this area have been qualitative in its approach or based on very small samples (e.g. Fredrick and Goddard 2010; Jackson and Cameron 2011; Harker et al. 2003; Hedin, Höjer, and Brunnberg 2011). The aim in this article is to contribute to this field of research by providing results from a quantitative survey based on a representative sample of youths

The educational disadvantage among former CWCs cannot be understood solely as a result of unsuccessful recruitment of CWCs to the tertiary level or a low throughput in higher education. Instead, it has to be investigated through a sequence of decisions that have directed CWCs away from pursuing higher education. In this article, I address the first educational

decision point that we assume directs CWCs away from entering higher education, namely the transition from lower secondary school to upper secondary school.

In Norway, where this study was conducted, the transition from lower secondary school to upper secondary school is the first point at which students are separated into different subjects/tracks. At 15–16 years old, students choose between a vocational track and an academic track. Admission to the tertiary level is restricted to students with a certificate from the academic track. Students with a certificate from the vocational track are only permitted admission to higher education if, after two years on the vocational track, they complete a supplementary course of study instead of the ‘normal’ vocational path, which includes a two-year period of apprenticeship after the second upper secondary school year. Relatively few students complete this supplementary course of study.<sup>1</sup> The choice of vocational or academic track is consequently the first important educational decision away or towards higher education.

The aim of this article is to investigate if CWCs start on the vocational track after compulsory schooling proportionately more than do their peers (non-CWCs), and consequently more often make an educational choice that leads away from higher education. However, I also examine reasons for the assumed over-representation of CWCs on the vocational track. Previous findings show that choosing the vocational track in upper secondary school is more common among young people from a background with low socio-economic status (Markussen 2010), among boys (SSB 2005) and among those not from an immigrant background (Helland and Støren 2004; Jonsson and Rudolphi 2011). Recent research on the Norwegian CWCs shows that CWCs originate more often from families with a low social class background (Clausen and Kristofersen 2008) and are somewhat more often boys than girls, 55 per cent boys and 45 per cent girls, respectively (SSB 2011). Consequently, reasons for the assumption that CWCs choose the vocational track more often seem to be explained by mechanisms related to sex segregation and social stratification in education. However, the numbers of CWCs from an immigrant background are increasing (Kalve and Dyrhaug 2011); consequently, it seems reasonable to assume that this minority tendency among the CWCs will counteract the over-representation of CWCs on the vocational track.

However, research shows that when including previous school performance in the analysis, the influence of background characteristics such as socio-economic status and sex on the transition to the vocational track is found to disappear or is even reversed (girls choose the vocational track more often than boys when controlling for school grades) (e.g. Markussen

2010). Furthermore, as suggested by several studies (see e.g. Støren and Helland 2010), the tendency of immigrants to choose the academic track is probably a result of the stronger motivation of these students to enter higher education. Thus, aspirations for higher education also appear to be very important in explaining choice of educational track in upper secondary school. Previous research on the CWCs has shown that CWCs have low school performance (Berlin, Vinnerljung, and Hjern 2011; McClung and Gayle 2010) and lack educational aspirations (Jackson and Cameron 2011). Therefore, I address the question regarding the degree to which the probability of choosing the vocational track among the CWCs is explained by low educational performance and/or aspirations, in addition to the influence of sex, socio-economic status and immigrant background.

In the present study, I investigate these issues through analyses of longitudinal survey data on youths in Oslo. CWCs are compared with non-CWCs. All Grade 10 students in Oslo in the school year 2007/08 were invited to participate in the spring when they were in their final year of lower secondary school. In this wave of the survey, among other issues, the students were asked about their educational aspirations, school performance and family background. Two years later, when they were in their second year of upper secondary school, the survey was repeated. From this point of time (the second wave), we have information about which educational track they attended. This longitudinal design makes it possible to examine the influence of background factors on the transition of CWCs to educational tracks in upper secondary school. Furthermore, the design allows us to examine the influence of educational aspirations and school performance on CWCs' choice between the vocational and academic track.

This article is structured as follows. I begin with a brief overview of CWCs in Norway and the Norwegian educational system before presenting the methods and the results from the analyses. The article ends with a discussion of the results and a short conclusion summarizing the arguments.

## **The Norwegian context**

Children and young people who face problems that involve assistance from local authorities are described by different terms in the literature. These terms like “looked after”, “in care”, “foster care” “child welfare clients” etc., do sometimes also describe differences in the care situation (e.g. differences in assistance measures in the home versus care measures like foster homes). In this article, I do not make a division between the types of assistance that have been

provided. The term “child welfare clients” (CWCs) include all the youths that reported that they live in a foster home or reported that they have been in contact with the Child Welfare Service.

Approximately three per cent of all children 0–17 years old in 2011 were investigated by the Child Welfare Service in Norway (SSB 2011). The proportion in contact with the Child Welfare Service differs with age group and place of residence in Norway. In Oslo, about one-third of investigations involve the 13–17-year-old age group (SSB 2010). Thus, the proportion of CWCs in Oslo’s teenage population is somewhat higher than three per cent. Assistance measures in the home are sufficient for the majority of families who come in contact with child welfare services: in 2011, they accounted for about 84 per cent of total measures while care measures (i.e. placements in foster homes or institutions based on an issuance of a care order) accounted for around 16 per cent (SSB 2011). Norwegian studies indicate that former CWCs have poor educational records. Results show that in 2005 less than 10 per cent of this group had studied at the tertiary level<sup>iii</sup> by the age of 25 (Clausen and Kristofersen 2008). In contrast, the same study shows that about 40 per cent of their peers without a public care background had studied at the tertiary level.

Compulsory education in Norway consists of 10 years of schooling – seven years in primary school (Barneskole, age six - 13) and three years in lower secondary school (Ungdomsskole, age 13-16), students can apply for upper secondary school (Videregående skole, age 16-19), which almost everybody does. Primary and lower secondary education are based on a common national curriculum, but the upper secondary structure is divided into vocational studies and general/academic studies. Therefore, the first transition point where students are directed onto different tracks occurs late as in other Nordic countries. The basic model of the educational system after compulsory schooling is shown in Figure 1. More than 95 per cent of a cohort proceed directly after lower secondary education to upper secondary education (Hernes 2010). About six out of 10 students enrol on vocational studies (path A) while four out of 10 choose an academic track (path B) (SSB 2005). In Oslo, this portion is reversed; about 65 per cent start on the academic track with 35 per cent on the vocational track (Hansen 2005).

Figure 1 about here

As mentioned, the academic track normally prepares students for the next educational transition – to university, university college or private schools at the tertiary level – and the

vocational track prepares students for the labour market. The academic track consists of three years in school; the vocational track consists of two years in school and two years of apprenticeship. Instead of the two-year apprenticeship, vocational students can take one year of supplementary study, and passing the required exams qualifies them to enter higher education. About one-third of vocational students choose to take this supplementary course of study; however, the drop-out rate here is relatively high (Markussen and Gloppen 2012, see also endnote i).

## Methods

### *Data*

The data are obtained from the Longitudinal Young in Oslo (LUNO) survey. LUNO was initiated to monitor transitions from compulsory school to upper secondary school. The dataset contains several variables on aspirations, educational choice, family relations etc. asked in Grade 9 (school year 2006/07 and Grade 10 (school year 2007/08) in lower secondary school and in the second year of upper secondary school (2009/10). All the 9<sup>th</sup> grade students in Oslo born in 1992 were eligible for the study and were asked for their own and their parents' consent to participation. In this article, the responses from school year 2006/07 are not used. Consequently, this study is based on two waves; wave one (2007/08) and wave two (2009/10). The responses were treated anonymously and the data were handled according to the guidelines of the Norwegian Social Science Data Services. The Norwegian Data Inspectorate approved the survey.

About 85 per cent of 2 400 invited students in Grade 10 participated (wave one); 82 per cent of these students also participated in the second wave (the second year of upper secondary school).<sup>iii</sup> Due to this panel attrition, the overall response rate for the second wave was 70 per cent. However, not all the participants answered all the questions in the survey. Consequently, the numbers of students in the analyses are lower (1 501 students), which gives a total response rate of 63 per cent for both waves. Slightly more girls than boys participated in both waves, which may imply a bias for the study; this is an issue that should be looked at in further detail in another context. In the present paper, however, I examine whether including sex in the analysis changes the results.

## *Dependent variable*

### *Educational track*

In wave two (the second year of upper secondary school), students were asked which educational programme they had enrolled onto (three of them are general/academic studies and nine are vocational). From this information, one outcome variable was constructed: 1 for the vocational track or 0 for the academic track.

### *Independent variables*

All independent variables are constructed from information obtained in the first wave (when the respondents were in Grade 10).

### *CWCs*

The LUNO survey targeted students in Oslo schools and not CWCs in particular. However, in the survey, students in the first wave were asked if they had been in contact during the period October 2006 to March 2008 with different welfare assistance services, such as Children's and young people's psychiatric outpatient clinics, the Educational psychological service, the Municipal Outreach Service provided by the City of Oslo and/or the Child Welfare Service. The LUNO survey does not contain any information about how long respondents were in contact with these different assistance services, or reasons for their being in contact. Here, I only use information from the question about child welfare services. The young people who reported that they had been in contact with child welfare services may be very different from each other; however, even if they had complex, different reasons for their being in contact, they shared a common experience of being in a situation that had made it necessary for them to contact/receive help from this assistance service. Therefore, even if the reasons for their being in contact with child welfare services and the severity of their problems differed widely when they replied 'yes', a variable with two categories was constructed: 1 for CWCs and 0 for non-CWCs. Based on students' responses, five per cent were categorized as CWCs, which roughly reflects the actual CWCs in Oslo for this age group.

### *Parental education*

Students were asked about the educational level of their parents. From this information, a variable was constructed based on the parent with the highest educational level, here divided into four categories: (1) tertiary level, (2) upper secondary, (3) lower secondary and (4)

other.<sup>iv</sup> From these categories, three variables were constructed: 1 for tertiary level, 2 for upper and lower secondary levels and 3 for other.

### *Sex*

A variable was constructed based on the sex of participants: 1 for male and 0 for female.

### *Minority background*

The participants were asked in which country their parents were born. Respondents with parents born in country in Asia, Africa, Latin-America or in an European country outside EU/EEA were given the value 1; students with parents born in EU/EEA countries or in North America and Oceania were given the value 0.

### *School performance*

The respondents were asked to report the grades they obtained in Maths, English and Norwegian on their last school report (from 1.0 = lowest to 6.0 = highest). A grade variable was constructed measuring the means of these three grades (if information was missing on one or two grades, the mean was based on the grades that were available). Based on the mean grade variable, three dummy variables were created that indicated if students in the first wave obtained low grades (mean grade from lowest to 2.9), middle grades (mean grade from 3.0 to 4.9) or high grades (mean grade from 5.0 to 6.0).

### *Educational aspirations*

Students' educational aspirations were mapped with the following question: When you have completed upper secondary school, do you think you will continue onto higher education? (1) No, (2) Yes, a short period of higher education and (3) Yes, a long period of higher education. From this information, an outcome variable was constructed: 1 for planning higher education; 0 for not planning higher education.

### *Statistical analyses*

Descriptive statistics are provided with mean scores on the dependent and independent variables for the group of CWCs and non-CWCs. Stepwise logistic regression models were used to estimate the probability of students' educational enrolment onto vocational studies.

## Results

### *Descriptive statistics*

Table 1 gives descriptive statistics for the variables. In the second year of upper secondary school, the proportion attending the vocational track was highest among the CWCs (42 per cent) compared with the non-CWCs (24 per cent). This result supports the assumption that a greater proportion of CWCs make an educational choice that leads away from higher education by starting on the vocational track after compulsory schooling.

Table 1 about here

Compared with the non-CWCs, a lower proportion of CWCs originated from families with high parental education; however, the difference was not statistically significant at the level of 0.05. The difference between the two groups in terms of the proportion of those originating from families with 'other' levels of parental education (i.e. parents whose education level was other than tertiary or secondary schooling) was also not statistically significant at the level of 0.05. In addition, in the second year of upper secondary school, there were no significant statistical differences between the two groups regarding the variables of sex and minority background. Consequently, these results indicate that background characteristics such as parental education, sex and minority background do not explain the difference in choice of educational track between the two groups. In addition, aspirations for higher education do not appear to explain this difference either, since the proportion with higher educational aspirations was roughly equal in the two groups.<sup>v</sup> School performance, however, did differ between the two groups. Table 1 shows that the average grades in Grade 10 for the CWCs were lower than for the non-CWCs.

These results so far support the initial assumption that proportionately more CWCs follow the vocational track. However, the comparative descriptive statistics on the background factors (parental education, sex, minority background, educational aspirations and school performances) do only partly provide evidence to support the assumption that these background characteristics explain this tendency. Although 41 per cent of CWCs originated from families with high parental education, compared with 48 per cent of non-CWCs, and even though a greater proportion of CWCs labelled their parents' educational level as 'other', these differences did not prove to be statistically significant at the level of 0.05; the same was true for the variable of minority background. The statistical differences between the two groups in terms of the proportion of boys and of students with higher educational aspirations

were marginally significant. However, the average school grades of CWCs were lower than those of non-CWCs, and this fact is likely to be crucial in explaining why proportionately more CWCs attend the vocational track.

### *High enrolment onto the vocational track*

To analyse more systematically the relationship between background variables and choice of vocational track, stepwise logistic regression analyses were carried out. Table 2 presents the results of these analyses, where the dependent variable is whether the students were on the vocational track.

Table 2 about here

In Model 1, the significant positive coefficient for CWCs confirms that they were more often on the vocational track compared with non-CWCs (as we already have seen in Table 1).

When background variables in Model 2 were included, the child welfare client coefficient was unchanged and still statistically different from the non-CWCs at the level of 0.05. This result indicates that the probability of vocational education and training was higher among the CWCs than the non-CWCs, even when taking into consideration the importance of parental education and sex – characteristics that previous research has shown to have an important influence on educational choice. Even if the probability of attending the vocational track differed by parental education (with a negative effect from originating from a highly educated family, and a positive effect from originating from a family with an educational level given as ‘other’, compared with originating from a family with secondary-level schooling), parental education did not explain the differences in vocational education between the two groups of students. Nor did the probability of attending the vocational track change by introducing sex in the analysis, even though the results show that proportionately more boys attended the vocational track than did girls. Furthermore, the negative effect of the minority coefficient on attending the vocational track supports previous findings that children from immigrant families chose the academic track more often than the vocational track (Helland and Støren 2004; Jonsson and Rudolphi 2011). When controlling for CWCs, parental education and sex, students from a minority background were less likely than non-CWCs to choose the vocational track. Nevertheless, including background characteristics in the analyses did not eliminate the difference in probability of choosing the vocational track

between students with and without child welfare experience. Thus, the initial assumption that different family backgrounds and sex composition among the CWCs explain the higher probability of CWCs choosing the vocational track is not supported. Based on the results in Model 2, estimations are calculated for the probability of attending the vocational track among the CWCs and non-CWCs. They demonstrate further the persistent difference in choice of educational track between the two student populations; it can be seen that 52 per cent of girls with child welfare experience, who were not from a minority family and from a family with secondary-level education, attended the vocational track compared with 32 per cent of students with the same characteristics in the non-CWCs.<sup>vi</sup>

Models 3 and 4 test the idea that the choice of vocational track is to be explained by differences in school performance (Model 3) and in educational aspirations (Model 4). When including students' grades in Model 3, it is not surprising that results show that compared with middle grades, low grades increased the probability of following the vocational track, while high grades reduced this probability. Introducing school grades in the model also changed the difference in the probability of attending the vocational track between students with and without child welfare experience. The results still show that CWCs chose the vocational track more often than did non-CWCs, but the difference in this probability decreased. The results also show a small change in the sex effect; the difference between boys and girls in terms of the probability of attending the vocational track was no longer statistically significant at the level of 0.05. However, we should be cautious in generalizing from this result; the sex coefficient was essentially unchanged from Model 2 to Model 3, but probably due to the small sample size, it became statistically insignificant. Nevertheless, as previous research has shown (Markussen 2010), this result implies that the sex effect on attending the vocational or academic track is related to school performance. Furthermore, when including school grades, the importance of parental education for vocational choice decreased. Students from families characterized by the educational level 'other' were no longer statistically significantly different from students from families with secondary-level education at the level of 0.05 and the negative influence of originating from families with parental education at the tertiary level, decreased. On the other hand, the effect of a minority background increased, which implies a stronger effect of having a minority background on not choosing the vocational track when students with the same school performance are compared.

Finally, in Model 4 educational aspirations were included in the analyses. The results show that the coefficients for the background factors and grades decreased. The tendencies of

the influence of these factors on choosing the vocational track seen in Model 3 weakened when including aspirations for higher education in the analysis. First, the effect of parental education decreased from Model 3 to Model 4. Likewise, the effect of sex decreased, implying that when aspirations for higher education are included, the difference between girls' and boys' choices of educational track appears to disappear, but is not reversed as in the study of Markussen (2010). The effect of having a minority background decreased from Model 3 to Model 4, indicating that aspirations for higher education explain part of immigrant students' rejection of the vocational track. The decrease in the effect of school performance indicates that aspirations for higher education are related to school grades. However, introducing educational aspirations in the model did not eliminate the difference between CWCs and non-CWCs' probability of attending the vocational track.

## Discussion

The analyses demonstrate that CWCs more often attend the vocational track compared with non-CWCs. Among students in the second year of upper secondary education in Oslo, 42 per cent of the CWCs were on the vocational track compared with 24 per cent of non-CWCs. In the introduction, I posed the question whether the assumed difference in choice of vocational education is to be explained by characteristics that are more dominant among the CWCs and that previous research has found to explain differences in educational choice in upper secondary school. The analyses presented here did not support this assumption. Even if parental education, sex and immigrant background had an impact on the probability of vocational secondary education, the probability of CWCs choosing the vocational track was still higher than with non-CWCs. For instance, the results show that 52 per cent of girls among the CWCs, who were not from a minority family and from a family with secondary-level education, attended the vocational track. In the non-CWCs, for girls with the same characteristics, this share was 32 per cent.

Moreover, we have noted that the influence of background factors such as parental education, sex and immigrant background on vocational secondary education was partly expressed by lower school performance and lower aspirations for higher education. High grades had a negative effect on attending vocational studies while low grades had a positive effect. Not surprisingly, aspirations for higher education influenced the choice of vocational track in a negative way. Nevertheless, the results show that students from families with higher education and those from immigrant backgrounds attended the vocational track to a lesser

extent. More importantly, however, the difference between CWCs and non-CWCs in the probability of attending the vocational track was reduced, but still maintained.

In the previously mentioned study by Courtney and Dworsky (2006) the authors argue that unlike Western countries the USA provide only a limited safety net, which makes the transition from adolescent to adulthood particularly difficult for the foster youths. Norway, according to Esping-Anderson (1990), is a social-democratic welfare state regime including a high degree of social safety net and policies to enhance educational equity. Here students have access to free schooling and financial support during education and thus, it is surprising that CWCs compared to non-CWCs with the same characteristics more often choose an educational pathway that directs them away from higher education. Based on the results that the background factors of educational aspirations and school performance did not erase the differences in choice of educational track in upper secondary school between CWCs and non-CWCs, it seems reasonable to ask whether being a child welfare client is an additional obstruction to choosing the (academic) educational track that represents the 'normal' path to higher education. The initial analysis (Table 1) shows that the aspirations for higher education of the majority of CWCs were equal to those of non-CWCs when they were in the final year of lower secondary school; and yet they more often chose the vocational track. Why do young people who aspire to the same educational level end up choosing different educational tracks, and consequently with a different probability of reaching their educational goals? Have CWCs been exposed to experiences and life situations that have kept them from choosing the normal path to higher education? For instance, compared with non-CWCs with the same characteristics, are CWCs more often guided by their teachers, care workers or families towards the vocational track instead of the academic track? An alternative explanation could be that, compared with non-CWCs, CWCs change their aspirations for higher education to a greater degree during completion of compulsory schooling. Students' aspirations for higher education were mapped almost up to the point where they applied for upper secondary school (in the final spring in Grade 10); however, in Norway, it is possible to change from the academic to the vocational track during the summer before upper secondary school starts. The analyses presented here do not allow us to draw any conclusions about the mechanisms underlying the finding that CWCs more often attend the vocational track compared with non-CWCs with similar background characteristics, school performance and educational aspirations. We do not know if CWCs change their educational aspirations more than do non-CWCs. Nor do we know whether they receive different educational advice. On the other hand, it may be the case that the CWCs in this study who aspired to higher education attended

and successfully completed the supplementary course after the second year of upper secondary vocational school, and consequently qualified for higher education. On the other hand, based on recent research showing a low throughput on the supplementary course (Markussen and Gloppen 2012), it does not seem reasonable to expect this. Clearly, further research on this issue is needed.

The point of departure in this article was the concern for the low numbers of CWCs with higher education. In Norway, the goal of equity in education is very explicit; consequently, the failure to provide CWCs with tertiary-level education is testimony to not achieving this goal at the highest educational level. However, an equally if not more important task is to prevent drop-out among this vulnerable group of young people in upper secondary school. A vast amount of research confirms that former CWCs enter adult life more often than non-CWCs with only compulsory education (e.g. Vinnerljung, Öman, and Gunnarson 2005; Cheung and Heath 1994; Jackson and Cameron 2011; Courtney and Dworsky 2006). Furthermore, it is widely recognized that early school leavers have a higher risk of becoming unemployed, poor or otherwise marginalized (Falch and Nyhus 2009; Rumberger and Lamb 2003; Hammarström and Janlert 2002; De Ridder et al. 2012). Many of the educational programmes on the vocational track lead to good job opportunities and relatively well-paid jobs. Completing a vocational education and obtaining a trade certificate will in many cases lead to a secure future. In addition, as already mentioned, vocational students can attend a supplementary programme instead of the two-year apprenticeship to qualify for higher education. Choosing a vocational path for the two first years of upper secondary school does not consequently close the door to higher education.

However, the drop-out rate in upper secondary school and particularly on the vocational track is high (Markussen 2010; Markussen et al. 2011), and it is reasonable to assume a high drop-out rate among former CWCs. However, we do not know precisely if, why or when CWCs drop out. Do they drop out of vocational studies more than non-CWCs? If so, to what extent is their drop-out rate related to characteristics such as sex, school performance, immigrant background and social class, which previous research has found important in explaining completion and drop-out from the vocational track in general (Helland and Støren 2006; Markussen et al. 2011)? It is important to investigate the issues of drop-out and completion of vocational studies of CWCs – studies that these students often choose to pursue – to reveal the strengths and weaknesses in the ability of the educational system to include this highly vulnerable group of young men and women. Examining CWCs'

educational transitions from compulsory schooling and throughout upper secondary school should reveal insights about the reasons for the low educational attainment among the CWCs.

## **Conclusion**

This article has shown that CWCs attend the vocational track in upper secondary school more often than do non-CWCs. Even if CWCs in their final year of compulsory schooling equally aspired to higher education as non-CWCs, the results in this study show that they chose the vocational track more often. Choosing the vocational track does not close the door to higher education in Norway; however, based on previous research, it is reasonable to assume that few CWCs on the vocational track will choose the alternative route to higher education by completing the supplementary course of study, given that the completion rate of that course is very low. Consequently, it seems reasonable to conclude that the reason for the lack of higher education among the CWCs is that the majority of them make an educational choice at the age of 15–16 years that leads away from higher education.

To increase the educational level among former CWCs, it is necessary to understand why they made such educational choices in their early teens that directed them away from higher education. The descriptive results in this study have shown that CWCs perform more poorly in school than non-CWCs. In addition, the CWCs in Norway (as in other countries) are characterized by a higher proportion of boys and a higher proportion of those from backgrounds with low parental education; these are traditionally characteristics that explain general enrolment onto the vocational track. Consequently, these characteristics were tested to see whether they explained the high enrolment onto the vocational track among Norwegian CWCs. The results from the analyses show that these characteristics (school performance, sex and parental education) are of importance when explaining students' choice of vocational or academic track. Thus, (general) measures that promote equity in education between boys and girls and between teenagers from different social strata in society will also be beneficial for the CWCs. However, such measures are not themselves sufficient to change the choice of educational track of the CWCs. This article has shown that even when controlling for background variables (sex, parental education and minority background), as well as school performance and educational aspirations, CWCs still chose the vocational track more than non-CWCs. Consequently, more specific instruments are required to target the educational needs of the CWCs.

However, to what extent are the results in this study comparable to other studies and to what degree are the results representative for the care population? While Jackson and Cameron (2011) examined educational aspirations in the foster/residential care population, the group of CWCs here consists of a broader group of CWCs and to a large extent consists of CWCs still living at home with their parent(s). Perhaps the high level of aspirations for higher education, which is discovered, is more typical for this broader group of CWCs. Further explorations into the question of why CWCs to a lesser extent than their peers end up with higher education could benefit from taking educational aspirations in different groups of CWCs into account. Jackson and Cameron argue that one way of increasing former CWCs' educational attainment is to challenge any assumption that young people in care are more suited to study on the vocational track than the academic track. To put it simply; is the CWCs' poor educational record a result of disadvantageous guidance, which lead them to the vocational track? Based on the results here and on those from previous research, which show that CWCs have low school performance (Berlin, Vinnerljung, and Hjern 2011; McClung and Gayle 2010), the basic educational skills of this group in general does not seem adequate for the academic track and thus, many of them will probably experience (even more) failure in school, and will consequently drop out with no qualifications (as many of their low-achieving peers without a care background do). Based on the present results, sound advice to teachers, care workers and others that may help CWCs in their choice of upper secondary school appears to be to support and encourage these young men and women to reach an educational level that is achievable based on their skills and interests. In addition, the vocational programs offer a different type of training by including productive and practical work in the education. Perhaps a brake from the traditional school based training will increase the CWCs' school motivation and attainment. We do not know, however, if CWCs experience more educational success on the vocational track than the academic track. However, since the CWCs in Norway more often choose the vocational track, it seems highly relevant to increase the research on CWCs' educational transitions after compulsory school in general and on the vocational track in particular. Furthermore, as suggested earlier, it seems important to increase our knowledge about the CWCs' aspirations towards higher education and any change in these aspirations. Increasing our knowledge about these vulnerable young men and women's educational transitions and aspirations seems necessary in finding the proper instrument to improve their poor educational records.

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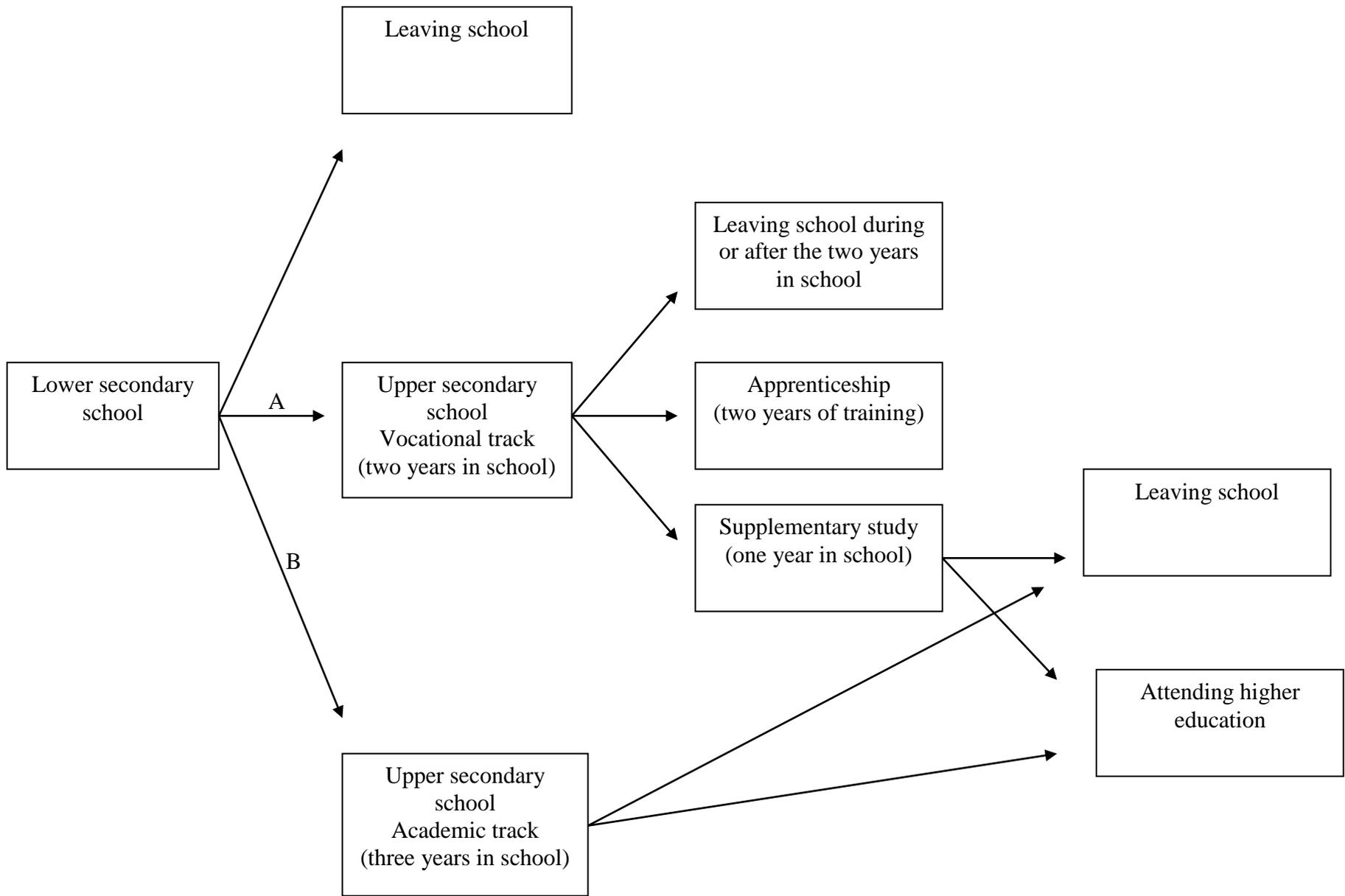


Figure 1: Transition points after compulsory school

Table 1. Descriptive statistics in second year of upper secondary school (wave two)

	CWS	Non-CWSs	
Vocational track	41,9	23,8	**
<i>Parents' education</i>			
Tertiary level	40,5	48,1	
Upper secondary	23,0	28,2	
Lower secondary	13,5	10,0	
Other	23,0	13,7	
Boys	40,5	43,3	
Minority background	29,7	22,1	
Aspiration towards higher education (wave one)	87,8	91,5	
Grades in 10th grade (wave one)	3,8	4,1	**
(SD)	(0,86)	(0,74)	
N	74	1427	

Note: The difference in means/shares is statistically significant at \*\*p < ,01, \*p < ,05 (independent sample tests).

Table 2. Students on the vocational track (wave two) – the effect of CWCs, parental education, sex, minority background, higher educational aspiration in wave one and grades in wave one (logistic regression)

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
Constant	-1,17 **	,06	-,75 **	,11	-,71 **	,12	,95 **	,24
CWCs	,84 **	,24	,82 **	,26	,66 **	,28	,66 *	,28
Parents' education (ref: secondary school level)								
Tertiary level			-1,25 **	,15	-1,08 **	,15	-,94 **	,16
Other			,36 *	,17	,15	,19	,11	,19
Boys			,27 *	,13	,26	,13	,18	,14
Minority background			-,41 **	,16	-,59 **	,17	-,37 *	,17
Grades (from wave one, ref: middle grades)								
Low grades					2,18 **	,29	1,99 **	,30
High grades					-1,74 **	,31	-1,58 **	,31
Aspiration for higher education (from wave one)							-1,92 **	,23
-2 loglikelihood	1665,34		1555,38		1425,51		1346,76	
N	1501		1501		1501		1501	

Note: \*p < ,05, \*\*p < ,01 (waldtest). SE = standard errors



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<sup>i</sup> About one-third of vocational students choose to take the supplementary course of study. Recent research shows that only 56 per cent of these students completed the supplementary course, 7 per cent dropped out and 37 per cent did not pass the exams (Markussen and Gloppen 2012).

<sup>ii</sup> Higher education in Norway is divided into universities, university colleges and private schools.

<sup>iii</sup> In the original first wave, about 4 000 students were invited to participate and 59 per cent of them did so.

<sup>iv</sup> 'Other' parental education includes probably unknown parental education and education taken abroad, which the respondents find difficult to translate into the Norwegian educational system. In addition, 'other' includes parents with primary school (two per cent of the respondents' had parents with primary school).

<sup>v</sup> It is, however, necessary to emphasize that the descriptive statistics in Table 1 record the characteristics of the youths who had (thus far) succeeded in upper secondary school. The drop-outs (from lower secondary to upper secondary school or during the first year of upper secondary school) were excluded from Table 1. Analyses (table not shown) showed that the CWCs who only participated in the first wave (in the final year, Grade 10) and consequently most likely dropped out from school, aspired less to higher education, had poorer school grades and fewer originated from families with high parental education than the CWCs who also participated in the second wave. In the non-CWCs, the analyses showed minor and not statistically significant differences between youths who participated in only the first wave compared with youths who participated in both waves.

<sup>vi</sup> The logistic constant coefficient in Model 2 is  $-0.75$  and the child welfare client coefficient is  $0.82$ . The percentages in vocational studies for the two student groups are estimated by the following equation:  $e^x / 1 + e^x$ , which gives:  $e^{-0.75} / 1 + e^{-0.75} = 0.32$  (i.e., 32 per cent) and  $e^{0.82-0.75} / 1 + e^{0.82-0.75} = 0.52$  (i.e., 52 per cent).