

This is a postprint of the article published as:
Helland, H. & Hovdhaugen, E. (2021).

Degree completion in short professional courses: Does family background matter?
Journal of further and Higher Education, 2021.

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This work was supported by the Norwegian Research Council under Grant number 283556.

Abstract

Many studies have found a greater risk of dropping out among students from modest social origins compared to those from families characterised by high levels of education. This paper investigates social differences in student completion rates in short professional programmes, such as nursing, social work, early childhood and primary school teacher education. These programmes differ from regular undergraduate programmes, both in terms of student recruitment patterns, as more students are recruited from less privileged backgrounds, and through the types of jobs they lead to, which almost always grant the degree holder employment in the public sector. By using Norwegian register data on students starting a higher education degree programme in the period 2000 to 2010, we investigated how completion rates in nursing, social work, early childhood and primary school teacher education varied according to gender, grades and parental educational level. We found significant differences based on grades and gender but surprisingly small differences related to parental education. These findings were contrasted with earlier findings regarding patterns of completion and dropout in more disciplinary-oriented programmes. Conceptually, the analyses draw on the work of Tinto (1993) and Gambetta (1987).

Introduction

This article examines variations in degree completion outcomes based on pre-entry characteristics in bachelor's programmes that provide qualifications for welfare professions such as nursing, social work, pre-school teaching and primary school teaching. These pre-entry characteristics are social origin, gender and grades from upper secondary school. Professional degrees such as nursing, social work, pre-school teaching and primary school teaching are popular study choices and constitute about a third of all undergraduate student choices in Norway. Even so, projections from Statistics Norway show a growing shortage of both primary school teachers and healthcare personnel, such as nurses, in the next 15 to 20 years (Gunnes, Ekren, & Steffensen, 2018; Roksvaag & Texmon, 2012). These are educational groups in high demand in the labour market. They deliver vital welfare services, and high dropout rates could lead to shortfalls in the supply of professionals. Therefore, a better understanding of degree completion outcomes in these educational fields is of great importance for the provision of welfare services. Most research on dropout and completion in higher education (HE) has focused on traditional university undergraduate education (Hovdhaugen, 2012; Tinto, 1975, 1993) and not on these professional programmes.¹ This article contributes to bridging this gap.

Professional programmes are a distinctive type in the HE category because of their close links to the practical work within the professions, and a significant proportion of this education is organised as placement training in professional fields. The fact that graduates from these programmes are in demand in the labour market may increase students' motivation to complete them. Unlike many university students, those in these professional programmes choose their education because of the profession it qualifies for and not because of the characteristics of the educational programme itself (Heggen, 2010). This arguably increases the probability of students enduring studies, even if they find it unenjoyable, in order to make sure that they receive the qualification to work in the selected welfare profession. Finally, these educational programmes recruit a comparatively high proportion of first-generation students, which makes them particularly interesting from a social inequality perspective. Previous Norwegian studies have found a greater risk of dropping out among students from humble social origins (e.g. low parental education) (Hovdhaugen, 2009, 2012; Mastekaasa & Hansen, 2005). Because of the substantial components of practical training and different student body compositions, we argue that this risk of dropping out may not be the case in these professional degrees. Recruitment also differs because the majority of those taking these programmes are women (who, on average, record higher completion rates).

¹ There are, however, some notable exceptions, such as Yorke and Longden (2004) and Mastekaasa and Hansen (2005).

Norwegian completion rates in HE are comparatively low (OECD, 2013), and dropout rates have been high on the political agenda in the last couple of decades. The political concern is that low completion and high dropout rates entail loss of time and money for the individual student, HE institutions and society (Riksrevisjonen 2015, Kunnskapsdepartementet 2016). This societal loss is arguably particularly worrying in welfare professions such as teaching and nursing where there is a prognosis of considerable future labour shortages (Gautun, Øien, & Bratt, 2016). Therefore, ensuring high completion rates in these programmes is vital.

[Background: short professional degrees in higher education in Norway](#)

The professional degrees under scrutiny here have a varied history within the Norwegian HE system. Teacher education has been around for centuries. With the implementation of general schooling across the country in 1827, all regions were obliged to provide teacher education. Nursing education was originally part of hospitals' internal training and was established in the 19th century, becoming part of HE in the early 1980s (Mathisen, 2006). The other two professional degrees are more recent additions to HE, as the formalisation of degrees in pre-school teaching and social work came about from 1960 onwards, though they had existed as education programmes outside the HE system from the start of the 20th century (Johannesdottir & Aamodt, 2019). As the welfare state grew, and more services required persons educated within these fields, the associated education programmes became formalised and integrated as part of the HE system.

Compared to many other HE programmes, all four programmes have a high share of practice placement as an integrated part of their curricula. This has several consequences for students, which might also have implications for their completion. For example, practice placement implies that students are exposed to the demands of their profession early on in their studies. This may be a motivator for completion, given that students feel engaged and encouraged by their practice placement experience. However, there are also indications that practice placement might be experienced as a shock, which may have the opposite effect, as bad experiences in practice placement might make students less likely to complete a programme.

Their origin outside of HE and a strong orientation towards practice are both probable reasons for the comparatively high proportion of first-generation students in these programmes. More than two-thirds of the students in these educational programmes have parents whose education does not go beyond upper secondary school (Helland & Wiborg, 2019). This composition may have consequences for the culture of professional educational programmes, potentially improving the social integration of first-generation students. These welfare professions are also female dominated, which may lead to better social integration of gender-majority students.

The Norwegian HE system has historically been seen as binary. Until 2005, there was a division of labour between different kinds of institutions in the HE system, as university colleges provided short professional degrees, while universities granted general bachelor's degree, master's degree and long professional degree (e.g. medicine and law) programmes. In the last decades, due to university colleges being granted university status, the binary divide has eroded (Kyvik, 2009). Compared to many other HE systems, there were relatively moderate status differences between institutions but greater status differences between programmes in Norway (Borgen & Mastekaasa, 2018). Thus, long professional degrees (e.g. medicine, law) enjoyed the highest status and led to well-paid occupations following degree completion. Earlier studies have shown that students undertaking a general undergraduate university degree are prone to changing to a degree at a university college, arguably indicating the limited nature of the status difference between these two types of degrees (Hovdhaugen, 2009). However, other studies have shown that the transfer from universities to university colleges is most common among first-generation students, whereas transfers in the opposite direction, from a short professional programme to either a university undergraduate programme or a long professional degree are more widespread among students with highly educated parents (Mastekaasa & Hansen, 2005).

[Previous research on completion in professional education](#)

Previous research indicates that compared to traditional undergraduate university education, professional programmes in Norway have generally had higher completion rates. This is even though students attending short professional programmes more often come from less educated backgrounds (Aamodt, 2001; Aamodt & Hovdhaugen, 2011).

Earlier research on completion and dropout in HE has pointed to previous grades as an important predictor of study success. Studies across countries indicate that students with lower grades have a higher risk of dropping out than those with better grades (see, e.g. Astin, 1975; Mastekaasa & Hansen, 2005; Tinto, 1993). However, an earlier study on Norwegian data (Hovdhaugen et al., 2013) found that completion rates in nursing and pre-school teaching education varied less by GPA than in traditional undergraduate university education and teacher education.

Students' family background, usually measured by parents' educational level, also tend to correlate with degree completion. Some Norwegian studies have indicated that the more education students' parents have, the lower the risk of dropout and the greater the chance of completion (see, e.g. Hovdhaugen, 2009; Mastekaasa & Hansen, 2005). However, as mentioned earlier, there are reasons to expect such differences to be smaller in the short professional degrees we focus on here.

Gender is another background variable that may correlate with completion and/or dropout. Across countries and programmes, men have generally had a higher likelihood of dropping out than

women and have also recorded lower completion rates. Some studies have linked this to the gender composition of programmes, but the results are mixed. Mastekaasa and Smeby (2006) found that, on average, men were less likely to complete than women, regardless of whether the programme was female- or male-dominated, while women were less likely to leave if they were in a female-dominated study programme. Nedregård and Abrahamsen (2018) found that men were more likely to leave female-dominated programmes than male-dominated programmes.

Theoretical perspectives on completion and dropout in professional programmes

There are numerous explanations regarding dropout and degree completion, and in simplified terms, we may assume that students drop out either because they do not like their study programme or because the studies are overly difficult, or a combination of the two. Several theoretical models have been suggested, but the most comprehensive effort is Tinto's interactionist model of students' departure (Hovdhaugen, 2012; Tight, 2020). In this model, Tinto (1993) divides the causes of individual departure from HE institutions into three major categories: 1) dispositions the students had before entering the study programme; 2) experiences at the institution and 3) external factors in the form of obligations and finance. These three categories are interrelated. As variables, the pre-entry characteristics, which are the focus of our analysis below, must be categorised as students' dispositions prior to entry; however, they may be conceived as affecting both the students' experiences at the institution and external factors such as student finances.

External factors such as obligations and finance may be seen not as reasons for students *choosing* to leave their fields of study but, rather, that their choice is restricted. In Gambetta's (1987) classic trichotomy, the structuralist view on educational choice considers human action to be constrained by external factors and explains educational choice as 'what one can do' (p. 168). These constraints are arguably weaker in Norway, where the decision to drop out is more of a choice, than in most other countries. First, Norway has an open, universal system of HE, with no tuition fees at public institutions (Reizel, 2011). Second, all students enjoy generous student scholarships and state-sponsored loans to cover living expenses. Third, compared to other countries, there are few barriers to restarting or changing to a different field of study (Thomas & Hovdhaugen, 2014). Finally, Norway's generous social insurance scheme and safety net mitigate labour market risks, even for graduates who make the wrong choices in post-secondary education. An important aim of policies that seek to remove economic barriers has been to equalise social differences in educational attainment.

In the second category of causes ('experiences at the institution'), *integration* is a key concept. Although notoriously difficult to distinguish empirically, the analytical distinction between *social* and *academic* integration is central to the theory. As we discuss below, these processes may

well correlate with social origin. The average grades in upper secondary school are significantly lower among working-class students than among their middle-class peers (Heggen et al., 2013), which may result in a similar difference in academic integration. The social distance between the culture of HE and that of the students' upbringing environment may also correlate with social background and, thus, with social integration into the HE institution. Such differences may well translate into different completion rates.

In order to explain social differences in educational attainment, studies tend to draw on theories of rational choice. For instance, Boudon's (1974) point of departure is that the social and economic costs and benefits of attending HE differ between different social groups or classes, stating that when the level of performance is the same, students from educated families are more likely to continue in education than those from less educated families – commonly known as the secondary effects of social background on educational attainment.² Thus, relative costs and aspirations are important in this theory, and a person's social standing influences their aspirations. In addition to the direct pecuniary costs of pursuing HE, the theory also describes differences in what Boudon labels social costs. These costs are greater for working-class students because of the greater social distance between HE institutions and their childhood environment. Put differently, Tinto's (1993) social integration is more difficult for working-class students to achieve. In educational programmes with predominantly first-generation students, we may expect that the social distance between HE and the childhood environment might be shorter for such students.

Breen and Goldthorpe (1997) developed Boudon's (1974) model further by cultivating the rational action components. The rational individual weighs costs and benefits, and whereas the main objective of educational decisions – to avoid social demotion – is universal, the costs and benefits vary. Given the assumption that this is the universal motivation for educational choices, children of highly educated parents derive greater benefits from pursuing lengthy HE programmes. Students from working-class backgrounds accomplish the goal of avoiding downward social mobility at lower educational levels than the children of, for example, professors. By completing one of the professional degrees in focus here, first-generation students will have avoided downward social mobility, whereas students with parents with a master's degree risk downward mobility if they do not pursue educational opportunities beyond a professional bachelor's degree.

Gambetta (1987) offered another take on educational choice by distinguishing three main views: the structuralist, 'the pushed-from-behind' and 'the pulled-from-the-front' views. The first is described above, and our claim is that this is less commonplace in Norway than in most other

² *Primary* effects are caused by differences in academic ability between social classes, which, in turn, affect educational attainment.

countries. The 'pulled-from-the-front' view is more or less the same kind of motivation as that described by Boudon (1974). Conversely, pushed-from-behind explanations relate to the norms, beliefs and values of the individual; these shape preferences and possibility structures within which the individual thinks. Thus, students' view of the world influences their perceived options. The conditions that shape one's preferences and intentions are similar to the cultural reproduction view (often connected to the theories of Pierre Bourdieu; see, e.g. Bourdieu, 1984, 1986). Cultural reproduction theory claims that the educational system expects and rewards cultural capital and, thus, reproduces social inequalities in educational achievement as cultural capital is unevenly distributed by social background (Bourdieu & Passeron, 1990; Sullivan, 2001). This perspective predicts that students from low social backgrounds will struggle more with both academic and social integration than their peers from higher social backgrounds; they will find it more difficult to master the cultural academic expectations of the educational system and to fit in socially. Part of a middle-class habitus is a sense of entitlement (Kahn, 2011) and the 'ease' with which middle-class students encounter the education system (Reay, Crozier, & Clayton, 2009). Bourdieu compares such ease with being 'like a fish in water' (Bourdieu & Wacquant, 1992, p. 127).

Such difficulties faced by working-class students might be less severe in the professional programmes under scrutiny here. Cultural capital perhaps matters less in these practice-oriented professional programmes than in traditional university education. In addition, the student body consists of large proportions of first-generation students, which arguably makes it easier for them to fit in and likely eases both their social and academic integration into the institution.

Gambetta (1987) has analysed individuals' decisions in education, mainly whether students should continue in education. However, he also takes the HE system into account, focusing on how the system and institutions constrain students' choices. This perspective is lacking in studies of student departure, which arguably explains the differing patterns in dropout and completion in different fields of study. For example, nursing is one of the degree programmes that leads to certification, and thus, students who leave before degree completion will not be able to access jobs that require certification, i.e. a nursing degree. There is no similar requirement for certification in the context of the other three degrees. As such, it is possible to get a temporary job as a substitute teacher, for example, without a degree, but students who have not completed the nursing degree cannot temp as a nurse unless they have their certification.

In sum, previous research on completion in HE could lead to the assumption that a student's HE background can determine the likelihood of completion in HE. However, the foregoing discussion provided some explanations pointing to smaller social differences in the educational programmes under scrutiny in this article. The practical orientation of the curricula implies that cultural capital

will matter less for student achievement, and the student body composition, with first-generation students in the majority, may be expected to ease these students' social integration.

We also expect that students' grade point average (GPA) from upper secondary school will express their academic preparedness when they enter HE and that a good GPA will ease students' academic integration and increase the probability that they will complete their degree.

Finally, we expect there to be a higher probability of degree completion among female students than among male students. This expectation is based on previous research findings on such differences and the assumption that belonging to the gender majority will ease students' social integration into college, thereby increasing the probability that they will complete their degree.

Data and methods

The article analysed data from the Norwegian administrative register from Statistics Norway, covering the HE cohorts from 2000 to 2010.³ The cohorts were tracked for five consecutive years; thus, the measurement used in the paper was programme completion within five years, which corresponds to two years beyond the prescribed time for degree completion. The paper, therefore, only addressed completion, and not dropout, as students may have still been working to complete their degree or may have transferred to another programme. We ran separate logistic regression models for the four programmes (preschool teacher, teacher, nursing and social work). The dependent variable in the analyses was completion of programme within five years, which was coded 1 for those who had completed (0 for all others).

Social background was measured by the two variables of parents' educational level and relative income. Education level was measured with four categories: no schooling beyond compulsory, completed upper secondary education, completed four years of HE, completed more than four years of HE. Parents' relative income was measured as the sum of the mother's and father's average income during the years when the child was 10–18 years old. We then divided these averages into deciles according to the child's birth year. Averages over several years have previously been shown to be a better measure to demonstrate long-term effects on income from parental background (Mazumbder, 2005). In Norway, combining the mother's and father's incomes has been shown to be a better measure of family economic resources (Hansen, 2010). In addition, we included GPAs from upper secondary education (measured on a scale from 2 to 6, where 6 was best) and sex

³ In order to study dropout and completion in higher education one must let sufficient time pass from study start, and give students time to start a programme and finish it, which usually takes more than the estimated three years to an undergraduate degree. This is the main reason why we are using data covering the cohorts starting in 2000 to 2010, as this gives us ample time to observe if student have managed to complete or have dropped out.

and controlled for immigrant background and student cohort (enrolment year). Tables 1a and 1b show descriptives of the main variables.

Table 1a: Characteristics of the students in the study

	Degree completion in 5 years	Mean GPA	Proportion women	Mean relative parental income
Nursing	82.0	4.0	90.2	53.5
Social work	78.5	4.1	86.1	51.9
Early childhood	70.3	3.7	89.0	50.8
Teacher	63.4	4.2	72.4	54.7

Table 1b: Proportion of students by parents' education

Parents' education	Nursing	Social work	Early childhood	Teacher
Compulsory education	36.9	38.4	39.7	31.3
Upper secondary	24.4	24.4	27.3	22.8
Short HE (≤ 4 years)	31.6	30.4	28.1	37.6
Long HE (> 4 years)	7.1	6.8	5.0	8.3
Total	100	100	100	100

We see from Table 1a that these four professional programmes were female dominated, that their mean GPA from upper secondary school was not exceptional (on a scale from 2 to 6) and that parental income was only just above the median income. The table also shows variations in the proportion of students completing their degree within five years: from 63 (teacher students) to 82 (nursing students). Table 1b further confirms that these educational programmes were dominated by first-generation students. Generally, there were many similarities between students in the four programmes, with the exception of the variation in completion rate.

Results

In table 2, we present the results from four separate logistic regressions, one for each programme, which estimate the effects of parental educational level and income on the likelihood of completing a degree within five years of enrolment, controlled for GPA, sex, enrolment year and immigrant background.

Table 2: Logistic regression predicting study completion within five years of enrolment (separate analyses by fields of study)

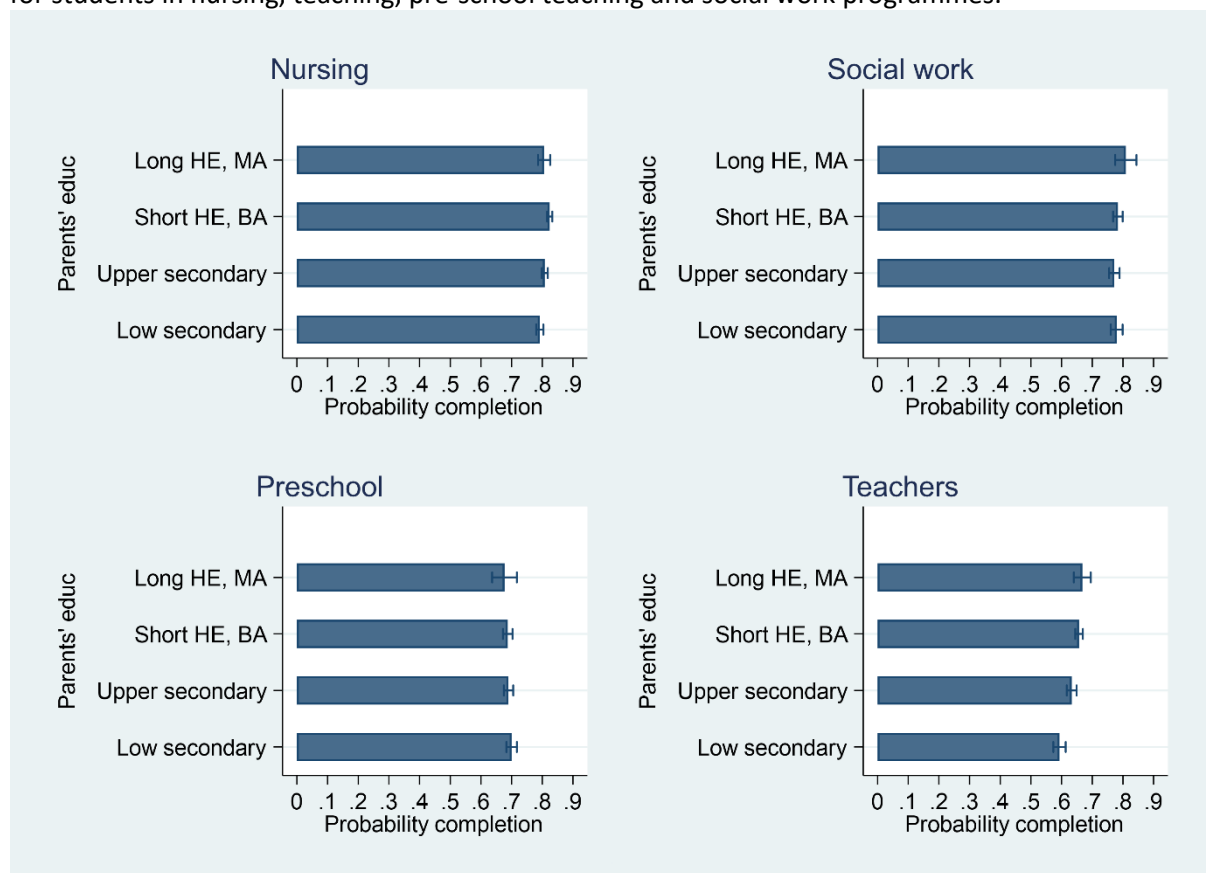
	<u>Teachers</u>		<u>Pre-school teacher</u>		<u>Social work</u>		<u>Nursing</u>	
	b	SE	b	SE	b	SE	b	SE
Parents' education								
Upper secondary	0.179	0.058	-0.050	0.058	-0.045	0.077	0.106	0.050
Short HE, BA	0.291	0.056	-0.064	0.060	0.022	0.077	0.219	0.051
Long HE, MA/PhD	0.340	0.084	-0.114	0.110	0.187	0.135	0.091	0.080
Parents' income	0.002	0.001	0.004	0.001	0.003	0.001	0.004	0.001
GPA (up. secondary)	0.794	0.039	0.593	0.043	0.490	0.054	0.636	0.033
Women	0.370	0.044	0.752	0.065	0.522	0.087	0.694	0.060
Immigrant								
Non-Western origin	-0.187	0.161	-0.346	0.130	0.107	0.139	-0.460	0.086
Western origin	-0.785	0.376	-0.050	0.390	-0.421	0.492	-0.199	0.275
Enrolment year								
2001	-0.006	0.143	0.044	0.179	0.031	0.247	0.369	0.147
2002	0.169	0.138	0.271	0.170	0.269	0.242	0.651	0.143
2003	0.064	0.135	0.383	0.163	0.263	0.236	0.666	0.138
2004	0.112	0.135	0.154	0.160	0.115	0.235	0.759	0.139
2005	0.196	0.140	0.182	0.158	0.114	0.233	0.527	0.135
2006	0.060	0.138	0.478	0.158	0.069	0.233	0.453	0.133
2007	0.187	0.140	0.542	0.159	-0.031	0.231	0.475	0.133
2008	0.154	0.139	0.407	0.157	0.093	0.232	0.393	0.131
2009	-0.037	0.136	0.455	0.157	-0.099	0.228	0.114	0.129
2010	-0.591	0.133	0.145	0.154	-0.151	0.228	-0.082	0.128
Constant	-3.635	0.211	-3.200	0.241	-1.882	0.342	-3.053	0.212
Number of obs	12,323		10,118		7443		20,134	
Log likelihood	-7660		-6011.3		-3822.06		-9318.2	
Pseudo R ²	0.049		0.039		0.023		0.048	

Table 2 shows that parental education had no significant effect on degree completion in pre-school teaching and social work education. Among nursing students, students whose parents had completed either upper secondary or a short HE programme have a significantly higher probability of degree completion than students whose parents had only completed compulsory schooling. Among the teacher students all the other groups differed significantly from students whose parents had only completed compulsory education. Parental income had small but significant effects on degree completion in nursing, social work and pre-school teaching. The table also shows that GPA and gender had significant effects in all programmes and that the effect sizes varied significantly between the programmes. In order to investigate these differences in more detail, we estimated probabilities in the figures below. In the figures, we hold all other variables at their mean or mode.

Estimated probabilities

Figure 1 shows how the probability of degree completion varied by parental education level in the four professional education fields. The general impression from the figure is that the differences based on parental educational level were quite small in all four fields. Among students in pre-school teaching and social work, the differences were negligible and not statistically significant. In nursing, the differences were similarly small, but the differences between students whose parents had only completed compulsory education and those with at least one parent with a bachelor's degree was statistically significant. According to figure 1, the biggest social differences were among teacher students, but even there, they were quite modest (ca. 7%). Students with two parents who had not attended education beyond the compulsory level had a significantly lower probability of degree completion than those in the other three groups. In three of the four professional education fields, there seemed to be no pattern of social inequality in completion rates, whereas among teacher students, there was a small but statistically significant tendency that parental education level increased the probability that the offspring would complete their degree.

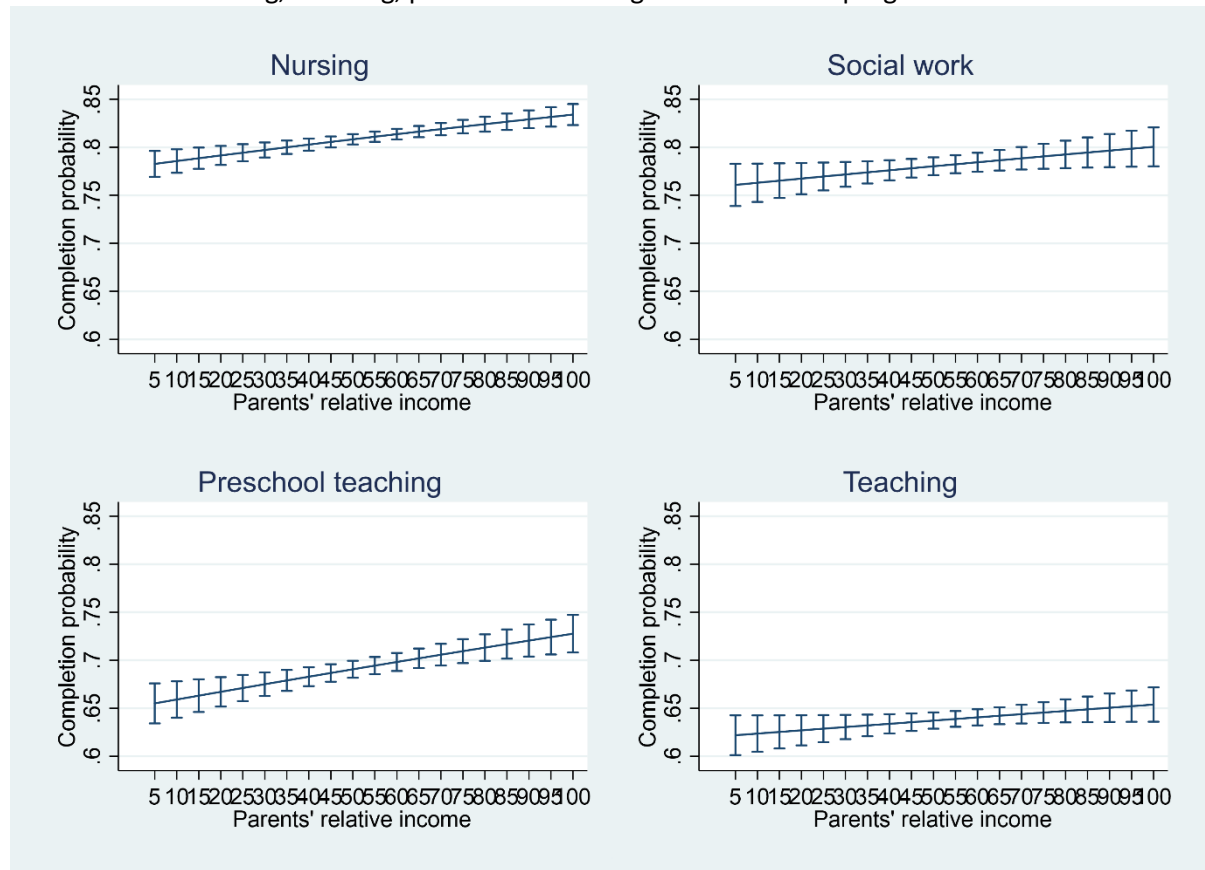
Figure 1: Estimated* probabilities of study completion within five years by parents' educational level for students in nursing, teaching, pre-school teaching and social work programmes.



*The probabilities were estimated from the coefficients in table 2. Controls: at mean or mode.

In terms of parental income – the other indicator of social origin – table 2 shows that the logit-coefficients were small but statistically significant in all fields but teacher education. Figure 2 below shows how the estimated probabilities for degree completion varied with the relative income of parents. The other variables in table 2 were set to their mean or mode.

Figure 2: Estimated* probabilities of study completion within five years by parents' relative income for students in nursing, teaching, pre-school teaching and social work programmes.



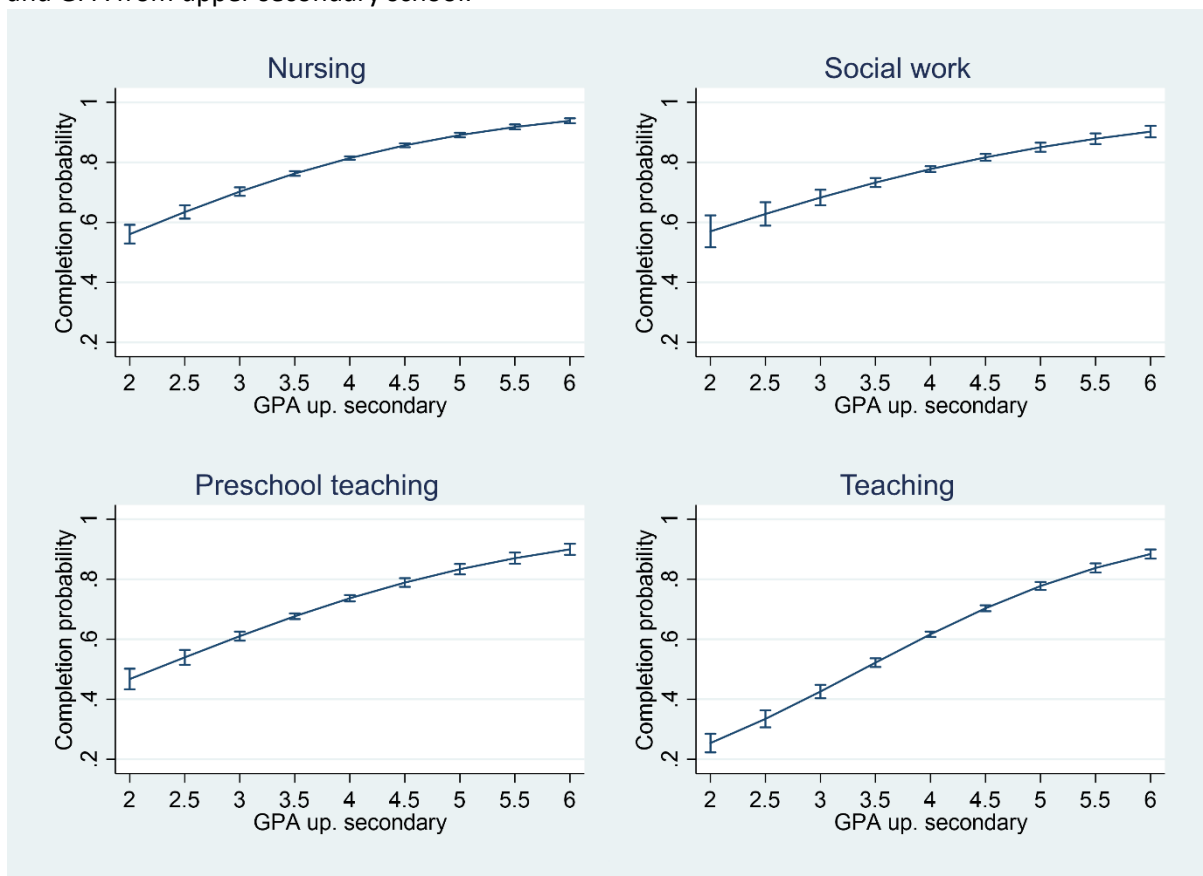
*The probabilities were estimated from the coefficients in table 2. Controls: at mean or mode.

Figure 2 clearly illustrates that the differences based on parental income were quite small, albeit statistically significant, in three of the four education fields. In all four educational groups, we see a very gentle upward slope, indicating that the probability of degree completion increased marginally with parental income. In comparing the lowest percentile of parental income with the upper one percentage point, we found that the difference varied from seven percentage points among pre-school teacher students to three percentage points among those who had entered teacher education (with social work and nursing between 4 and 5 percentage points, respectively).

The effects of social background were, as we have seen, modest to non-existent. One possible interpretation could be that the effects of social origin would vanish after controlling for

grades from upper secondary school. In the appendix, we present results from similar analyses without the inclusion of grades, and the results resemble those presented above. The results in table 2 indicate that GPA mattered a great deal in terms of whether students completed their degree, but as Appendix table 2 and Appendix figure 1 illustrate, grades did not conceal the indirect effects of social origin. In order to illustrate the extent to which GPA mattered, we estimated probabilities of degree completion in figure 3 below.

Figure 3: Estimated* probabilities of study completion within five years by educational programme and GPA from upper secondary school.



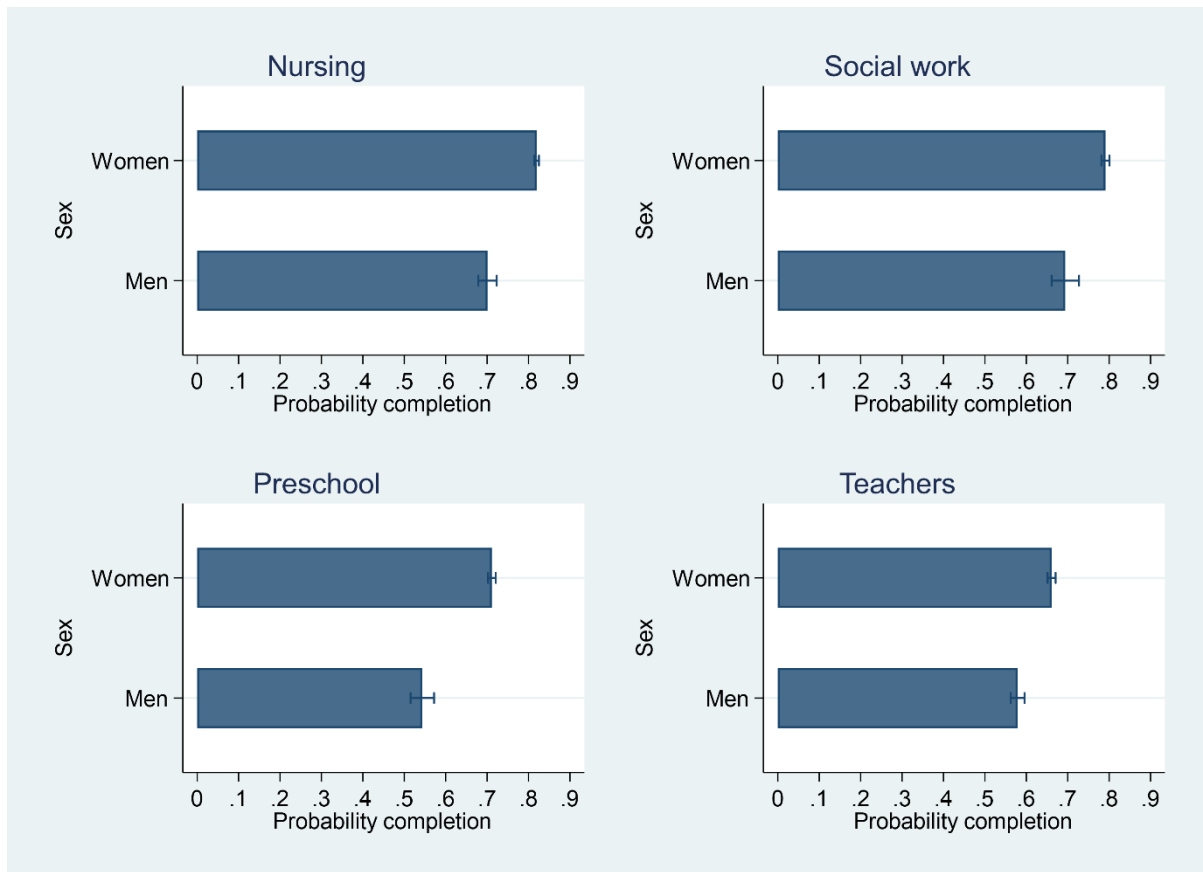
*The probabilities were estimated from the coefficients in table 2. Controls: at mean or mode.

The figure illustrates that degree completion correlated strongly with GPA in these four professional education fields. In all four, the estimated probability of degree completion was around 90% among the students with the best upper secondary GPAs. The education fields did, however, differ somewhat in the steepness of the slopes. Nursing, social work and early childhood education all seemed to follow the same slope, while the slope for teacher students was much steeper. This indicates that grades were more important for degree completion in the teaching programme compared to the other programmes. This is in line with earlier research (Hovdhaugen et al., 2013)

and indicates that teacher education is more alike general undergraduate degrees in the humanities and social sciences than in the other three education fields.

Based on previous research, we expected a higher probability of degree completion among female students than their male peers. In table 2, we see positive and highly significant coefficients, and in figure 4 below, we illustrate this result as estimated probabilities of study completion.

Figure 4: Estimated* probabilities of study completion within five years by educational programme and sex.



*The probabilities were estimated from the coefficients in table 2. Controls: at mean or mode.

Across all the four programmes, women were more likely than men to complete within five years. The gender difference varied from eight percentage points in teacher education to 17 percentage points in early childhood education. Common among all these programmes is that men were a minority: one in four students in teacher training, one in seven in social work and one in ten in nursing and early childhood education were male. Even though teacher training was the programme with the largest proportion men and the lowest gender difference in completion rate, we cannot conclude that there was a link between gender domination in the programme and completion rate.

Discussion

In general, social background appears to have a low to negligible effect on degree completion in the educational programmes studied in this paper. In fact, the expected correlation between parental educational level and completion rate was found only among students in teacher education, as the completion rate increased with increasing levels of parental education. Nevertheless, the difference was modest, with only a seven percent difference in the completion rate between those whose parents had only completed a compulsory level of education compared to those coming from families where parents had undergone a long HE degree programme. We did find a small effect of parents' relative income in the other three programmes (nursing, social work and pre-school teacher), but this was also modest. The same pattern was found in the analyses without controls for grades. The other two variables – GPA and gender – both had a significant impact on completion rate. In all the programmes, female students were more likely to complete than male students, and the better the student's GPA, the greater the likelihood of completion. The strongest effect of GPA was found in teacher education, where the completion rate among the lowest performers from upper secondary school was only 25 percent, rising to 88 percent among the students with the highest GPA. Both of these findings are in line with earlier research (see, e.g. Hovdhaugen et al., 2013, Mastekaasa & Hansen, 2005; Tinto; 1993).

The question is how to interpret the limited effect of social background on completion rates and the difference between teacher education and the three other programmes. The specificities of these programmes, combined with both the "pulled-from-the front" and "pushed-from-behind" perspectives described by Gambetta (1987), offer possible interpretations. These are educational programmes in which first-generation students constitute a solid majority and where the curricula are less academic and more practice-oriented than in the kind of educational programmes these theories are designed to understand. Cultural capital probably matters less for successful integration into these programmes (both socially and academically), and the composition of the student body likely reduces the social costs of the transition into HE for first-generation students. If we assume that fitting in socially creates a sense of belonging, which has been found to be important for retention (see Maunder, 2018; Meehan & Howells, 2019), belonging to the majority of the student body might contribute to this. The fact that parental education had a significant effect (albeit small) on the teacher students' completion, combined with the stronger effect of GPA, potentially indicates that cultural capital and academic preparedness matter more for study completion and that teacher education has more in common with general undergraduate degrees in the humanities and social sciences than the other three professional programmes.

There are of course alternative interpretations regarding the lack of large social differences, which may also have to do with the selection patterns. According to Boudon (1974), the main

objective of educational decisions is to avoid social demotion, and by completing one of the professional degrees in focus here, first-generation students will have avoided downward social mobility. However, students whose parents hold a master's degree risk downward mobility if they do not pursue education beyond a professional bachelor's degree. This perspective suggests that the students in these programmes who were from highly educated families were less motivated and committed to the programme and, thus, more often transferred into more prestigious programmes. This is an interesting question for future research.

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Appendix

Table 1: Number of students by enrolment year

	Nursing	Social work	Early childhood	Teacher
2000	3,321	1,266	1,611	2,725
2001	3,769	1,523	1,585	2,805
2002	3,574	1,394	1,384	2,543
2003	3,610	1,439	1,555	2,390
2004	3,191	1,352	1,491	2,229
2005	3,143	1,294	1,571	1,528
2006	3,017	1,188	1,713	1,499
2007	3,123	1,239	1,798	1,352
2008	3,197	1,191	1,922	1,428
2009	3,432	1,319	2,026	1,589
2010	3,436	1,301	2,192	1,960
Total	36,813	14,506	18,848	22,048

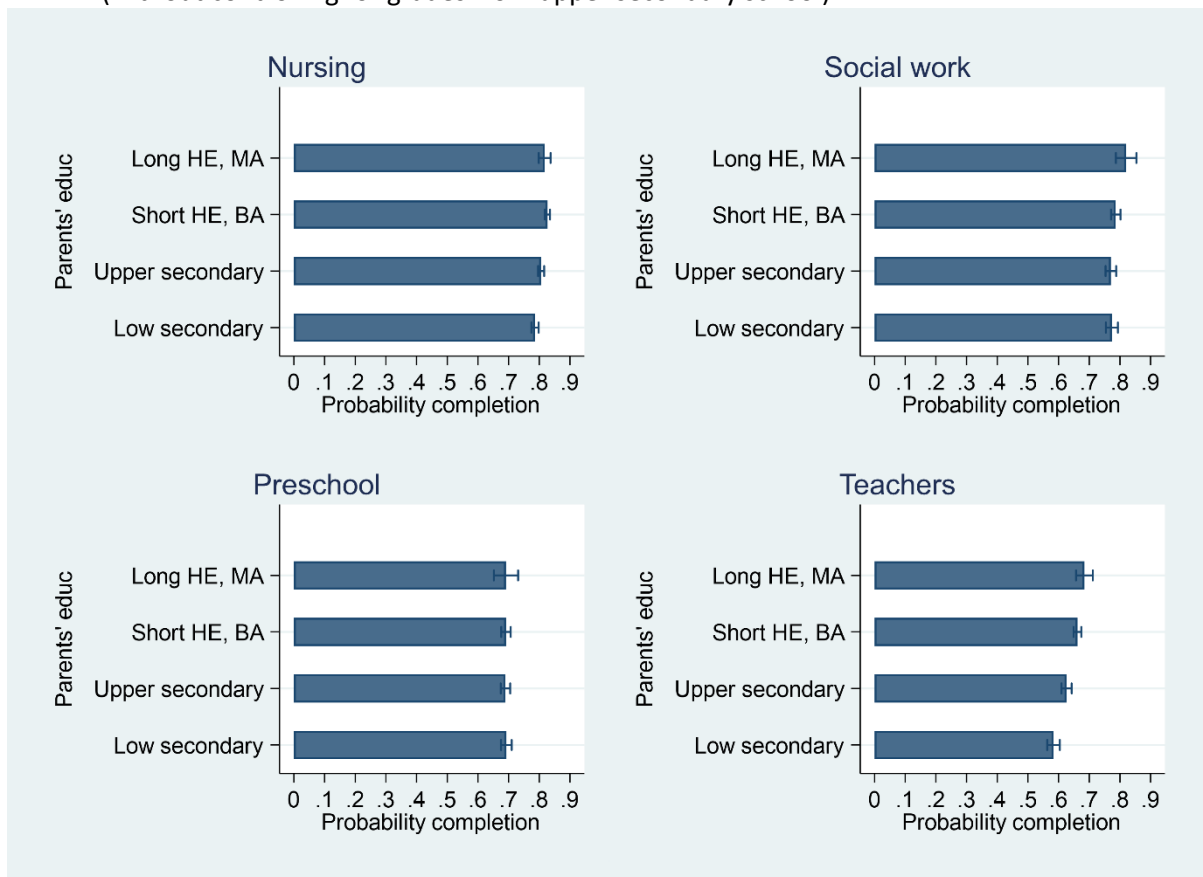
Appendix

Table 2: Logistic regression predicting study completion within five years of enrolment (analyses separated by fields of study)

	<u>Teachers</u>		<u>Pre-school teacher</u>		<u>Social work</u>		<u>Nursing</u>	
	b	SE	b	SE	b	SE	b	SE
Parents' education								
Upper secondary	0.182	0.057	-0.014	0.057	-0.018	0.076	0.126	0.050
Short HE, BA	0.342	0.055	-0.005	0.059	0.075	0.077	0.269	0.050
Long HE, MA/PhD	0.447	0.083	-0.007	0.109	0.291	0.134	0.204	0.079
Parents' relative income	0.001	0.001	0.003	0.001	0.002	0.001	0.003	0.001
Women	0.533	0.043	0.888	0.064	0.660	0.085	0.824	0.059
Immigrant								
Non-Western origin	-0.414	0.159	-0.527	0.128	0.021	0.138	-0.629	0.085
Western origin	-0.873	0.366	-0.052	0.387	-0.332	0.484	-0.192	0.273
Enrolment year								
2001	-0.044	0.140	0.075	0.177	-0.037	0.246	0.311	0.145
2002	0.168	0.134	0.280	0.168	0.195	0.241	0.600	0.141
2003	0.049	0.132	0.388	0.162	0.215	0.235	0.641	0.137
2004	0.088	0.132	0.177	0.158	0.080	0.234	0.766	0.137
2005	0.350	0.137	0.196	0.156	0.060	0.232	0.522	0.133
2006	0.221	0.135	0.498	0.156	0.015	0.232	0.443	0.132
2007	0.332	0.137	0.577	0.157	-0.121	0.229	0.429	0.131
2008	0.292	0.136	0.445	0.155	-0.028	0.231	0.318	0.130
2009	0.149	0.133	0.488	0.155	-0.193	0.227	0.071	0.128
2010	-0.409	0.130	0.145	0.153	-0.229	0.227	-0.127	0.127
Constant	-0.716	0.150	-1.329	0.196	-0.103	0.279	-0.743	0.172
Number of obs	12323		10118		7443		20134	
Log likelihood	-7875.3		-6110.4		-3863.8		-9505.1	
Pseudo R ²	0.0227		0.0230		0.0127		0.0286	

Appendix

Figure 1: Estimated* probabilities for study completion within five years by parents' educational level for students in nursing, teaching, pre-school teaching and social work programmes (without controlling for grades from upper secondary school)



*The probabilities were estimated from the coefficients in Appendix table 2. Controls: at mean or mode.