

Social inequality in completion rates in higher education: Heterogeneity in educational fields

Håvard Helland  | Thea B. Strømme 

The Center for the Study of Professions, Oslo Metropolitan University (OsloMet), Oslo, Norway

Correspondence

Håvard Helland.

Email: havhel@oslomet.no

Funding information

Norges Forskningsråd, Grant/Award Number: 283556

Abstract

This article examines how social disparities in dropout rates vary by educational field. Previous studies have shown that first-generation students, in general, have lower higher education completion rates than their fellow students. Less is known, however, about how such disparities vary between educational fields. We distinguish between *general* and *field specific cultural capital* and find that general cultural capital mainly operates through academic preparedness in upper secondary school, and after controlling for upper secondary school grade point average (GPA), students with parents with higher education degrees in a different field than themselves do not complete their degrees more often than first-generation students. More field-specific advantages of having a parent with a similar education are nonetheless visible in many fields also when we compare students with equal grades. Our analyses of Norwegian register data on the entire student population ($N \approx 400,000$) show that the social inequalities are largest in fields that are both *soft* and *pure*, like humanities and social science, and that in *soft* and *applied* educational fields, like teaching and social work, the social differences are small and insignificant after controlling for GPA from upper secondary school. In fields classified as *hard*, it is only the students with parents with a similar education who complete their initial degree

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2024 The Authors. The British Journal of Sociology published by John Wiley & Sons Ltd on behalf of London School of Economics and Political Science.

more often than first-generation students. We suggest that status group formation, field-specific cultural capital and micro-class reproduction may all contribute to explaining these patterns.

KEYWORDS

cultural capital, dropout, educational fields, higher education, social inequality

1 | INTRODUCTION

This article examines how social disparities in dropout rates vary by educational field. Previous research has established that students from upper- and middle-class backgrounds, in general, have higher completion rates than their fellow students from working-class backgrounds (e.g., Contini et al., 2018; Hadjar et al., 2022; Li & Carroll, 2020). Social inequalities in dropout rates thus add to existing social inequalities in educational attainment. Studies on how dropout rates vary between fields of study, however, are rare and lack a focus on social inequality. Both high dropout rates and social inequality in educational attainment remain targets for educational policies. Non-completion is a potential problem not only for higher education institutions; for a society, non-completion represents economic loss, reduced human capital and potential shortages of highly educated labour (Vossensteyn et al., 2015). For students, dropping out may imply lower future earnings, student debt and possibly reduced self-image and confidence. Here, we contribute new insights regarding how social inequalities in dropout rates vary between educational fields.

Most of the literature explaining dropout has viewed institutions of higher education as rather homogeneous entities, but there are reasons to expect substantial differences between educational fields. Different fields of education qualify graduates for different occupations and industries, and there are considerable cultural differences between different faculties and fields of study (e.g., Becher, 1989). We know from previous research that recruitment patterns differ substantially between fields, both in terms of social origin and grades in upper secondary school (Andrade & Thomsen, 2017; Helland & Wiborg, 2019; Norwegian Universities and Colleges Admission Service [NUCAS] 2022; Thomsen et al., 2017), and such differences in recruitment may reinforce cultural differences between educational fields. Such subcultures may differ in their suitability for different groups of students. Consequently, it may well be that both the dropout rates and the extent of social inequalities in such rates vary between different fields of study. We combine Tinto's theoretical model of student departure with theories on educational inequality and, from this theorising, we examine social inequalities in dropout and how such inequalities vary between educational fields.

Empirically, the article demonstrates the dividends of using very detailed and rich national register data. Survey data, which has formed the basis of much previous research into these associations, do not permit as detailed an assessment. The study is conducted in Norway, where returns to education are comparatively low (Organisation for Economic Co-operation and Development [OECD] 2022: 80), and the kind of degree one has obtained is more important for one's career than the institution that has issued the degree (Gulbrandsen et al., 2002, p. 58). Furthermore, access to tertiary education is comparatively less restricted by economic barriers (i.e., free tuition, generous and affordable student loans). The comparatively low costs make the choices to enter and leave higher education realer for most students than in countries where economic factors may restrict these choices considerably. A study on differential dropout rates across educational fields, then, may be particularly interesting in the Norwegian context.

2 | PREVIOUS RESEARCH

Previous dropout research has tended to view higher education institutions as rather homogeneous entities and focus on variations between institutions. In line with such an institutional focus, research from the USA has found

considerably lower transfer rates from 2-year community colleges to 4-year colleges among students from modest social backgrounds (e.g., Dougherty, 1987; Dougherty & Kienzl, 2006; Lee & Frank, 1990; Velez & Javalgi, 1987). Transfers in the opposite direction are more common among students from less privileged origins (Goldrick-Rab, 2006; Goldrick-Rab & Pfeffer, 2009). Similar patterns have been found in countries with different institutional structures (e.g., Mastekaasa and Hansen (2005) in Norway, and Tieben (2020) in Germany). These results indicate that different types of institutions have a different appeal to different social groups. In this article, we examine whether such differences also exist *within* institutions between educational fields.

Studies on how dropout varies between students in different fields of study are rare, and analyses of the importance of social origin in such variations are even rarer. St. John et al. (2004) find that students' probability of not completing their freshman and sophomore years of college was greater among social science majors and students who had not chosen a major. Their analyses, however, do not include social background variables. Tilbrook and Shifrer (2022) observe (in the USA) that having parents with a science, technology, engineering and mathematics (STEM) degree or a STEM occupation is positively correlated with persistence in STEM college programmes. At a Belgian university, Ortiz and Dehon (2013) show that the probability of dropping out was 70% higher among science students as compared to students in humanities and social science. In a study on enrolees in Norwegian welfare state professions, Helland and Hovdhaugen (2021) find no social inequalities in dropout among students in nursing, pre-school teaching and social work, and only quite small social differences among student teachers. Overall, however, the social differences in dropout rates are considerable (e.g., Aina, 2013; Contini et al., 2018; Hadjar et al., 2022; Li & Carroll, 2020; Ortiz & Dehon, 2013; Powdthavee & Vignoles, 2008; Thomas & Quinn, 2006). The reasons for dropping out also vary between educational fields, and Yorke (2000) finds that an inability to cope with programme demands was a more common reason among students in clinical studies and engineering, whereas dissatisfaction was a more widespread reason in art education. In this paper, we expand on this research by examining how social disparities in dropout rates vary between different fields of study.

3 | THEORETICAL PERSPECTIVES

Social inequality in dropout likely partially explains the persistent inequalities in educational attainment, and probably increasingly so as larger proportions of birth cohorts enter tertiary education. Yet there has hardly been any cross-fertilisation of theories on dropout and educational attainment. Below, we combine Tinto's theoretical model of student departure with theories of educational inequality and discuss how the theorised mechanisms may play out differently in different educational fields.

3.1 | Understandings of dropout and persistence

According to Tinto's (1993) theoretical model of dropout,¹ the decision to drop out is a result of a lack of social and/or academic integration into college. The theory does not rule out the existence of different subcultures in college (Tinto, 1993, p. 125), but its focus is on the mainstream and dominant communities of a college and tends to view the institutions as homogeneous entities into which students must integrate. The social and academic systems are regarded as distinct but 'invariably interwoven' (Tinto, 1993, p. 109), and the processes of social and academic integration tend to reinforce each other in virtuous or vicious circles. Several factors influence such integration processes (and therefore the decision to leave), and Tinto (1993, p. 45) groups them into *difficulty*, *adaptation*, *isolation* and *incongruence* ('between the needs, interests, and preferences of the individual and those of the institution'; Tinto, 1993, p. 50). The relative importance of these factors and of academic and social integration will probably vary between students, fields of study and institutions. For instance, it is well established in the USA that social integration, as Tinto defines it, is more important in residential 4-year colleges than in 2-year community colleges

(e.g., Davidson & Wilson, 2017; Nora, 1987), and research on nursing students in England and Norway suggests that in educational programmes with a substantial component of practical training, integration into the practice setting is equally important (Sweetman et al., 2023).

Although the model assumes homogeneous institutions and Tinto and his followers have been less concerned with social inequality, we find the model useful because it specifies possible processes leading to dropout. The integration process is also a socialisation process, and we argue that the success of such processes will likely depend on the characteristics of both the student and their place of study and how the two are matched.² In the Norwegian context, the presence of one mainstream, uniform institutional culture will probably be weak, and there are good reasons to expect considerable cultural differences within universities and between different faculties and fields of study (e.g., Becher, 1989; Kuh & Whitt, 1988; Vreeland & Bidwell, 1966). Such subcultures may also differ in how well they fit different groups of students.

In addition, there are reasons to expect that some educational programmes are quite simply more *difficult* than others as both the effort and cognitive skills necessary to persist may vary. As a possible illustration of this, Attewell et al. (2011) find academic preparation to be a much better predictor of graduation in 4-year than in 2-year colleges, and they suggest that community colleges may have lowered the bar to enable less academically prepared students to also complete degrees. If the ability and willingness to meet such high demands vary with social origin, the result may be larger social inequalities in dropout in the more demanding studies. Students from different backgrounds may be equipped differently for different educational fields, both socially and academically, and it is not unlikely that both the degree of difficulty and incongruence that students experience in higher education will vary with their parents' education and class location. Below, we discuss this in light of the theories of Boudon (1974) and Bourdieu (Bourdieu & Passeron, 1990). Then we discuss how differences between educational fields may affect possible social differences in dropout.

3.2 | Theories of social reproduction of educational inequality

The starting point for the dominant theories on the social reproduction of educational inequality is large and persistent social inequality in educational attainment, and the theories pay little attention to the processes students go through after they have enrolled in higher education. Boudon (1974; see also Breen & Goldthorpe, 1997) distinguishes between primary and secondary effects of background factors on educational attainment. The *primary effects* are caused by differences in academic ability between social classes which, in turn, affect educational attainment. It seems likely that students with good grades in upper secondary school are better prepared for higher education and that they, *ceteris paribus*, will complete more often than students with poorer grades, or in Tinto's vocabulary—they face less *difficulty* and their academic integration is more often successful.³

Boudon's theory, however, focuses primarily on the *secondary effects*, which are the result of systematic social class differences in *choice* even when the students' grades in upper secondary school are equally good. According to Boudon, the choices differ because the costs and benefits of educational attainment vary by social class. The theory assumes that everyone's primary goal is to reproduce their parents' social position. This goal is achieved at lower educational levels for students from the working class than for those with highly educated parents. That is, the benefits of persistence in higher education are greater for students with highly educated parents than they are for first-generation students. The costs of higher education must also be relativised. First, the same financial costs may constitute very different shares of one's total budget. Second, Boudon's (1974: 30) *social costs* also vary by social position. For working-class people, the pursuit of higher education may represent a 'breakup' with family and friends, whereas *not* pursuing higher education may imply a similar distancing for middle-class people. Social differences in social costs may lead to a stronger feeling of *incongruence* and *isolation* among working-class students, which makes social integration more difficult.

The *difficulty* experienced by first-generation students implied in the primary effects arguably receives more attention in Bourdieu's cultural reproduction theory. This theory claims that the education system reproduces social

inequalities in educational achievement because it expects and rewards cultural capital and because cultural capital is unevenly distributed by social background (Bourdieu & Passeron, 1990; Sullivan, 2001). On average, students rich in cultural capital attain better grades than their peers at all educational levels (Andersen & Hansen, 2011; Hansen & Strømme, 2021), which presumably eases the *academic integration* into college life.

The factors Tinto labels *adaptation*, *isolation* and *incongruence* are more important for the *social* integration into university and are more about culture and the match between the institutional culture and the student. Bourdieusian theory assumes that individuals' positions in the social structure shape their preferences (Reay et al., 2005), and socialisation and the development of habitus are important components. An upper- or middle-class habitus entails a sense of entitlement (Khan, 2011) and ease with which middle-class students encounter higher education (Reay et al., 2005). Bourdieu and Waquant (1992, p. 127) compare such ease with being 'like a fish in water'. Upper- and middle-class students take for granted the pursuit of higher education, and such ease and taken-for-grantedness will probably make their *adaptation* to higher education easier and their risk of *isolation* smaller. In general, there are reasons to expect the degree of *congruence* between the individual's habitus and the culture of their educational programme to correspond to the student's degree of cultural capital (see also Berger, 2000, pp. 100–101; Lehmann, 2007; Longden, 2004; Rendon et al., 2000). This importance of cultural capital, however, may vary between educational fields. Our first hypothesis thus reads:

H1. Students with highly educated parents will complete their initial degree more often than first generation students.

3.3 | Field-specific advantages

What constitutes cultural capital may also vary between educational fields. As Helland and Wiborg (2019) argue, educational fields may be a source of status group formation. Weber (1947, p. 424) defines status groups as social groups with a common social status and prestige based on a way of life, education or occupation. Education thus is an important component of status group formation and has even been seen as a 'pseudo-ethnicity' (Collins, 1979, p. 72). Children growing up in a status-group environment likely internalise group-specific values, identities and codes of honour, and if the parents' educational field is central to this status group, this will likely affect the children's integration into higher education. If there is high congruence between the status group culture in which students have been raised and their field of study, they are likely to persist in higher education. The degree of education-based status group formation, and therefore the value of field-specific resources, likely varies across educational fields (Helland & Wiborg, 2019).

An even more Bourdieusian way to formulate this thought is through the concept of *field-specific cultural capital* (Bourdieu, 1984; Tilbrook & Shifrer, 2022). Tilbrook and Shifrer (2022) apply this concept to STEM education. People who have grown up with parents with a STEM education or a STEM occupation have internalised values, attitudes and work habits that make them both more likely to choose STEM programmes and to succeed in such programmes. Students with large amounts of STEM-specific cultural capital often have a STEM identity, and their self-efficacy in STEM subjects is high (see also Ulriksen et al., 2010). According to this theory, such field-specific cultural capital is also recognised and rewarded by teachers and examiners, making students with parents with a similar education more successful. Students who enter an educational field with large amounts of field-specific cultural capital are, in this perspective, likely to integrate into college life both academically and socially and to experience less difficulty and incongruence. We therefore expect that students whose parents have degrees in educational fields close to their own will be likely to complete their degrees.

A similar reasoning can be found in the logic behind micro-classes (Jonsson et al., 2009; Weeden & Grusky, 2005), where occupations, rather than big classes, constitute the level of social reproduction between parents and children. Jonsson et al. (2009) specify four mechanisms distinguished by the types of resources that facilitate social

reproduction. First, children acquire the same skills (human capital) as their parents, which may increase their relative abilities in their parents' educational fields. Second, children grow up in a culture marked by their parents' occupations and class location and, through it, may acquire a taste for their parents' education and occupations. Third, the culture in which children grow up is also influenced by the parents' social network. Finally, parents' economic resources may play an important role in the process of social reproduction. Below, we examine whether students whose parents have an education close to their own complete their degrees more often than students whose parents have different kinds of higher education.

Based on the discussion above, we formulate the following hypotheses:

H2. Students whose parents have degrees in educational fields close to their own will be more likely to complete their degrees.

3.4 | Possible divisions between educational fields

3.4.1 | Hard versus soft fields

Biglan (1973) classifies academic fields according to three dimensions: hard/soft, pure/applied and life versus non-life subjects. Here, we focus on the two former dimensions. Hard disciplines are characterised by a well-established paradigm. There is a commonly held view about which problems are appropriate to examine and a consensus about the appropriate methods with which to study these problems. In the soft disciplines, however, there are no such common views and agreements. The hard disciplines are often based on mathematical reasoning, with set answers to questions, whereas in the soft disciplines, there may be several contradictory perspectives, and the answer is subject to discussion, reasoning and even persuasion. Thus, in the soft disciplines, argumentation, formulation skills and writing ability are decisive. This may make first-generation students' degree of experienced incongruence greater in soft disciplines than in hard ones. Without the sense of entitlement with which the upper classes approach higher education, first-generation students may find disciplines characterised by consensus about the applicable methods, theories and standards for legitimate knowledge more reassuring and less incongruent with working-class culture, which may ease first-generation students' integration and make them more likely to persist in hard fields.

When it comes to social differences in experienced *difficulty*, the expectations are less obvious. On one hand, we might expect students who have grown up in middle- or upper-class homes with large amounts of cultural capital to be more accustomed to the ways of talking and writing in soft disciplines than students from homes with less cultural capital. One reason for this expectation may be found in Bernstein's (1971) distinction between restricted and elaborated codes and his assumption that middle-class people to a larger extent have been exposed to the latter during their socialisation process. The elaborated code is more explicit and complicated, with clear argumentation, and is what is expected and rewarded in the education system. Mastering this code is arguably more important in soft disciplines. On the other hand, the fact that hard disciplines often are based on mathematical reasoning may lead the expectations in the opposite direction. In secondary school, mathematics is the subject with the greatest social inequalities in grades (Andersen & Hansen, 2011). Many hard disciplines (e.g., physics or engineering) may be conceived as quite difficult, requiring a high threshold of mathematical literacy to pass exams, whereas soft fields, where there is no common paradigm, crossing the threshold may be somewhat easier.

To sum up, we have seen that processes of experienced (in)congruence give reasons to expect that:

H3a. The social inequalities in degree completion will be larger in soft fields than in hard fields.

However, processes resulting from experienced difficulty may also lead to the opposite expectation, namely that:

H3b. The social inequalities in degree completion will be larger in hard fields than in soft fields.

3.4.2 | Pure versus applied fields

The pure/applied dimension sorts disciplines according to the importance placed on the practical application of knowledge. Pure academic disciplines, such as mathematics and history, are at one end of the continuum, whereas applied academic disciplines, such as dentistry and nursing, are at the other end. The applied disciplines are geared towards qualifying students for specific occupations and many applied studies include practice components, whereas the connection to working life is less obvious in pure disciplines. Martin and Szelényi (1987) draw a related distinction by arguing for dividing the highly educated middle class in two groups depending on whether their knowledge is geared towards practical mastery or symbolic, discursive mastery. In the former, productivity gains and economic efficiency are central and technically useful aspects of the knowledge dominate. In the latter, knowledge geared towards symbolic mastery has a less clear external reference, and the knowledge production is not driven by external productivity and efficiency.

The choice of applied educational programmes leading to specific occupations or professions, like nursing and social work, has been found to be a choice of an *occupation* rather than a choice of *education* (Heggen, 2010; Thomas et al., 2023). The students who have made such choices seem to be driven by occupational commitment rather than a commitment to their academic discipline, and this occupational commitment is what makes the students endure unenjoyable studies (Thomas et al., 2023). Among students who have chosen such an education, then, this gives us a reason to expect small social differences in dropout rates. However, the circumstances are likely more favourable for status group formation in educational groups that share a profession, which is often the case in applied educational programmes, like nursing and teaching.

Furthermore, we expect that first-generation students will feel more at home and experience less incongruence in applied studies than in pure academic disciplines, where the practical application is less obvious and where a student's persistence is dependent on their commitment to the discipline. We also expect that first-generation students will prefer and master educational fields which are dominated by the practical pursuit of productivity and efficiency (e.g., business administration and engineering). In the pure disciplines, we expect students with large amounts of cultural capital to persevere. Such students will be more familiar with knowledge dominated by symbolic mastery, feel more at ease and probably integrate more successfully than their fellow students of working-class origin.

In sum, we thus expect that:

H4. The social inequalities will be larger in pure academic fields than in applied fields.

4 | THE NORWEGIAN CONTEXT

Norwegian higher education, which is based on an egalitarian tradition, is characterised by state-funded and comparatively accessible higher education institutions with progressive recruitment patterns and an absence of elite institutions (Ahola et al., 2014). Admission to higher education is centralised, and the grade point average (GPA) in upper secondary school is the only sorting criterion when the number of applicants exceeds the number of available spaces. The study structure in Norwegian higher education is in keeping with the Bologna Declaration of 1999, with a 3-year bachelor's degree (ISCED level 6) followed by a 2-year master's degree (ISCED level 7). Some professional programmes (theology, psychology, medicine, and veterinary medicine) are exempted from the 3 + 2 years structure and are 6-year integrated study programmes (Ahola et al., 2014, p. 64).⁴ In addition to free tuition, students enjoy generous publicly funded support in the form of universally accessible grants and favourable student loans. The comparatively lower financial strains on students give us reasons to expect that financial factors will matter less for persistence and

dropout rates. On the basis of Esping-Andersen's (2015) theory, Walther (2006) suggests a typology of regimes for the transition from school to work. In the universalist transition regime of the Nordic social-democratic welfare regimes, the state provides comparatively generous social insurance schemes. Such social safety nets mitigate labour market risk, and youth unemployment is comparatively low. This makes transition choices free and unconstrained and may also reduce the risks connected to dropping out of higher education. The comparatively low returns to education in Norway (OECD, 2022, p. 80) and low unemployment rate make dropping out to undertake paid work a more viable alternative in the Norwegian context than in other parts of the world. There are, however, considerable differences in income levels between educational fields, and educational fields are far more important predictors of later success than which educational institution one attends (Gulbrandsen et al., 2002, p. 58). Since students are aware that the economic returns to education vary considerably between educational fields, this may provide an extra incentive to persist in high-paid fields, like medicine and law.

5 | DATA AND ANALYTIC STRATEGY

We analyse administrative data from public registers for the entire student population in Norway (from Statistics Norway). The data includes all enrollees in higher education degree programmes (i.e., ISCED, 2011 levels 6 and 7, but see Figures A4 and A5 for models with only level 6), and we examine whether or not they have completed their first degree. We use data from the National Educational Database, containing individuals' complete educational history until 2020, linked with income data from the tax register, demographics registers and grades in upper-secondary school. The data also enable connecting individuals and parents (parental income and education). We follow the students for 8 years after their first enrolment and restrict the analysis to those starting in the years 2000–2011. We have excluded students studying abroad, students only doing preparation courses and students signed up only for further training. We examine whether a student completed the higher education degree for which they initially signed up within 8 years after enrolment.

In the analyses, social background is operationalised as parents' education and income. The definitions and operationalisations of cultural capital vary, even in Bourdieu's work (Lamont & Lareau, 1988, p. 156). Here, parental education serves as a proxy for family cultural capital. Education and occupation are the only proxies available in Norwegian public registers, and for our purposes we prefer the former. Our measures of closeness between educational fields and level of education serve our interest in field-specific cultural capital and status group formation better than an occupation-based class scheme. Even though this measure does not capture every aspect of this complex concept, we maintain that it captures important features of it. Common to most expositions is an understanding that the most important transition of cultural capital occurs in the family and that socialisation in different homes (i.e., with different parents) result in different volumes of embodied cultural capital. In Lareau and Weininger's (2003) assessment of the use of the concept in educational research, parents' knowledge of and familiarity with the educational system and educational norms is central (Lareau & Weininger, 2003, pp. 588, 604), and we argue that such knowledge and familiarity is most often acquired by pursuing a higher education. We classify parents' educational level according to the International Standard Classification of Education (ISCED, 2011 version) and distinguish those whose parents have not completed any higher education (ISCED levels 1–4), short tertiary education (ISCED levels 5 and 6) and long tertiary education (ISCED levels 7 and 8). To distinguish between *general* and *field-specific cultural capital*, we separate students whose parents (one or both) have degrees close to their own from those who have different degrees than their parents. Parental income serves as a proxy for family economic capital and is measured as Consumer Price Index-adjusted individual income. We use the sum of the mother's and father's average incomes when the child was 10–18 years old. Averages over several years are an appropriate measure to demonstrate the long-term effects of parental income (Mazumder, 2005). In Norway, combining the mother's and father's incomes is a suitable measure of family economic resources due to women's increasing labour market participation (Hansen, 2010). To reduce the impact of outliers, we transform incomes into percentiles. The income percentile rank is set separately for every

TABLE 1 Classifications of educational fields.

	Hard/soft	Pure/applied	Educational field
Humanities, BA	Soft	Pure	Humanities, art, social science
Performing arts, arts teacher	Soft	Applied	Humanities, art, social science
Preschool teacher	Soft	Applied	Education
Teacher	Soft	Applied	Education
Vocational teacher	Soft	Applied	Education
Social science, BA	Soft	Pure	Humanities, art, social science
Business adm.	Hard	Applied	Business administration
MBA	Hard	Applied	Business administration
Natural sciences, BA	Hard	Pure	STEM
Engineering, technical, BA	Hard	Applied	STEM
Nursing	Hard	Applied	Health
Social work	Soft	Applied	Humanities, art, social science
Health subjects, BA	Hard	Applied	Health
Safety educations	Hard	Applied	Other
Other BA level	Hard	Applied	Other
Humanities, MA	Soft	Pure	Humanities, art, social science
Theology	Soft	Applied	Humanities, art, social science
Education, MA	Soft	Pure	Education
Social science, MA	Soft	Pure	Humanities, art, social science
Economics, MA	Hard	Pure	Humanities, art, social science
Psychology, MA	Soft	Applied	Humanities, art, social science
Law	Soft	Applied	Law
Natural sciences, MA	Hard	Pure	STEM
Graduate engineering	Hard	Applied	STEM
Other health education, MA	Hard	Applied	Health
Dentistry	Hard	Applied	Health
Medicine	Hard	Applied	Health

birth cohort to reflect one's position relative to others born in the same year. Educational fields are operationalised in two ways. First, we compare social inequality in completion rates in different combinations of hard, soft, pure and applied fields, and second, between the six broad fields of humanities and social science, education, health, STEM, business administration and law. This represents a considerable simplification. Table 1 below shows our classifications of different educational fields.

In the analyses, we also control for grades in upper secondary school, gender, institution type (university or university college),⁵ age and year of enrolment (dummies). Table 2 shows descriptives for the central variables.

The biggest differences in completion rates are between different educational fields. In the social sciences, humanities and performing arts, less than half the students complete their degrees, whereas in health-related programmes, three quarters complete their degrees. The largest share of students who fail is in the soft and pure fields, where 63% do not complete their degrees. Below, we examine how different student groups succeed in different educational fields.

TABLE 2 Descriptives.

	Not completed 1st degree (%)	Completed 1st degree	N
Total	48.2	51.8	394,630
Soft & pure	63.3	36.7	88,281
Soft & applied	35.4	64.6	82,694
Hard & pure	57.8	42.2	17,788
Hard & applied	46.0	54.0	205,867
Educational field			
Humanities & social science	55.6	44.4	123,942
Education	27.4	72.6	51,449
Health	33.5	66.5	39,176
STEM	45.1	54.9	73,183
Business administration	58.5	41.5	80,052
Law	39.4	60.6	8206
Men	52.5	47.6	160,761
Women	45.3	54.7	233,869
Parents' education relative to children's field			
Not higher education	50.6	49.4	207,465
Different, BA	47.7	52.3	95,577
Different, MA	47.1	53.0	33,912
Close, BA	41.8	58.3	39,489
Close, MA	39.7	60.3	18,006
Parents' relative income			
Median	59	61	
Mean	56.1	57.8	
SD	28.4	27.8	
GPA upper secondary			
Median	4.1	4.3	
Mean	4.1	4.3	
SD	0.7	0.7	

6 | ANALYSES

We run several linear probability models (LPMs) with completion (or not) of first degree as the dependent variable (for full models: see Tables AI–AVI). They are run separately for students in different educational fields. In Figure 1A, we present plotted coefficients from these analyses⁶ and examine the idea that people from similar educational fields may constitute status groups and that belonging to such status groups may better equip students to persist in these educational fields (but see Figure A1 for results on Parental income). We compare the probability of degree completion among students whose parents (one or both) have a similar education, with students whose parents have a different kind of higher education and with students whose parents have not completed any higher education.

Overall, a student's probability of completing their initial degree is higher if their parents also hold degrees in a similar educational field, particularly if these are master's degrees. There also seems to be a general, albeit weaker, tendency for students whose parents earned degrees in different fields to graduate more often than first-generation students. We find similar patterns in humanities and social science, education and STEM programmes. In business

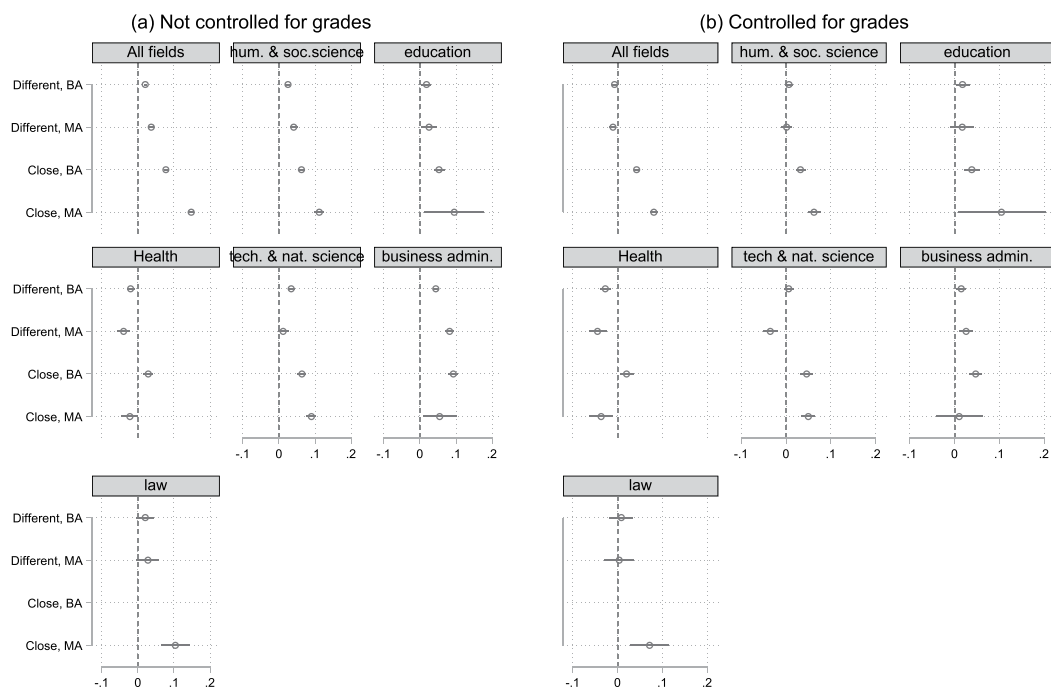


FIGURE 1 Coefficient plots from separate LPM regressions of parents' education on completing one's initial degree within 8 years. Reference category: Mother and father without higher education; controlling for enrolment year, institution type, sex, age group and parents' relative income (A) and for upper secondary GPA (B).

administration, we find that students whose parents pursued higher education persist more often, but having parents educated in business administration does not seem to offer any particular advantage. In law, it is only those who have parents with law degrees that outperform the first-generation students. In health-related education, the differences are small and unsubstantial in general.

Previous research has established well that grades are highly correlated with parents' educational level and that grades in upper secondary education are good predictors of higher education completion. In Figure 1B, we present coefficient plots from analyses including controls for grades in upper secondary school.

The figure clearly illustrates that academic preparedness, measured by grades in upper secondary school, is part of the reason for the observed differences in Figure 1A. In particular, the differences between students with parents without higher education and students whose parents do not have degrees from the same field as them are no longer significant in these analyses. In general, students with highly educated parents get better grades in upper secondary school, implying that they are better prepared academically for higher education, and when we control for these better grades, these students do not persist more often than first-generation students unless their parents' degrees are in fields close to their own field. General cultural capital, in other words, seems to work primarily through primary effects and the mechanisms Tinto labels 'difficulty' as well as academic integration. Students whose parents pursued higher education in a field close to their own, however, still complete their initial degree more often than other students, which may suggest that field-specific cultural capital also works through the mechanisms of social integration, adaptation and congruence.

In Figure 2 below, we compare the social differences in educational fields with different combinations of hard and soft, and pure and applied. The coefficient plots are again with and without controls for grades in upper secondary school.

The figure reveals interesting differences between different educational fields. In fields classified as soft and applied, the social inequalities are small and insignificant when grades are controlled for. In the soft and pure disci-

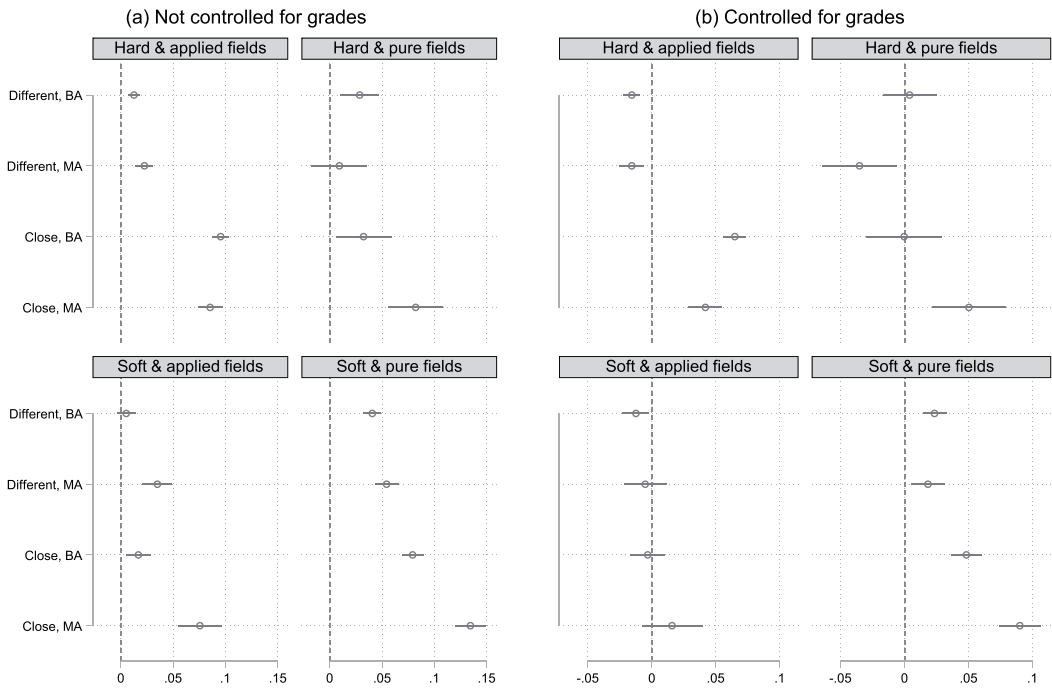


FIGURE 2 Coefficient plots from separate LPM regressions of parents' education on completing one's initial degree within 8 years, controlling for upper secondary GPA. Reference category: Mother and father without higher education; controlling for enrolment year, institution type, sex, age group, parents' relative income (A) and upper secondary GPA (B).

plines, however, students with highly educated parents are more likely to complete their degrees with and without controls for grades, and students with parents with master's degrees in a field similar to their own are considerably more persistent. In hard and applied educational fields, students with parents with a similar education complete their studies more often than other students, but there is no general advantage to having highly educated parents here. After controlling for grades in upper secondary school, there are very small effects of general cultural capital (parents with different higher education degrees), and in hard and applied educational fields, the small effects are negative. In hard and pure educational fields, it is only the children of parents with master's degrees in a discipline close to their own that complete higher education more often than first-generation students.

7 | CONCLUSION

In the theory section, we expected that first-generation students would complete their initial degree more seldom than students with highly educated parents, and our results show that they do. Particularly compared to students whose parents have completed degrees in a discipline close to their own, which was our second expectation. We also find that the association between general cultural capital (having parents with a different higher education degree) and dropout mainly work through academic preparedness from upper secondary school, and after controlling for upper secondary GPA, students with parents who have completed degrees in a different field than themselves do not complete their degrees more often than first-generation students.⁷ These results suggest that general social differences in dropout mainly operate through *primary effects*, whereas the more field-specific advantages are visible also through *secondary effects* (Boudon, 1974). Status group formation (Weber, 1947), field-specific cultural capital (Bourdieu, 1984) or micro-class reproduction (Jonsson et al., 2009) may all contribute to explaining this pattern.

Educational field may be an important source of status group formation, together with occupation and way of life (Weber, 1947, p. 424). Students who have grown up in a status-group environment where parents' educational field is central will likely internalise group-specific values, identities and codes of honour. If such students choose an educational programme close to that of their parents, such status group socialisation may lead to them being more persistent of several reasons. First, similar status group values will probably also characterise the educational environment, which will reduce the experienced incongruence to a minimum and ease the social integration considerably. Second, their familiarity with the education from their upbringing may reduce the experienced difficulty and ease the academic integration. Third, such students may also value the specific education higher and therefore be more committed to complete their degree.

A similar reasoning can be found in micro-class theory (Jonsson et al., 2009; Weeden & Grusky, 2005). The theory assumes that children acquire the same skills (human capital) as their parents, which may increase their relative abilities in their parents' educational fields and improve the academic integration. Second, the culture children grow up in may be marked by their parents' education, and they may acquire a taste for their parents' education, if so, this will probably both reduce the experienced incongruence and make them more committed to persist. Such mechanisms are probably important for the understanding of micro class reproduction through the education system. This pattern, however, varies considerably between educational fields, which indicates that the degree of status group formation, or of 'micro class rigidity' (Jonsson et al., 2009, p. 983) vary between educational fields.

Above, we expected that social inequalities would be greater in pure than in applied fields. Our expectation was that first-generation students would feel more at home and experience less incongruence in applied studies than in pure academic disciplines, where the practical application is less obvious and where a student's persistence is dependent on their commitment to the discipline. Furthermore, we expected that first-generation students' relative mastery of educational fields dominated by the practical pursuit of productivity and efficiency would be higher than in pure disciplines whose knowledge is dominated by symbolic mastery. Our expectations when it comes to the distinction between hard and soft disciplines were not as clear. On the one hand, there are reasons to expect that first-generation students' feelings of incongruence would be stronger in the soft fields, whereas the higher threshold of mathematical literacy in many hard fields may increase the difficulty in hard fields and thus lead to larger social inequalities.

The social inequalities are largest in fields that are both soft and pure, like humanities and social science. In such fields, first-generation students are less persistent than the groups with highly educated parents. The 'advantage' is particularly great for students whose parents have master's degrees in a field similar to theirs. Pure and soft fields lack a clear connection to practical application in a particular occupation and a unifying, common paradigm. Formulation and argumentation are decisive, and the knowledge production is not driven by external productivity and efficiency demands. The benefits of cultural capital are arguably higher in such fields, and the culture is more removed from working-class culture. This will likely enhance first-generation students' experiences of both difficulty and incongruence. The immediate usefulness of such fields is perhaps less obvious, and thus less attractive for first-generation students.

In *soft* and *applied* educational fields, like teaching and social work, the social differences are small and insignificant after controlling for upper secondary GPA. The 'softness' of these fields is likely less abstract (and therefore less difficult), and the practical application of skills is closer to working-class culture. An exception to this pattern, however, is law, which is also classified as soft and applied, but where the children of lawyers are considerably more likely to complete degrees than their fellow students. The fact that law stands out for providing clear advantages to students with parents both with a similar education and higher income resonates with previous research on educational attainment and academic success in law (Hansen & Strømme, 2021; Strømme & Hansen, 2017). Growing up in a law family seems to offer advantages also in terms of persistence. This may indicate advantages of being raised in a status group culture, both through field-specific skills and language (difficulty), greater ease in social integration and adaptation, and lower sense of *incongruence* between the interests and preferences of the individual and those of the institution.

In fields that are both *hard* and *applied* (e.g., business administration, engineering and health-related fields), we have found that after controlling for upper secondary GPA, it is only the students with parents with a similar education who complete their initial degree more often than first-generation students. These fields are also applicable in specific occupations, but the level of difficulty is probably higher than in the soft applied fields. They demand higher levels of mathematical literacy and abstract reasoning, to which students with parents educated within similar fields may be more accustomed. It is also likely that educational fields such as medicine, business administration and graduate engineering constitute particular academic (status group) cultures that may be incongruent both to first-generation students and students with parents who have other educational backgrounds.

In fields classified as both *hard* and *pure* (e.g., economics and the natural sciences), it is only the students whose parents have master's degrees in a related field who complete their degrees more often than first-generation students. These fields also demand higher levels of mathematical literacy and abstract reasoning than most other fields, which may favour those whose parents have master's degrees in such fields. The fact that the disciplines are pure also favours students who appreciate the subjects for their own sake and not for their practical applicability. Presumably, such an appreciation is more common among the children of, for instance, mathematicians.

Our results expand on previous research by examining how social inequality in degree completion varies across educational fields. We modify the often-held assumption that first-generation students drop out more often in all educational fields and demonstrate that there are internal differences in the highly educated middle class. In many educational fields, students with parents with a degree in a similar field complete their degree more often than students with parents educated in a different field. We thus develop the idea of field specific cultural capital. We also develop Tinto's theory of student departure by combining it with theories on educational inequality, and by emphasising internal cultural differences within higher education institutions and the matching of student and educational institution. Such internal differences within higher education institutions are relevant for future research on higher education and for the sociology of education more broadly.

More generally, our results also inform the understanding of social reproduction of inequality across generations. Our finding indicates that status group formation and field specific cultural capital play a significant role in the processes within the educational institutions, which in turn affect which students that persist and obtain a degree. It is likely that the effects would be even stronger if we had combined our measure of parents' education with a similar measure of occupation, and thus providing even more convincing evidence of micro-class rigidity.

ACKNOWLEDGMENTS

The authors are grateful for valuable comments from several colleagues on this paper, both on seminars at the Centre for the study of professions and at the sociology department at the University of Oslo. We would also like to thank the anonymous reviewers for valuable input. The research and authorship of this article is supported by the Norwegian Research Council's research programme 'FINNUT', grant no. 283556 ("Persistent Passion for Professional Education - Consequences for student completion and dropout").

CONFLICT OF INTEREST STATEMENT

We have no conflict of interest.

DATA AVAILABILITY STATEMENT

Our research involves analysis of secondary data from Norwegian state registers. The researchers analysed the data with concession from The Norwegian Data Protection Authority, and under the auspices of a confidentiality agreement with Statistics Norway. All direct identifiers were stripped from the file prior to analysis. Data were handled in such a way as to protect individual's privacy and confidentiality. This included storing these data on a secure Research Computing server and requiring each researcher working with the data to sign a confidentiality affidavit. Other parties may not access the data because it would violate the concession given by The Norwegian Data Protection Authority, and the confidentiality agreement with Statistics Norway.

ORCID

Håvard Helland  <https://orcid.org/0000-0002-1231-1434>

Thea B. Strømme  <https://orcid.org/0000-0001-6404-1272>

ENDNOTES

- ¹ There are several sophisticated explanatory models of the dropout/persistence phenomenon (e.g., Bean, 1980; Spady, 1970), but the most common one is Tinto's (1993) (see e.g., Braxton, 2000, p. 2; Aljohani, 2016, p. 3; Hadjar et al., 2022; Nicoletti, 2019; Ulriksen et al., 2010).
- ² Critics like Rendon et al. (2000) and Davidson and Wilson (2017) claim that Tinto's model 'blames' the student for unsuccessful integration rather than viewing integration as an institutional responsibility. In our opinion, the point is that the matching of characteristics of both the institution and student makes the integration process more or less difficult.
- ³ The importance of the primary effects is also underlined in a recent US study, which concludes that the most essential resource for college persistence is high grades (Eller & DiPrete, 2018, p. 1195).
- ⁴ An alternative interpretation to the ones offered in this paper is that the results are driven by the length of these 6-year integrated study programs. We have, however, also run models in which students in these study programs were excluded (Figures A4 and A5), and the results were quite similar to the models that include these students.
- ⁵ In Norway, the classification of institutions as either universities or university colleges is not clear-cut, and the nominal status of some university colleges changed to 'university' during the period examined, without major changes in institutional characteristics. We classify 'old', traditional universities (in Oslo, Bergen, Trondheim and Tromsø) and specialised universities as universities and the original university colleges as university colleges (although some gained university status during the observation period).
- ⁶ In the Appendix, we present the results of the LPM analyses.
- ⁷ We have run analyses with institution fixed-effects (for the individuals), and plots from these are included in Figures A2 and A3. This introduction of institution fixed-effects does not alter the pattern from Figures 1 and 2. We have also run similar analyses where we restrict to mother's and father's education only, and analyses where both parents have degrees in the same field. The patterns are not altered substantially.

REFERENCES

- Ahola, S., Hedmo, T., Thomsen, J. P., & Vabø, A. (2014). *Organisational features of higher education Denmark, Finland, Norway and Sweden*. NIFU.
- Aina, C. (2013). Parental background and university drop-out in Italy. *Higher Education*, 65(4), 437–456. <https://doi.org/10.1007/s10734-012-9554-z>
- Aljohani, O. (2016). A comprehensive review of the major studies and theoretical models of student retention in higher education. *Higher Education Studies*, 6(2), 1–17. <https://doi.org/10.5539/hes.v6n2p1>
- Andersen, P. L., & Hansen, M. N. (2011). Class and cultural capital: The case of class inequality in educational performance. *European Sociological Review*, 28(5), 607–621. <https://doi.org/10.1093/esr/jcr029>
- Andrade, S. B., & Thomsen, J. P. (2017). Micro-educational reproduction. *Social Forces*, 96(2), 717–750. <https://doi.org/10.1093/sf/sox062>
- Attewell, P., Heil, S., & Reisel, L. (2011). Competing explanations of undergraduate noncompletion. *American Educational Research Journal*, 48(3), 536–559. <https://doi.org/10.3102/0002831210392018>
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155–187. <https://doi.org/10.1007/bf00976194>
- Becher, T. (1989). *Academic tribes and territories: Intellectual enquiry and the cultures of disciplines*. Open University Press.
- Berger, J. B. (2000). Optimizing capital, social reproduction, and undergraduate persistence. A sociological perspective. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 95–124). Vanderbilt University Press.
- Bernstein, B. (1971). *Class, codes and control: Volume 1 – theoretical studies towards a sociology of language*. Routledge & Kegan Paul Ltd.
- Biglan, A. (1973). The characteristics of subject matter in different academic areas. *Journal of Applied Psychology*, 57(3), 195–203. <https://doi.org/10.1037/h0034701>
- Boudon, R. (1974). *Education, opportunity and social inequality*. John Wiley & Sons.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Harvard University Press.
- Bourdieu, P., & Passeron, J. C. (1990). *Reproduction in education, society and culture*. Sage.
- Bourdieu, P., & Waquant, L. (1992). *An invitation to reflexive sociology*. University of Chicago Press.
- Braxton, J. M. (2000). Introduction: Reworking the student departure puzzle. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 1–8). Vanderbilt University Press.

- Breen, R., & Goldthorpe, J. H. (1997). Explaining educational differentials: Towards a formal rational action theory. *Rationality and Society*, 9(3), 275–305. <https://doi.org/10.1177/104346397009003002>
- Collins, R. (1979). *The credential society. An historical sociology of education and stratification*. Academic Press.
- Contini, D., Cugnata, F., & Scagni, A. (2018). Social selection in higher education. Enrolment, dropout and timely degree attainment in Italy. *Higher Education*, 75(5), 785–808. <https://doi.org/10.1007/s10734-017-0170-9>
- Davidson, J. C., & Wilson, K. B. (2017). Community college student dropouts from higher education: Toward a comprehensive conceptual model. *Community College Journal of Research and Practice*, 41(8), 517–530. <https://doi.org/10.1080/10668926.2016.1206490>
- Dougherty, K., & Kienzl, G. (2006). 'It's not enough to get through the open door': Inequalities by social background in transfer from community colleges to four-year colleges. *Teachers College Record*, 108(3), 452–487. <https://doi.org/10.1111/j.1467-9620.2006.00658.x>
- Dougherty, K. J. (1987). The effects of community colleges: Aid or hindrance to socioeconomic attainment? *Sociology of Education*, 60(2), 86–103. <https://doi.org/10.2307/2112584>
- Eller, C. C., & DiPrete, T. A. (2018). The paradox of persistence: Explaining the black-white gap in bachelor's degree completion. *American Sociological Review*, 83(6), 1171–1214. <https://doi.org/10.1177/0003122418808005>
- Esping-Andersen, G. (2015). Welfare regimes and social stratification. *Journal of European Social Policy*, 25(1), 124–134. <https://doi.org/10.1177/0958928714556976>
- Goldrick-Rab, S. (2006). Following their every move: An investigation of social-class differences in college pathways. *Sociology of Education*, 79(January), 61–79. <https://doi.org/10.1177/003804070607900104>
- Goldrick-Rab, S., & Pfeffer, F. T. (2009). Beyond access: Explaining socioeconomic differences in college transfer. *Sociology of Education*, 82(April), 101–125. <https://doi.org/10.1177/003804070908200201>
- Gulbrandsen, T., Engelstad, F., Klausen, T. B., Skjeie, H., Teigen, M., & Østerud, Ø. (2002). *Norske makteliter [Norwegian power elites]*. Gyldendal.
- Hadjar, A., Haas, C., & Gewinner, I. (2022). Refining the Spady–Tinto approach: The roles of individual characteristics and institutional support in students' higher education dropout intentions in Luxembourg. *European Journal of Higher Education*, 13(4), 409–428. <https://doi.org/10.1080/21568235.2022.2056494>
- Hansen, M. N. (2010). Change in intergenerational economic mobility in Norway: Conventional versus joint classifications of economic origin. *The Journal of Economic Inequality*, 8(2), s133–s151. <https://doi.org/10.1007/s10888-009-9109-4>
- Hansen, M. N., & Strømme, T. B. (2021). Historical change in an elite profession—class origins and grades among law graduates over 200 years. *British Journal of Sociology*, 72(3), 651–671. <https://doi.org/10.1111/1468-4446.12852>
- Heggen, K. (2010). *Kvalifisering for profesjonsutøving: Sjukepleiar – lærar – sosialarbeidar*. Abstrakt.
- Helland, H., & Hovdhaugen, E. (2021). Degree completion in short professional courses: Does family background matter? *Journal of Further and Higher Education*, 46(5), 680–694. <https://doi.org/10.1080/0309877x.2021.1998394>
- Helland, H., & Wiborg, Ø. (2019). How do parents' educational fields affect the choice of educational field? *British Journal of Sociology*, 70(2), 481–501. <https://doi.org/10.1111/1468-4446.12370>
- ISCED. (2011). *International standard classification of education*. UNESCO Institute for Statistics. <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>
- Jonsson, J. O., Grusky, D. B., Di Carlo, M., Pollak, R., & Brinton, M. C. (2009). Microclass mobility: Social reproduction in four countries. *American Journal of Sociology*, 114(4), 977–1036. <https://doi.org/10.1086/596566>
- Khan, S. R. (2011). *Privilege*. Princeton University Press.
- Kuh, G. D., & Whitt, E. J. (1988). The invisible tapestry. Culture in American colleges and universities. ASHE-ERIC Higher Education, Report No. 1, 1988.
- Lamont, M., & Lareau, A. (1988). Cultural capital: Allusions, gaps and glissandos in recent theoretical developments. *Sociological Theory*, 6(2), 153–168. <https://doi.org/10.2307/202113>
- Lareau, A., & Weininger, E. B. (2003). Cultural capital in educational research: A critical assessment. *Theory and Society*, 32(5/6), 567–606. <https://doi.org/10.1023/b:ryso.0000004951.04408.b0>
- Lee, V. E., & Frank, K. E. (1990). Students' characteristics that facilitate transfer from two-year to four-year colleges. *Sociology of Education*, 63(3), 178–193. <https://doi.org/10.2307/2112836>
- Lehmann, W. (2007). "I just didn't feel like I fit in": The role of habitus in university drop-out decisions. *Canadian Journal of Higher Education*, 37(2), 89–110. <https://doi.org/10.47678/cjhe.v37i2.542>
- Li, I. W., & Carroll, D. R. (2020). Factors influencing dropout and academic performance: An Australian higher education equity perspective. *Journal of Higher Education Policy and Management*, 42(1), 14–30. <https://doi.org/10.1080/1360080X.2019.1649993>
- Longden, B. (2004). Interpreting student early departure from higher education through the lens of cultural capital. *Tertiary Education and Management*, 10(2), 121–138. <https://doi.org/10.1080/13583883.2004.9967122>
- Martin, B., & Szelényi, I. (1987). Beyond cultural capital: Toward a theory of symbolic domination. In R. Eyerman, L. G. Svensson, & T. Söderqvist (Eds.), *Intellectuals, universities, and the state in Western modern societies*. University of California Press.

- Mastekaasa, A., & Hansen, M. N. (2005). Frafall i høyere utdanning: Hvilken betydning har sosial bakgrunn? In M. Raabe (Ed.), *Utdanning 2005. Deltakelse og kompetanse* (pp. 98–121). Statistics Norway.
- Mazumder, B. (2005). The apple falls even closer to the tree than we thought—new and revised estimates of the intergenerational inheritance of earnings. In S. Bowles, H. Gintis, & M. O. Groves (Eds.), *Unequal chances—family background and economic success*. Russell Sage Foundation and Princeton University Press.
- Nicoletti, M. (2019). Revisiting the Tinto's theoretical dropout model. *Higher Education Studies*, 9(3), 52–64. <https://doi.org/10.5539/hes.v9n3p52>
- Nora, A. (1987). Determinants of retention among Chicano college students: A structural model. *Research in Higher Education*, 26(1), 31–59. <https://doi.org/10.1007/BF00991932>
- Norwegian Universities and Colleges Admission Service. (2022). Retrieved December 12, 2020, from <https://sok.samordnaopptak.no/#/admissions/6>
- Organisation for Economic Co-operation and Development. (2022). *Education at a glance 2022: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/3197152b-en>
- Ortiz, E. A., & Dehon, C. (2013). Roads to success in the Belgian French community's higher education system: Predictors of dropout and degree completion at the Université Libre de Bruxelles. *Research in Higher Education*, 54(6), 693–723. <https://doi.org/10.1007/s11162-013-9290-y>
- Powdthavee, N., & Vignoles, A. (2008). *The socioeconomic gap in university drop out*. Centre for Economics of Education, Institute of Education.
- Reay, D., David, M. E., & Ball, S. (2005). *Degrees of choice: Social class, race and gender in higher education*. Trentham Books.
- Rendon, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical considerations in the study of minority student retention in higher education. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 127–156). Vanderbilt University Press.
- Spady, W. G. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, 1(1), 64–85. <https://doi.org/10.1007/bf02214313>
- St. John, E. P., Hu, S., Simmons, A., Carter, D. F., & Weber, J. (2004). What difference does a major make? The influence of college major field on persistence by African American and white students. *Research in Higher Education*, 45(3), 209–232. <https://doi.org/10.1023/b:rihe.0000019587.46953.9d>
- Strømme, T. B., & Hansen, M. N. (2017). Closure in the elite professions: The field of law and medicine in an egalitarian context. *Journal of Education and Work*, 30(2), 168–185. <https://doi.org/10.1080/13639080.2017.1278906>
- Sullivan, A. (2001). Cultural capital and educational attainment. *Sociology*, 35(4), 893–912. <https://doi.org/10.1017/s0038038501008938>
- Sweetman, R., Hovdhaugen, E., & Thomas, L. (2023). The (dis)integration of nursing students. Multiple transitions, fragmented integration and implications for retention. *Tertiary Education and Management*, 29(1), 79–92. <https://doi.org/10.1007/s11233-022-09106-7>
- Thomas, L., Hovdhaugen, E., & Sweetman, R. (2023). Professional or student identity and commitment? Comparing the experiences of nursing and healthcare students with literature on student success. *Tertiary Education and Management*, 29(1), 93–106. <https://doi.org/10.1007/s11233-023-09115-0>
- Thomas, L., & Quinn, J. (2006). *First generation Entry into higher education: An international study*. Open University Press.
- Thomsen, J. P., Bertilsson, E., Dalberg, T., Hedman, J., & Helland, H. (2017). Higher education participation in the Nordic countries 1985–2010: A comparative perspective. *European Sociological Review*, 33(1), 98–111.
- Tieben, N. (2020). Non-completion, transfer, and dropout of traditional and non-traditional students in Germany. *Research in Higher Education*, 61(1), 117–141. <https://doi.org/10.1007/s11162-019-09553-z>
- Tilbrook, N., & Shifrer, D. (2022). Field-specific cultural capital and persistence in college majors. *Social Science Research*, 103, 102654. <https://doi.org/10.1016/j.ssresearch.2021.102654>
- Tinto, V. (1993). *Leaving college; rethinking the causes and cures of student attrition*. University of Chicago Press.
- Ulriksen, L., Madsen, L. M., & Holmegaard, H. T. (2010). What do we know about explanations for drop out/opt out among young people from STM higher education programmes? *Studies in Science Education*, 46(2), 209–244. <https://doi.org/10.1080/03057267.2010.504549>
- Velez, W., & Javalgi, R. G. (1987). Two-year college to four-year college: The likelihood of transfer. *American Journal of Education*, 96(1), 81–94. <https://doi.org/10.1086/443882>
- Vossensteyn, H., Stensaker, B., Kottman, A., Hovdhaugen, E., Jongbloed, B., Wollscheid, S., Kaiser, F., Cremonini, L., Thomas, L., & Unger, M. (2015). *Dropout and completion in higher education in Europe*. European Commission.
- Vreeland, R. S., & Bidwell, C. E. (1966). Classifying university departments: An approach to the analysis of their effects upon undergraduates' values and attitudes. *Sociology of Education*, 39(3), 237–254. <https://doi.org/10.2307/2111970>
- Walther, A. (2006). Regimes of youth transitions. Choice, flexibility and security in young people's experiences across different European contexts. *Young Nordic Journal of Youth Research*, 14(2), 119–139. <https://doi.org/10.1177/1103308806062737>
- Weber, M. (1947). *The theory of social and economic organization*. The Free Press.

- Weeden, K. A., & Grusky, D. B. (2005). The case for a new class map. *American Journal of Sociology*, 111(1), 141–212. <https://doi.org/10.1086/428815>
- Yorke, M. (2000). The quality of the student experience: What can institutions learn from data relating to non-completion? *Quality in Higher Education*, 6(1), 61–75. <https://doi.org/10.1080/13538320050001072>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Helland, H., & Strømme, T. B. (2024). Social inequality in completion rates in higher education: Heterogeneity in educational fields. *The British Journal of Sociology*, 1–18. <https://doi.org/10.1111/1468-4446.13075>