



Compensatory advantage after the first year at university in the Catalan system: between continuing, transferring and dropping out

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ABSTRACT

Abundant research has shown the influence of social background on university dropout. However, there is little research that considers the different progression options for analysing the structure of the decisions that students make. This article explores the possible alternative decisions of: (1) continuing the initial degree course chosen; (2) persisting but transferring to other degrees or institutions; (3) dropping out of university. To this effect, we seek whether the decision structure follows a compensatory advantage pattern, according to which poor performance during the first year at university unequally affects students from low and high social backgrounds. The latter compensates for poor results by using alternative strategies to minimise the negative consequences. We analyse longitudinal data from a cohort of students entering any on-site university in the Catalan system in 2012–13 ($n = 36909$). The results show the importance of performance in predicting university progression decisions. No differences by social origin are perceived in the decisions to continue the same course of study, while differences are observed in dropout and transfer decisions which, for their part, follow a compensatory advantage structure. The results show the need to consider the interaction between performance and social background, and to broaden our view of students' trajectories.

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Introduction

University policies in Europe are increasingly aimed at addressing the issue of inclusion, not only by extending enrolment to students who have not traditionally had the opportunity to access university, but also by promoting the success of all students within the university (Vossensteyn et al. 2015). Furthermore, the same widening policies, if successful, lead to an increased diversity of students entering university, thereby indirectly increasing the likelihood of inequality processes occurring at the university stage, and also making the trajectories followed by students more diverse and more complex (Haas and Hadjar 2020). We talk about complex trajectories in the sense of students taking different paths and going at different paces from those foreseen by the institution in its design, thus giving rise to trajectories of change of degree or institution, stop-out, combinations of different degrees, delay, and drop-out (Helland and Hovdhaugen 2022; Tieben 2020). These students bring new needs and challenges to the institution, and new meanings and ways of interpreting their university experience.

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Independently of the students' trajectories, higher education institutions design pathways, in the sense of mapped itineraries (Haas and Hadjar 2020; Picard, Trottier, and Doray 2011), that students are supposed to follow at a certain pace. The very definition of success from the institution's point of view is given by the extent to which the student body as a whole meets the requirements of these pathways and continues to enrol year after year until graduation within a predetermined period of time. In contrast, Tinto (2017) defends that from the student's point of view, success is learning or graduating from any programme or institution in the time that best suits their own needs and preferences, which is what the author defines as persistence. From our perspective, not following the institution's pathway may not be the best possible option, because it probably means correcting a previous mistake in the choice and a probable prolongation of studies. Nonetheless, it is a situation that has produced a better result than dropping out and so, to a certain extent, it can be considered a success from the student's point of view.

A student's persistence sometimes depends on the alternatives they are presented with to change the direction of their trajectory and, therefore, on the rigidity of the pathway. The reasons for wanting to change can be extremely diverse and related to different areas of their lives, while in the academic field alone they can be very varied: the degree has not met their study expectations; the student initially enrolled in the university with the idea of making a strategic change towards the degree they initially wanted to enrol on but could not; they have not been able to pass enough subjects; they do not see any future job opportunities; or they have discovered another discipline they are passionate about. Whatever the case, many of these internal reasons raise the possibility of change as a way out of a situation that is seen as problematic or unsatisfactory, and what is of most interests to us here, this can be a way to avoid the alternative of dropping out of university studies.

This will hence be the focus of our research, to study the situations of dropout, continuation and change depending on the results obtained (from not at all to totally satisfactory) in first-year performance. Therefore, we are faced with a situation of available opportunities that can either favour or disadvantage students depending on their characteristics and social position, thus causing problems of inequality, which is why this problem is directly related to the fields of political intervention and attention to equity (Orr et al. 2017).

Analysis of students' trajectories

Research on student progress is approached from different levels and theoretical foundations. It is common to refer to Tinto's (1975) classic theory of social and academic integration, which asserts the relationship between greater integration into the university institution and a higher probability of continuity at university. This theory is often complemented by the idea that any cultural capital that is distant from that of the institution, or from the majority of peers, will hinder the integration process (Reay, Crozier, and Clayton 2010). More commonly, however, it is related to the theory of rational choice because the trajectory is conceptualised as a chain of decisions on the continuation of studies where each decision includes a cost–benefit assessment, involving dropping out, persisting, or other, and the likelihood of future success. Both the cost–benefit balance and the likelihood of future success are obviously differentiated by social class and are, therefore, the mechanisms through which inequality is generated (Beekhoven, De Jong, and Van Hout 2002; Berlanga Silvente, Figuera Gazo, and Pons Fanals 2018; Haas and Hadjar 2020; Helland and Hovdhaugen 2022; Hovdhaugen 2011). However, sometimes the inequality is studied specifically for the different trajectories according to the track, academic or vocational, from which the student comes (Figuera-Gazo et al. 2020; Tieben 2020); or the type of higher education institution the student attends (Haas 2023).

Other specific approaches can be found in the literature, such as the existence of relationship networks to deal with academic or economic problems (Deil-Amen and Goldrick-Rab 2009), and perspectives that take the bidirectional interaction between individual and institution more into account, adopting a socio-ecological theoretical approach (Robinson and Bornholt 2007). In any

case, the theoretical framework for addressing this problem almost always considers the characteristics of the individual and, to a greater or lesser extent, the characteristics of the new university context in which the student has already been enrolled for a certain period.

The empirical analysis of trajectories sometimes includes continuous variable analysis models, which are normally growth models that use academic credit accumulation over the courses of study (Beekhoven, De Jong, and Van Hout 2002; Denice 2019; Nathan Marti 2008). Among the studies that take a situation variable as a dependent variable, we find those that only consider the most basic possibility of continuity or dropping out based on the discrete categories of enrolment/non-enrolment and whether or not they graduate¹ (Sánchez-Gelabert, 2020; Fernández-Mellizo and Constante-Amores 2020; Figuera-Gazo et al. 2020; Lassibille 2011), as well as more detailed models that include various options, incorporating the idea of time and sequence, such as the stop-out trajectory, transfer (of degree, institution or modality), drop-out, reverse transfer, or other alternatives (Boylan 2020; Lassibille and Gómez 2009; Lin, Fay, and Fink 2023; Rodríguez-Muñoz et al. 2019). The possibility of adopting one category or another is often conditioned by the availability of adequate data to account for these measures and concepts (Robinson 2004; Vossensteyn et al. 2015). Specifically, in the Spanish case, integrated longitudinal data systems have been available for more than a decade in the case of some Spanish universities (Villar-Aguilés, Hernández i Dobon, and García-Ros 2017), also for all universities in the Catalan university system (Abad Esteve and Álvarez Ramos 2019) and, more recently, for the entire Spanish university system (Fernández Mellizo-Soto 2022).

In this study, we focus on analysing how students make decisions after their first year at university and whether these decisions vary according to social background. In other words, we study the first major decision after enrolment, which coincides with when the student has new context information because they have spent up to one year at university and have had their first academic results. We analyse the three most common situations in students' trajectories: continuity, dropping out and transfer. We consider previous individual characteristics, social origin, and one of the elements that emerges from the new context and has been shown to be the most relevant in explaining later decisions, which is performance during this first period at university. We believe that compensatory advantage, i.e. the influence of social origin on continuation decisions based on performance, is one of the main ways in which inequality is reflected in the trajectories of individuals at university.

Compensatory advantage (or compensatory effect)

The key idea of compensatory advantage (CA) is that the life trajectories of individuals from privileged backgrounds are less dependent on previous negative outcomes or disadvantageous events or features than is the case for less privileged individuals or those from lower social backgrounds (Bernardi and Triventi 2020). In the context of education, where prior academic performance is perceived as an indicator of the likelihood of success in future studies, CA is reflected in the fact that different social classes do not respond in the same way to academic performance when they decide to continue studying or move on to further education. Therefore, we see that poor academic performance has less impact on continuation decisions among high-class students than among lower-class students, who will be much more dependent on previous results when making a decision (Bernardi and Cebolla 2014).

There are studies that report on the phenomenon of CA in the transition to higher education, be it CA between the options of accessing university and not doing so or, once they have decided to go to university, between choosing options that entail more or less risk (Troiano et al., 2021; Müller, Pforr, and Hochman 2017; Sianou-Kyrgiou and Tsiplakides 2011). Following the arguments of Barone, Barg, and Ichou (2021), the explanations for this phenomenon should be first sought in the assumption of loss aversion (Breen and Yaish 2006) which, more realistically than the Risky Choice Assumption (Breen and Goldthorpe 1997), would account for the greater utility of avoiding social demotion while preserving the utility of achieving upward social mobility. Thus, this mechanism would not

only encourage all students with a chance of academic success to continue their studies but would also encourage those from higher social backgrounds to opt for higher education despite their poor previous performance. Second, explanations should be sought in time-discounting preferences, which may be heterogeneous according to social background (Breen, van de Werfhorst, and Jæger 2014); and third, in the overestimation of the risk of educational failure among those with low social backgrounds, combined with a greater perception of other risks, including those of a social and economic nature (Barone, Triventi, and Assirelli 2018; Deil-Amen and Goldrick-Rab 2009; Langa 2020). To these explanations we must add confidence in one's own (or the family's) ability to mobilise resources in the case of poor academic performance or other kinds of difficulties.

The issue that we wish to study in this paper is not strictly transition, but rather progress in studies. Even though the effects of selection based on prior performance and social factors have been shown to be more important in access to higher education than in subsequent trajectories (Murdoch, Kamanzi, and Doray 2011), there is applied research that reports interactive effects between academic achievement and social background, showing that CA also occurs in the continuity of the trajectory within the university (Denice 2019; Herbaut 2021; Hovdhaugen 2011; Pfeffer and Goldrick-Rab 2011).

Moreover, there is even research that points to alternative choice behaviours in the case of poor performance and according to social background. For example, some studies report that students from lower social backgrounds drop out more or choose to make a reverse transfer (switch to less prestigious options), and those from higher social backgrounds persist more or make a lateral transfer (switch to equally prestigious options) (Boylan 2020; Haas and Hadjar 2020). In this study, we will consider a range of alternatives and delve deeper into students' academic performance before they make decisions between their first and second years at the university. This approach is novel in analysing student trajectories within the Catalan university system, a system that entails high cost-related risks (Troiano et al., 2017).

Some of the reasons given to explain CA in the transition to university obviously also apply to the case of progress. However, and due to the student's changed circumstances, we can expect that not all these reasons will continue to act with the same force, and some of them will even have disappeared. First, we are talking about students who have already made a decision to enrol at university. This means that the cost of not continuing at a later stage increases, not only because they will lose what they have already invested, but also in an emotional sense in terms of frustration at feeling that they have 'failed', or because dropping out now means recognising that they have made a wrong decision. In short, there are clear elements of path-dependence (Beekhoven, De Jong, and Van Hout 2002; Robinson and Bornholt 2007).

Second, and also in the line of taking time into account, it is important to think about the sequence of events because poor performance at the beginning of the degree programme is distinct from poor performance at the end, given that time matters (Alonso-Carmona and Martín-Criado 2022). This factor is also linked to the amount of information available to the student, which is much greater in scope than it was prior to entering university, when they decided to enrol. However, there may be complementary information that is still asymmetrical, such as the information needed to find out about the options for changing studies. This is what Herbaut (2021) refers to when alluding to the unequal resources that families can mobilise when their children perform poorly at university: information to redirect their studies, financial resources to extend the years of study, or paying for private academic reinforcement.

Last, at the time of transition to higher education, the mechanisms of time-discounting and loss aversion, which generate inequality because they present class differences, have already played their role, leaving a large proportion of students from lower social backgrounds outside the university system. The group of students in this disadvantaged social position who did decide to enter university are the ones who were least affected by these mechanisms at the time of enrolment. Even so, it seems reasonable to think that, if placed on a continuum, they could be the students who are in the

most vulnerable positions in relation to their peers from higher social backgrounds in terms of these two factors.

In short, a student's performance in the first year of study at university is the main source of information about their probability of future success. From a certain threshold of poor performance onwards, the meaning is very clear: you are in trouble. We believe that this situation and the resulting decisions are managed differently depending on the social background of the student, although there will be less differences than usually found in the analysis of the transition to higher education. This is because some factors favour the continuity of all students (including those from low social backgrounds) and include the pathdependence effect and the availability of much more information than a year earlier. Other factors, on the other hand, will maintain an unequal effect between social classes and promote inequality following a CA structure. Here we find asymmetry not only in the availability of information for reorientation and the ability to mobilise resources, but also in the persistence of differences in the incidence of loss-aversion mechanisms, and especially of time-discounting since the student has 'lost' a year without clear progress.

The Catalan university system

The Spanish university system for the past fifteen years has systematically taken in around 50% of each cohort of young people, the Catalan system is a little below this figure (Corominas and Sacristán 2022) because it has a high degree of diversion towards vocational tertiary education (Troiano et al., 2017). It is, therefore, a system that is heterogeneous compared to other systems and, consequently, it is a suitable context for studying the subsequent mechanisms related to student progress and to observe whether some of these students are at a greater disadvantage than others. In addition, the analysis of the study transfer process is related to the rigidity of the system, which offers a varying set of opportunities to carry out this transfer. In Europe, at one end of the spectrum, we find systems that are very rigid or that allow transfer with significant restrictions (for example, loss of grants), such as the cases of Greece, Serbia and France. And at the other extreme there are countries where the system is flexible and allows for a certain degree of facility to transfer, such as Sweden and the United Kingdom. There are also countries in the middle, such as Portugal (Casta 2017; Gonida and Peixoto 2019). Catalonia, like Spain, is in the middle in terms of the formal opportunities for students to switch from one degree to another.

The Catalan system is located within the autonomous community of Catalonia (NUTS level 2), which has autonomy in terms of educational policies and partial autonomy in terms of university policies, including tuition fees. The system consists of 7 public universities, 4 private universities and 1 distance learning university. The Catalan administration manages the data of the Catalan university system in an integrated way, including registry data of all students who enter and progress through the system, making it possible to trace their trajectory even if they change higher education institutions.

In Spain, access to higher education is open to those who complete upper secondary education of an academic type and those who complete tertiary education of a vocational type. Places at public universities are managed in the form of 'numerus clausus', ranking students according to a mark obtained based on the secondary school mark and a national exam. The Catalan administration manages the placement of students in its public university system, which also includes some private universities. In addition to these routes, there is a minority access route for mature students who take special exams.

The length of studies is the same in Spain and Catalonia, which after the reform for the construction of the European Higher Education Area (EHEA) opted for the longer version, i.e. four years for most of the degrees although there are some exceptions for studies that take longer, such as pharmacy, medicine, dentistry or veterinary medicine.

The rules for progression in studies are also common to the whole of Spain. When students fail a subject, they have to retake it the following year, but they can also enrol in other new

subjects. Therefore, failing a subject increases the time taken to graduate, but the amount of time lost depends on the number of subjects failed. The progress requirements, i.e. the minimum performance required to avoid having to drop out of the degree, is established by each university, but tends to be very low and many universities are flexible in the fulfilment of these requirements.

In 2012, the Spanish Ministry of Universities granted autonomy in setting the tuition fees. From that moment on, Catalonia placed its enrolment fees among the highest in Spain (Sacristán and França 2013), although a system of variable fees depending on the parents' income was soon established (García Montalvo 2018), and more recently the fees have been lowered, for the cohort under observation a standard year of study costs between 1,300 and 1,800 euros at a public university. The system has two other particularities in relation to the cost. The first is that different degrees have a different tuition fees, and the second is that, if the student fails a subject and must take it again, they must pay 25% more, and if they fail again then they must pay three times the initial cost, and so on.

Thus, in the specific context in which this study is situated, there are disincentives to continuing or transferring in the case of poor performance: the length and the cost of the studies. However, as contextual incentives there is transfer resulting from the non-access to the first combination of degree and university required (representing 15.7% of the cohort managed by the public administration; 8.1% if we also consider the second combination of degree and university).

Methodological approach

Following the theoretical framework and empirical evidence presented, the research question posed in this article is whether the Compensatory Advantage continues to exert an influence on educational decisions once students have entered university. Specifically, the objective is to analyse the impact of the interaction between first-year academic performance and the student's social background on university progression decisions, particularly on continuation, dropout, and transfer of studies. Based on this objective, several hypotheses are proposed:

- H1: The influence of social background will be less significant for students with high academic performance in the first year of university.
- H2: Social background and academic performance interact so that the negative consequences of low academic performance are greater for students with a low social background.
 - H2.1: Students from a lower social background will drop out more frequently than their peers in the case of a low first-year university performance.
 - H2.2: Students from a higher social background will persist more often, by continuing in the same program, in the case of a low first-year university performance.
 - H2.3: Students from a higher social background will persist more often, by transferring to other studies, in the case of a low first-year university performance.

Data

The data correspond to a cohort of new students entering any degree course offered by the 12 universities included in the Catalan university system in the academic year 2012–13 ($n = 44,285$). Additionally, registration data with academic information is included for the next 8 years, i.e. from the academic years 2012–13 to 2019–20. Students in the Catalan university system are distributed among seven public universities ($n = 32,663$), four private universities ($n = 4,246$) and one distance learning university ($n = 7,376$).

The registration data come from the Department of Research and Universities of the Government of Catalonia and include both socio-demographic and educational information on the student,

collected during the enrolment process, and information on academic performance once the students have entered university. In the present article, we specifically analyse the data of students enrolled in on-site universities ($n = 36,909$).

Variables

The dependent variable is the student's academic situation in the 2013–14 academic year, i.e. one year after having entered university for the first time. The situations that are collected are (1) continuity, which indicates that the student will study the same degree (at the same university) as the previous year; (2) dropout, which means that the student is no longer enrolled in any university of the Catalan university system for 2013–4; and last, (3) transfer of studies, which is the situation of studying a different degree or at a different university to the one they accessed the previous year.

The two central independent variables are family educational level, which indicates the highest level of studies achieved by either parent, categorised as up to compulsory, post-compulsory or university studies; and second, the performance rate for the first year, 2012–3, which is obtained by dividing the number of credits achieved by the number of credits enrolled in and multiplying by one hundred (rate from 0 to 100%).

We use a vector of control variables that includes sex (male, female), nationality (Spanish, Non-Spanish), employment situation (works less than 15 h a week, works 15 or more hours a week, does not work), type of university (public metropolitan, other public and private), field of knowledge (arts and humanities, sciences, health sciences, social and legal sciences, engineering and architecture) and age (Table 1).

Methods

Given that the outcome variable had three values – continuation, dropout and transfer of studies – a multinomial logistic model was applied to estimate the effects of social background and

Table 1. Descriptive statistics of the study sample: new entrants to the Catalan university System in 2012–13 at face-to-face universities.

Academic status 2013–4				Working status			
		<i>n</i>	%			<i>n</i>	%
Dependent V.	Continuity	30,076	81,8	Control Variables	Works less 15 h/week	2,085	6
	Dropout	3,114	8,5		Works 15 or more h/week	9,559	27,4
	Transfer	3,571	9,7		Does not work	23,286	66,7
	Total	36,761	100		Total	34,930	100
	Family educational level	<i>n</i>	%		University group	<i>n</i>	%
	Up to compulsory	9,873	30		Public Metropolitan	25000	67,7
	Post-compulsory	8,799	26,7		Private	4246	11,5
	University studies	14,258	43,3		Other public	7663	20,8
	Total	32,930	100		Total	36909	100
	Performance 2012–3	Median	Std. V.		Field of knowledge	<i>n</i>	%
Control VV.	Performance rate (%)	78,2	30,7		Arts and humanities	4,298	11,6
	Age	Median	Std. V.		Sciences	2,730	7,4
	Age	20,3	4,7		Health sciences	6,990	18,9
	Sex	<i>n</i>	%		Social and Legal sciences	15,347	41,6
	Female	20,271	54,9		Engineering and architecture	7,544	20,4
	Male	16,622	45,1		Total	36,909	100
	Total	36,893	100		Nationality	<i>n</i>	%
					Spanish	36,267	98,3
					Non-Spanish	642	1,7
					Total	36,909	100

performance on educational decisions. The logistic regression introduced the interaction of the achievement rate and the family educational level, in addition to a number of control variables.

We followed the procedure recommended by Mize (2019) to estimate, interpret and present non-linear interaction effects. That is, we plotted the predictions to determine the nature of the subjacent interactive effect and to calculate the marginal effects to determine their size and significance.

Results

We begin the analysis with the results referring to continuity, i.e. remaining on the same degree programme in the same university as initially enrolled at. Figure 1 shows how continuity is highly dependent on performance during the first year. We can see that in the case of low performance the slope is very pronounced, such that small improvements in performance lead to substantial increases in continuity, which is why with 50% of the credits passed there is already a 0.7 probability of continuity.

The differences in the probability of continuity according to family educational level are so low that the confidence intervals overlap, which is why we cannot sustain that there are differences in the levels of continuity according to social background, consequently, we must reject hypothesis 2.2. However, when we analyse dropout and transfer these differentiated behaviours become apparent.

Figure 2 shows the probability of dropping out according to performance rate and social background. This probability is obviously closely linked to the performance obtained during the first year, with the offspring of university graduates somewhat less sensitive to poor performance when it comes to the decision to drop out (hypothesis 2.1 accepted). Following the expected

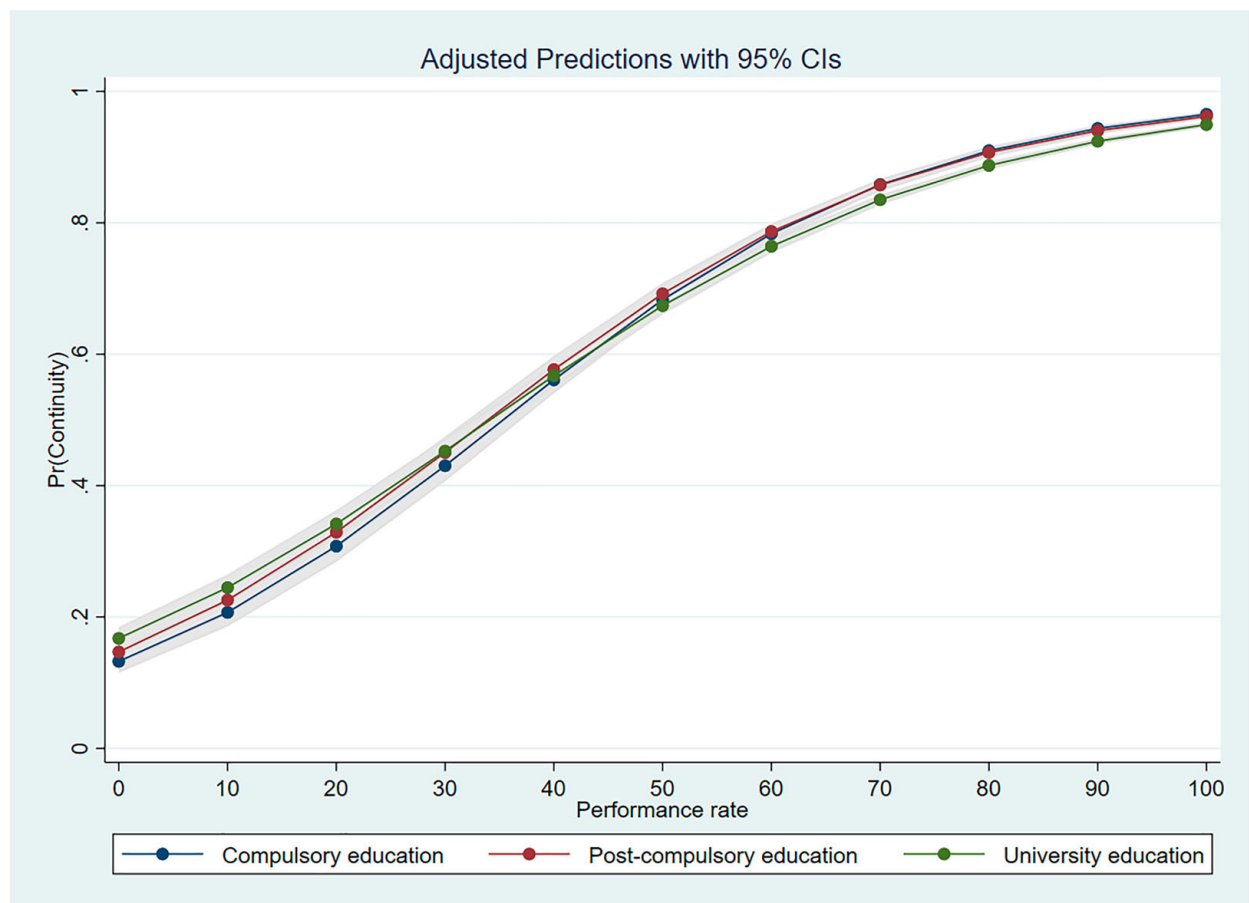


Figure 1. Predicted probabilities of continuity by family educational level across performance rate.

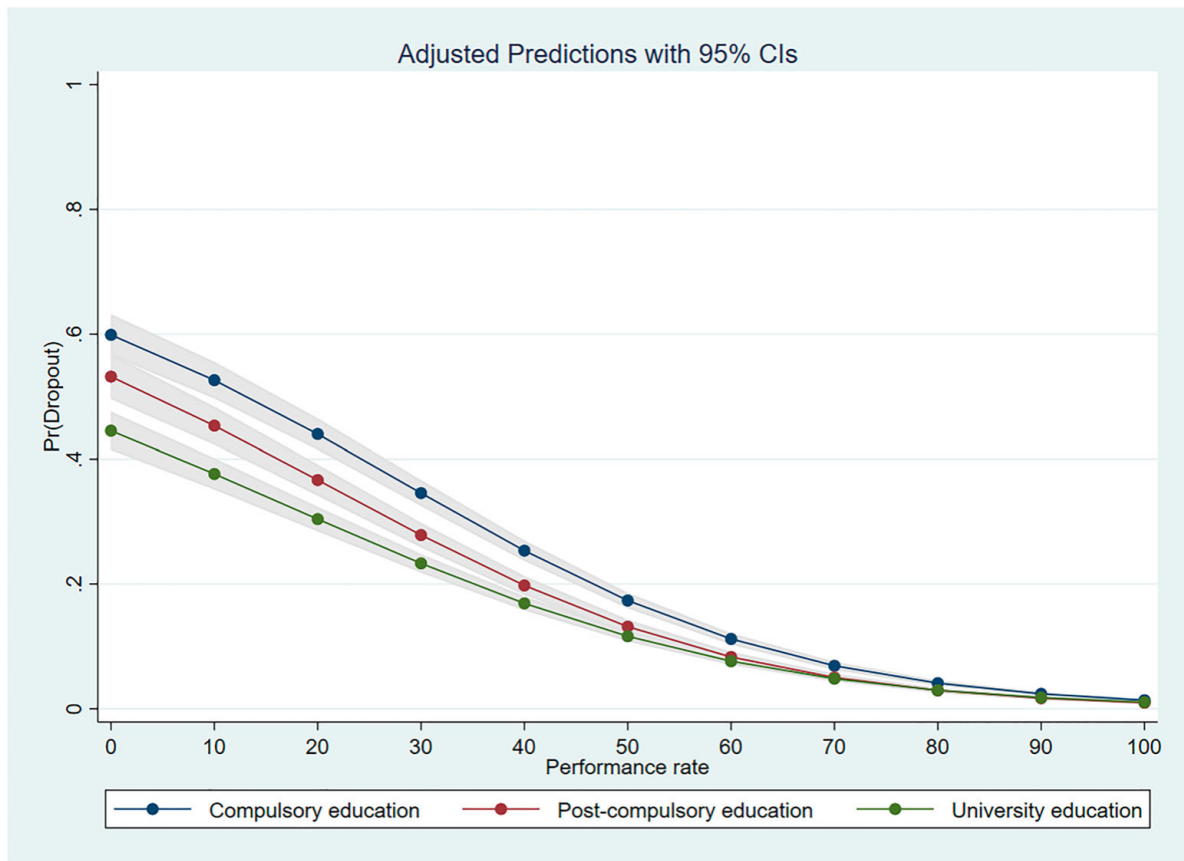


Figure 2. Predicted probabilities of dropout by family educational level across performance rate.

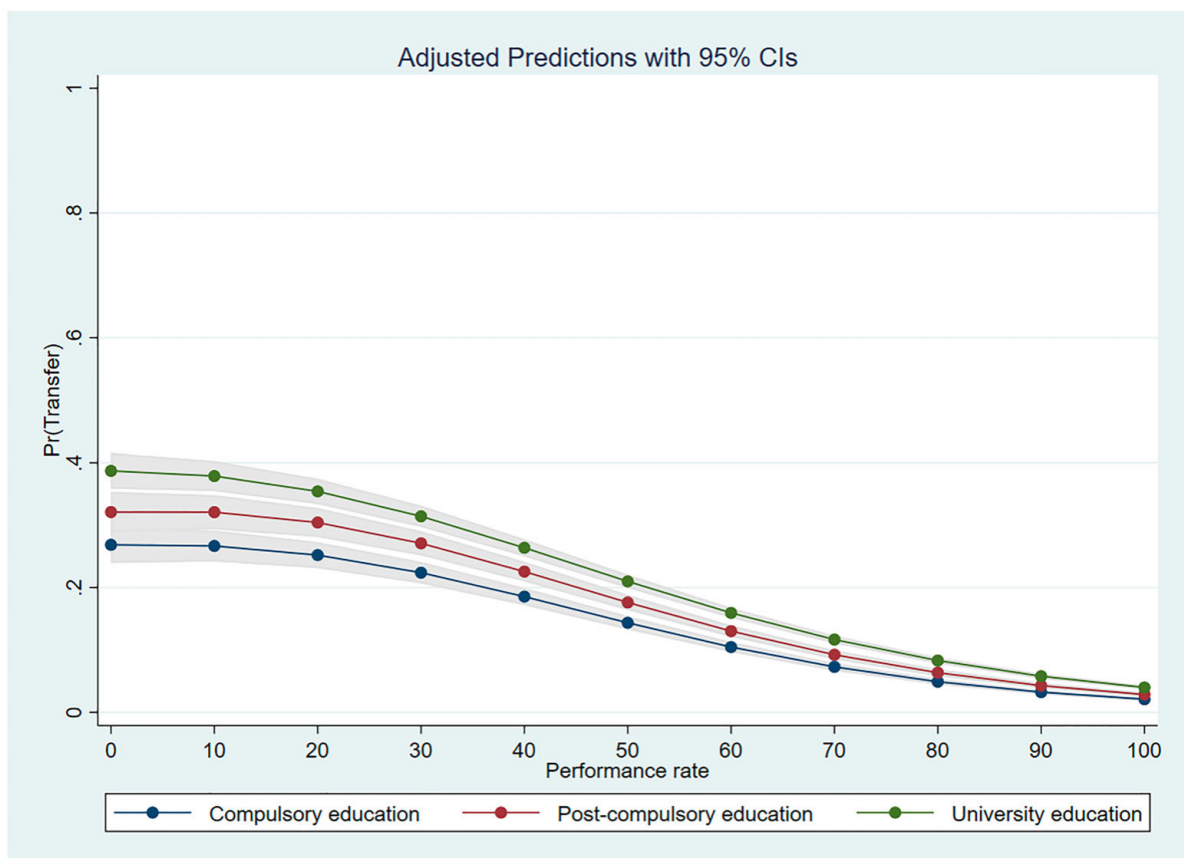


Figure 3. Predicted probabilities of transfer to other studies by family educational level across performance rate.

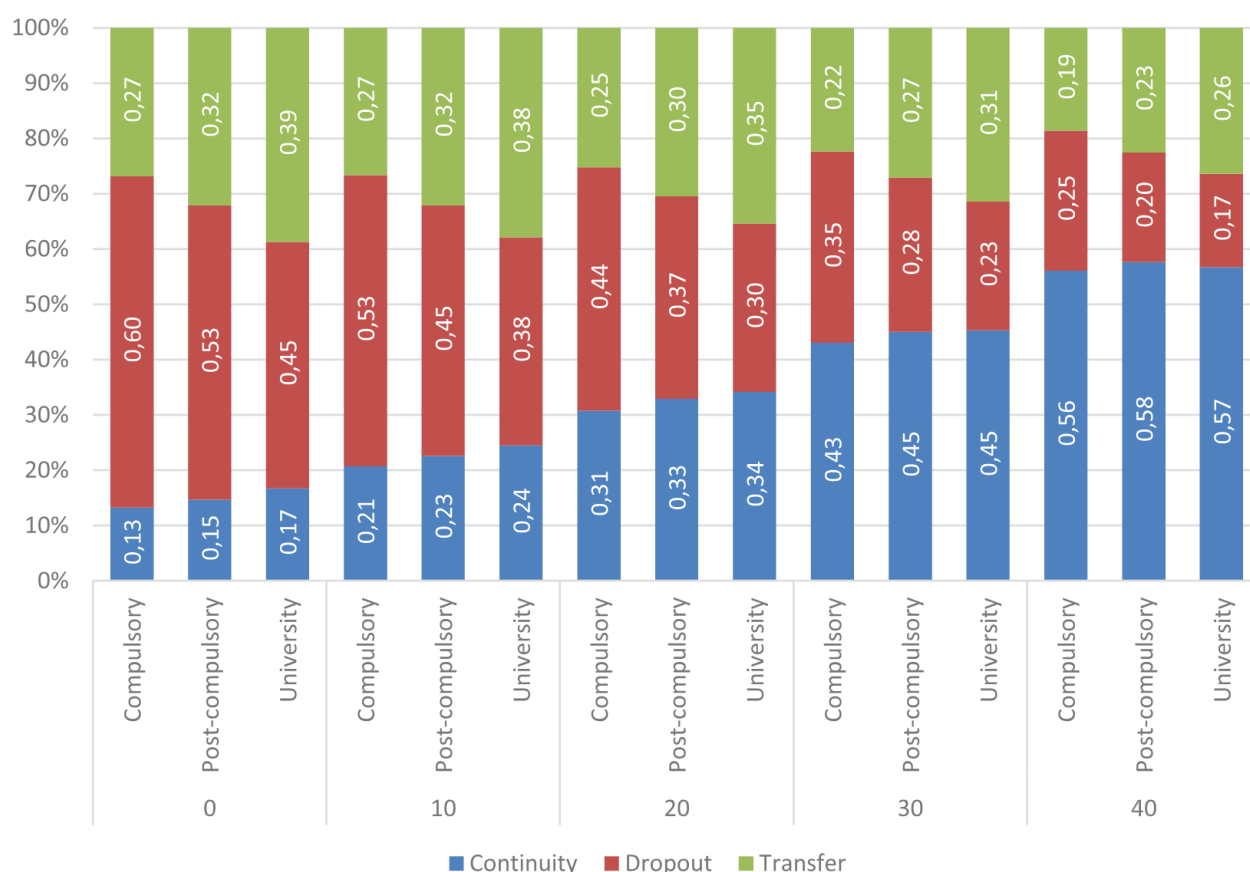


Figure 4. Progress decisions. Average marginal effects by family educational level and performance rate (up to 40% of credits achieved).

logic of CA, at high levels of performance, or in other words 70% of credits successfully completed, no differences are detected in the likelihood of dropping out; we therefore accept hypothesis 1.

For its part, the decision to transfer to other studies or institutions follows the opposite logic to that of dropping out. The offspring of families with university studies are more likely to take this decision and the differences are greater if we consider the lower levels of the rate of performance (Figure 3). It is for this reason that we also accept hypothesis 2.3.

For a clearer and easier comparison of these results we provide Figure 4, which shows the probabilities of passing in each of the three situations studied, only for the lower levels of the performance rate (up to 40% of credits achieved). Appendices 1 and 2 show the complete graph and the table of probabilities.

Within each level of performance, the differences in continuity are very small or non-existent. Nevertheless, we can observe that students from different social backgrounds behave differently. As the students' parents' educational level increases, we see that the option of dropping out decreases, while the option of changing to a different course of study or university increases.

If we consider that transferring studies generally has no negative consequence for the young person, whereas dropping out certainly has, then we can say that the structure of the phenomenon we have analysed follows a CA pattern.

Conclusions

In this work, we focused on studying the progress decisions that students make after their first year at university, once they know the academic results they have obtained in their first year of study.

Research on transitions at different crossroads of the education system has shown that previous academic results play a very important role in the decision to continue studying, following a CA pattern. Particularly in the case of Spain (Valdés 2021) and Catalonia (Elias et al., 2023), access to tertiary education shows CA between the vocational option (short and less prestigious) and the university option. Once at university, other studies also find that academic results are important in explaining the decision to continue studying the chosen degree (Sánchez-Gelabert, 2020; Denice 2019; Pfeffer and Goldrick-Rab 2011). Our results show that indeed this influence is very decisive, although not definitive, since the performance threshold for remaining on the same degree is very low. By way of example, we have seen that with half the number of first-year credits passed, the probability of continuing the same course of study is 0.7. Thus, only with very low performance is there a very low probability of continuing.²

This result suggests the existence of a path-dependence effect, according to which a decision taken previously makes it more difficult to change one's direction. The mechanisms associated with this inertia of continuation are first, the emotional cost linked to revaluing a decision taken previously, which has involved an investment of time and effort and has led to generating expectations at the beginning of the degree course; and second, the availability of more information for all the students (regardless of their social origin) about the significance of academic results and the possibilities of improving them, or in short, knowledge about how the university works.

Despite having identified this general trend, the results also show that decisions affect students differently depending on their social background, giving rise to processes of inequality within the university. In contrast to the approximations that have been made so far with data from the Catalan university system (Sánchez-Gelabert, 2020; Berlanga Silvente, Figuera Gazo, and Pons Fanals 2018; Figuera-Gazo et al. 2020), and most of those made with Spanish data (Fernández Mellizo-Soto 2022), with some noteworthy exceptions (Lassibille and Gómez 2009; Villar-Aguilés, Hernández i Dobon, and García-Ros 2017), we were able to detect this inequality thanks to the way in which we approached the observation of students' progress at university. If we had adopted the perspective of only counting students who continue on the same pathway (continuity), i.e. the pathway pre-established by the institution, which consists in thinking that a student starts a course of study and, in a determined period of time, must finish that course, then we would not have seen any differences by social background.

The differences appear when we focus on the concept of persistence (Tinto 2017), which is more realistic from the perspective of the student, for whom it is important to make progress at any point in the system in their aspiration to graduate with any degree. It is thus that we see how below a certain performance threshold, dropping out of the university system (persistence reversal) is more common among students from lower social backgrounds than among those from higher social backgrounds, as has also been observed by other researchers (Herbaut 2021). On the other hand, below this same threshold, students from higher social backgrounds are more likely to transfer studies than those from lower social backgrounds, such that this alternative option allows them to persist at university.

There are other studies that obtain results along these lines (Boylan 2020; Goldrick-Rab and Pfeffer 2009; Haas and Hadjar 2020).

Our contribution is that we have been able to specify that at different levels of performance the decisions made by students vary significantly, and also that this variation is different depending on the educational level of the student's parents. Thus, a pattern of compensatory advantage has emerged, while at the same time, each level of performance that gives rise to this pattern can be observed, identifying the thresholds from which one or another decision is made.

It is also notable that our results are produced in an institutional context that presents an average difficulty in transferring studies. It is to this institutional aspect that Orr and his colleagues (Orr et al. 2017) are particularly referring when they recommend that European systems should facilitate the reorientation of one's study career. Institutional rules must allow for this eventuality and support students who wish to make a shift. This is a way of tackling the inequality stemming from the fact that

this is a viable option for students from higher social backgrounds, but much less so for those from lower social backgrounds. The latter must know that they can make a mistake and that the error will cost them little more than it will their more privileged peers, giving them the chance to easily rectify it. This should be a viable alternative to be able to persist at university.

However, it should be considered that transferring to another degree or higher education institution is only one possible alternative. Complex trajectories are rather more diverse, which is why we believe that the effect that performance within different social classes can have on trajectories that show delays, stop-out, or other complexities, and eventually on graduation or dropout, is worth academic attention.

Last, we must point out that one of the main shortcomings of this paper is that by approaching the subject through the analysis of data from registries and pre-established surveys, we were not able to examine the mechanisms at work in the phenomena studied. It is clearly very important to have research that works on the identification of mechanisms, not only to improve the analytical understanding of the phenomena, but also to optimise the capacity to intervene in inequality. To this end, in this final part, we allow ourselves to postulate some plausible explanations for the evidence presented here.

The results obtained are compatible with the idea that, on the one hand, the mechanisms of path-dependence and an increase in information affect all social groups by encouraging them to remain, so that the performance threshold below which all groups of students massively consider dropping out is low. However, on the other hand, the pattern of CA inequality for dropout and transfer is confirmed, which is compatible with the fact that information on the reorientation of studies is still asymmetrical in favour of students whose parents have university degrees (Herbaut 2021). Of course, verifying that these mechanisms are in place requires additional ad hoc research, probably in the form of a survey or longitudinal qualitative research, verifying the reasons for and the security of the concatenated decisions made at the time of entry and in the transition from the first to the second year of study.

Second, they are also compatible with the fact that families have varying amounts of resources to cope with persistence, either by continuing or transferring studies (Herbaut 2021). By way of example, financial resources can help to face the academic challenge, which becomes greater after poor performance obtained in the first year by involving private tutoring or reinforcement, having to face the direct cost of having failed some credits (remember that the system of fees in Catalonia involves a significant surcharge on the enrolment fee when you fail), and the opportunity cost of extending the time spent studying. We are not aware of any study that has focused on the complementary investment of resources by families to compensate for the poor results obtained by their children at university. Certainly, this would be an interesting line of research in order to design compensation policies from within the university institution itself.

Third, a possible explanation as to why the CA pattern is observable in decisions to persist at university is that students from lower social backgrounds have a higher average time discount rate than those from higher social backgrounds (Breen, van de Werfhorst, and Jæger 2014). Although the decision they took to go to university tells us that at the time of the transition they overcame this disadvantage, the fact of having failed makes the adverse rate currently more acute because of the effect of 'lost time'. Moreover, this effect is linked to the progressive loss of legitimacy felt by the student to be studying instead of working and, therefore, of being a burden on their family (Langa 2020; Langa and David 2006).

Last, and in the same line of mechanisms as those already overcome by university students when they decided to enrol at university, we find loss aversion. This effect encourages those from higher social backgrounds to be more persistent because they have more to lose in terms of social position, which involves greater motivation than the possibility of gaining social status, associated with those from lower social backgrounds (Barone, Barg, and Ichou 2021; Breen and Yaish 2006). For the latter, at the time of taking the decision to persist or not at university after having obtained poor results, this mechanism would manifest itself in the resignation of 'we tried but it didn't go

well', differentiating this group from their peers from higher social backgrounds, for whom there is greater pressure to try again since giving up would almost certainly mean losing their original social position.

The mentioned references highlight the existence of these mechanisms in other contexts, but, once again, an interesting line of research would be to verify that they are put into play at different levels in this succession of decisions that are made upon entry and subsequently at different moments in the progress of students throughout their university studies.

Notes

1. This option, as the mentioned bibliography shows, seems to be the one most commonly followed for the analysis of the Spanish and Catalan cases.
2. This also obviously affects people who have passed 0 credits, including those who have dropped out prematurely, i.e. who have decided not to continue without having attempted to complete any credits.

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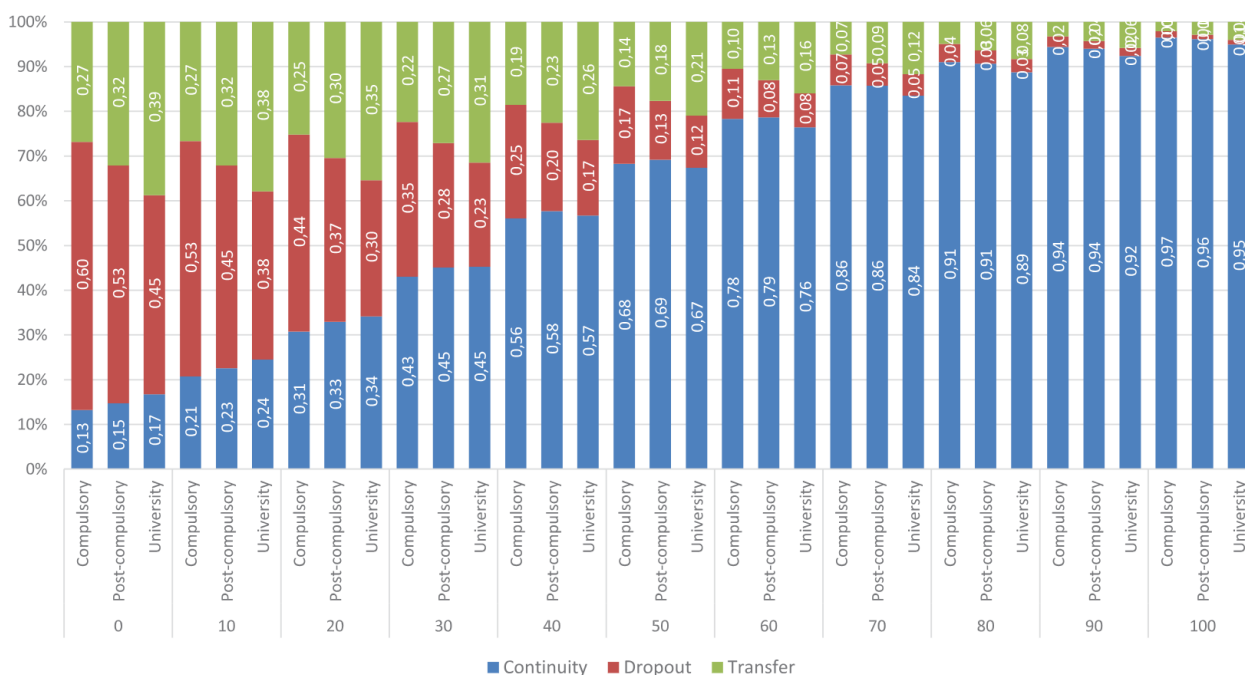
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Appendices

Appendix 1: Graphic of progress decision.



Appendix 2: Academic situation at the end of the first year at the university.

Performance rate	Family educational level	Continuing			Dropout			Transfer		
		AME		Std. E.	AME		Std. E.	AME		Std. E.
0	Compulsory	0,132	***	(0,009)	0,599	***	(0,017)	0,269	***	(0,015)
	Post-compulsory	0,147	***	(0,01)	0,532	***	(0,018)	0,321	***	(0,016)
	University	0,168	***	(0,009)	0,445	***	(0,016)	0,387	***	(0,015)
10	Compulsory	0,207	***	(0,011)	0,526	***	(0,015)	0,267	***	(0,013)
	Post-compulsory	0,226	***	(0,012)	0,453	***	(0,015)	0,321	***	(0,014)
	University	0,245	***	(0,01)	0,376	***	(0,013)	0,379	***	(0,012)
20	Compulsory	0,308	***	(0,012)	0,440	***	(0,013)	0,252	***	(0,011)
	Post-compulsory	0,329	***	(0,013)	0,367	***	(0,013)	0,304	***	(0,012)
	University	0,342	***	(0,011)	0,304	***	(0,01)	0,354	***	(0,01)
30	Compulsory	0,430	***	(0,012)	0,346	***	(0,011)	0,224	***	(0,009)
	Post-compulsory	0,451	***	(0,012)	0,278	***	(0,01)	0,271	***	(0,01)
	University	0,453	***	(0,01)	0,233	***	(0,008)	0,314	***	(0,009)
40	Compulsory	0,561	***	(0,01)	0,254	***	(0,008)	0,186	***	(0,007)
	Post-compulsory	0,577	***	(0,01)	0,198	***	(0,008)	0,226	***	(0,008)
	University	0,567	***	(0,009)	0,169	***	(0,006)	0,264	***	(0,007)
50	Compulsory	0,683	***	(0,008)	0,174	***	(0,006)	0,144	***	(0,005)
	Post-compulsory	0,692	***	(0,008)	0,132	***	(0,006)	0,176	***	(0,006)
	University	0,674	***	(0,007)	0,116	***	(0,004)	0,210	***	(0,005)
60	Compulsory	0,783	***	(0,006)	0,112	***	(0,005)	0,105	***	(0,004)
	Post-compulsory	0,787	***	(0,006)	0,083	***	(0,004)	0,130	***	(0,005)
	University	0,764	***	(0,005)	0,076	***	(0,003)	0,159	***	(0,004)
70	Compulsory	0,858	***	(0,004)	0,069	***	(0,003)	0,073	***	(0,003)
	Post-compulsory	0,857	***	(0,005)	0,050	***	(0,003)	0,092	***	(0,004)
	University	0,835	***	(0,004)	0,048	***	(0,002)	0,117	***	(0,003)
80	Compulsory	0,910	***	(0,003)	0,041	***	(0,002)	0,049	***	(0,002)
	Post-compulsory	0,907	***	(0,004)	0,029	***	(0,002)	0,064	***	(0,003)
	University	0,887	***	(0,003)	0,030	***	(0,002)	0,083	***	(0,003)
90	Compulsory	0,944	***	(0,003)	0,024	***	(0,002)	0,032	***	(0,002)
	Post-compulsory	0,940	***	(0,003)	0,017	***	(0,001)	0,043	***	(0,002)
	University	0,924	***	(0,002)	0,018	***	(0,001)	0,058	***	(0,002)

(Continued)

Continued.

Performance rate	Family educational level	Continuing			Dropout			Transfer		
		AME		Std. E.	AME		Std. E.	AME		Std. E.
100	Compulsory	0,965	***	(0,002)	0,014	***	(0,001)	0,021	***	(0,001)
	Post-compulsory	0,962	***	(0,002)	0,010	***	(0,001)	0,029	***	(0,002)
	University	0,950	***	(0,002)	0,011	***	(0,001)	0,040	***	(0,002)

Notes: AME = Average marginal effects. Standard errors in parentheses.

* $P < .05$, ** $P < .01$, *** $P < .001$.