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After dropout: Social stratification and the dynamics of educational re-entry in Spain

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ABSTRACT

This study investigates how social origin shapes second-chance educational trajectories among early school leavers in Spain. Specifically, we focus on youth who exited *compulsory lower secondary education* (*Educación Secundaria Obligatoria*, ESO) without obtaining the basic credential. Using nationally representative longitudinal data and applying sequence analysis, event history models, and multinomial logistic regressions, we examine patterns of re-engagement, timing, and final educational outcomes. The results reveal strong and persistent stratification by parental education. Young people from tertiary-educated families are more likely to return to formal education, to re-engage earlier, and to pursue more coherent and upward-oriented vocational pathways. These findings extend the theory of compensatory advantage to a highly selected and vulnerable group, showing that class-based expectations remain remarkably resilient: when academic routes become inaccessible, advantaged families redirect their children toward more feasible yet still advantageous vocational alternatives. The analysis also highlights how opportunity structures shape these trajectories. Labour-market participation delays educational return for all early school leavers, but it also attenuates class differences by reducing reliance on family background; by contrast, unemployment magnifies social-origin gaps. Finally, the expansion of Basic Vocational Training (VT) has facilitated access to second-chance education, yet its role remains ambivalent: while it provides a route to qualification, it frequently acts as a de facto dead end for disadvantaged youth, many of whom do not progress to Medium or Higher VT. Overall, the study underscores the cumulative and class-contingent nature of second-chance opportunities and demonstrates how inequalities are reproduced beyond the initial moment of school leaving.

1. Introduction

The unequal distribution of life chances has long stood at the heart of sociological inquiry, with education emerging as one of the most powerful institutional mechanisms through which such disparities are produced and reproduced. In this context, early school leaving has attracted substantial sociological attention, as it is consistently linked to lower wages, greater employment instability, and increased risks of long-term social exclusion (Bayón-Calvo & Fernández-Mellizo, 2024; Brekke, 2014; Campbell, 2015; Solga, 2002). Extensive research has examined the determinants of dropout, highlighting the role of family structure, parental resources, community characteristics, and parenting practices in shaping school completion - all of which correlate with disadvantaged social origins (Astone & McLanahan, 1991; Birkelund, 2020; Carbonaro, 1998; McLanahan et al., 2013; Rumberger, 2011; Wodtke et al., 2011). Put differently, early school dropout functions as a totemic marker of educational inequality: it is precisely where students with fewer resources are most at risk of falling behind, and where life chances become most compromised, setting in motion disadvantages that endure well into adulthood.

In response to the long-lasting consequences of early school leaving, many education systems have developed so-called second-chance alternatives: pathways that allow individuals to re-enter formal education or pursue vocational routes following dropout. While these alternatives are often framed as institutional efforts to promote equal opportunities and reduce educational inequality (Munns & McFadden, 2000; Nordlund et al., 2015), emerging research suggests that their effectiveness may be uneven. Specifically, second-chance systems may unintentionally reproduce or even amplify pre-existing social inequalities, as individuals from more advantaged backgrounds are often better positioned to identify, access, and successfully navigate these opportunities (Blank & Bar-Haim, 2025; Schindler & Bittmann, 2021). The complexity of these systems - often characterized by fragmented pathways, unclear credential hierarchies, and limited guidance - can further

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magnify the disparities in who benefits from them.

This paradox aligns with Boudon's (1974) classic distinction between *primary* and *secondary effects* of social origin in educational attainment. Primary effects refer to background-related disparities in academic performance, while secondary effects concern differences in the educational decisions made by students and their families at key transitions. From this perspective, educational stratification is not solely a consequence of cognitive ability or achievement but also of how individuals - conditioned by their social backgrounds - perceive the costs, benefits, and likelihood of success associated with further education (Breen & Goldthorpe, 1997; Breen & Jonsson, 2005; Jackson et al., 2007; Lucas, 2009). In the context of second-chance systems, secondary effects may be especially salient: the decision to return to education, the choice of credentials pursued, and the ability to persist through alternative pathways are all influenced by how individuals from different social backgrounds evaluate their chances and the potential returns to re-engagement.

Despite extensive research on such educational inequalities in standard transitions -such as progression to upper secondary or tertiary education - far less is known about educational pathways after dropout. A key reason for this gap is that early school leavers occupy an ambiguous conceptual space. Once students exit compulsory schooling without a qualification, they fall outside the scope of research on standard educational transitions, which typically follows students who progress through upper secondary or tertiary pathways. At the same time, they do not neatly fit into the literature on adult or lifelong learning, as they have not yet entered stable adulthood or the labor market. As a result, the educational recovery of early school leavers is rarely examined in its own right, even though it represents a decisive juncture at which inequalities may be either reinforced or mitigated (Jacob & Weiss, 2011; Kosyakova & Bills, 2021).

This article addresses this gap by focusing on what happens *after* dropout has occurred. To this end, we examine the subgroup of students who exited the education system without completing compulsory secondary education in Spain, a country with persistently high early school leaving rates within the OECD[1] countries. Using nationally representative data from the 2019 Survey on the Transition from Education/Training to Labour Insertion (INE, 2019), we reconstruct their educational trajectories over a four-year period. This allows us to analyze three interrelated dimensions of educational recovery: who re-engages in formal education, when this re-engagement occurs, and which educational credentials are ultimately obtained. By following early school leavers longitudinally, we capture dynamic patterns of second-chance education and examine how socio-economic background shapes not only the likelihood of re-engagement, but also its timing and outcomes. In doing so, we contribute to a growing body of research that examines educational inequality not only at initial transitions, but also across life-course processes of educational recovery and delayed attainment (Abbott & Tsay, 2000; Aisenbrey & Fasang, 2010; Barban & Billari, 2012).

2. Theoretical framework

2.1. Social origin, secondary effects, and educational re-engagement

Research on educational inequality consistently shows that social origin remains a powerful determinant of educational trajectories, even beyond compulsory schooling. Research consistently shows that individuals from higher-status backgrounds are more likely to access higher education in a timely manner, while those from disadvantaged backgrounds tend to delay educational involvement (Weiss & Roksa, 2016). In Spain, educational stratification becomes pronounced by the end of compulsory education: roughly 80 % of early school leavers during the years under study had parents with only lower secondary education or less (Cebolla- Boado & Bernardi, 2014; Fernández Enguita et al., 2010). Drawing on rational choice theory (Breen & Goldthorpe, 1997), two core mechanisms explain how parental background shapes educational decisions: differential access to economic and informational resources, and class-specific expectations regarding the value and returns to education. Families with greater resources can more easily absorb the direct and opportunity costs associated with returning to school, while class-based socialization fosters stronger aspirations and valuations of credentialed achievement. Together, these mechanisms generate a structural and motivational advantage that persists into early adulthood.

Indeed, it is to expect that these processes become especially consequential in the face of academic failure. The theory of compensatory advantage (Bernardi, 2014) posits that when children experience setbacks such as dropout, socially advantaged families mobilize financial support, guidance, and strategic navigation of institutional options to prevent downward mobility (Bernardi, 2012; Bernardi & Cebolla Boado, 2014; Bernardi & Triventi, 2020; Grätz & Bernardi, 2017). Rather than allowing school leaving to derail long-term trajectories, these families intervene to secure alternative routes back into education. From this perspective, secondary effects of social origin should strongly influence whether, when, and how early school leavers re-engage in education.

Based on this framework, we derive the following hypotheses:

H1. Early school leavers from more educated families are more likely to re-engage in formal education than those from less educated families.

H2. Among those who re-engage, students from more educated families return sooner after dropout than their less advantaged peers.

H3. Students from more educated families are more likely to have higher educational attainment after the period of observation than those from lower educated families.

2.2. Second-chance systems and adult education

Second-chance systems encompass a wide variety of institutional pathways designed to provide individuals with renewed opportunities to resume education after academic disruptions. Across countries, these alternatives range from late-entry access routes to higher education (Blank & Bar-Haim, 2025; Schindler & Bittmann, 2021) to transitions across vocational and academic tracks in stratified systems - transitions which are often intended to correct earlier tracking decisions but frequently reproduce inequality instead (Biewen & Thiele, 2020; Schindler & Bittmann, 2021).

Early school leavers, however, differ from both of these prototypical second-chance profiles. They occupy an ambiguous position at the intersection of two research traditions. On the one hand, they belong to youth-transition studies because they exit compulsory schooling during adolescence and before entering stable labor market trajectories. On the other hand, any subsequent enrollment occurs outside the uninterrupted sequence of "initial" education and therefore aligns with adult-education research, which conceptualizes such transitions as forms of adult educational upgrading (Bukodi, 2017; Jarvis, 2007; Kosyakova & Bills, 2021).

This overlap raises the question of how strongly adult education is shaped by social origin. While some scholars argue that constraints related to social origin may weaken as individuals gain autonomy in early adulthood (Egerton, 2001), a broad body of empirical evidence suggests that parental background remains a central predictor of participation in adult education (Cincinnato et al., 2016; Elman & ORand, 2007). In our case, the influence of families is expected to be particularly strong because early school leavers have not yet established

[1] For example, in the 2013/2014 academic year, the survey's reference population included 327,916 students who completed compulsory education, compared to 102,583 who dropped out.

stable labor market positions. However, this does not diminish the importance of adult-education dynamics, especially those related to resource constraints, cost–benefit evaluations, and competing economic responsibilities.

Within this hybrid framework, labor market positioning becomes a critical mechanism shaping re-engagement decisions. Unfavorable labor market experiences can act as push factors, motivating individuals to return to education in order to improve their prospects (Denice, 2017; Hällsten, 2011). Conversely, early employment success may reduce the perceived need or urgency to re-enter education. In Spain, early school leavers often hold precarious and low-wage jobs (Verd et al., 2019), making employment both a potential motivator and a constraint. These dynamics, however, are not evenly distributed across social groups. Youth from more educated families might be better positioned to draw on financial and emotional support that cushions the risks of reducing work hours or exiting employment temporarily to return to school. In contrast, youth from less educated families might rely on early earnings to meet immediate needs, making the opportunity costs of re-engaging in education substantially higher. As a result, the same employment experience can influence re-engagement decisions very differently across social-origin groups.

From these considerations, we derive the following hypotheses:

H4. Early employment reduces the likelihood of educational re-engagement and delays the timing of return.

H5. Experiencing precarious, low-wage employment increases the likelihood of re-engagement in education versus high-wage employment.

H6. The negative effect of early employment on educational re-engagement is stronger among youth from lower educated families than among those from higher educated families.

3. The Spanish educational system

The Spanish educational system mandates compulsory schooling from age 6–16. Compulsory secondary education (*Educación Secundaria Obligatoria*, ESO) covers ages 12–16, and obtaining the ESO certificate at the end of this stage is the key credential that determines access to all subsequent pathways. Although students theoretically make the decision to leave school in the final year of ESO (4th grade), grade repetition is extremely common in Spain: nearly three times the OECD (OECD, 2024). As a result, many students reach age 16 while still enrolled in lower grades, which means that dropout events are distributed across all years of ESO rather than concentrated in the last one.

Regardless of age, once compulsory education is finished, students face two main routes within upper secondary education. The academic track (Bachillerato, theoretical ages 16–18) prepares students for university and requires passing the national entrance exam (EBAU/PAU). The vocational education and training (VT) track is structured into two two-year cycles: Medium VT (*Grado Medio*) and Higher VT (*Grado Superior*). Access to Medium VT normally requires the ESO certificate or, since 2014, a Basic VT diploma; alternatively, students without formal qualifications may enter through age-specific entrance exams (from age 17 for Medium VT and 18 for Higher VT). Progression from Medium VT to Higher VT is possible, and graduates from Higher VT may subsequently enter university without sitting the entrance exam, although only in fields related to their vocational specialisation.

A key institutional feature for understanding second-chance trajectories is the introduction, in 2014, of Basic Vocational Training (*Formación Profesional Básica,* Basic VT). Basic VT is designed for students aged 15–17 who are at imminent risk of dropping out, typically during the third year of ESO. As shown on the right-hand side of Fig. 1, it provides an early vocational alternative within compulsory schooling, preventing a complete break with the system. Basic VT offers the lowest level of professional certification. Initially, it was conceived not to grant the ESO certificate directly but to require a specific examination upon completion. This model resembled the proposed final external examination in 4th ESO ("*reválida*"), a highly contentious reform between the central government and the regions, who hold educational authority. As political disputes over the *reválida* stalled its implementation, successive transitional regulations allowed schools to award the ESO certificate to Basic VT students without any specific examination. This arrangement was ultimately formalised in later legislative reforms. In practice, Basic VT evolved into a hybrid pathway: although initially oriented toward early vocational training, with the implications in reduced academic expectations[2] (Blossfeld et al., 2016), it de facto broadened second-chance opportunities by keeping the door open to the academic track.

4. Data and methods

4.1. Data overview

The data come from the 2019 Survey on the Transition from Education/Training to Labour Market Insertion, which includes a nationally representative sample of individuals who left compulsory secondary education during the 2013/2014 academic year. The survey provides yearly information on respondents' educational trajectories between 2013/2014 and 2018/2019. Data collection followed a two-stage design: administrative records from educational institutions were first compiled, followed by a hybrid survey using telephone and web-based interviews.

4.2. Sample construction

The survey employs a two-stage design. First, administrative data were collected from universities and educational institutions. This was followed by a hybrid survey approach combining telephone and web-based interviews. The initial dataset included approximately 1902 respondents, but this number was ultimately reduced to 1346. This reduction accounts for missing data on parental education[3] (16.4 %) and the correction of inconsistencies, such as individuals reporting enrollment in *Bachillerato* without having completed the ESO curriculum. We also excluded students from the 1999 cohort, as these individuals were already 15 years old and likely transferred to Basic Vocational Training without a clear dropout event. Moreover, individuals under 16 cannot legally work, making them incomparable to the rest of the cohorts. Similarly, we excluded a few cases from the 1995 cohort, as these individuals were 19 years old during the same academic year. It is likely they were enrolled in adult secondary education programs, suggesting they were already engaged in re-enrollment trajectories not comparable to the rest of our sample. A flowchart detailing the pattern of data missingness, along with the results of a logistic regression model

[2] Although Basic VT was introduced starting from 2014, implementation varied across regions and cohorts. Given that our sample includes students who left ESO during 2013/2014, most were not directly exposed to Basic VT at the time of dropout, though some may have accessed it shortly thereafter. To account for potential variation in exposure, all models control for region and cohort.

[3] Missingness in parental education is not completely random. A logistic regression predicting the likelihood of missing parental education indicates statistically significant associations with gender, academic performance, birth cohort, and region. Female respondents were less likely to have missing information, while those with three or more retake years had a higher probability of missingness, as did individuals born in 1997 and 1998 respect 1996. Additionally, respondents from the Northeast region were more likely to have missing data. These results suggest that the exclusion of cases with missing parental education may slightly bias the sample toward more educationally advantaged or demographically distinct subgroups. Therefore, interpretations related to social origin should be made with this selection in mind

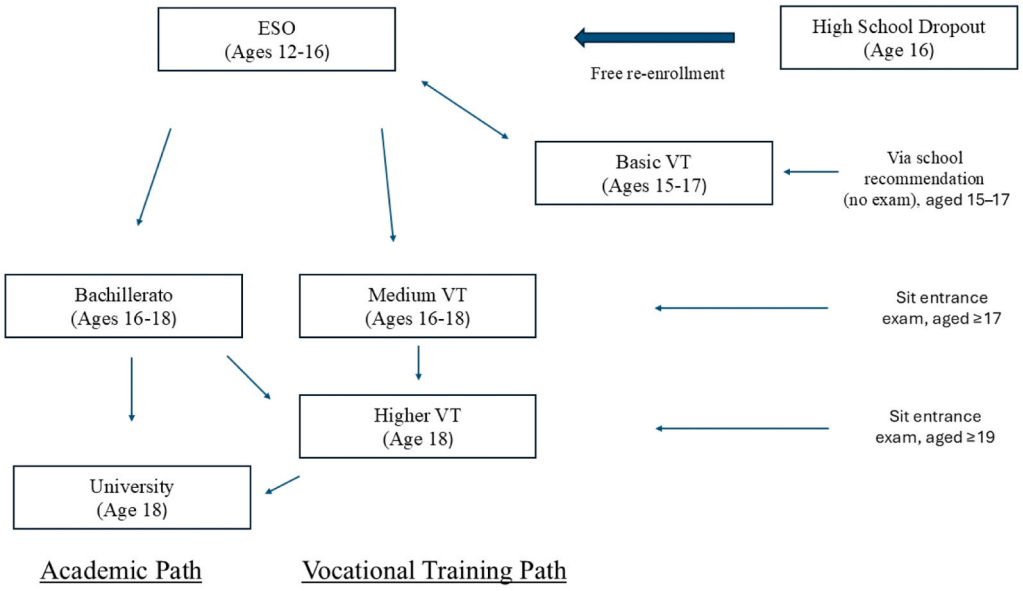

Fig. 1. Representation of the Spanish educational system during the academic courses 2013/2014–2019/2020.

estimating the probability of missing parental education, is provided in the appendix for transparency.

4.3. Measures

4.3.1. Dependent variables

Our dependent variables vary across the three analytical components. For sequence analysis, we construct a series of states for every academic course: out of education, studying ESO, Bachiller, University, Basic VT, Medium VT or Higher VT. In event history models, we collapsed in a simple binary indicator of whether the respondent was enrolled in formal education in each academic year. Finally, for the highest academic achievement and multinoial logistic regressions, we create a categorical variable capturing the highest credential obtained before the 2019/2020 academic year. Categories are hierarchical: no credential, ESO, Basic VT, Bachillerato, Medium VT, Higher VT, and University. When respondents hold multiple qualifications, only the highest is retained.

4.3.2. Independent variables

Our main variable of interest is social origin, which is measured through the highest level of education attained by either parent (primary or none; lower secondary; upper secondary; tertiary). Academic performance is proxied by grade retention, inferred indirectly from discrepancies between age and expected grade in Spain's age-standardised educational structure. Finally, for labor market attachment, we use administrative records from the Spanish Social Security system that are linked to the survey. These records provide information on individuals' monthly social security contribution bases (*bases de cotización*) for March of each year. The contribution base reflects the wage level on which social security contributions are calculated and therefore serves as a reliable proxy for employment intensity and job quality. Using this information, we construct a variable capturing both exposure to employment and its strength: individuals with no recorded contribution in March are coded as 0 (not employed for the entire month), while those with positive contributions are assigned to quintiles of the monthly contribution base (1 = lowest quintile, 5 = highest quintile). Contribution bases for contracts shorter than 31 days are prorated to reflect a full-month equivalent. This measure allows us to differentiate non-employment from varying degrees of labour-market attachment in a way that is both precise and comparable across individuals. Lower bounds for the deciles of the monthly contribution bases are publicly available and reported in the Appendix.

4.3.3. Controls

In addition to the core independent variables, we include a set of control variables justified by prior research. First, we control for Spain's regions, distinguishing the two autonomous cities of Ceuta and Melilla, which were intentionally oversampled. Regions are grouped according to the NUTS1 classification (we include Ceuta and Melilla as a separated region). We also include birth cohort, as those who dropped out during the economic recession faced different opportunity structures than those who left school during the subsequent recovery period (Choi & Calero, 2017).

Gender and migration background are included, as both factors are consistently associated with early school dropout in Spain and elsewhere (Sánchez-Gelabert et al., 2024). While gender is straightforward to operationalise, migration background encompasses several distinct mechanisms. Generational status (first generation, generation 1.5, second generation) may influence dropout through primary effects in the Boudonian sense, such as differences in academic performance arising from linguistic or institutional barriers (Hillmert, 2013). At the same time, research shows that much of immigrant educational achievement reflects secondary effects transmitted through families - mechanisms that vary with the social selectivity of migration and the resources that parents bring with them (Ferrara & Luthra, 2024). Although these dimensions are conceptually intertwined, the relatively small sample size does not allow us to model generational heterogeneity or differences in migrant selectivity. We therefore use a binary indicator for migration background, coded 1 when at least one parent was born abroad. As shown in the Appendix, alternative operationalisations of migration background do not materially alter the results.

Finally, we control for school ownership (public vs. private). This variable captures long-standing evidence that school-level segregation and resource concentration shape educational decisions. In Spain, a large share of private schools operate under a publicly funded but privately managed regime ("*colegios concertados*"). Prior studies show that these schools differ from public institutions in terms of segregation patterns (Prieto-Latorre et al., 2021), yet our data do not allow us to distinguish between fully private and publicly funded private schools. This limitation should be kept in mind when interpreting the estimated effects, as some unobserved heterogeneity may remain.

4.4. Analytical strategy

The analytical strategy is tailored to address the three core research questions: (1) who drops out of compulsory secondary education, (2) when re-engagement occurs, and (3) what final educational credentials are obtained. We begin by reconstructing early educational careers as sequences of categorical states. Dissimilarities between sequences are computed using the Optimal Matching (OM) algorithm(Abbott & Forrest, 1986). OM estimates the distance between two sequences based on the minimum cost of transforming one sequence into the other through three basic operations: (i) substitution of one state for another, (ii) insertion of a state, or (iii) deletion of a state. In this study, the costs for these operations were not assigned arbitrarily; instead, they were derived from the transition rates observed in the data using the transition-rate-based (TRATE) method (Gabadinho et al., 2011), ensuring that the costs reflect the empirical likelihood of transitions between states. The total cost of aligning two sequences constitutes their pairwise distance, with fewer required operations indicating greater similarity.

The resulting distance matrix is used in a Ward hierarchical clustering algorithm (Ward, 1963), which iteratively merges clusters to minimize total within-cluster variance. This method calculates dissimilarities based on the increase in variance caused by each merger. Based on dendrogram inspection and average silhouette width maximization, we retain a four-cluster solution that balances internal coherence and analytical usefulness.

We convert the retrospective data into a person-year structure and estimate Cox proportional hazards models to assess the timing of re-engagement into education. Finally, we estimate multinomial logistic regression models predicting highest credential attainment using the same set of covariates. Descriptive statistics for all variables appear in Table 1.

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5. Results

5.1. Who re-engages in formal education?

We begin with a descriptive analysis of educational trajectories, focusing on their distribution over time by parental education level. Fig. 2 illustrates these trajectories, revealing a clear parental education gradient: the likelihood of remaining enrolled in formal education increases with the level of parental education. For example, during the 2015/2016 academic year - the peak year for re-enrollment - approximately 60 % of individuals whose parents had only primary education or less were not enrolled in any form of education. In contrast, this figure drops to around 40 % for individuals with parents who attained upper secondary or tertiary education.

Notably, there are also important differences *within* the group of students with more educated parents. While individuals with upper secondary-educated parents show higher overall rates of enrollment, this is primarily driven by participation in Basic Vocational Training (Basic VT). By contrast, individuals with tertiary-educated parents are more likely to re-engage through the academic track, either by retaking ESO or continuing to Bachillerato, and are more represented in Medium and Advanced Vocational Training.

These patterns suggest that although students from tertiary-educated families are slightly less likely to re-engage in absolute numbers, their re-engagement tends to be more successful and leads to higher educational qualifications. In other words, they follow pathways that offer greater potential for long-term educational advancement.

Fig. 3 displays the four clusters identified through cluster analysis, each representing a distinct pattern of educational trajectories observed during the study period. The first cluster, labeled Progressive Re-engagement ($N = 179$), comprises individuals who re-engage in formal education by returning to ESO or, more commonly, by enrolling in Intermediate Vocational Training (Medium VT), with some progressing further into Advanced VT. The peak in enrollment occurs during the 2016/2017 academic year, when the majority of individuals in this group were enrolled in Medium VT. The second cluster, the largest in the sample ($N = 756$), is labeled Persistent Disconnection. It is characterized by a consistently high rate of non-enrollment in formal education across the entire period, with over 70 % of individuals in this group disconnected from education in every year. Interestingly, the small minority who do re-engage tend to do so via the academic path - typically by completing ESO. However, this does not often lead to further progression, suggesting that re-engagement may be driven more by the symbolic value of completing compulsory education than by a strategic investment in further qualifications. The third cluster, Basic VT Terminal ($N = 227$), includes individuals who rapidly enroll in Basic Vocational Training within the first one or two years after dropping out, but do not transition into Medium VT. Enrollment in this group peaks in the 2015/2016 academic year, with approximately 90 % of individuals engaged in Basic VT. Finally, the fourth cluster, labeled Basic-to-Advanced VT Path ($N = 184$), represents individuals who, like those in the previous cluster, re-engage quickly through Basic VT. However, unlike the previous group, many of them use Basic VT as a stepping stone to Medium VT, and a substantial proportion continues into Advanced VT. This cluster shows the highest and most sustained levels of engagement in formal education following dropout.

Table 2 presents the socio-demographic composition of the four trajectory clusters. The Progressive Re-engagement cluster appears to reflect both higher family resources and greater resilience in the face of early academic difficulties. It includes the highest share of individuals with tertiary-educated parents (21.8 %), a relatively large proportion from private educational centers (29.1 %), and the lowest concentration of individuals with three or more retakes (5.6 %). Although most students in this group repeated at least once, their ability to re-engage - often in vocational programs with progression into Advanced VT - suggests successful compensation. Notably, this group is skewed toward the youngest cohort (45.8 % born in 1998), which may reflect family strategies responding more quickly to dropout. The Persistent Disconnection cluster, by contrast, is marked by cumulative disadvantage. Nearly a quarter of individuals have parents with only primary education, and only 16.8 % attended private schools. Importantly, it contains the highest proportion of individuals with three or more retakes (15.9 %), signaling deeper academic difficulties. These students are also disproportionately from the oldest cohort (41.3 % born in 1996), which may reflect fewer available second-chance options at the time or lower family activation in response to poor academic performance.

The Basic VT Terminal cluster combines early institutional re-engagement with limited progression, suggesting low returns to early

Table 1
Descriptive statistics.

	%
Migration background	27.19 %
Retaker	
None	4.01 %
1 retake	28.83 %
2 retakes	55.05 %
3 retakes or more	12.11 %
Parental education	
Primary/Low Secondary	21.62 %
Lower Secondary	38.63 %
Upper Secondary	22.96 %
Tertiary Education	16.79 %
Female	36.11 %
Private educational center	18.13 %
Year of birth	
1998	47.92 %
1997	28.45 %
1996	23.63 %
N	1346

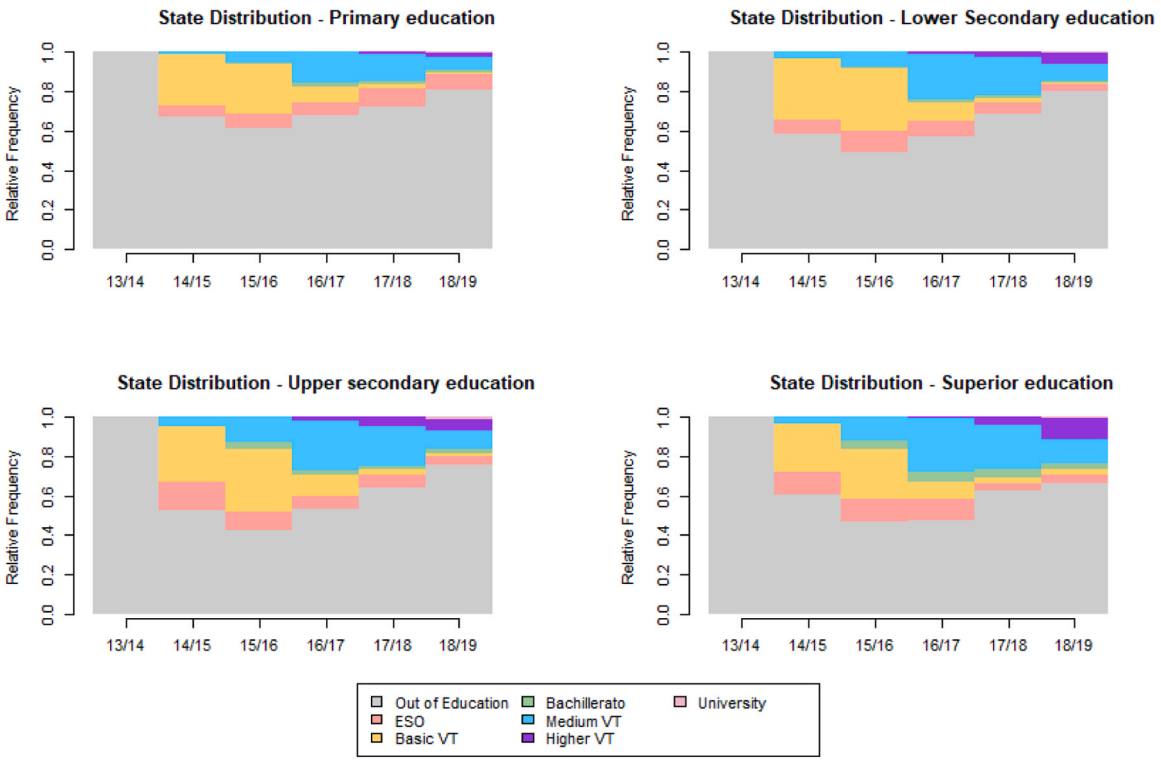

Fig. 2. Distribution of sequences by parental education.

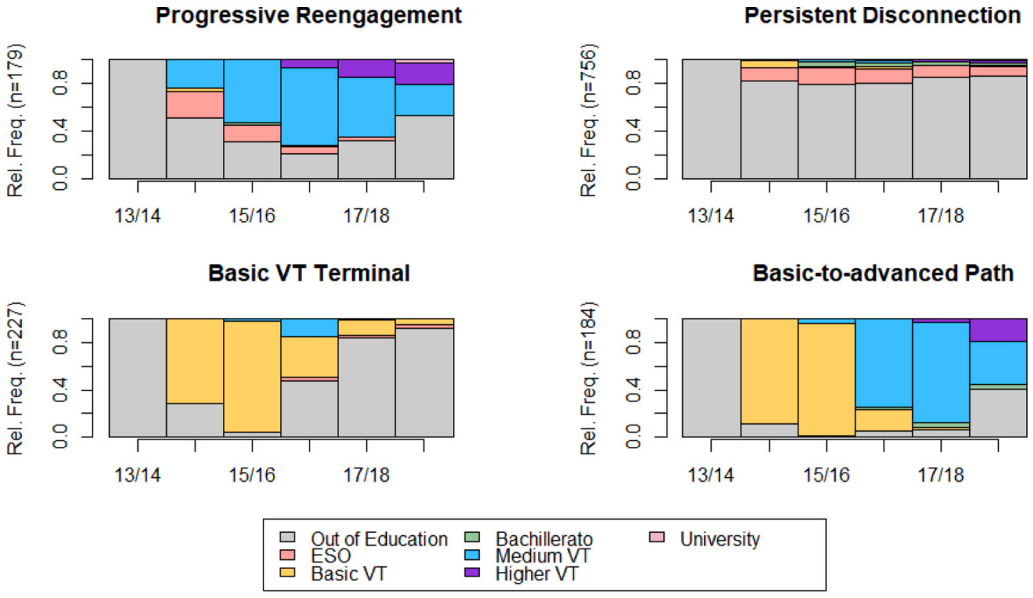

Fig. 3. Cluster analysis.

re-entry when family resources are weaker. Only 10.6 % of individuals have tertiary-educated parents, and just 13.2 % attended private schools. While this group shows a rapid uptake of Basic VT - peaking in 2015/2016 - it remains largely disconnected from more advanced pathways, and a significant share had multiple retakes.

The Basic-to-Advanced VT Path cluster is perhaps the clearest case of compensatory advantage at work. Despite starting in Basic VT, individuals in this group were more likely to progress to Medium and Advanced VT, and they exhibit a more favorable social profile: 20.1 % have tertiary-educated parents, 19 % attended private schools, and only 6 % had three or more retakes. Additionally, this group is younger on average (only 4.4 % born in 1996), suggesting quicker family response or greater institutional flexibility for newer cohorts. The relatively high rate of progression despite early dropout supports the idea that families with more resources can strategically navigate second-chance systems to buffer the long-term consequences of educational failure. Overall, these descriptive patterns are consistent with H1 and suggest a clear social-origin gradient in re-engagement.

5.2. *When this re-engagement occurs?*

Table 3 presents Cox proportional hazard models estimating the

Table 2
Distribution of key background characteristics across educational trajectory clusters.

Progressive Reengagement		Permanent Disconnection		Basic VT Terminal		Basic-to-Advanced Path	
Migration background	27.37 %	**Migration background**	26.98 %	**Migration background**	29.52 %	**Migration background**	25.00 %
Retaker		**Retaker**		**Retaker**		**Retaker**	
None	3.35 %	*None*	4.50 %	*None*	3.08 %	*None*	3.80 %
1 retake	32.96 %	*1 retake*	24.87 %	*1 retake*	27.75 %	*1 retake*	42.39 %
2 retakes	58.10 %	*2 retakes*	54.76 %	*2 retakes*	59.47 %	*2 retakes*	47.83 %
3 retakes or more	5.59 %	*3 retakes or more*	15.87 %	*3 retakes or more*	9.69 %	*3 retakes or more*	5.98 %
Parental education		**Parental education**		**Parental education**		**Parental education**	
Primary/Low Secondary	16.76 %	*Primary/Low Secondary*	24.74 %	*Primary/Low Secondary*	21.39 %	*Primary/Low Secondary*	13.04 %
Lower Secondary	32.96 %	*Lower Secondary*	38.10 %	*Lower Secondary*	38.61 %	*Lower Secondary*	42.93 %
Upper Secondary	28.49 %	*Upper Secondary*	20.50 %	*Upper Secondary*	23.15 %	*Upper Secondary*	23.91 %
Tertiary Education	21.79 %	*Tertiary Education*	16.67 %	*Tertiary Education*	10.57 %	*Tertiary Education*	20.11 %
Female	35.20 %	**Female**	39.29 %	**Female**	27.31 %	**Female**	34.78 %
Private educational center	29.05 %	**Private educational center**	16.80 %	**Private educational center**	13.22 %	**Private educational center**	19.02 %
Year of birth		**Year of birth**		**Year of birth**		**Year of birth**	
1998	45.81 %	1998	28.44 %	1998	5.73 %	1998	4.35 %
1997	32.40 %	1997	30.29 %	1997	25.55 %	1997	20.65 %
1996	21.79 %	1996	41.27 %	1996	68.72 %	1996	75 %
N	179	**N**	756	**N**	227	**N**	184

Table 3
Cox proportional hazards models for educational reengagement (model 1: time-constant effects; model 2: time-varying parental education).

	Model 1	Model 2
Parental education (Ref: Primary Education)		
Lower secondary education	1.31**	1.24*
	(0.103)	(0.14)
Upper secondary education	1.45***	1.31*
	(0.124)	(0.195)
Tertiary education	1.129**	1.108
	(0.12)	(0.219)
Employment in March (Ref: Unemployed)		
First quintile	0.55**	0.55*
	(0.163)	(0.168)
Second quintile	0.571**	0.57**
	(0.13)	(0.141)
Third quintile	0.379**	0.379**
	(0.148)	(0.157)
Fourth quintile	0.403**	0.402**
	(0.136)	(0.144)
Fith quintile	0.361**	0.360**
	(0.122)	(0.121)
Parental education x time		1.03
		(0.031)
Retake Course (Reference: 1 Retake)		
0 Retakes	0.701**	0.709*
	(0.105)	(0.13)
2 Retakes	0.984	0.984
	(0.063)	(0.079)
3 Retakes or more	0.657***	0.658**
	(0.07)	(0.084)
Year of birth (Ref: 1996)		
1997	0.894	0.894
	(0.07)	(0.088)
1998	0.93	0.931
	(0.06)	(0.085)
Female	0.939	0.938
	(0.053)	(0.065)
Migration background	0.961	0.959
	(0.058)	(0.074)
Private Educational Center	1.029	1.029
	(0.07)	(0.089)
Observations (person-years)	3643	3643
Subjects	1346	1346
Failure	943	943

Robust standard errors in parentheses. Regional fixed effects (not shown).
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4
Multinomial logistic regression.

Average Marginal effects	No Formal Education Title	Basic VT	Academic Path (ESO/ Bachiller)	VT Pathway (Medium/ Advanced VT)
Retake Course (Reference: 1 Retake)				
0 Retakes	0.215**	-0.080**	-0.082	-0.052
	(0.069)	(0.0239)	(0.062)	(0.051)
2 Retakes	0.059*	0.069**	-0.080**	-0.048*
	(0.032)	(0.020)	(0.029)	(0.027)
3 Retakes or more	0.229***	0.065*	-0.152***	-0.142***
	(0.047)	(0.038)	(0.031)	(0.031)
Parental education (Ref: Primary Education)				
Lower secondary education	-0.012***	0.031	0.010	0.083**
	(0.035)	(0.024)	(0.025)	(0.025)
Upper secondary education	-0.180***	0.055*	0.049*	0.075**
	(0.040)	(0.029)	(0.030)	(0.029)
Tertiary education	-0.146**	-0.002	0.077**	0.070**
	(0.045)	(0.029)	(0.035)	(0.032)
Migration background	0. 039	-0.004	-0.009	-0.025
	(0.032)	(0.218)	(0.022)	(0.022)
Female	0.001	-0.032*	0.045**	-0.013
	(0.028)	(0.019)	(0. 021)	(0.020)
Private Educational center	-0.019	-0.001	-0.048**	0.069**
	(0.034)	(0.025)	(0. 022)	(0.029)
Year of birth (Ref: 1996)				
1997	0.109**	0.101***	-0.167***	-0.043
	(0.039)	(0.019)	(0.038)	(0.034)
1998	0.076**	0.216***	-0.234***	-0.069*
	(0.034)	(0.019)	(0.034)	(0.029)
N	1346	1346	1346	1346

Robust standard errors in parentheses. Regional fixed effects (not shown).
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

likelihood of reengaging in formal education following early school leaving. Model 1 includes standard covariates, while Model 2 adds a time-varying effect for parental education to test whether its influence changes over the observation period.

Results from Model 1 show that parental education is positively associated with the likelihood of educational re-engagement (H2). Compared to youth whose parents have only primary schooling, those with lower and upper secondary educated parents are 31 % and 45 % more likely to return to education, respectively. Parental tertiary

education also increases the hazard of re-entry (HR = 1.31), though the effect is slightly smaller, suggesting that parental resources supporting re-engagement may operate most strongly at intermediate educational levels.

A key finding concerns labour-market attachment. Using administrative data on monthly Social Security contribution bases, we distinguish different intensities of employment. Compared to youth who were not employed during March, all employed youth - across all five quintiles of contribution bases - display substantially lower hazards of re-entry, in line with H4. The gradient is monotonic: higher contribution bases, which reflect more stable and better-paid employment positions, are associated with the strongest reductions in the likelihood of returning to education (e.g., HR = 0.36 in the highest quintile). This indicates that employment functions as an anchoring mechanism, reducing incentives or opportunities for further study (H5).

Grade retention also shows a clear pattern of cumulative disadvantage: youth with three or more retentions have a significantly lower hazard of re-engaging (HR = 0.66). Cohort differences are small and statistically insignificant, suggesting stable re-engagement patterns across the adjacent birth cohorts observed. Other individual characteristics included as controls - gender, migration background, and attendance at a private school - do not exhibit statistically significant associations with the hazard of educational re-engagement. This contrasts with research on early school leaving, where both these variables typically predict initial dropout risks. However, within this already highly selected population of early school leavers, those differences appear to be much less salient. In other words, once students have disengaged from compulsory education, the likelihood of returning seems only weakly structured by these factors.

Model 2 tests whether the effect of parental education varies across the follow-up period. While the main effects remain directionally consistent, the time-varying coefficient for parental education is not statistically significant, indicating that the influence of parental education on reengagement does not change over time. In other words, family educational background appears to shape the overall likelihood (quantum) of returning to education, but not the timing of the event. The stability of other estimates across models supports the robustness of these findings.

Fig. 4 plots model-adjusted survival curves for remaining outside the education system, by parental education (basic vs. tertiary) and employment exposure (H6). Within each employment category, the curves for youth with tertiary-educated parents lie consistently below those for youth with basic-educated parents, indicating faster re-engagement among the more advantaged. This suggests that social origins operates robustly across different levels of labour-market attachment. At the same time, employment itself strongly suppresses re-engagement: both low-earning and, especially, high-earning jobs are associated with higher survival probabilities - that is, a greater likelihood of staying out of education - compared to non-employment. More interestingly, the gap between social-origin groups is wider among unemployed youth during the month of *March*. In this sense, the labour market appears to function as an equalising mechanism in delaying re-engagement, regardless of how well-paid the job is.

5.3. *Which educational credentials are ultimately obtained?*

Table 3 reports the Average Marginal Effects (AMEs) estimated from a multinomial logistic regression predicting the probability of four mutually exclusive educational outcomes following school dropout: No formal education title (reference category in the dependent variable), Basic Vocational Training (VT), Academic Pathway (ESO or Bachillerato), and Medium/Advanced VT. AMEs represent the change in the probability of each outcome associated with a one-unit change in the independent variables, holding others constant.

Parental education is strongly associated with post-dropout attainment patterns. Compared to students whose parents have only primary education, those with tertiary-educated parents are significantly less likely to remain without a formal title (−14.3 %age points) and more likely to attain an academic credential (+7.9 pp) or medium/advanced vocational training (+7.15 pp). A similar trend is observed for students whose parents completed upper secondary education: they are 17.4 pp less likely to remain without a qualification, and 6.9–7.7 pp more likely to re-engage through vocational or academic pathways. These results support the relevance of secondary effects: even among early school leavers, parental background remains a powerful determinant not only of whether re-engagement occurs, but also of the type and quality of educational reintegration (H3).

Grade repetition prior to dropout also reveals sharp differentials. Interestingly, students with no grade repetition and those with three or more retakes are similarly likely (about 22.9 pp) to remain without a formal title. However, these outcomes likely stem from contrasting mechanisms. For those with no repetition, dropping out without prior academic struggles may reflect strong extra-school motivations (e.g., economic pressure or disinterest), suggesting more intentional and persistent disengagement. In contrast, those with multiple repetitions likely experienced sustained academic difficulties or school disconnection. Beyond these outliers, a general pattern emerges: the more retakes an individual experienced before leaving school, the more likely they are

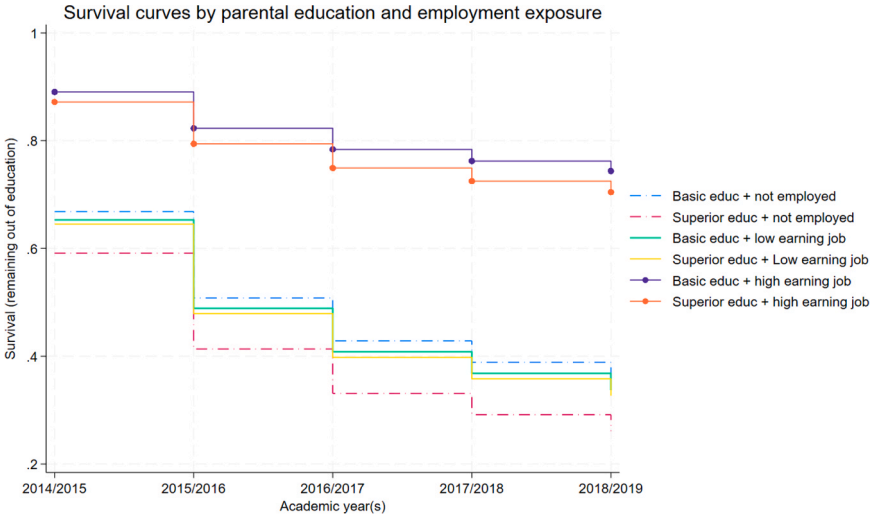

Fig. 4. Survival curves by parental education and employment exposure.

to end up in Basic VT or without any qualification, and the less likely they are to attain an academic credential or medium/advanced VT. This confirms the expected negative association between early academic performance and upward re-engagement paths.

Regarding gender, the multinomial model reveals statistically significant differences in the type of qualification ultimately obtained. Female early school leavers are substantially more likely to complete an academic credential (+4.5 pp) and less likely to enroll in Basic VT (–3.2 pp). These patterns suggest that, once re-engagement occurs, girls tend to pursue more academically oriented routes, whereas boys are more likely to follow shorter vocational options or remain disengaged. This aligns with broader gendered patterns in educational stratification, despite the highly selected nature of early school leavers. On the other hand, migration does not show any statistically significant effect for any educational outcome.

Finally, cohort effects are notable. Individuals born in 1998, the youngest in the sample, are substantially more likely to complete Basic VT (+21.4 pp) and less likely to re-enter the academic track (−23.5 pp). This shift aligns with the institutional expansion of Basic VT programs following the 2014 LOMCE reform.

6. Discussion and conclusions

This study examined how social origin influences second-chance educational trajectories among early school leavers in Spain. Drawing on nationally representative data and employing sequence analysis, event history models, and multinomial logistic regressions, the findings demonstrate that post-dropout educational pathways are strongly stratified by parental education. Overall, the results show that early school leavers from more educated families are more likely to return to formal education, to do so earlier, and to follow trajectories that lead to higher educational attainment. These findings underscore how the reproduction of educational inequality persists well beyond the initial moment of school leaving.

While demonstrating that secondary effects contribute to the reproduction of social inequality in education is not, in itself, a bold statement, it is nonetheless striking to observe how these mechanisms extend even to a group as highly selected and vulnerable as early school leavers. Typically, early dropout is precisely the outcome that students from more privileged families are able to avoid thanks to compensatory advantage, which allows them to maintain educational participation despite academic setbacks. In Spain, for example, this mechanism has been documented among students who, despite repeating a grade, remain in the academic track and eventually overcome the mismatch between their aspirations and academic achievement (Bernardi, 2012). In the group examined here, however, the challenge is far more severe. These students have not merely experienced a single setback; rather, they face an accumulated academic burden - with more than two thirds being two or more years behind their peers. Under such conditions, re-engagement becomes structurally difficult. Yet even within this highly disadvantaged group, the data show that social origin continues to differentiate how young people organise their second-chance pathways.

This case also offers an opportunity to re-evaluate how class-based expectations operate under conditions of extremely poor academic performance. Prior research highlights the strong "stickiness" of educational aspirations in Spain, even among students with weak achievement (Bernardi & Valdés, 2021; Valdés, 2022). This pattern does not manifest here in the conventional sense: early school leavers do not return to the academic track in the years following dropout. However, parental education remains associated with more coherent and upward-oriented vocational trajectories, with a higher likelihood of entering Medium and Higher Vocational Training instead of relying on Basic VT, which often functions as a last-resort safety net. This suggests that class-based expectations may be remarkably inflexible regarding their *ultimate* goal - maintaining a competitive advantage - while remaining highly adaptable in the *routes* through which that goal is pursued. When academic performance is under extreme strain, the traditional markers of high aspirations (such as transitioning to university) become less attainable, yet the underlying expectation of continued educational participation persists. In these cases, families with higher educational backgrounds appear able to reorient their children toward more feasible, yet still superior, vocational pathways, thereby preserving a relative advantage even within a highly disadvantaged group.

Beyond family background, this study sheds light on the role of the opportunity structure. As expected, labour-market participation acts as a strong deterrent to educational re-engagement: employment - particularly well-paid employment - substantially delays return to education. At the same time, the patterns reveal important class differences that are most visible precisely when employment is absent. This aligns with research on adult education suggesting that delayed educational decisions can loosen the influence of social origins as individuals gain autonomy over time (Egerton, 2001). In this context, paid employment may function as a form of "independence", reducing the relative influence of family background; indeed, among students holding similar types of jobs, class differences in re-engagement are minimal. In contrast, when this "independence mechanism" is absent - namely, among the unemployed - the weight of family background becomes more pronounced, and class gaps in re-engagement are considerably larger.

In a country like Spain, where youth unemployment remains structurally high, this pattern highlights the potential for inequality to be reinforced. Paradoxically, a labour market capable of absorbing young people - even if it delays their educational return and increases the risk of long-term inequalities vis-à-vis non–school leavers - may nonetheless reduce inequality *among early school leavers*, by attenuating the influence of social origin within this group. A stagnant labour market, by contrast, leaves greater room for family background to structure opportunities more sharply.

Finally, the introduction of Basic Vocational Training appears to have been a relative success in that many early school leavers used it as a route to obtaining a formal qualification. However, given the persistent inequalities in educational trajectories, policymakers should carefully reconsider the original intention to make the acquisition of the ESO certificate - when attached to the completion of Basic VT - dependent on a high-stakes exam (the *reválida*). Even in a context where the *reválida* was never fully implemented, clear inequalities emerge between those who complete only Basic VT and those who leverage it as a stepping stone toward more advanced vocational programmes. Restricting the permeability of Basic VT would therefore be detrimental, particularly for disadvantaged students who rely on this route as their entry point into further education.

Taken together, these findings refine our theoretical understanding of how class inequality operates when academic disadvantage is extremely high. They show that compensatory advantage is not limited to preventing dropout but can also structure the organisation of second-chance pathways long after formal disengagement. Families with higher educational backgrounds appear able to maintain a class-contingent strategy of educational participation even when the conventional academic track is no longer attainable, redirecting their children toward more advantageous vocational routes. This illustrates how the pursuit of relative advantage persists across institutional boundaries and moments of crisis in the educational career, suggesting that inequality is reproduced not only through the prevention of failure, but also through the differential management of failure once it occurs.

This study is not without limitations. First, it focuses on a selected population of early school leavers who completed the academic year but disengaged thereafter. While this design captures variation in second-chance trajectories, it excludes individuals who remained enrolled despite poor performance and may therefore underestimate the effect of social origin on certain re-engagement pathways. Second, although the

analysis includes key sociodemographic and performance indicators, it lacks direct measures of mechanisms such as parental expectations or student motivation. As a result, interpretations of compensatory strategies rely on theoretical reasoning rather than direct evidence. Third, the data does not include reliable information on ethnic origin. Migration background is captured only through a broad proxy (having at least one foreign-born parent), which obscures the position of disadvantaged non-migrant ethnic minorities - particularly Spanish Roma youth. This likely results in an underestimation of ethnic stratification, as these populations are not adequately distinguished in the models. Additionally, the study captures re-engagement over a relatively short window of years, limiting insights into long-term educational and occupational outcomes. Lastly, the findings are context-dependent, shaped by Spain's institutional structure - particularly the expansion of Basic Vocational Training - which may limit their applicability to other settings.

Future work could extend these findings by examining the long-term occupational consequences of second-chance trajectories and by incorporating richer measures of parental expectations, student motivation, and ethnic-origin heterogeneity. Comparative research could also clarify how the organisation of vocational systems and labour-market opportunities shapes class differences in re-engagement across different institutional contexts. Finally, linking administrative education records with more detailed employment histories would make it possible to study the cumulative interplay between work experience, family resources, and delayed educational decisions across the life course.

CRediT authorship contribution statement

Lopez Blanco Jose David: Writing – review & editing, Writing – original draft, Visualization, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of generative AI and AI-assisted technologies in the manuscript preparation process

During the preparation of this work the author(s) used ChatGPT 5 in order to proofread academic English. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article

Declaration of Competing Interest

The author declares no conflicts of interest with respect to the research, authorship, and/or publication of this article.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.rssm.2026.101128.

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