

Expectation of early school leaving among Spanish immigrants: a process of segmented assimilation

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Abstract

This paper explores gaps in the expectation of early school leaving between native and immigrant-origin youth from different generations of immigration in Spain. Apart from analyzing this relation, we consider the possibility that the effect of the process of assimilation on that expectation varies according to the social strata immigrants belong to. Drawing on classical assimilation and segmented assimilation theories and applying multilevel logistic regression to PISA 2015 data for Spain, we find that immigrant-origin students from generation 1.75 and generation 1 have slightly lower expectations of leaving school early than natives, whereas the gap with generation 2 and 2.5 is not significant, suggesting that an immigrant advantage in expectations wanes as time spent in the country of destination increases. Furthermore, analyses segmented by socioeconomic tercile show that the waning effect is mainly concentrated in the lowest tercile. A pattern of generational convergence is found with natives from this tercile, instead of with middle class natives. This implies a downward adjustment of educational expectations of low-SES immigrant origin students.

Introduction

Whether there are generational differences in life outcomes among immigrants and whether there is a trend towards convergence with the non-migrant population is a matter of empirical examination. In the United States, Rumbaut (2004) found that college graduation rates of immigrants from the same age cohort tended to increase with immigrant generation, suggesting that life outcomes improve as individuals spend more time in the destination society (see also Baum and Flores, 2011). In the same line, migration at earlier ages is associated with a lower penalty in educational attainment among first-generation immigrants (Baum & Flores, 2011). Contrary to these findings and focusing on academic ability and school grades rather than educational attainment, others have identified a decline in positive educational outcomes among later generations, as compared to earlier ones. This is attributed to the waning of the “immigrant optimism” that is often associated with the migration project (Greenman, 2013).

Most studies explore the association between immigrant generation and educational outcomes regardless of the socioeconomic status of immigrant families. Yet, recent studies have revealed that migrant-native gaps (mainly, the “immigrant advantage” exemplified by university aspirations, enrolment rates in academic versus vocational education or test scores) is concentrated among individuals in the lower levels of the distribution of socioeconomic status (SES) (Dollmann, 2017; Gil-Hernández & Gracia, 2018; Ferrara, 2021; Strand, 2014). Hence, the question is whether generational differences also differ by socioeconomic status. Moreover, to our knowledge, the association between immigrant assimilation (the process in which a minority group comes to resemble the majority group’s behaviours, outcomes and values) and the secondary effect of immigration on educational expectations has not been much explored so far. Controlling for social origin and educational performance, immigrants are often found to have higher educational expectations than natives (Feliciano & Lanuza,

2016; Kao & Tienda, 1998; Salikutluk, 2016), but we do not know much about how the process of assimilation affects this so-called secondary effect of immigration on educational expectations.

Our contribution in this article comes both from exploring the association between immigrants' educational expectations and immigrant generation and from considering the possibility that the effect of the process of assimilation on educational expectations varies according to the social strata immigrant-origin youth belong to. The article investigates how youth from different generations of immigration compare to Spanish natives regarding expectations of early school leaving (ESL), once social background and academic performance are accounted for. The main aim of the paper is to ascertain if the pattern of assimilation of immigrants to non-migrants in terms of expectation of early school leaving entails convergence to the general risk of early school leaving among natives or to the risk of early school leaving among natives of lower socioeconomic background. Given the high rate of early school leaving among the latter in Spain, converging to their levels of expectations of this outcome, instead of to those of more advantaged social background, would involve a pattern of disadvantaged assimilation for immigrants of the same social background.

Theoretical framework

The main theoretical explanations of immigrant incorporation to the destination society come from *classic assimilation theory* and *segmented assimilation theory*, both developed to explain the integration of immigrants and their descendants in the United States. Within the framework of *classic assimilation theory*, Gordon (1964) described assimilation as a one-way process in which immigrants progressively resemble members of the majority or 'core' ethnic group of the receiving society and, simultaneously, get rid of their distinctive traits. The first stage of the assimilation process is acculturation: the adoption of the cultural patterns of the

'core group' of the host society by immigrant minorities. The next stage is structural assimilation: minorities get involved in relations and institutions of the core society with members of the majority group. The successful accomplishment of this stage is key for the unfolding of assimilation in other domains (marital, identity, prejudice, discrimination, civic) that imply the disappearance of discriminatory attitudes of the majority towards the minority and the disappearance of most ethnic minority identity traits (Alba & Nee, 1997, 2003). Perfect assimilation ultimately entails that immigrant minorities become undistinguishable from the majority. In brief, classic assimilation theory proposes a path of convergence of immigrants towards natives that develops in a linear way.

In terms of educational expectations, the immigrants' advantage over natives that is usually found after controlling for social origin and educational performance may be one of the channels through which such assimilation to the mainstream society (middle class) takes place. According to the thesis of immigrant optimism, high educational expectations are fuelled by the desire of upward mobility and improvement of life chances that underlies the decision to migrate. It is reasonable to consider that the immigration-related boost of expectations would be especially marked among the more disadvantaged migrants because it is in the lower part of the socioeconomic hierarchy where investment in education would be perceived as more necessary for immigrant-origin children to culminate the collective project of upward mobility that the migration process constitutes, and of which migrants' offspring participate. For immigrants of low socioeconomic origin, the maintenance of the advantage constituted by the secondary effect of immigrant origin in later generations would be a form of strategic adaptation that act as the guarantee of an eventual convergence with middle-class natives in terms of educational attainment. That is, later generations (for instance, generation 2 vs generation 1) would be closer in their expectations to middle-class natives than earlier generations, and they would depart from lower-class natives' expectations. Among immigrants belonging to more advantaged socioeconomic groups, the immigrant advantage in

expectations vis-à-vis natives would not be so marked because at higher SES levels early school leaving is a less common factor. Thus, there is less room for large differences to emerge (“floor effect”). These considerations lead us to expect that immigrant-origin youth from different generations should become progressively similar in their expectations to natives in the middle SES group, including those from high socioeconomic status (*hypothesis 1*).

The classic version of assimilation theory was criticized for its ethnocentric bias; a poor definition of the characteristics of the so-called ‘mainstream culture’ and the criteria used to decide which ethnic group represents it; the overlooking of the heterogeneity of the host society; and the fact that, rather than linear, homogeneous and into the middle class, assimilation could occur in a segmented fashion and into disadvantaged groups and that ethnic identities could reappear among descendants of immigrants belonging to late generations (Alba & Nee, 1997, 2003; Haller, Portes & Lynch, 2011; Portes & Rumbaut, 2001). *Segmented assimilation theory* (Portes & Rumbaut, 2001; Zhou & Portes, 1993), proposed as a response to the classic notion of assimilation, does not predict straightforward outcomes about the assimilation of children of immigrants that apply equally to all, but an integration into differentiated segments of the destination society depending on the social and ethnic background characteristics of immigrants and of the context of reception they face (Aparicio & Portes, 2014). Rather than necessary incorporation into the native middle class, incorporation into disadvantaged segments of the destination society may occur. The paths of adaptation of the second generation identified in segmented assimilation theory are (i) straightforward assimilation into the middle class; (ii) upward mobility and incorporation into the middle class, and (iii) downward assimilation into the underclass. They are shaped by three types of parental resources that link the conditions with which immigrant families face the integration process to the outcomes of children: *first*, the human capital of immigrant parents; *second*, the modes of incorporation encountered by immigrants, which condition the extent to which parental human capital can be effectively transmitted to children; and *third*, the family structure

(whether the family unit is intact or not), which conditions parent-child communication (Portes & Rumbaut, 2001).

We believe that another possible driver of *segmentation* in immigrants' assimilation comes from the segmentation of the labour market itself. Immigrants from lower socioeconomic background might adapt to values, norms and opportunities of natives that occupy a secondary segment of labour market in host societies. This may be especially so in highly segmented labour markets, where low-educated natives from lower socioeconomic background often find employment opportunities in a secondary segment of the labour market that does not require a high level of educational attainment and puts them at a risk of early school leaving that is higher than that of natives from upper segments of the socioeconomic scale. Hence, the progressive assimilation to the culture and values of natives from low socioeconomic origin may mean the progressive loss of the advantage in terms of educational expectations that is known to be conferred by the migratory phenomenon. Moreover, immigrants from low socioeconomic background in segmented labour markets have often been found to have less chances of upward occupational mobility themselves, and even a higher risk of occupational downgrading, than in other labour markets (Fellini & Guetto 2019). This may also contribute to a depression of educational and occupational expectations for their children. Hence, instead of a convergence towards the expectations of early school leaving among the *average* native as we move from earlier to later immigrant generations, we would observe a convergence towards the relatively lower expectations of natives from lower socioeconomic origin. For immigrants from upper socioeconomic origin such a reduction would not be observed, since the reference in the country of destination is constituted by the ones who work in the primary, not the secondary segment of that labour market (*Hypothesis 2*).

Spanish case

Up to 1990s, Spain had been traditionally a country of out-migration, not immigration. The entry into the European Union (European Common Market) and the economic growth experienced by the Spanish economy during the 1990s and the first years of the 21st century turned Spain into a recipient of migration flows. The percentage of Spanish residents born abroad increased from 2.94% to 13.6% of the population over the period 1998-2018 (Lacomba et al. 2020). This steep increase of migration rates only came to a halt due to the Great Recession and the economic crisis recently derived from the COVID pandemic (Mooi-Reci & Muñoz-Comet 2016).

The main flows of migrants during this period came from Latin-American countries (Ecuador, Colombia, Bolivia, Argentina and Venezuela) and the European Union (Romania and other Eastern European countries in particular). The third source, North-Africa, was the main immigrant-sending region at the beginning of the period, Morocco being by far the main country of origin in this group (Lacomba et al. 2020). As a result of these flows and the duration of immigration, the more sizeable immigrant groups in 2019 were, in order of size, Moroccans (13% of immigrant population), Romanians (8,7%), Colombians (6,5%) and Ecuadorians (6,1%). Immigrants became over-represented in the geographic poles of economic growth; in particular, in the Madrid region and the regions along the Mediterranean coast and Balearic and Canary Islands. There, agriculture, tourism and construction constituted a major source of employment for them.

Besides the construction sector, oversized by the housing boom experienced by the Spanish economy during the 1990s, the sectors where immigrant employment become more concentrated in 2019 were: hospitality (18.2% of immigrant workers officially registered in Spanish social security); retail (15%), personal services (11.2%), administrative work (9,5%), agriculture (9,2%), construction (8,6%), manufacturing (6.9%) and transport (4.8%); in other words, sectors with low requirements in terms of skills or education. In occupational terms,

immigrants were concentrated in 'elementary occupations' and 'low-skilled service employment'.

The increasing contingent of immigrant students derived from this immigration process was absorbed by a system of education characterised by relatively high levels of standardisation and comprehensiveness (low stratification). Both features favour equality of educational opportunities by social or ethnic origin (Bol and van der Werfhost, 2013). Yet, the system of education is also affected by a rate of early school leaving that stands out as one of the highest among the OECD countries. Early school leaving has been shown to have adverse effect on Spanish workers' labour market attachment, probability of getting a job, job stability (type of contract), wages and probability of receiving on-the-job training (Serrano Martinez et al., 2014), and clear adverse effect on work productivity at a national level. Despite a decrease in its incidence since 2008, the Spanish rate of early school leaving was still the second highest in the European Union in 2020 (16%) (Eurostat, 2020). In turn, the risk of early school leaving is well-known to be unequally distributed by social or immigrant origin (Fernández-Mellizo & Martínez-García 2017). This is one of the reasons why Spain is an interesting case for the study of inequalities in terms of early school leaving by immigrant origin.

Cross-national research (Lavrijsen and Nicaise, 2015, Lyche 2010) has shown a number of individual, family-, school- and national-level factors that are behind the risk of early school leaving among adolescents. Among the individual-level factors, females are usually at a lower risk of early school leaving. ESL is also negatively associated with socioeconomic origin, academic performance and positive attitudes towards school, and positively associated with single-parenthood and minority ethnic or immigrant origin, immigrants being usually at a higher risk of early school leaving than natives (Lavrijsen and Nicaise, 2015, Lyche 2010). In fact, the upsurge of early school leaving in Spain at the turn of the last century has often been related to the inflow of immigrants in the 1980s (Fernandez-Macías et al. 2013). It has also

been associated with the lower educational attainment, on average, of previous generations during the time Spain went through a process of rapid educational expansion, in the 1980s and 1990s. Lower parental education is one of the factors that could explain high rates of early school leaving among generations whose parents did not have the opportunity to improve their level of educational attainment. This argument has also been used to explain important cross-regional differences in early school leaving within Spain, since there are still important regional differences in educational attainment among older age groups (Fernández-Mellizo & Martínez-García 2017).

Yet, the high level of early school leaving in Spain cannot be a mere compositional matter. Other national-level factors contribute to explain cross-national differences in ESL (De Witte et al. 2013, Cabus 2017). One of them is a labour market where some low-skilled occupations and sectors (i.e., construction and tourism) acquired more weight during the last decade of the 20th century, thus raising the opportunity cost of education, especially among those who, due to the low level of education of their own parents, were more vulnerable to early school leaving. Low parental education of a large part of the Spanish society coincided with the growth of economic activities with low-skilled requirements that had an adverse effect on students' educational trajectory (Aparicio-Fenoll 2010, 2016). Quite noticeably, the Spanish regions where economic structure was mainly focussed on sectors with a high level of unskilled labour in the period 2000-2013 had higher levels of early school-leaving (Oliver and Roselló 2019).

Besides being a part of the explanation of a high rate of early school leaving in Spain, the Spanish labour market stood out during decades as one of the most segmented labour markets in Europe (Hipp et al. 2015, Eichhorst & Marx 2021). Such a process of segmentation was the result of a confluence of a partial employment deregulation during the 1980s, which incentivized a steep growth of temporary employment and a very low rate of conversion of fixed-term contracts into permanent ones (Noelke 2016); an intermediate centralised system

of collective bargaining that promoted high wage increases among insiders in large firms, thus discouraging job security for outsiders (Polavieja 2006) and a high and volatile unemployment rate, which further discouraged employers' creation of permanent employment (Polavieja 2006, Baccaro 2016). Such a labour market segmentation is possibly connected with the existence of more unskilled jobs in Spain than in many other European countries (Bernardi and Martinez-Pastor 2010). These authors showed a pattern of persistence in low occupational attainment among labour market entrants: contrary to what happens in other countries, the rate of unskilled employment in Spain does not decline five years after labour market entry.

Research design

Data

In order to test the hypotheses formulated above, we use data for Spain from the 2015 round of the Programme for International Student Assessment (PISA), an international study coordinated by the Organisation for Economic Cooperation and Development (OECD) that assesses the skills and competences in reading, mathematics and science of nationally representative samples of 15-to-16-year-old students. The PISA survey also collects information about students' sociodemographic characteristics, their attitudes towards education and schooling, their school practices and about their families and the schools they attend.

The target population of PISA 2015 are students aged between 15 years and 16 years attending full-time or part-time educational institutions in ISCED grade 7 or above in general or vocational study programmes. This implies that surveyed students were born in 1999, as is the case of the whole Spanish sample. In order to select the sample, all countries followed standardised guidelines. A two-stage stratified sampling design was applied. In the first stage,

schools were selected with probability proportional to size. In the second stage, individual students were sampled within each school, except in those schools with less than the minimum number of students required for sampling (42). In this case, all students were selected (OECD, 2017). Countries were also given the chance to expand on the minimal requirements. In the case of Spain, apart from a nationally representative survey, a representative sample of the target student population of each Autonomous Community (main regional division in Spain) was also selected.

We mainly rely on the Spain-wide nationally representative sample for our analyses, but robustness checks have been carried out with the regionally representative sample (see below). The analytical sample is made up of students attending lower secondary education (*educación secundaria obligatoria, ESO*), corresponding to ISCED-2 level, without missing values in the dependent or any independent variable. Students attending upper secondary education, corresponding to ISCED 3, were excluded because this stage of education is not compulsory. This makes the question about whether they want to study beyond lower secondary education irrelevant. Students in the analytical sample are distributed over ISCED grades 7 to 10 of Spanish lower secondary education (i.e., from 1st year of ESO to the 4th and last year of ESO) but concentrated in the latter (around 70 % are in the last year of compulsory education). This is interesting for our study because students are questioned about their future educational plans at a time when they are very close to making the first crucial educational transition in Spain, implying continuing in education or dropping out. Moreover, given that education in Spain is compulsory until age 16 regardless of the level of attainment of students by the time they reach this age, students in grades below 4th year of ESO are also directly concerned about questions about studying only until level ISCED 2 or beyond. The size of the gross nationally representative sample is $n = 6,774$. After listwise deletion of cases with missing values in relevant variables and applying sample restrictions, we ended up with an effective sample size of $n = 6,436$. The regionally representative sample was additionally used

for some robustness checks. The effective regional sample size of is $n = 30,793$ (the gross sample size is $n = 32,330$).

Variables

The *dependent variable* is the *expectation of early school leaving*, operationalised as the expectation to complete level ISCED 2 at most. This corresponds to lower secondary education, the last stage of compulsory education in Spain. Respondents were asked which of the following levels of education they expected to complete, among which they have to choose only one: (i) ESO (lower secondary education; ISCED 2); (ii) *formación profesional de grado medio* (upper secondary middle vocational training; ISCED 3B or C); (iii) *bachillerato* (baccalaureate, upper secondary general education; ISCED 3A); (iv) *formación profesional de grado superior* (higher vocational training; ISCED 5B) or (v) *licenciatura, master o doctorado* (university degree, master or doctorate; ISCED 5A). These categories were recoded into a binary variable that differentiates expecting ISCED 2 (what we equate with expectations of early school leaving) from expecting any level above ISCED 2.

The *main independent variable* is the *immigrant generation of respondents*. The categories of this variable are the following: (i) *natives* (respondents born in Spain with both parents born in Spain or one parent born in Spain if the country of birth of the other is unknown); (ii) *generation 2.5* (respondents born in Spain with one parent born in Spain and the other born abroad); *generation 2* (respondents born in Spain with both parents born abroad or one parent born abroad if the country of birth of the other is unknown); *generation 1.75* (respondents born abroad but arrived to Spain at age 7 or younger with two parents born abroad or one parent born abroad if the country of birth of the other parent is unknown); *generation 1* (respondents born abroad and arrived in Spain at least aged 7 with two parents born abroad or one parent born abroad if the country of birth of the other parent is unknown). Other possible

combinations (e.g., respondent born abroad with two parents born in Spain) were excluded from the analysis¹.

Other independent variables included in the analysis are *gender* (0 = male; 1 = female); *language spoken at home* (0 = language of the test; 1 = other language); *first plausible value of the PISA test score in mathematics* (see Jerrim et al. (2017) and OECD (2009) for details on plausible values of PISA test scores); whether respondents have *ever repeated a school grade* (0 = never; 1 = repeated a grade); *score in the PISA index of economic, social and cultural status*. The last variable, apart from being used as a continuous one as given in the dataset, was divided into terciles to segment the analyses by level of socioeconomic status (SES), as explained in the next section.

By including language spoken at home, we aim to control at least one of the elements that, according to segmented assimilation theory, may condition the process of immigrant assimilation: country of origin and proficiency of the language of the host country. Immigrants whose language at home is Spanish are possibly more assimilated and less likely to expect to leave school early than immigrants whose language at home is not Spanish. The test score in mathematics and grade repetition are indicators of student's academic performance. Both academic performance and socioeconomic status are well-known drivers of early school leaving. Their inclusion in the analysis allows us to get the effect of being immigrant on the expectation of ESL net of academic performance and socioeconomic origin; in other words, the net effect of the immigrant condition at different generations in the process of immigrant integration in the country of destination. This is what we understand by the *secondary effect of immigrant origin at different immigrant generations*. Even if socioeconomic status is used to segment the analyses by SES terciles, it is also included as a control in the analysis of each

¹ These combinations were excluded because they are small in size and they do not fit in the previous generational groups. Assimilating them to any of the latter may imply incurring measurement error.

tercile because the intra-tercile variance in terms of expectation of early school leaving is likely to depend on the students' socioeconomic variance *within* the tercile.

Method

The analysis of differences in expectations of early school leaving by generation of immigration is carried out by means of random intercepts multilevel logistic regressions. Resorting to multilevel modelling is justified by the nesting of individual observations (students) in schools. Given that respondents are clustered in schools, random intercepts were specified at the school level. Analyses were firstly carried out on the whole sample and, secondly, by tercile of the PISA index of economic, social and cultural status. The first stage enables us to identify the main effect of immigrant generation and whether there is convergence towards natives across generations. The second stage (analysis segmented by SES) is undertaken because the study is especially focused on ascertaining whether the gap in the expectation of early school leaving between respondents with and without an immigrant background differs by level of socioeconomic status. Therefore, we fitted a series of nested regression models in which independent variables were included in a stepwise manner, until the final model contains all independent variables.

In the segmented analysis, models were fitted *separately* to the sample corresponding to each tercile of the index of socioeconomic status. This is equivalent to computing an interaction between generation of immigration and SES. This procedure does not allow us to determine whether the interaction is statistically significant or not. For this reason, an additional random intercept model specifying the interaction in the regression equation was fitted to the full sample. All estimates of the effect of the independent variables are presented as estimated probabilities to allow comparisons between logistic regression models (Mood 2010).

The nationally representative Spanish sample enables us to get results that are representative for the Spanish population but has the weakness of containing small sample sizes for the

categories of generation of immigration. Therefore, as a robustness check, analyses were replicated with the aggregated regional samples, which enable to use a much larger sample size. When using this sample, a three-level multilevel structure was specified to acknowledge that respondents are additionally clustered in autonomous communities at the top level, in addition to clustering in schools (at the intermediate level). This additional level in the multilevel analysis has the advantage of capturing the unobserved heterogeneity at regional level. As explained in the discussion of the motivation for the study, there are regional specificities (economic structures of different regions) that can also affect or modify immigrants' and natives' probabilities of expecting to leave education too early. The reason why the aggregated regional samples were not used in the main analysis is that aggregating them is not totally correct, since these samples were meant for separate regional analyses; they do not constitute a nationally representative sample. Thus, results drawn from analyses of the regionally representative sample should be taken with more caution than results drawn from analyses of the national sample. For reasons of space, the results of these analyses will be commented but not presented in the paper (available upon request).

Results

The descriptive statistics of the whole sample and of the sample in each tercile of the PISA index of economic, social, and cultural status appear in Table 4.1. The share of students expecting to leave school early is around 11% in the whole sample, but there are large differences across SES terciles. The share of respondents who expect to leave school early drops from 20% in the lowest SES tercile to 3.5% in the highest SES tercile. Regarding the composition of the sample in terms of immigrant generation, the modal immigrant generation in the whole sample is generation 2.5, as well as in the medium and highest terciles. The second most represented immigrant group in the sample is generation 1.75. Immigrant-origin

students are overrepresented in the lowest and medium SES terciles, especially generation 1 and generation 1.75.

Table 4.1: Descriptive statistics: Characteristics of the sample

	Whole sample	Lowest tercile of ESCS	Medium tercile of ESCS	Highest tercile of ESCS
	Mean/Prop.	Mean/Prop.	Mean/Prop.	Mean/Prop.
Early school leaving expectations				
No	88,81%	80,13%	89,70%	96,50%
Yes	11,19%	19,87%	10,30%	3,50%
Immigrant generation				
Native	83,25%	78,74%	82,76%	88,14%
Generation 2.5	6,01%	5,37%	5,83%	6,82%
Generation 2	1,94%	3,01%	1,30%	1,50%
Generation 1.75	4,85%	6,99%	5,68%	1,95%
Generation 1	3,95%	5,88%	4,43%	1,59%
Gender				
Male	49,27%	49,37%	48,00%	50,36%
Female	50,73%	50,63%	52,00%	49,64%
Language at home				
Same as test language	82,32%	80,87%	80,98%	85,00%
Other language	17,68%	19,13%	19,02%	15,00%
Plausible Value 1 in Mathematics				
	492,16 (82,31)	459,944 (79,24)	488,28 (79,09)	527,44 (74,03)
Grade Repetition				
Did not repeat a grade	74,32%	57,94%	73,81%	90,86%
Repeated a grade	25,68%	42,06%	26,19%	9,14%
Tercile of the Index of economic, social, and cultural status (ESCS)				
Lowest	33,55%	n.a.	n.a.	n.a.
Medium	32,27%	n.a.	n.a.	n.a.
Highest	34,18%	n.a.	n.a.	n.a.
Index of economic, social, and cultural status (ESCS)				
		-1,791 (0,544)	-0,463 (0,348)	0,866 (0,418)
N	6436	2159	2077	2200

Standard deviations (when applicable) in parentheses. Unweighted results.

n.a.: not applicable

Source: own elaboration based on PISA 2015 data for Spain (nationally representative sample)

The results of the nested regression models fitted on the whole sample (without segmenting it by SES level) are shown in Table 4.2. Model 1 shows very small gaps in the expectation of early school leaving between natives and immigrant origin students. Results from model 1 also show

that females are less likely to expect to leave school early than males, as is well established in the literature (Legewie & DiPrete 2012). Results from model 2, in which language spoken at home is additionally controlled for, indicate that the small differences displayed by immigrant-origin students from generations 2.5, 2 and 1 displayed vis-à-vis natives become even smaller and almost disappear. Speaking a different language at home than the language of the test makes early school leaving expectations more likely. Altogether, this suggests that language spoken at home explains part of the (small) “immigrant disadvantage” in school leaving expectations.

Results from models 3 and 4 show a pattern of results consistent with findings from many previous studies: when academic ability and performance (model 3) and socioeconomic status (model 4) are controlled for, “immigrant disadvantage” in transition outcomes and expectations turns into an “immigrant advantage” (in the case of generation 1 and 1.75) or, at least, no statistically significant differences between native and immigrant-origin students exist (in the case of generation 2 and generation 2.5). Academic ability/performance and socioeconomic status contribute to explain the initial “immigrant disadvantage”, suggesting that the underperformance of immigrant-origin students is due to their poorer achievement and their more disadvantaged family background. When academic ability and performance (grade retention and score in the mathematics) are controlled for, the slightly but non-significant *higher probability* of expecting school dropout of generation 1 turns into a slightly *lower probability*, compared to natives, which even becomes statistically significant at the 95 % level. As far as generation 1.75 is concerned, their initial —even small— advantage, increases and becomes strongly statistically significant. For generations 2 and 2.5 no statistically significant differences emerge. When socioeconomic status (tercile of the PISA index of social, economic and cultural status) is additionally included in model 4, immigrant-native gaps remain virtually the same, suggesting that the main contributors to the explanation of the

immigrant disadvantage are language spoken at home and performance/ability related measures.

Apart from showing a pattern of “immigrant advantage”, results from Model 4 also show an overall trend of convergence towards the educational expectations of natives as migration becomes a more distant phenomenon. Second generations (2.5 and 2) have a narrower (and not statistically significant) gap compared to natives than first generations (1.75 and 1). Within the second generations, there is also an ordering that suggests that his convergence exists (the native-generation-2.5-gap is smaller than the native-generation-2 gap). Generation 1.75 is the only one that breaks the apparent pattern of convergence because early school leaving expectations among its members are higher than among generation 1.

Table 4.2. Average marginal effects on early school leaving expectations. Full sample

Variables	Model 1	Model 2	Model 3	Model 4
Generational status				
Native	Ref.	Ref.	Ref.	Ref.
Generation 2.5	0.002 (0.017)	0.000 (0.0167)	-0.004 (0.015)	-0.002 (0.016)
Generation 2	0.013 (0.029)	0.005 (0.028)	-0.020 (0.022)	-0.023 (0.021)
Generation 1.75	-0.007 (0.017)	-0.014 (0.017)	-0.049 (0.012) ***	-0.051 (0.012) ***
Generation 1	0.039 (0.023) +	0.027 (0.022)	-0.030 (0.014) *	-0.033 (0.013) *
Gender				
Male	Ref.	Ref.	Ref.	Ref.
Female	-0.018 (0.007) *	-0.018 (0.008) *	-0.019 (0.007) **	-0.020 (0.007) **
Language at home				
Same as test language	Ref.	Ref.	Ref.	Ref.
Another language		0.026 (0.0136) +	0.026 (0.011) *	0.025 (0.010) *
Math test score				
			-0.001 (0.000) ***	-0.000 (0.000) ***
Ever repeated a grade				
No	Ref.	Ref.	Ref.	Ref.
Yes			0.135 (0.012) ***	0.117 (0.010) ***
Tercile of the Index of social, economic and cultural status				
Lowest	Ref.	Ref.	Ref.	Ref.
Medium				-0.038 (0.008) ***
Highest				-0.079 (0.010) ***

Table 4.2. Average marginal effects on early school leaving expectations. Full sample

Variables	Model 1	Model 2	Model 3	Model 4
Variance decomposition				
School level (σ_u)	0.489	0.495	0.188	0.130
Intraclass correlation (%)	12.9	13.1	5.39	3.80
Log likelihood	-2200.6251	-2198.6189	-1818.3229	-1787.5119
N individual	6,433	6,433	6,433	6,433
N schools	201	201	201	201

Significance levels: *** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$ + $p \leq 0.1$.

Unweighted results.

Source: own elaboration based on PISA 2015 data for Spain (nationally representative sample).

Once the main effect of generation of immigration has been analysed, the question is whether the pattern of convergence towards natives occurs in all segments of the socioeconomic distribution and whether the convergence occurs with natives of the same socioeconomic status or with the average native. If we observed that immigrant-origin students become more similar across generations to natives of their same socioeconomic status but not to the average native, we would be witnessing a pattern of segmented assimilation, especially if we see that low SES immigrant-origin youth assimilate to the level of expectations of their low SES native peers. If, on the contrary, we observed that immigrant-origin students converge to the average level of expectations of the Spanish population, we could be witnessing a pattern compatible with classic assimilation theory. The answers to these questions are based on Figure 1, which shows the predicted probabilities of expecting to leave school early for natives and each generation of immigration by tercile of the PISA index of social, economic and cultural status net of the effect of gender, language spoken at home, socioeconomic status, academic ability and performance (full results available upon request)

Expectations of leaving school early display a clear socioeconomic gradient: the higher the level of socioeconomic status, the lower the early school leaving expectations (see Figure 1). This applies both to natives and to immigrant-origin students from different generations, but the size of the socioeconomic gap within generations differs. The share of individuals who hold ESL expectations ranges between 24% and 10% in the lowest SES tercile, with most

generations having a share of individuals expecting early school leaving at 14% or above. In the second tercile, the share of adolescents expecting ESL falls to around 10% and seems quite homogeneous across generations of immigration. The probability of early school leaving expectations decreases in the highest SES tercile below 6%. Robustness checks with the aggregated regional samples show roughly the same social gradient in early school leaving expectations (results available upon request).

The largest absolute gaps in early school leaving expectations between natives and immigrant generations occur in the lowest SES tercile, whereas they decrease in the medium tercile, and almost disappear in the highest SES tercile. This occurs, partly, because the lowest tercile is where larger ESL expectations among natives are found, so there is greater room for differences to appear. Conversely, in the highest SES tercile we find a “floor effect”, since ESL expectations are rather low and there is little margin for them to become much lower. The largest gap in the lowest-SES tercile is between natives and generation-1.75 immigrants, which amounts to 11 percentage points, implying that the latter are 50 % less likely to hold early school leaving expectations than natives. In the low SES tercile, only differences between generation 1.75 and generation 1 and natives are statistically significant, whereas none are statistically significant in the other SES groups. Robustness checks with the aggregated regional samples also show that the largest gaps between natives and different generations of immigration exist, in general, in the lowest SES tercile (results available upon request).

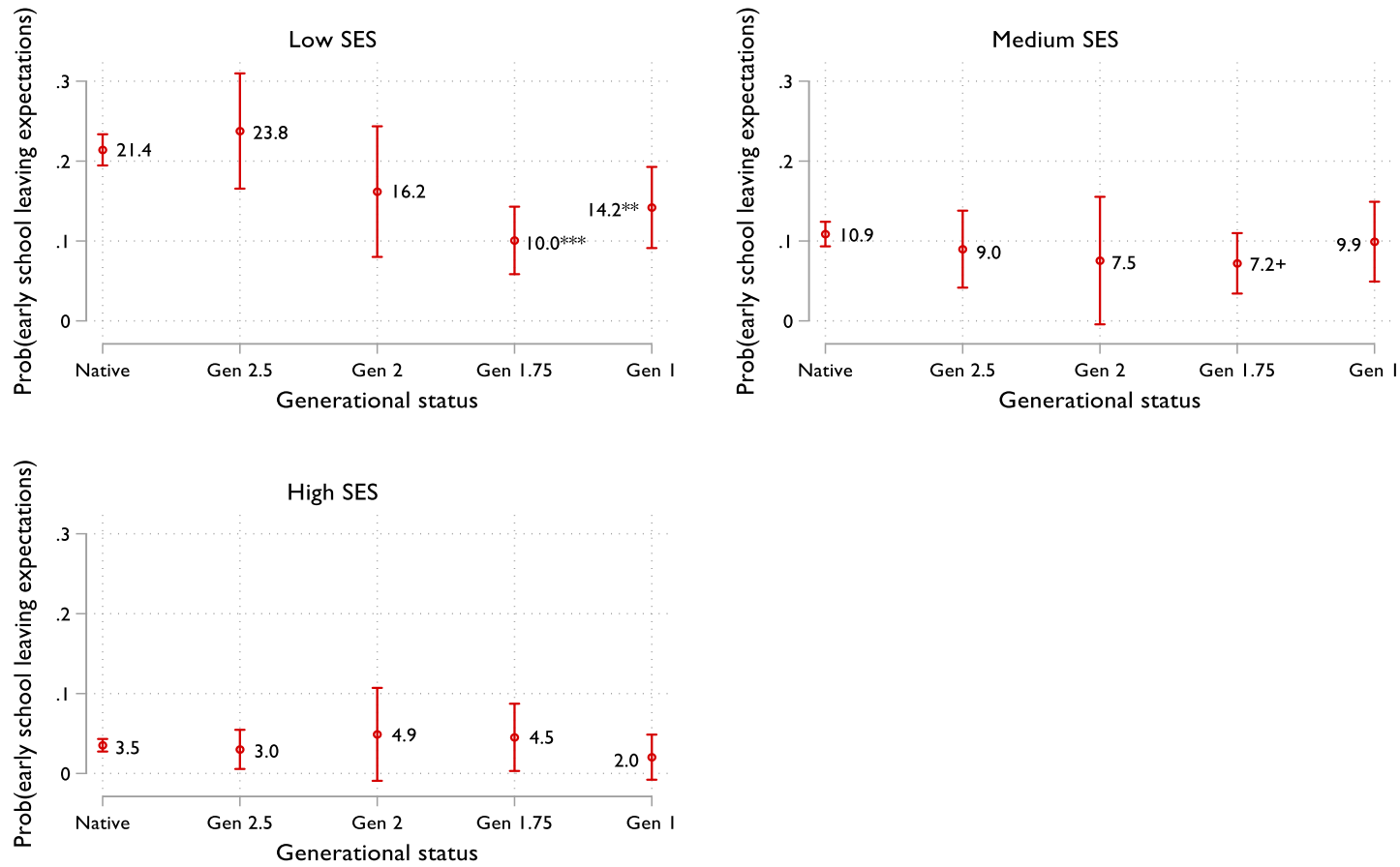
A further model was fitted for the whole sample (no segmentation by SES) including a proper interaction term (cf. Table 4.3). This was done to test whether the gaps between natives and respondents from different generations of immigration in different SES terciles shown above are statistically significant. Among low SES respondents, only the gap between generation 1.75 and generation 1 is statistically significant at the 95% level or higher. This is reasonable given that the gap between these two generations and natives is the largest that can be observed.

Among medium SES respondents, only the early school leaving expectations of generation 1.75 respondents differ statistically from those of natives, although this gap is on the verge of statistical significance, as the upper bound of the 95% confidence interval is virtually zero.

There are no statistically significant differences among high SES respondents. The scarcity of statistically significant results is coherent with the small gaps that we observe, although this is likely to be the consequence of small sample sizes.

With the only exception of immigrants belonging to the 2.5 generation, the gap in early school leaving expectations in the lowest SES quartile is generally favourable to immigrant-origin students, although it is statistically significant for the first generations only. This means that immigrant-origin students are less likely to expect to leave school early than natives in almost all generations. In the medium SES segment, youth belonging to different generations of immigration are also less likely than natives to plan to leave school early, but, since this expectation is less common, gaps are not so marked, and most differences are not significant. In the top SES tercile there are positive and negative differences, but as they are so small and non-statistically significant, the safest thing to conclude is that there is virtually no difference. This finding, together with the one reported in the previous paragraph suggest that the protective effect of an immigrant background appears especially in the lowest part of the social hierarchy and dilutes as we go upwards. In other words, positive secondary effects of an immigrant background are a phenomenon that occurs more strongly among the most disadvantaged. Results from robustness checks with the regional sample also show that low SES immigrants are less likely to expect early school leaving than low SES natives, as most immigrant generations in the medium SES tercile (with the exception of generation 2). In the high SES tercile we also observe very small gaps.

Figure 1. Predicted probabilities of expectations of early school leaving by SES tercile (full model; national sample; unweighted results)



Significance levels: *** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$ + $p \leq 0.1$. Significance levels refer to the difference in the estimated probabilities between generations and natives in each SES tercile.

We identify an overall pattern of progressive “intergenerational” convergence towards natives in the lowest tercile of socioeconomic status which does not occur in the middle and top terciles. The latest the generation of immigration —or, in other words, the farthest is the experience of migration—, the closer the probability of expecting early dropout with that of natives in the lowest SES tercile. The pattern of intergenerational convergence does not exist so clearly in the other two terciles because all generations are very close to natives. The aforementioned pattern can also be identified in the robustness checks.

The pattern of intergenerational convergence identified in the lowest tercile entails that, rather than assimilating to the average level of expectations of the Spanish population, immigrants in that tercile assimilate to the expectations of the most disadvantaged natives, those of their same socioeconomic segment, who display the highest dropout expectations. Low-SES immigrant-origin students do not converge to the *average* level of early school leaving expectations of the 15-year-old population, nor with the expectations of the medium SES native population, as the classic theory of assimilation would predict. This suggests the existence of a process of segmented assimilation which undermines the “protective effect” of the immigrant background as immigrant youth spend more time in the country of destination and the migration experience becomes more distant.

Table 4.3. Full sample: average marginal effects on early school leaving expectations for the interaction of generational status and SES quartile

Variable	Model 4	
	AME	Confidence intervals
Generational status x SES tercile		
Native x low SES	Ref.	Ref.
Generation 2.5 x low SES	0.018	-0.038, 0.076
Generation 2 x low SES	-0.032	-0.096, 0.031
Generation 1.75 x low SES	-0.082	-0.115, -0.049
Generation 1 x low SES	-0.054	-0.093, -0.015
Native x medium SES	Ref.	Ref.
Generation 2.5 x medium SES	-0.022	-0.070, 0.026
Generation 2 x medium SES	-0.036	-0.113, 0.041
Generation 1.75 x medium SES	-0.039	-0.077, -0.000
Generation 1 x medium SES	-0.014	-0.062, 0.034

Native x high SES	Ref.	Ref.
Generation 2.5 x high SES	-0.007	-0.055, 0.040
Generation 2 x high SES	0.014	-0.082, 0.110
Generation 1.75 x high SES	0.027	-0.055, 0.110
Generation 1 x high SES	-0.018	-0.08, 0.046
Language at home	Yes	
Math test score	Yes	
Ever repeated a grade	Yes	
Gender	Yes	
Intercept	Yes	
<hr/>		
Variance decomposition		
School level (σ)	0.128	
Intraclass correlation (%)	3.73	
Log likelihood	-1783.7089	
N individual	6,436	
N schools	201	

Note: bold coefficients indicate statistically significant results at $p \leq 0.05$ or lower.

Unweighted results.

Source: own elaboration based on PISA 2015 data (nationally representative sample).

6. Discussion and conclusion

The upsurge of immigration from 1990s onwards, the fact of having one the highest rates of early school leaving (ESL) in Europe, and an economic structure and a labour market that favours ESL make Spain an interesting case for the study of the evolution of expectations of ESL across immigrant generations.

Utilising nationally and regionally representative data for Spain drawn from PISA 2015, we have explored the extent to which native-immigrant differences in expectations of ESL across different generations of immigrants accord to a pattern of classical assimilation, so that immigrants' expectations progressively converge to expectations of ESL among *average* natives, or, on the contrary, to a pattern of segmented assimilation that makes immigrants' expectations converge with expectations of ESL of natives at the bottom of the socioeconomic scale. For this purpose, we have segmented the analysis by terciles of socioeconomic background.

As initially expected, we have found that the slightly higher expectations of ESL among immigrants, relative to natives, are partially explained by the less regular use of country

language at home, lower academic performance and generally lower socioeconomic status of the former. Controlling for academic performance and social origin, though, immigrant-origin adolescents show a lower probability of expecting ESL than natives. The lower probability of expecting ESL can be observed among those belonging to the lowest tercile of socioeconomic distribution. Thus, for this tercile we confirm the ‘immigrant advantage’ that has often been found in research of educational expectations at other levels in the educational trajectory or in other countries. Among the rest of socioeconomic groups, we did not identify any clear evidence of “immigrant advantage”. Although gaps vis-à-vis natives exist, they are very small. This advantage over natives after controlling for academic performance and social origin can be regarded as a sign of the drive or willingness of upward mobility that is possibly a characteristic of the migratory phenomenon (Cebolla-Boado et al 2021). Although we could not control for country of origin, we included language of origin as its proxy in the analyses. The results show that ‘immigrant optimism’ cannot merely be explained by a heterogeneous distribution of countries of origin across immigrant generations or by the possibility that some origins are related to higher optimism or ambition than others.

This lower probability of expecting ESL among immigrants in the lowest tercile of the distribution of socioeconomic origin, relative to natives in this tercile, was found to be progressively eroded as we move from the first immigrant generation to generations that are further away from the migratory phenomenon². Expectations of ESL across generations of immigrants in the lowest tercile of that distribution converge to the expectations of ESL among natives *of this tercile*, not among natives of the middle tercile. This picture fits better with a pattern of segmented assimilation than with a pattern of classical assimilation. Immigrants belonging to the lowest tercile converge towards a probability of ESL that, for reasons related

² These results are not totally in line with prior findings regarding Spanish immigrants’ aspirations of college attendance (Gil-Hernández and Gracia 2018) Gil-Hernandez and Gracia (2018) did not find that recently arrived immigrants had stronger aspirations of college enrolment than children socialized in Spain. Yet, they were looking at university graduation, not early school leaving, and they did not distinguish by parental position in the socioeconomic distribution.

to generational changes in educational attainment among Spanish natives, a segmented labour market and an economic structure with a higher importance of sectors with relatively low requirements in terms of educational attainment, was already high among Spanish natives of low socioeconomic background before the upsurge of immigration in the 1990s occurred. Among immigrants in the other terciles, we do not identify any clear patterns of convergence towards natives across generations because, from the most recent one (generation 1.75), the gap with natives is already small.

There is not much research on the evolution of aspirations or expectations across immigrant generations. In one of the few studies on the topic, a recent comparison of educational aspirations of ethnic minorities in England, Germany, the Netherlands and Sweden, Rudolphi and Salikutluk (2021) did not find “consistent empirical evidence (...) that aspiration differences [of university enrolment] between ethnic minority and majority diminish due to assimilation processes across generations” (Rudolphi & Salikutluk: 2021: 1). Our own research points to the possibility, to be explored in further research, that, in host labour markets that are highly segmented, as it is the Spanish one, immigrants’ expectations (especially at the bottom end of the occupational scale) may converge with expectations of natives that are located in the secondary segment of that labour market. Quite interestingly, in their analysis of mobility flows out of unskilled service occupations in Spain, Bernardi and Garrido (2008) also found rates of exit from this occupational class in Spain relatively low when compared with equivalent ones in United States and Denmark (see also Bernardi and Martinez-Pastor 2010). Among immigrants in particular, upward occupational mobility has often been found relatively low compared to other countries. Immigrants are either more likely than natives to persist at this secondary segment of the labour market (Bernardi et al. 2011, Bernardi and Garrido 2008; Simón-Pérez et al. 2014; Fernández-Macías et al. 2015; Muñoz-Comet and Arcarons 2021) or to even suffer downward mobility (Muñoz Comet 2014).

Quite paradoxically, the lower probability of expecting ESL among immigrants belonging to first generations at the lowest tercile of the distribution of socioeconomic origin does not totally accord with the evidence on the gap between immigrants and natives in terms of actual early school leaving (Cebolla-Boado and Martinez de Lizarrondo 2015). In their comparison between Italy and Spain, Azzolini et al (2012) find “a sizeable and highly significant gap [in maths and reading ability] between first-generation and native students” that persists after controlling for social background or language at home (Azzolini et al. 2012: 62). In line with the classical assimilation theory, this gap is reduced as we move to the second and mixed generation (see also Azzolini and Barone 2013). Miyar-Busto (2017) finds a disadvantage in terms of effective ESL relative to natives after controlling for other sociodemographic characteristics (not for academic performance) only for those immigrants who had arrived to Spain after they were ten years old (equivalent to our first generation), not finding any meaningful difference with natives for later generations. Fernández-Macias et al. (2013) find a similar disadvantage after controlling for father’s and mother’s education and occupation, but without either controlling for academic performance or distinguishing immigrant generations. In sum, the immigrants’ advantage over natives in terms of lower expectation of ESL in the first immigrant generations after accounting for socioeconomic origin and academic performance (at least in the lowest tercile of socioeconomic origin) is mirrored by an actually *higher* risk of early school leaving of immigrants belonging to these generations, relative to natives.

Our results point at a progressive elimination of this paradox as generations move further away from the migratory phenomenon. In very recent research on the differences in educational expectations between parents and children of native and immigrant origin in Madrid, Cebolla-Boado et al. show that “optimism regarding educational futures is more likely to be the result of parental expectations than of children’s” (2021: 267). They also find that the larger difference between native and immigrant parental expectations appears at lower levels of estimated children’s “current performance”. Cebolla-Boado et al. conclude that “optimism

is driven by a migrant specific approach to the future”, “an expression of an identity that is linked with resilience and hope” (2021: 267). This may be quite relevant for our own research: immigrant parents’ personal situation in the country of destination may vary depending if their children are 1st. gen., 2nd. gen or generation 2.5 and may in turn condition to what extent immigrant parents formulate ambitious educational expectations for their children. Recently arrived parents may be more optimistic about the possibilities of upward social mobility of their children through education than immigrants who have settled in Spain long time ago. The relative immobility of immigrants in the secondary segment of the Spanish labour market, as it has been commented above, may moderate the expectations of immigrants’ parents over their children, and possibly make expectation of early school leaving for them converge with the ones of natives that also occupy that segment in the labour market.

There are a number of limitations of this study that invite further research. First, the evidence of a pattern of segmented assimilation in the evolution of educational expectations of immigrants in a labour market as the Spanish one, characterised by the growth of sectors and/or occupations with low-skills/low-educational requirements, highlight the potential of cross-national research using macro-level indicators of these labour market traits, in order to fully ascertain the importance of demand factors (occupational and sectoral structure, labour market segmentation) in segmenting the pattern of immigrant assimilation. Second, the divergence between the pattern of assimilation in terms of expectations and actual attainment that has been mentioned before, provisionally discussed as a matter of adaptation of expectations of immigrant parents who are already in the labour market, would need to be substantiated by exploring parental expectations and parental occupation, and relating these expectations to young immigrants’ expectations across immigrant generations.

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