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Adolescents' Educational Aspirations and Ethnicity:  
Evidence on Children of African and Latin American  
Migrants in Spain

Pablo Gracia and Carlos J. Gil-Hernández



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## **Abstract**

The study of aspirations among the children of migrants is critical to understanding the future integration and opportunities of ethnic-minority students. Previous studies on the factors leading to ethnic differences in educational aspirations have provided limited and inconclusive evidence, restricted to only a few specific national contexts. This article uses Spanish data from the General Evaluation of Educational Diagnostic (GEED) (2010) for students with an average age of 14 (N = 19,293) to examine different factors leading to variations in educational aspirations among the children of African and Latin American origin in Spain. Results from multivariate logistic models can be summarized as follows: (1) adolescents from African and Latin American backgrounds have higher college aspirations than their counterparts of Spanish origin, after accounting for their disadvantaged social origin and academic performance, while these differences – especially for the Latin American group – are concentrated among low-performing students; (2) the ethnic gap in aspirations is clearly more pronounced within disadvantaged socioeconomic groups than in more privileged groups, in line with the migrant optimism and social mobility thesis; (3) children of migrants who have recently arrived in Spain have higher college aspirations than the children of migrants born or fully educated in Spain, yet these differences are moderate; (4) speaking Spanish at home among the children of African migrants does not lead to differences in aspirations, compared to their counterparts with African-born parents who do not speak Spanish frequently. We discuss the opportunities and risks associated with such a minority aspiration-achievement gap, and its variations across demographic and socioeconomic groups, while framing the results within current policy and scientific debates revolving around demographic and migration issues.

## **Keywords**

Ethnicity, Children of Migrants, Educational Aspirations, Adolescents, Social Stratification

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## 1. Introduction

The study of aspirations among ethnic-minority students is critical to understanding interethnic relations and the life chances of minorities in industrialized societies. Adolescents' educational aspirations are key predictors of schooling choices that strongly influence an individual's future educational, occupational and socioeconomic outcomes (Breen and Goldthorpe, 1997; Portes et al., 1978). Yet, high aspirations can be linked to individuals' frustration, disillusion or anger in later life stages if these aspirations are not matched by their achievements (Butler and Hamnett, 2011). The focus on the aspirations of the children of migrants is relevant to understanding the conditions under which minority students, who are generally a disadvantaged group across Western countries, seek to obtain the most privileged positions in society and whether such aspirations conflict with their actual life chances (Heath et al., 2008).

Previous studies revealed an *ethnic aspiration-achievement gap*. Ethnic-minority students were found to have disproportionately high aspirations, despite being disadvantaged at school and in their family origin (Jonsson and Rudolphi, 2011; Kao and Tienda 1995; OECD, 2006; Salikutluk, 2016). Scholars provide three main explanations for the ethnic aspiration-gap. First, the *migrant optimism* explanation posits that first-generation migrants are a positively selected demographic group with high career ambitions, which are translated into high schooling and social mobility aspirations for their children (Kao and Tienda, 1995). Second, the *information bias* approach argues that migrant families and their children overestimate their real schooling and labor market chances because of their lack of information on how these institutions operate, for example via cultural or linguistic barriers that impede their access to precise information on the proper functioning of the schooling system (Kao and Tienda, 1998). Third, the *blocked opportunities* thesis suggests that minority pupils seek to pursue high educational credentials to overcome later job market discrimination, as they anticipate ethnic discrimination in their future school-to-work transition (Heath and Brinbaum, 2007; Jackson et al., 2012).

Few empirical studies have contributed to a better understanding of the conditions under which the ethnic aspiration-achievement gap operates in specific countries. Teney et al. (2013), using a mixed-method approach with Belgian data, found that perceived job market discrimination is not associated with high educational aspirations, even if discrimination experienced at school was linked to high educational aspirations for some ethnic groups. Salikutluk (2016), using survey data from Germany, found that adolescents of Turkish origin, as opposed to adolescents of German origin and those having ancestors from the former Soviet Union, show higher schooling expectations partly attributable to differences in social mobility aspirations and parental expectations. Fernández-Reino (2016), with data from England, found that the achievement-aspiration gap for minority pupils can be attributed to immigrant declared optimism, but not to anticipated discrimination.

The empirical literature on how aspirations differ by ethnicity, despite making some progress, presents gaps that motivate the present study. First, most studies have not included the key objective *standardized academic performance measures* that adjust for adolescents' actual aspirations. Those studies that corrected for schooling-related variables (Fernández-Reino, 2016; Salikutluk, 2016) found that the aspirations of minorities become particularly salient when one controls for academic performance. Yet, the literature offers insufficient evidence on the specific levels of performance in which ethnic gaps in aspirations become strongest. For example, the ethnic aspiration-achievement gap might be strongest among low-performing minority students, a strongly disadvantaged group in their social origin with the attendant risks of suffering from poverty and social exclusion in future life stages (OECD, 2016). It is necessary to take into account evidence in this direction to understand whether, and the extent to which, there are potential conflicts between performance and aspirations among minority students.

Second, evidence on how *socioeconomic factors* interact with ethnicity in influencing adolescents' aspirations is scarce. While some studies suggest that expressed 'motivation' (Fernández-Reino, 2016) or 'social mobility goals' (Salikutluk, 2016) drive ethnic differences in pupils' aspirations, little is known about how social origin interact with ethnicity in shaping educational

aspirations. It is assumed that disadvantaged children – due to norms, preferences or risk-aversion mechanisms – have more modest educational aspirations than students from more privileged backgrounds (Breen & Goldthorpe, 1997; Gambetta, 1987; Lareau, 2003). Yet, whether the intrinsic motivation of ethnic-minority families trumps the assumed links between socioeconomic origin and aspirations, and whether the gap between social origin and aspirations differs between minorities and the national majority, remains understudied.

Third, previous studies have provided little evidence on how potential *integration* and *information bias* can influence minority adolescents' aspirations. Surveys with information on aspirations and academic performance provide relevant information in this direction. One example is the years of residence in the destination country. For the 1.5 generation (arriving in the destination country with their parents) the length of years lived in the host country might lead to convergence between minorities and national majorities in their aspirations and beliefs, resulting from acculturation processes that emerge over time and intercultural exchange (Berry, 2005). Another example, this one is particularly related to potential information bias, is parents' language use (Kao and Tienda, 1998). Use and proficiency of the language/s of the destination country could be associated with the way in which minority families acquire information on how the schooling system works, enabling parents to have accessible knowledge – via their skills in the official language – about schooling opportunities, which could be transmitted to children's beliefs and actual aspirations about schooling. Research on these indicators of integration and information can shed light on how the aspirations of minority pupils operate.

In this article, we analyze how the educational aspirations of adolescents differ by ethnic background in Spain. Spain is – as we argue below – an interesting case study that has been insufficiently investigated regarding the analytical framework of this study, with only limited research restricted to specific regional settings (Cebolla-Boado and Martínez de Lizarrondo, 2015; Portes et al., 2013). The study concentrates on children of African and Latin American migrants, two groups generally disadvantaged in the Spanish social structure, particularly those from an African background (Reher and Requena, 2009). We use data from the 2010 General Evaluation of Educational Diagnostic (GEED), containing detailed information on educational expectations for a large sample of pupils at Grade 8 (2<sup>nd</sup> year of lower-secondary education) with an average age of 14. The GEED offers data on pupils' educational aspirations, but also rich standardized tests in different academic subjects, as well as several variables linked to potential integration and socioeconomic position, such as a multidimensional index of social background, the years lived in the host country and the language used at home.

Our study arguably provides evidence to better understand the beliefs and aspirations linked to minorities' life chances in industrialized countries. Our empirical contributions can be summarized in two main domains. First, we study ethnic differences in educational aspirations by analyzing in detail the variations across levels of academic performance. Second, we address specific factors that can lead to variations in ethnic gaps on educational aspirations by addressing the role of three important factors, namely (i) socioeconomic origin, (ii) length of residence in the destination country and (iii) parents' language use at home.

## 2. The Spanish Context

Spain experienced a steep and unprecedented growth in immigrant flows during the 'Economic Boom' decade of 1997-2007 (Bernardi et al., 2011; Reher and Requena, 2009). While about 50,000 immigrants arrived in Spain in 1998, nearly 1 million immigrants had crossed the Spanish borders by 2007. In 1996, 1.6% of the total Spanish population was foreign born; by 2010 this figure had reached 12.1% of the Spanish population (Garrido, 2015; Martínez García, 2013). The 2008 Great Recession had a particularly strong negative economic impact on minority families in Spain (Mooi-Reci and Muñoz-Comet, 2016). Figure 1 shows how, after the economic crisis of 2008, the number of minority students stabilized at 12%. By 2010 (INE, 2010), individuals of Latin American origin represented the higher share of migrants in Spain (44%), followed by those from other EU countries (29%) and Africa (22%).

[Figure 1, about here]

The massive rise in migrants from 1997 to 2007 was firstly noticeably explained by African migration and later by the significant arrival of Latin American migrants (Reher and Requena, 2009). This important increase in migration flows was essentially driven by the large demand of low-skilled employment in a period of sustained economic growth, parallel to an increasing participation of Spanish young cohorts in college education. African and Latin American migrants in Spain, particularly those of African origin, typically filled low-skilled jobs in agriculture, domestic services, tourism, industry or construction, and often resided in disadvantaged working-class neighborhoods (Reher and Requena, 2009).

The Spanish schooling system deserves important attention. Spain combines a weak system of early tracking (Crul & Vermeulen, 2003) with very high levels of schooling dropouts, affecting working-class and minority students particularly (Bernardi & Cebolla, 2014; Miyar-Busto, 2017). Children of Latin American migrants, but especially those with African-born parents, experience high levels of schooling dropouts (35% and 60%, respectively) and grade retention (Martínez García 2013). This implies that students of Latin American origin, and especially those of African origin, are highly disadvantaged in the school system, raising the question of which educational aspirations these two groups have in contemporary Spain.

To date, two studies have analyzed the links between ethnicity and adolescents' educational aspirations in the Spanish context, restricted to specific regional contexts. Portes and colleagues (2013), using data collected from 2008-2010 on schools in the cities of Barcelona and Madrid, found that minority children have lower or similar educational aspirations to adolescents with Spanish-born parents, showing negative education aspirations for some important minority groups (e.g., Argentinians, Ecuadorians, and Moroccans). They found the positive effects of socioeconomic background on educational aspiration, but weak differences by parents' language use and length of stay in Spain, after accounting for different measures of family characteristics. Cebolla-Boado and Martínez de Lizarrondo (2015) analyzed the educational aspirations of minority pupils in the region of Navarra with the data collection carried out in 2010. They found that ethnic-minority adolescents have significantly higher educational aspirations than adolescents from Spanish origin, after accounting for some academic measures that Portes et al. (2013) did not include in their data, like standardized academic measures. Their study on Navarra found a socioeconomic gradient in educational aspirations, but no significant peer-effects at the school level on students' aspirations.

These two studies, despite providing interesting insights and evidence, offer contradictory and inconclusive findings for Spain and use different analytical approaches. First, the two studies focused on different migration and socioeconomic contexts, with the cities of Barcelona and Madrid having the highest rates of migrant population in Spain (circa 17%), clearly higher than Navarra (circa 11%), showing distinct socioeconomic contexts, levels of inequality or migration histories (INE, 2009). This motivates a study that considers the whole of Spain with a large representative sample of the Spanish population. Second, Portes et al. (2013) did not include measures of academic performance, which might bias most of their results on educational aspirations. This might explain why their results differ from those of Cebolla-Boado and Martínez de Lizarrondo (2015), whose work included controls of academic performance. Third, the two studies leave important questions unanswered, like those relating to the distribution of aspirations across students from different social origin and levels of academic performance, and the potential role of key indicators of integration (e.g., parents' language use, arrival in the country) conditional on academic performance. The latter are gaps that we seek to cover in our study on ethnic-based educational aspirations in Spain.

### **3. Analytical Framework**

#### ***3.1. The Achievement-Aspiration Gap***

The study of *adolescents' aspirations* has a long history of scholarship in the social sciences, as it offers valuable information on adolescents' dreams, motivations, and idealistic beliefs that influence their future schooling and labor market choices and transitions (Morgan, 1998; Portes et al., 1978;

Sewel et al., 1969). While ‘expectations’ reflect individuals’ goals by considering their constraints, ‘aspirations’ capture their ideal trajectories under circumstances that are less subject to real constraints (Jacob and Wilder, 2010; Morgan, 1998). The focus on aspirations is particularly interesting to assess whether adolescents’ dreams and beliefs conflict with their actual life chances.

The *ethnicity literature* generally shows that minorities have disproportionately high educational aspirations, net of social background and (if available) schooling performance (Jonsson and Rudolphi, 2011; Salikutluk, 2016). These gaps, as mentioned, were argued to be explained by factors like ‘immigrant optimism’ (Kirk et al., 2011), ‘information bias’ (Kraus and Tan, 2015) and ‘anticipated discrimination’ (Heath and Brinbaum, 2007). We anticipate an *aspiration-achievement gap* for the children of African and Latin American origin in Spain, after accounting for their disadvantaged socioeconomic origin and academic performance. We expect this ethnic gap to be stronger among low-performing students, as at the top of the performance distribution all students (regardless of motivation, information or anticipated discrimination) might already have high educational aspirations.

*H-1: Ethnic minorities have higher net educational aspirations than their counterparts with native-born parents, while ethnic gaps in aspirations are stronger among low-performing students.*

### **3.2. Migrant Optimism: Social Mobility Aspirations**

In Western countries, the children of migrants are more likely to be raised in a background of disadvantaged social origin than their counterparts with native-born parents, which influences their future schooling and job market disadvantage (Gracia et al., 2016; Heath and Brinbaum 2007; Heath et al., 2008; Kalter et al., 2007). It has been argued that this socioeconomic disadvantage among minority children, which occurs even if migrants tend to be a positively selected group (Feliciano & Lanuza, 2017), leads to strong social mobility ambitions among minorities via family socialization (Kao and Tienda 1995; Kirk et al., 2011). As put by Salikutluk (2016: 583), ‘even if first generation finds itself at society’s lowest rank, their wish is maintained and passed onto the following generations [and so] the younger generation is expected to be successful in the host country and to realize their parents’ pursuit, in which educational degrees are perceived to be the key to upward mobility.’

In line with the *migrant-mobility optimism* thesis (Salikutluk, 2016), social mobility ambitions might be stronger among minority students than among children of the national majority. On average, privileged students have been found to have higher educational aspirations than disadvantaged students, because of differences in parenting norms (Lareau, 2003), preferences (Gambetta, 1987) or because of risk-aversion mechanisms (Breen and Goldthorpe, 1997). Yet, the hypothesized high motivation and mobility goals of migrants and their children (Krik et al., 2011; Salikutluk, 2016) could lead to high aspirations among minority pupils, even in families with low socioeconomic resources. We expect the ethnic gap in educational aspirations to be strongest among students from disadvantaged families, as ethnic minorities from more modest social origin – despite their disadvantage – might conform (consistent with the migrant optimism thesis) to unevenly strong upward social mobility norms. By contrast, among privileged students, regardless of their ethnic status, one might expect to find generally high education aspirations.

*H-2: The higher aspirations of minority students, compared to students from Spanish origin, are found disproportionately in the group of students from disadvantaged family backgrounds.*

### **3.3. Acculturation and Intercultural Exchange: Age on Arrival**

The idea of *acculturation* is among the most popular concepts in the migration and ethnicity literature. Redfield and colleagues (1936: 149) defined acculturation as a process that ‘comprehend(s) those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups.’ Acculturation might occur at different levels, including ‘behavioral shifts’ and through processes of socio-cultural exchange, and thus it is based on intercultural dynamics that develop over time (Berry, 2005).

We use the *years lived in host country* as an indicator linked to acculturation and cultural exchange. One can expect that ethnic-minority children born in the host country (second generation)

or who arrived in the country in early childhood (before primary school at ages 0-5) have educational aspirations that converge substantially with the national majority. This implies that, insofar as the children of migrants spend more years of socialization in the host country, their beliefs and aspirations become closer to the 'national norm', as children and their families have had more time and opportunity to get to know the schooling system and integrate the norms of the context of destination. Alternatively, the intrinsic motivation of minority children could lead them to high aspirations, irrespective of their years lived in the country, as suggested by some few studies (Minello and Barban, 2012; Portes et al., 2013). Yet, these findings might be biased for not having considered academic performance in the analyses, as performance is likely to depend strongly on age on arrival. In line with acculturation and intercultural approaches, one can expect that – after accounting for academic performance – minority students recently arrived in Spain (in secondary school; aged 12-15) have higher educational aspirations than those born in Spain (second generation) or fully educated in Spain (arrived before age 6).

*H-3: Minority students recently arrived in Spain have higher educational aspirations than those who were born in Spain or arrived in Spain before starting primary education.*

### **3.4. Information Bias: Language Use at Home**

Scholars have argued that *information bias* influences ethnic differences in individuals' aspirations (Kao and Tienda, 1988). Information bias might bring disadvantaged families (and particularly ethnic minorities) to underestimate the difficulty and constraints of achieving a college degree or a privileged skilled occupation. This is likely to respond to lacking precise information on the functioning of the schooling system or labor market and its corresponding actual chances (Jaime-Castillo & Marqués-Perales, 2014), which is transmitted from parents to children in everyday family life (Cebolla-Boado and Martínez de Lizarrondo, 2015; Kirk et al., 2011). In this vein, Kao and Tienda (1998) argue that migrant families reproduce popular attitudes or beliefs on schooling goals (i.e., a college degree is desirable), but might lack access to more precise information regarding school-to-work transitions.

We focus on *language use* at home as an indicator of families' potential access to valuable information on the schooling system. Speaking the official national language allows migrant parents to read published information, as well as to access information via interpersonal relations with members of the community, which could provide useful and reliable knowledge on how the schooling system works. This information could be transmitted from parents to children in everyday family life. Spanish-born parents and those from Latin America (except Brazil) almost by definition speak Spanish at home and in everyday life, but there is linguistic variation in the use of Spanish language(s) among migrants from Africa. Unlike in previous studies (Portes et al., 2013), focusing on variations within a group with heterogeneous languages (e.g., African migrants) seems the best approach, as Spanish use is almost perfectly correlated with having Spanish-born parents or migrant parents from Latin America. In line with the mentioned logic on potential information access, we anticipate that the children of African parents (from an Arabic or Sub-Saharan origin) speaking an official Spanish language have educational aspirations that are closer to the national majority, compared to the children of African migrants who are less exposed to an official Spanish language in everyday life.

*H-4: Having parents who speak an official Spanish language leads African children to converge more with the educational aspirations of the national Spanish majority.*

## **4. Data and Methods**

### **4.1. Data**

We use data from the 2010-GEED. This survey was carried out by the National Institute of Educational Evaluation (INEE) on a representative sample of the student population at the 2<sup>nd</sup> grade of compulsory lower-secondary education (ESO) with an average age of 14 (GEED, 2010). The original sample includes a total of 27,961 students and it was stratified by regions and schools with an overall response rate of 93%. We focus on three groups: (1) Spanish origin (either one or both parents were born in Spain); (2) African origin (both parents were born in an African country); (3) Latin American origin (both parents were born in a Spanish-speaking Latin American country). We excluded 698

cases without information on the country of birth of either the mother or the father, and the cases of children with parents of European origin (a diverse group from various regions) (593), other countries and regions (e.g., Asia, Australia, Brazil and the US) (254) and a mixture of parents from two different migrant groups (82). This left us with 26,334 observations for those with Spanish-born parents (24,205), African parents (508) and Latin American parents (1,621).

Table 1 describes the cases excluded from our three groups of study and missing information on the main variables, accounting for 7,041 (26.7%) cases. The incidence of missing data is lowest among students of Spanish origin (25.8%), followed by the Latin American 35.5%) and African groups (44.9%). This shows a high incidence of missing data for ethnic minorities, as is unfortunately the case in related research on ethnicity. We excluded 18.6% of pupils who reported not yet knowing which educational level they aspire to, or did not provide an answer to this question, a measure with higher missing values for the children of Latin American migrants (22.8%) and especially those with African-born parents (28.1%). Our final sample includes a total of 19,293 cases divided into students of Spanish origin (N=17,967), Latin American origin (N=1,046) and African origin (N=280), allowing us to conduct robust analyses and interaction effects for our three ethnic groups of study.

#### 4.2. *Dependent Variables*

The dependent variable is a dummy measure that identifies whether adolescents aspire to achieve college education (1=yes) or lower levels of education (0=no). This measure is constructed from the following question that includes different *educational aspirations*: ‘Which of the following levels of education do you want to complete?’ We conduct as robustness checks additional analyses on the incidence of uncertainty in aspirations and on the probability of aspiring to post-compulsory vocational education, as opposed to academic tracks (academic upper-secondary and university) for different ethnic groups (see Appendices).

#### 4.3. *Independent Variables and Controls*

The main independent variable is *ethnic status*, a categorical variable with the three specified categories: (1) Spanish origin (at least one parent born in Spain); (2) African origin (both parents born in Africa); (3) Latin American origin (both parents born in Spanish-speaking Latin American countries). *Age on arrival* is a categorical measure with three categories that depend on the age on arrival in Spain of minority pupils: (1) children of migrants born in Spain – second generation migrants – or arriving in Spain before formal primary education – starting at age 6– (2<sup>nd</sup> Generation or ages 0-5); (2) children of migrants arriving at primary school age (ages 6-11); (3) children of migrants arriving at secondary school age (ages 12-15). *Language at home* measures the language spoken by parents of African origin, dividing this group between those with parents speaking an official Spanish language regularly and those who do not speak regularly any of these languages.

To measure social background, we use the *economic, social and cultural status* (ESCS) index. This OECD index was created for PISA reports by combining information on (i) parental occupation, (ii) the highest level of parental education, (iii) home possessions related to family wealth, and (iv) home educational resources and possessions related to cultural environments (e.g., books, classical literature, cultural participation) (GEED, 2010). This computed OECD measure provides a parsimonious multidimensional index of social origin that contains fewer missing values than other separated variables of social background (e.g., education, social class), thus maximizing sample size and minimizing bias.

We use two measures of academic performance. We combine, it should be emphasized, two academic performance measures that potentially control for teachers’ bias or discrimination, as we use both standardized tests and academic outcomes. *Grade retention* is a dummy variable that differentiates between students that have experienced grade retention (yes=1) and those who have not experienced any grade retention in their schooling trajectory (no=1). *Academic scores* is a variable represented in a multiple index of academic performance based on combined students standardized academic tests in four domains: (i) reading comprehension, (ii) mathematics, (iii) science and (iv) civic competences.

We use different control variables. *Male* differentiates boys (1=yes) from girls (0=no). *Month of birth* is a dummy variable accounting for whether the pupil was born from September to December (1=yes) or from January to August (0=no). *Private school* is a dummy variable that differentiates between students who attend a privately-funded school (1=yes) from those enrolled in a publicly-funded school (0=no). *Single-parent household* is a dummy variable that separates children living with one parent (1=yes) from those living with two parents (0=no). *Employment status* is a categorical variable with three categories: (1) two parents employed; (2) one parent employed; (3) no parent employed.

#### **4.4. Empirical Strategy**

We follow different empirical steps: (1) we provide descriptions of our sample distributions and main variables of interest; (2) we conduct different sets of Binary Logistic Regression Models predicting the probability of aspiring to college education, as opposed to not aspiring to college, under different model specifications. We run Average Marginal Effects (AME) to compare the statistical effects of ethnicity across different models, using a robust technique that allows for comparison of the same coefficients across different models (Mood, 2010). Model 1 is the basic model, including only demographic factors. Model 2 adds social background and other socioeconomic measures. Model 3 accounts for academic performance; (3) we conduct two general full-models predicting college aspirations with Odds Ratios for Binary Logistic Models, using two variations of ethnicity variables in each model, namely (i) age on arrival in the country and (ii) parents' language use; (4) we explore interaction effects between ethnicity and (i) schooling performance and (ii) socioeconomic origin.

### **5. Findings**

#### **5.1. Descriptive Analyses and Distributions**

Table 2 shows the summary statistics with means and standard deviations for all our variables of study. We observe that 66% of children aspire to achieve college education in the future. The children of Spanish-born parents have the highest aspirations of obtaining a college degree (67%), followed by students of Latin American origin (63%), while the lowest are clearly for those whose parents are African migrants (50%). Within minorities, adolescents from African origin are found disproportionately among those born in Spain or who arrived before starting formal primary school (64%), and the highest proportion of students recently arrived in Spain is found among children with migrant parents from Latin America (16%). Among adolescents of African origin, 21% of them are raised in a Spanish-speaking home, compared to 79% residing in a family where parents speak mainly other languages (e.g., Arabic).

We see in Table 2 that ethnic minorities are socioeconomically disadvantaged. Children from a Latin American background, and particularly those of African origin, are disadvantaged in their social origin (ESCS index), access to privileged schools (private education), academic performance (academic scores, grade retention) and parents' employment access (e.g., living in a jobless household). Children from Latin American backgrounds are overrepresented in single-parent families (30%), while in this regard those of African origin (16%) resemble very much their counterparts of Spanish origin (13%).

#### **5.2. Multivariate Statistical Analyses**

Table 3 shows the multivariate logistic models for college aspirations. Model 1 shows that, compared to children of Spanish origin, the probability of aspiring to college is 17% lower for students of African origin ( $p < .001$ ) and 4% lower for those from a Latin American background ( $p < .05$ ). Model 2 shows that, after accounting for socioeconomic factors, the probability of aspiring to college becomes positive in comparison to the native group for both minority groups, shifting to a 6% higher probability for children of African origin ( $p < .05$ ) and 8% for those with a Latin American background ( $p < .001$ ). In Model 3, when we correct for heterogeneity in academic performance, the positive statistical effect of minority groups becomes larger, accounting for a 12% higher probability of aspiring to college in both groups ( $p < .001$ ). These results resemble evidence for Barcelona and

Madrid (Portes et al., 2013), showing that minority students (on average) have lower educational aspirations than the national majority. Yet, in line with studies for the Spanish Region of Navarra (Cebolla-Boado and Martínez de Lizarrondo, 2015) and other countries (Jonsson and Rudolphi, 2011; Salikutluk, 2016), minorities seem to have low aspirations because of their disadvantaged background and academic performance and, in fact, ethnic minorities, show relatively high chances of aspiring to college when robust measures of social origin and academic performance are accounted for.

[Table 3, about here]

Table 4 presents the Odds Ratios for two additional models on two potential sources of ethnic variation: (i) age on arrival and (ii) parents' language use. In the first column, we observe that, in comparison with the group of second-generation migrants or children of migrants who arrived in Spain before primary school (aged 0-5), children who arrived at secondary school age (aged 12-15) have higher odds of aspiring to college education (Odds= 1.4), even if the significance level is at 10%. Differences between the reference category and the category of children arriving in Spain at primary school age (aged 6-11) are not statistically significant. As for the parents' language use, we do not find any meaningful and/or significant differences between children of African origin whose parents speak Spanish and those whose parent do not speak Spanish. In fact, the highest odds ratios of college aspirations are observed for the children of African migrants with Spanish-speaking parents (Odds = 2.9;  $p < .001$ ), followed by their counterparts of African origin with non-Spanish speaking parents (Odds = 2.6;  $p < .001$ ), and those of Latin American origin (Odds = 2.4;  $p < .001$ ), adolescents of Spanish origin being the reference group. To sum up, recently arrived minorities have moderately higher aspirations than minorities born or entirely educated in Spain, even with a small sample size for the former group. Meanwhile, parents' language spoken among children of African origin does not have any clear association with the probability of declaring college aspirations<sup>1</sup>.

[Table 4, about here]

### **5.3. Multivariate Statistical Analyses: Interaction Effects**

We conduct two types of interaction effect models that predict aspirations to college education with logistic models. Figure 2 shows the predicted probability of aspiring to college education from the interaction effects models between ethnicity and two indicators of academic performance: (i) standardized academic scores and (ii) grade retention. The models include all the main independent and control variables of the study. The first model, to the left of the graph, shows how the observed gap in college aspirations between minorities and the Spanish majority is driven by differences in the group of low-performing students, especially for the children of Latin American migrants. The second model, at the right side of the graph, shows that adolescents with parents from the Spanish majority present a level of aspirations to attend university that is more receptive to grade retention, as compared to the ethnic-minority pupils. Indeed, experiencing grade retention at school among the children of African and Latin American origin does not imply a very sharp reduction in the probability of wanting to attend college education. As a robustness check, Figure A-1 (Appendices) shows that, when accounting for heterogeneity in age on arrival (correlated to grade retention), the high college aspirations of minorities persist, irrespective of experiencing grade retention.

Figure 3 shows the predicted probability of aspiring to college from a model with an interaction effect between ethnicity and the ESCS index. This model includes all the main independent and control variables of the study. The results of these interaction effects show clearly that the relatively high aspirations of minorities of both African and Latin American origin are larger in the more disadvantaged families. We see that, as the economic, social, and cultural status index increases, the ethnic gap in aspirations tends to be equal to 0. The graph also shows that pupils of Latin American origin change their aspirations based on ESCS index to a lesser extent than pupils of African

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<sup>1</sup> It should be noted that the category of children from African origin whose parents speak Spanish at home is very small, increasing the risk of finding results that are not statistically significant and relatively biased coefficients.

origin, for which a more linear pattern between ESCS and aspirations is observed, as in the case of children from the Spanish majority.

#### 5.4. Robustness Checks

Additional analyses were conducted for other samples with two alternative definitions of aspirations: (1) uncertainty about educational aspirations and (2) opting for post-compulsory vocational education instead of an academic education. Table A-1 shows that students of African and Latin American origin are more prone to not knowing which educational level they aspire to than those with Spanish-born parents ( $p < .001$ ). Yet, such ethnic differences disappear when socioeconomic controls and measures of schooling performance are included in the analyses. Table A-2 reveals that, when only basic demographic controls are added, minority students with an African background show a disproportionate aspiration to vocational education as opposed to the academic track ( $p < .001$ ). However, when socioeconomic factors and – especially – schooling performance are considered as covariates in the statistical models, the two minority groups clearly become much less prone to aspire to vocational education, compared to their counterparts of Spanish origin ( $p < .001$ ).

### 6. Discussion

This study uses data from the 2010 GEED to analyze the educational aspirations of adolescents of African and Latin American origin in Spain. The case of African and Latin American minorities in Spain – a relatively new immigration country – is particularly interesting, in a country in which migration from Africa, and especially Latin America, increased dramatically from the mid 1990s until the beginning of the 2008 Great Recession (Mooi-Reci and Muñoz-Comet, 2016). Two previous studies analyzed the educational aspirations of minorities in the Spanish case (Cebolla-Boado and Martínez de Lizarrondo, 2015; Portes et al., 2013). These studies, however, presented contradictory and mixed findings, focusing on different regions, while only one controlled for academic performance (Cebolla-Boado and Martínez de Lizarrondo, 2015), an essential measure to understand ethnic differences in aspirations (Salikutluk, 2016). Our contribution for Spain considers ethnic heterogeneity across levels of schooling performance and social origin, but we also provide new evidence on whether the length of stay in Spain and parental language use, linked to potential integration and information bias, influence the educational aspirations of ethnic minorities.

We developed different hypotheses that we tested empirically. We found support for our H-1, namely that *ethnic minorities have higher net educational aspirations than their counterparts with native-born parents, while ethnic gaps in aspirations are stronger among low-performing students*. On average, without controlling for social background and academic performance, minority pupils in Spain have a relatively low chance of aspiring to university education. Yet, when accounting for family background, and especially for academic performance, we found a clear higher probability to college aspiration among minority students in comparison to students with Spanish-born parents. This confirms the *ethnic aspiration-achievement gap* thesis for the Spanish population, consistent with the study of Cebolla-Boado and Martínez de Lizarrondo (2015) on the Region of Navarra. Further, the high educational aspirations among minority students, especially among those of Latin American origin, are particularly salient for the group of low-performing students, those with higher risks in their future life chances, but not among high-performing students.

We also found support for H-2, which stated that *the expected higher aspirations of minority students, compared to students of Spanish origin, are found disproportionately in the group of students from disadvantaged family backgrounds*. Results show that the higher educational aspirations of minorities of African and Latin American origin, as compared to students with Spanish-born parents, are strongest among disadvantaged children. These results suggest that disadvantaged ethnic minorities, probably because of having ambitions to high (upward) social mobility (Salikutluk, 2016) and strong motivations (Kao & Tienda, 1995), seek to overcome their disadvantaged origin by transmitting high educational aspirations to children that might increase their occupational chances. In line with Feliciano and Lanuza (2017), we need to consider that migrant families are a positively selected group that is over-skilled and so that, instead of seeking social mobility, minority families might just be trying to obtain those positions that they were supposed to get in the first place based on

their skills. Additional analyses suggest that Latin American families are strongly overqualified, as compared to their occupational status, but we do not find similar observable differences for African migrants. Future research with precise data in this direction should further investigate the role of ambitions and positive selection in shaping ethnic differences in educational aspirations across students of different social origin.

We anticipated in H-3 that *minority students recently arrived in Spain have higher educational aspirations than those who were born in Spain or arrived in Spain before starting primary education*. Results gave some support to this hypothesis. We found that minority students recently arrived in Spain (aged 12-15) generally show higher educational aspirations than second-generation minority students or those who arrived before starting formal primary school (aged 0-5). This suggests that recently arrived minorities somehow have a stronger motivation than the children of migrants socialized entirely in the Spanish schooling system. These differences were not observed in previous studies (Minello and Barban, 2012; Portes et al., 2010), yet these studies – unlike in our study – did not account for the heterogeneity of academic performance by age on arrival. Our results, however, were moderate, perhaps due to the relatively small sample size of students arriving in Spain in low secondary education, but also arguably because there is an intrinsic high educational aspiration and optimism among minorities, even among those that have been largely socialized and educated in the host society. Still, differences for recently arrived minorities might suggest that recently arrived students are highly ambitious regarding their educational aspirations.

The last expectation is visible in H-4, and it anticipated that *having parents who speak an official Spanish language leads African children to converge more with the educational aspirations of the national Spanish majority*. We did not find support for this hypothesis. We did not find any meaningful and/or significant difference between children of African origin whose parents speak Spanish and those whose parents do not speak Spanish. We should stress that the group of students with Spanish-speaking African parents was relatively small, and our measures did not include rich information on the level of the Spanish of parents and the use of the language to get information on questions of interest for children. Our results in this way resemble those from Portes et al. (2013) for Barcelona and Madrid in finding no effects of parental language on educational aspirations, yet in our case we did include robust standardized measures of academic performance. Future studies should, in any case, provide more precise information on how the use of the official national language among migrant families can lead to differences in access to valuable information regarding educational aspirations.

Our study shows relevant evidence on the achievement-aspiration gap in Spain, showing a particularly strong ethnic gap among disadvantaged children in their social origin and academic outcomes. This has mixed implications regarding the life chances and integration of minority adolescents in Western societies. On the one hand, the high educational aspirations of minorities, compared to their poor chances and performance, especially among students who underperform at school, is a sign of hope in terms of high motivation, an important condition for success in the educational system (Portes et al., 1978). On the other hand, it is likely that high levels of aspiration among minorities can lead to disillusion, as well as conflict, in their life course development, due to an imbalance between their dreams and their actual chances of achievements (Butler and Hamnett, 2011). We believe that evidence on this socioeconomic gradient regarding ethnic-based aspirations is in line with research arguing that minorities have an inherent high motivation and social mobility ambition, as in the work of Fernández-Reino (2016) and Salikutluk (2016). Future studies should analyze the potential consequences of this apparent contradiction in minority pupils' aspirations and life chances, which are key questions for scientific and policy debates in the field.

In addition, we contribute to recent integration and acculturation debates on the second generation with evidence suggesting that recently arrived migrants have intrinsically high educational aspirations. Adolescents recently arrived in the destination country are an interesting group. This group shows a high potential, but equally a high level of vulnerability and risks of frustration, if one considers their limited chances of integration in the destination country and higher risks of suffering from social exclusion in their transition to adulthood. Future studies would benefit from studying in

more detail, possibly with higher sample sizes, recently arrived migrants from different ethnic backgrounds, while accounting for their motivations and actual chances in the host society.

We finish this study by acknowledging some limitations that should be addressed in future studies. First, many important variables were unfortunately not available in our data, as in most previous studies. Salikutluk's (2016) study with German data is quite exceptional in this respect, as she had access to direct measures on social status improvement. We believe that an analytical approach that mixes our approach on the socioeconomic gradient in ethnic-based aspirations with objective measures of social mobility goals and motivation will be highly beneficial for future studies. Second, precise measures of language use at home and actual family access to information on the schooling system will surely allow us to better understand processes related to ethnic differences in educational aspirations. Third, and finally, we believe that a similar study to ours using a cross-country comparative approach can significantly improve our understanding of ethnic-based aspirations in contemporary industrialized countries.

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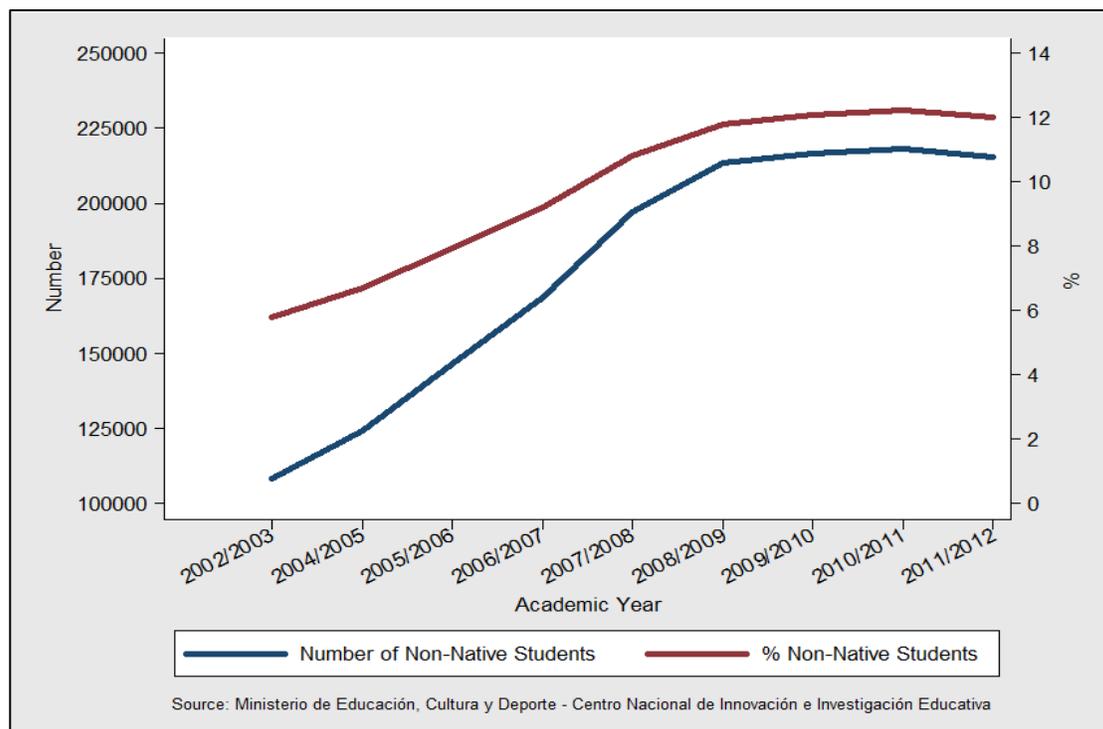
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**Figure 1. Children of Migrants in Secondary-School Institutions in Spain**



**Table 1. Sample Selection**

Variables	All Sample (N = 19,293)		Native Background (N = 17,967)		African Origin (N = 280)		Latin American Origin (N = 1,046)	
	N Missing	% Missing	N Missing	% Missing	N Missing	% Missing	N Missing	% Missing
Age	0	0%	0	0%	0	0%	0	0%
Sex	175	0.65%	136	0.56%	4	0.79%	15	0.93%
Age on arrival	408	1.51%	149	0.62%	38	7.48%	65	4.01%
Language at Home	0	0%	0	0%	0	0%	0	0%
Z-Test Scores	1,926	7.12%	1,628	6.73%	49	9.65%	155	9.56%
Grade Retention	0	0%	0	0%	0	0%	0	0%
Single Parent	338	1.25%	247	1.02%	20	3.94%	30	1.85%
Aspirations	5,031	18.61%	4,320	17.85%	143	28.15%	369	22.76%
ESCS index	0	0%	0	0%	0	0%	0	0%
Parental Work	569	2.1%	432	1.78%	23	4.53%	50	3.08%
School	0	0%	0	0%	0	0%	0	0%
Month of Birth	167	0.62%	126	0.52%	9	1.77%	7	0.43%
Original Sample	26,334	100%	24,205	100%	508	100%	1,621	100%
Missing Cases	7,041	26.74%	6,238	25.77%	228	44.88%	575	35.47%
Final Sample	19,293	73.26%	17,967	74.23%	280	55.12%	1,046	64.53%

**Table 2. Summary Statistics. Means and Standard Deviations**

<i>Variables</i>	<b>Total Sample</b>		<b>Spanish Origin</b>		<b>African Origin</b>		<b>Latin American Origin</b>	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Age	14.29	0.64	14.27	0.62	14.8	0.83	14.59	0.79
Month of Birth: Sept-Dec	33.64		33.75		26.07		33.75	
Male	48.84		48.92		45.00		48.47	
Spanish Origin	93.13							
African Origin	1.45							
Latin American Origin	5.42							
2.0 or 1.5 (Arrival: Ages 0-5)	2.89				66.07		35.56	
1.5 (Arrival: Ages 6-11)	3.07				29.64		48.66	
1.5 (Arrival: Ages 12-15)	0.92				4.29		15.77	
African (Spanish Language)	0.31				21.07			
African (Other Language)	1.15				78.93			
Aspirations to College	66.49		66.92		51.07		63.19	
Private-Funded School	36.01		37.16		5.71		24.47	
Single-Parent Family	14.43		13.46		16.43		30.50	
Two Parents Employed	60.03		60.83		19.64		57.07	
One Parent Employed	35.20		34.73		56.79		37.48	
No Parent Employed	4.77		4.44		23.57		5.45	
ESCS Index	0.12	1.00	0.17	0.99	-0.95	0.93	-0.47	0.89
Grade Retention	22.50		20.99		49.29		41.3	
Academic Z-Test Scores	0.11	0.98	0.15	0.98	-0.80	0.93	-0.22	0.90
n	19,293		17,967		280		1,046	

**Table 3. Binary Logistic Models (Average Marginal Effects) on Aspirations to College Education**

	Model 1		Model 2		Model 3	
	AME	Std. Err.	AME	Std. Err.	AME	Std. Err.
Born in September-December	-0.025***	0.007	-0.018**	0.007	0.006	0.006
Male	-0.154***	0.007	-0.153***	0.006	-0.120***	0.006
Spanish Origin		(ref)		(ref)		(ref)
African Origin	-0.167***	0.030	0.056*	0.022	0.125***	0.017
Latin American Origin	-0.038*	0.015	0.078***	0.012	0.116***	0.010
Private School			0.069***	0.007	0.033***	0.006
Single-Parent Household			-0.069***	0.009	-0.019*	0.008
Two Employed Parents				(ref)		(ref)
One Employed Parent			-0.017**	0.007	-0.008	0.006
Non-Employed Parent			-0.035*	0.015	-0.003	0.013
Economic-Social-Cultural Status Index			0.157***	0.003	0.080***	0.003
Grade Retention (>=1 years)					-0.339***	0.009
Academic Scores (Z-Tests)					0.099***	0.003
$R^2$		0.023		0.148		0.297
n		19,293		19,293		19,293

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

AME=Average Marginal Effects (with Standard Errors in Second Column)

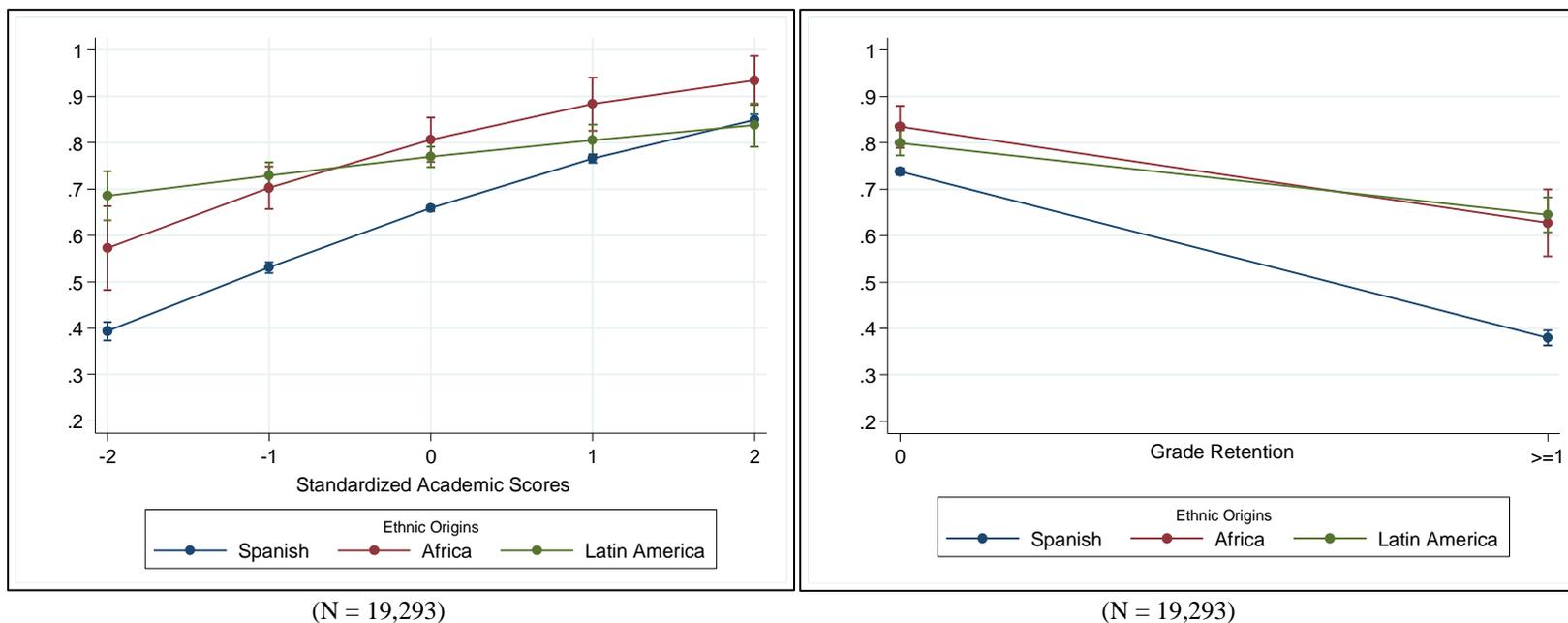
**Table 4. Binary Logistic Models (Odds Ratios) on Aspirations to College Education**

	Model: Age on arrival		Model: Language Use	
	<i>Odds</i>	<i>Std. Err.</i>	<i>Odds</i>	<i>Std. Err.</i>
Born in September-December	1.046	0.042	1.045	0.042
Male Student	0.440***	0.017	0.441***	0.017
Age on arrival				
Second Generation or Arrival at Ages 0-5		(ref)		
Arrival at Ages 6-11	0.956	0.158		
Arrival at Ages 12-15	1.402 <sup>+</sup>	0.304		
Spanish-Native Origin	0.412***	0.045		
Parents' Language Spoken				
Spanish-Born Parent				(ref)
Latin American-Born Parents			2.443***	0.205
African-Born Parents: Spanish Language at Home			2.891***	0.918
African-Born Parent: Other Language at Home			2.616***	0.440
Private School	1.254***	0.053	1.254***	0.053
Single-Parent Household	0.871**	0.047	0.875**	0.047
Two Employed Parents		(ref)		(ref)
One Employed Parent	0.949	0.039	0.948	0.039
Non-Employed Parent	0.988	0.088	0.983	0.088
Economic-Social-Cultural Status Index	1.750***	0.039	1.750***	0.039
Grade Retention (>=1 years)	0.159***	0.007	0.159***	0.007
Academic Scores (Z-Tests)	1.995***	0.047	1.993***	0.047
Constant	10.266***	1.132	4.411***	0.179
<i>R</i> <sup>2</sup>		0.297		0.297
n		19,293		19,293

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

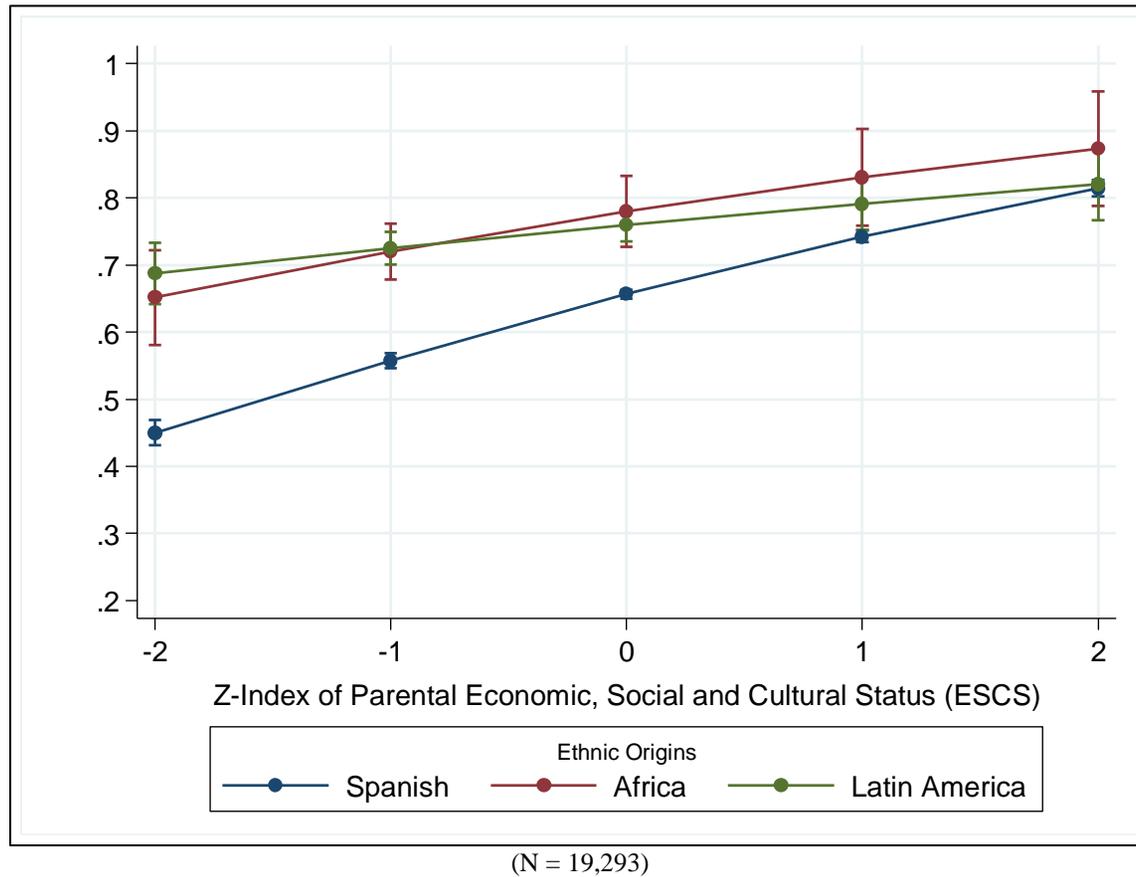
ODDS=Odds Ratios (with Standard Errors in Second Column)

**Figure 2. Predicted Probabilities of College Aspirations.  
Interaction Effects for Ethnicity and Scholastic Performance**



*Note:* Models control for all the variables included in the study (95% C.I. included). For the left-hand graph, the interaction effect for the Latin American group is statistically significant at  $p < .001$ , while for the African group it is not statistically significant. For the right-hand graph, the interaction effect is statistically significant at  $p < .001$  for the Latin American group, and  $p < .05$  for the African group.

**Figure 3. Predicted Probabilities of College Aspirations.  
Interaction Effects for Ethnicity and Economic-Social-Cultural Status Index**



*Note:* The interaction effect for the Latin American group is statistically significant at  $p < .001$ , while for the African group it is not statistically significant.

## APPENDICES

**Table A-1. Binary Logistic Models (Average Marginal Effects) on Uncertain Educational Aspirations**

	Model 1		Model 2		Model 3	
	<i>AME</i>	<i>Std. Err.</i>	<i>AME</i>	<i>Std. Err.</i>	<i>AME</i>	<i>Std. Err.</i>
Born in October-November	0.004	0.005	0.002	0.005	-0.001	0.005
Male	0.025***	0.005	0.025***	0.005	0.024***	0.005
Spanish Origin	(ref)		(ref)		(ref)	
African Origin	0.063***	0.022	0.013	0.019	-0.001	0.017
Latin American Origin	0.038***	0.011	0.012	0.010	0.008	0.010
Private School			-0.005	0.005	0.001	0.005
Single-Parent Household			0.007	0.007	0.004	0.007
Two Employed Parents			(ref)		(ref)	
One Employed parent			-0.002	0.005	-0.003	0.005
Non-Employed Parent			-0.035*	0.006	0.011	0.003
Economic-Social-Cultural Status Index			-0.035***	0.003	-0.024***	0.003
Grade Retention (>=1 years)					0.007	0.006
Academic Scores (Z-Test)					-0.030***	0.003
<i>R</i> <sup>2</sup>	0.003		0.015		0.023	
n	22,608		22,608		22,608	

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

AME=Average Marginal Effects (with Standard Errors in Second Column)

*Note:* The dependent variable differentiates between those responding not knowing yet their educational aspirations, and those who give an answer to this question (our main sample of analysis).

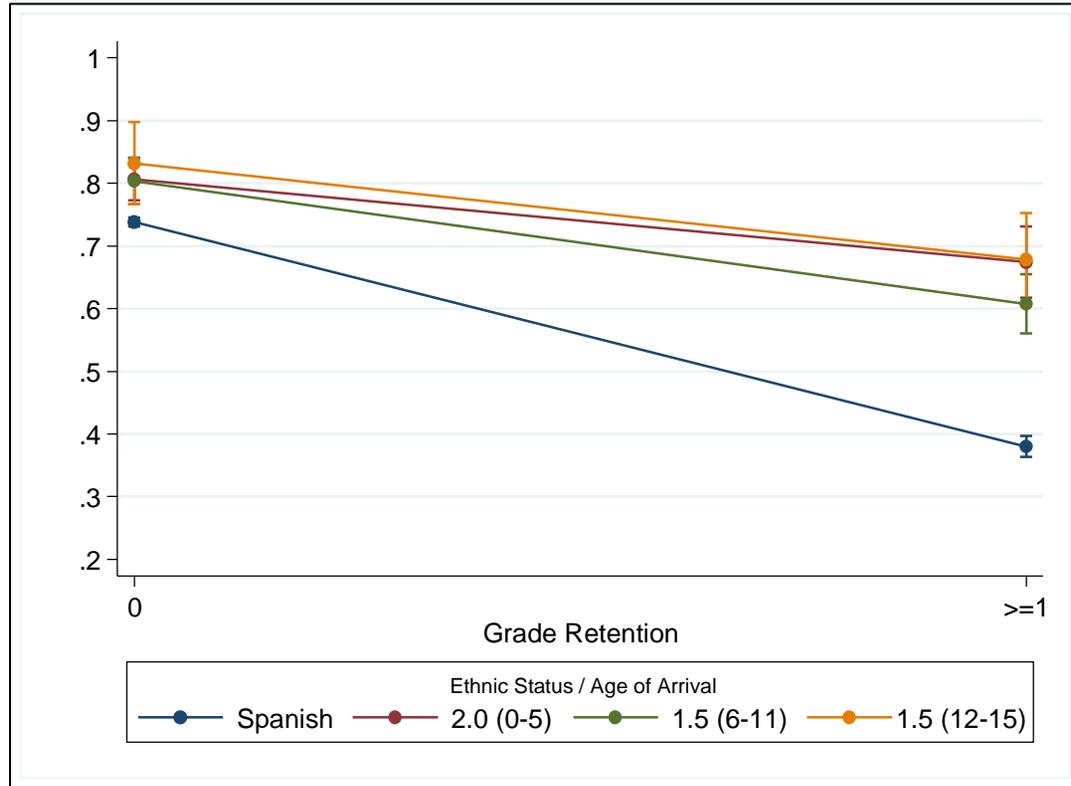
**Table A-2. Binary Logistic Models (Average Marginal Effects) on Aspirations to Vocational Education**

	Model 1		Model 2		Model 3	
	AME	Std. Err.	AME	Std. Err.	AME	Std. Err.
Born in September-December	0.008	0.006	0.006	0.006	-0.008	0.005
Male	0.087***	0.006	0.090***	0.005	0.073***	0.005
Spanish Origin	(ref)		(ref)		(ref)	
African Origin	0.085**	0.028	-0.020	0.018	-0.058***	0.014
Latin American Origin	0.008	0.012	-0.042***	0.010	-0.067***	0.008
Private School			-0.026***	0.006	-0.013*	0.006
Single-Parent Household			0.047***	0.008	0.016*	0.007
Two Employed Parents			(ref)		(ref)	
One Employed parent			0.006	0.006	0.016	0.005
Non-Employed Parent			0.023*	0.013	0.011	0.012
Economic-Social-Cultural Status Index			-0.070***	0.003	-0.038***	0.003
Grade Retention (>=1 years)					0.233***	0.009
Academic Scores (Z-Tests)					-0.036***	0.003
$R^2$	0.0172		0.0719		0.1596	
n	17,431		17,431		17,431	

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

AME=Average Marginal Effects (with Standard Errors in Second Column)

**Figure A-1. Predicted Values of College Aspirations.  
Interaction Effects for Minorities' Age on Arrival and Grade Retention**



*Note:* Model controls for all the variables included in the study (95% C.I. included). The interaction effect is statistically significant at  $p < .01$  for all the minority subgroups.