

Biased Aspirations and Social Inequality at School: Evidence from French Teenagers*

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Abstract

This paper provides the first empirical evidence that social differences in adolescents' aspirations are not always compatible with maximised individual utility. Indeed, while liquidity constraints and social preferences explain part of these differences, we also find that awareness of existing options is socially differential and that perceptions of one's academic potential are stereotyped. The latter is due to low-SES students underestimating their *current* academic capacity as compared to their *equally-achieving* high-SES *classmates*, and to students overestimating the influence of social origin on future academic success. The data also show that social inequalities in educational aspirations are *not* driven by differences in professional aspirations. Finally, the data are consistent with aspirations significantly impacting later school outcomes. In order to strengthen the aspirations of the disadvantaged and decrease social inequality in educational attainment, these findings call for policies that raise awareness of existing options and pathways from education to jobs, together with programs for self-esteem building, growth mindset, and role models.

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1 Introduction

Aspirations are the goals that individuals set for themselves in the future. Following the seminal paper of Appadurai (2004), aspirations should be considered as the *capacity* to set appropriate goals for the future, i.e. goals in line with one’s potential and that lead to the best possible outcome. The emergent theoretical literature on aspirations argues that the capacity to aspire is inherently unequal between rich and poor (Appadurai [2004], Ray [2006], Ray and Génicot [2015], Dalton et al. [2016]. See Section 2 for more details). This paper provides evidence of large social inequalities in aspirations and explores whether the mechanisms leading to these inequalities are compatible with individual welfare maximisation. We do not preclude that disadvantaged students have good reasons to have different aspirations than advantaged students as they face different constraints and may also have different utility functions. But we question two conditions for individual welfare maximisation: do students have a complete set of options in mind when they pick their preferred option, and do they correctly assess the constraints they face? We provide empirical evidence that these two conditions do not hold. Rather, students lack awareness of existing options and have stereotyped perceptions of their own academic capacity. We find that these two mechanisms explain an important part of social inequalities in aspirations, on top of liquidity constraints and social preferences.

In France, curriculum is the same for all students through junior high school, but then gives way to a stratified system of high schools divided in academic and vocational. At the end of junior high (9th grade), students thus reach the first crossroads of their educational paths. Given their academic achievement and preferences, they will be directed toward academic or vocational education, and this will determine their future academic and professional paths. In this paper, we measure students’ educational and professional aspirations at the beginning of 9th grade through a survey designed specifically for this study. Students were first asked to list all the existing educational options of which they were aware (hereafter *salient* options), then, among these, which they felt academically capable of pursuing (hereafter *attainable* options). Finally, among the latter, they selected those they would prefer to pursue (hereafter *preferred* options, or educational *aspirations*). To the best of our knowledge, this paper is the first to deconstruct preferred options as embedded in the zone of self-perceived attainable and salient options in order to isolate the role of these two potential mechanisms in explaining social inequalities in aspirations.

We find clear evidence that there are large social differences in aspirations. Yet the data show that these differences are not only due to differences in academic capacity and school environment, and that they are not driven at all by differences in professional aspirations. For instance, among *equally-performing classmates*, low socio-economic status (hereafter SES) students are 6.8 percentage points (p.p.) more likely

to aspire to vocational high school than high-SES students¹, and 4.1 p.p. less likely to aspire to graduate studies, despite the fact that university is almost free in France and that they are as likely to aspire to a job that requires graduate studies. Importantly, long-term consequences of educational choices are thus not fully anticipated and internalised by teenagers. This result indicates that social inequalities in aspirations cannot be explained by students anticipating different returns or discrimination on the labor market, or students having different preferences for professional activities based on their social identity. Interestingly, we also find that, once SES is taken into account, students from first-generation immigrant families have generally more ambitious aspirations (both educational and professional) than the others. Inequalities in aspirations thus, in fact, relates to students' SES rather than their immigration status.

We then explore the mechanisms through which equally-performing classmates form their aspirations and examine whether these mechanisms are compatible with maximised individual welfare. For instance, social differences in aspirations may, in fact, be compatible with maximised individual welfare if students have relatively strong social preferences. Moreover, students who perform at the same level today do not necessarily have the same academic potential in the future, as they may not face the same practical constraints at home.² However, it is not clear that students assess correctly their objective disadvantage or that they set their aspirations on unbiased ground. This paper shows that they do not. First, we find that low-SES students start thinking about their aspirations within a socially-determined set of options. They indeed have different salient options than their *equally-performing high-SES classmates*: low-SES students are, for instance, 5.6 p.p. more likely to mention vocational high school as part of the existing options, and 5.5 p.p. less likely to mention graduate studies.

Second, we show that social stereotypes shape students' perceptions. Once salient options are controlled for, low-SES students are respectively 7.1 and 3.4 p.p. less likely to feel capable of pursuing academic high school and graduate studies, and 3.8 p.p. more likely to cite no attainable option in higher education relative to *equally-performing high-SES classmates*. To interpret these differences, we examine how students assess their attainable options, namely how they assess both their *current* academic capacity and their *future* academic progress. We find evidence that they assess both dimensions incorrectly. Firstly, students exhibit excessively fatalistic views on the extent to which future academic success in high school is determined by social background, overestimating this link compared to what we find in administrative data. Secondly,

¹We define "high-SES students" as students for whom at least one guardian has an occupation that corresponds to five or more years of education (32% of students), "low-SES students" as students whose both parents have occupations that do not require higher education (46%), and we call other students (22%) "intermediate-SES students."

²Anecdotally and unsurprisingly, our data show for instance that lower SES students make less academic progress over the year compared to their high-SES classmates who have the same aspirations and the same academic capacity in the first place (Tables B.1 and B.2).

low-SES students have lower current scholastic self-esteem compared to their *equally-achieving high-SES classmates*, despite the fact that the academic self-esteem measure focuses on current academic ability. Our data show that these misperceptions contribute to the fact that low-SES students have more modest attainable option sets than their *equally-performing high-SES classmates*. Consistent with literature on role models, students' sensitivity to parents' example may explain part of these results. We find that it explains part of the social differences in attainable options. Very importantly, our analytical design is such that we are able to show that these biased differences in awareness of existing options and biased feelings about one's academic potential drive an important part of the social differences in aspirations. We are also able to show that liquidity constraints and social preferences play a role, as students' sensitivity to the cost of education and to parents' wishes explain part of the differences in preferred options (i.e. aspirations) given similar attainable options.

Finally, our data are consistent with aspirations significantly impacting later school outcomes. Using extensive controls and several robustness checks, we find that students' educational aspirations at the beginning of 9th grade are strongly correlated with teachers' annual grades, with test scores on the national exam at the end of the year, and with assignment to a certain type of high school (academic or vocational). These additional results are consistent with the existence of an aspirations-based poverty trap (see Section 2.1 for more details), meaning that biased aspirations induce sub-optimal investments and decisions resulting in poor outcomes, compared to that which could have been achieved with adequate aspirations. Hence, students' social differences in aspirations reinforce social inequalities at school.

Our paper sheds light on several different strands of the literature. First, it adds to the literature concerning the intergenerational transmission of social inequalities. Numerous studies have shown that family background influences student academic achievement through a variety of channels including: inherited ability (Black et al. [2005]), parental involvement (Avvisati et al. [2014]), and school and neighborhood quality (Goux and Maurin [2007], Chetty et al. [2011], Chetty et al. [2016]). This paper explores a different and complementary channel of transmission, namely educational aspirations, and is thus highly related to Figlio et al.'s paper (2016) on the effect of long-term oriented attitudes on educational performance. Second, it brings new evidence to the social determination of aspirations, a topic on which empirical studies remain scarce (Sewell et al. [1969], Sewell et al. [1970], Jencks et al. [1983], Hoxby and Avery [2014], Pasquier-Doumer and Risso-Brandon [2015]). Thanks to our rich survey data, we are able to explore detailed measures of aspirations in the short-, medium-, and long-term, as well as shed light on several mechanisms through which aspirations are formed.

This paper also contributes to the literature on behavioral economics of education that highlights various biases in how students make decisions about education. Our findings are particularly relevant to the literature on the role of social identity in economic behavior (Akerlof and Kranton [2000, 2002], Hoff and Pandey [2006, 2012]; Fehr and Hoff [2011], Hoff and Stiglitz [2010, 2016]). Given the quality of our data, we are able to show that identity-based preferences are formed partly on the basis of differential salience of existing options and of differential self-perceived academic potential. This is due to social fatalism and to unjustified differences in scholastic self-esteem, casting doubt on the optimality of these preferences.

The policy implications of this paper are important. Since low-SES students have lower aspirations than high-SES students, they are more likely to suffer from the negative consequences of low aspirations in addition to the negative consequences of their social origin. Thus, we offer a new explanation for the rapid divergence in school outcomes between high- and low-SES students who we observe in the data. Educational interventions aimed at reducing social inequalities in academic performance by improving school quality (e.g. extra-tutoring or reduced class sizes) in disadvantaged areas would therefore be insufficient to close the gap. They must instead be combined with actions that strengthen the capacity to aspire; otherwise failure in aspirations will continue to dampen the academic outcomes of the disadvantaged. In the light of our findings, such interventions should raise students' awareness about existing options and links to jobs as soon as junior high, as well as strengthen students' self-esteem and reduce social fatalism with adequate role models or growth mindset type programs. That said, strengthening the capacity to aspire is not equivalent to raising aspirations of all low-SES students, which may in fact produce worse outcomes among the weakest students (Goux et al. [2016]). It requires instead an adjustment in aspirations that brings them in line with students' actual potential, independent of their social background.

The remainder of the paper is organised as follows. Section 2 discusses the existing literature on aspirations, while Section 3 presents our conceptual framework of aspirations. Section 4 presents the context and data, and then Section 5 describes our empirical strategy. Section 6 shows our results, and Section 7 discusses the consequences of these results for the optimality of aspirations. Section 8 concludes.

2 Related Literature

This section presents the literature related to our paper. We begin with a review of emerging theories on aspiration-based poverty traps. We then present the empirical literature related to our two sets of findings: the consequences of aspirations on economic outcomes, and the social determination of aspirations. Finally, we present the literature on the optimality of socially-dependent preferences.

2.1 Theories on aspiration-based poverty traps

The theoretical literature on aspirations emerged a decade ago at the intersection of anthropology and economics (Appadurai, [2004], Ray [2006]). According to Appadurai and Ray, the capacity to aspire is a “specific future-oriented instance of culture” that is socially determined because experiences are formed in the “thick of social life”. Poor people’s possible selves are different from rich people’s possible selves because individuals use comparisons and similarities with peers and relatives in forming their aspirations. An aspirational trap occurs when low aspirations induce low investments and efforts to better one’s life, resulting in poor outcomes. Embedding this theory in a macroeconomic growth model, Genicot and Ray (2015) show that the social determination of aspirations can be the source of divergent income inequalities³. In this first class of models, social background has a direct impact on aspirations.

Dalton et al. (2016) develop a different model in which aspirations are not inherently socially determined but still contribute to a poverty trap: at a given initial aspiration level, a poor person will choose a lower level of effort than a rich person because poverty imposes external constraints that make effort less productive. This lower effort induces lower realised outcomes, which in turn results in lower aspirations in the next period. Hence, the aspiration level of the poor person diverges from the aspiration level of the rich person, as do the realised outcomes, starting a vicious cycle that locks individuals in a poverty trap.

These different theories of aspiration-based poverty traps draw on a common dynamic, which cycles from aspirations to effort, realised outcomes, and back to aspirations. They differ, however, in terms of the impact of social origin: either directly on aspirations (Appadurai [2004], Ray [2006], Génicot and Ray [2015]), or on returns to effort (Dalton et al. [2016]).

2.2 Empirical evidence on the social determination of aspirations

The empirical literature showing that aspirations are influenced by individuals’ social background is quite limited. The first evidence was provided in the 1960s using US data in what is known as the “Wisconsin Model”: at equal IQ test score and rank in the class, 11th grade students whose fathers’ had a low education level⁴ were less likely to aspire to and reach college than those whose fathers’ had a higher education level (Sewell and al. [1969]). Additional papers have extended this first result using broader populations and

³Aspirations are influenced by a society-wide distribution of income within the current generation. In relatively equal societies, aspirations are more equally distributed and easier to satisfy, which creates convergence. In contrast, in unequal societies aspirations of the poor are more often frustrated, inducing lower aspirations, investment and growth for the poor, and widening society-wide inequalities.

⁴The sample was constructed based on a survey done in 1957 including all high school seniors in Wisconsin. Out of this database, only 929 male high school seniors whose fathers were farmers in 1957 and who accepted to respond to a survey in 1964 are included in the sample.

better measurements of academic achievement - both a test score and teachers' grades (Sewell et al. [1970], Jencks et al. [1983]). More recently, Hoxby and Avery (2014) show that among the highest-achieving US students (top 4% on college assessment test scores⁵), low-income students are less likely to apply to selective universities than high-income students, even if the cost of attending a highly selective university would not have been greater. Finally, Pasquier-Doumer and Risso-Brandon (2015) examines differences in occupational aspirations between indigenous and non-indigenous children at age 12 in Peru, as well as the effect of aspirations on educational outcomes. They show first that being indigenous is not a significant determinant of occupational aspirations while socioeconomic status is, and second that the level of aspiration in turn impacts progress in language acquisition. In the French case, sociologists have developed a related literature on social inequalities in option assignment: low-SES French students are less likely to enter selective options than high-SES students who have similar academic performances (Girard and Bastide [1963], Duru-Bellat [1988], Davaillon and Nauze-Fichet [2004]). Yet there is little evidence on mechanisms, either teacher discrimination, parental preferences, or pupil inhibition, as students' aspirations are not observed.

The only paper that provides insights on the mechanisms through which aspirations are socially determined is Hoxby and Turner (2015). This paper evaluates the impact of an intervention that provides students with semicustomized application guidance, information on net college costs, and no-paperwork application fee waivers. The students respond by enrolling in colleges that have stronger academic records, showing that lack of information is a reason why low-income students do not aspire as high as high-income students. Our paper contributes to this literature by providing the first empirical evidence that adolescents' aspirations are socially biased not only because of taste or lack of information about educational costs and benefits, but also because of unawareness of existing options and biased feelings about one's academic potential.

2.3 Optimality of socially-dependent preferences

The economics of identity literature provides various explanations for socially-dependent preferences, leading to different views on their optimality in terms of welfare. A first class of theoretical models reconcile low economic outcomes and maximised utility. Individuals may increase their utility by investing in identity-reinforcing attitudes, because it limits disruption and maintains a sense of unity (Akerlof and Kranton [2000, 2002]). Identity-reinforcing attitudes are also a way to invest in one's social network so as to secure interactions and cooperation in the future (Austen-Smith and Fryer [2005], Fang and Loury [2005], Fryer [2007]), or to signal and affirm values and beliefs and avoid cognitive dissonance (Bénabou and Tirole [2011]).

⁵Their paper thus focuses on a very specific group of high-school students, whereas our paper provides results on the entire distribution of middle-school students.

Finally, resisting education may be a reaction to the threat of losing one’s culture (Carvalho and Koyama [2014]). In the view of these papers, identity-based behaviors may be detrimental in terms of economic outcomes but still optimal for individuals, since they obtain the highest utility from economically-lower, identity-conformed outcomes.

Another class of papers, from the behavioral economics literature, sees the role of identity as driven by inefficient factors, leading to sub-optimal outcomes. Avery and Kane (2004) and Oeropoulos and Dunn (2013) find that low investment in higher education by low-income students can partly be attributed to misinformation about its returns and costs. Hoff and Pandey (2006, 2012) and Fehr and Hoff (2011) show that identity shapes preferences due to stereotype susceptibility and point to the risk that endogenous preferences perpetuate social inequalities. Hoff and Stiglitz (2010) build a theoretical model of an identity-based poverty trap where beliefs related to social inferiority affect the *perceived* probability of success (or self-confidence) and so change behavior in ways that make the beliefs come true. In a subsequent paper, Hoff and Stiglitz (2016) describe how social identity creates mental models, affecting how an individual experiences what he experiences (perceptions and cognition), and making individual choices subject to deep social influences. Our paper contributes to this literature by pointing to the role of awareness of existing options and perceptions of one’s academic potential in shaping social differences in educational aspirations.

3 Conceptual Framework of Aspirations

This section presents our conceptual framework of aspirations. We base this framework on a standard decision-making model.

3.1 The model

Students set their aspiration x in the set of existing options X in order to maximise their utility $u(x)$ under the feasibility constraint $px \leq w$, where p represents the cost of choosing option x , and w the wealth of the student. In our framework, ‘cost’ and ‘wealth’ should not be understood only financially, but also academically: the price of option x includes not only the financial costs associated with this option (tuition fees, transportation costs, credit costs etc.), but also the academic effort required to achieve this option (time spent on studying, intellectual difficulty). Similarly, student’s wealth w includes not only the financial resources available to this student (savings and access to credit), but also the physical and intellectual capacity to study (hereafter, academic capacity). Options x such that $px \leq w$ form the subset of *feasible* options F , which are both *affordable* (financial feasibility) and *attainable* (academic feasibility). In Ray’s

terminology F is referred to as the “aspiration window”. The determination of aspirations follows a standard decision-making process: among the set of existing options X , students assess the subset of feasible options F , and aspire to the feasible option x^* that provides the highest utility.

In this paper we examine educational and professional aspirations, and we take them as sequentially dependent: certain levels of higher education are necessary for certain jobs (while not required for other jobs), and certain types of high school are necessary for certain levels of higher education. In our model education is primarily an investment to get a job, so professional and educational aspirations are linked as followed: 1. Professional aspirations are set based on the set of feasible educational options; 2. Educational aspirations are set based on professional aspirations. For a student, the dynamic model of setting her educational and professional aspirations thus starts with the assessment of feasible educational options F_e among what she considers to be the set of existing options X_e , so $F_e \subset \{Attainable\ Options\} \subset X_e$. In this first step, X_e may vary across students because all students may not be informed of all existing options (information issue), or because some options may not be salient to them (salience issue), which both result in unawareness. Then F_e mechanically determines a set of feasible professional options F_p , and among F_p , students then choose their professional aspiration x_p^* as the one maximising their utility. Finally, students choose their educational aspiration x_e^* such that x_e^* allows them to become x_p^* (if there are several possibilities, x_e^* is the one that maximises their utility).

3.2 How can aspirations be socially determined?

The set of options X_e can be socially determined. Appadurai (2004) indeed mentions the “stock of available experiences” that forms aspirations. Ray (2006) also identifies the flow of information and role models available in one’s network as factors that influence what individuals consider as the set of existing options. In the rest of the paper, we refer to X_e as the set of *salient* options, i.e. the set of existing options for each individual, given the information and salience issues he may face.

F_e , which is defined as the set of x satisfying the constraint $px \leq w$, can also be socially determined, and in several ways. First, all financial costs p may vary with family SES due to the location of the family (transportation costs) and to tuition fees (disadvantaged families may face lower tuition fees). Besides, students’ financial wealth w is also socially determined because of differential savings and access to credit (disadvantaged families may face higher interest rates, or even no access at all). Second, regarding academic feasibility, students’ academic capacity w may also depend on family characteristics due to the factors listed in Section 2: inherited ability, parental inputs, and school and neighborhood quality. An important feature

of aspirations is that this decision concerns the future, so the feasibility constraint involves estimations of one’s *future* academic capacity which is based on assessment of one’s current academic achievement on the one hand, and assessment of the evolution of one’s performance over time on the other hand. Students’ academic capacity w may thus be socially determined through differential current academic achievement, differential advancement in academic achievement in the future, or differential assessment of these factors.

Finally, $u(\cdot)$ can be socially determined in presence of social preferences. The economics of identity literature has developed several explanations and illustrations for $u(\cdot)$ being shaped by elements like networks, values, tastes, beliefs, etc. that are partly socially determined (see Section 2.3).

This paper is the first to examine social differences in X_e and F_e (at both the high school and higher education levels), on top of social differences in x_e^* and x_p^* to disentangle the mechanisms leading to the latter differences.

4 Context and Data

4.1 Background on the French education system

The French education system is such that the curriculum is the same across schools from kindergarten up until the end of junior high. Junior high runs from grades 6 to 9. After finishing junior high, 60% of pupils enroll in an academic high school while 40% of pupils enroll in a vocational high school (Afsa, 2009). Academic high schools are more selective than vocational high schools: the distributions of test scores at the end of grade 9 show that students who enroll in an academic high school have much better academic performances than students who enroll in vocational high schools (Figure 1). Academic and vocational high schools also differ in their link to higher education. Academic high schools do not provide a professional degree, such that students are expected to go on to some form of higher education. In contrast, vocational high schools provide students with a professional degree, allowing them to find work with no further education. In fact, 92% of students who graduate from an academic high school enroll in higher education⁶, while only 25% of students who graduate from the 3-year vocational option get some higher education, while no students in the 2-year vocational option enroll in higher education⁷. Early specialisation in vocational high schools

⁶Within academic high schools (*Lycée Général et Technologique*), 67% of students graduate from the *Général* option, of which almost 100% get some higher education, while 33% of students graduate from the *Technologique* option, of which 75% get some higher education (Afsa, 2009).

⁷3-year vocational-option (*Lycée Professionnel*) students have formal access to universities with their professional Baccalauréat, but they are not academically prepared for university, so in practice less than 5% actually enroll in a classic curriculum at university. The other 20% enroll in 2-year technical programs in institutes that are not located inside a university (even if they are officially part of it). And as access to higher education requires the completion of a Baccalauréat (*Baccalauréat*), students from 2-year vocational-option (*Centre de Formation par l’Apprentissage*) cannot access higher education (their diploma is “*Certificat d’Aptitude Professionnelle*”). (Afsa [2009])

makes changing options later difficult, and many higher education pathways are not accessible to students in vocational high schools.

The process of option assignment starts in March and ends in June of grade 9 (see more details on the French educational system and the procedure of option assignment in Appendix A). Students thus reach an important crossroads in ninth grade in terms of their educational paths: the high school decision is a crucial milestone with important consequences for final educational and occupational attainment.

4.2 Sample and Databases

Our data concern 59 junior highs from the Paris metropolitan area (hereafter “Paris MA”, i.e. “Ile de France” in French) which heads accepted to participate in our survey. This set of schools is not representative of the overall set of junior highs in this MA.⁸, but it differs only slightly from the junior high population in the Paris MA in terms of social composition as shown in Figure 2, and in terms of average school test score on the national exam at the end of junior high as shown in Figure 3.

To construct our sample of students, we merged data from two sources: (i) a research survey administered to ninth graders in these 59 junior highs in November 2012, and (ii) administrative data collected by the statistical unit of the Ministry of Education. Our final matched sample consists of 3,414 students, i.e. nearly half of the students registered in grade 9 in the 59 junior highs (see Appendix A for more information on the construction of the sample). Administrative data show that our final sample is similar to the initial population of the 59 junior highs in terms of test score on the national exam at the end of junior high and in terms of SES (results available upon request). In the end, given our set of schools, our results may not be generalisable to the French population.

In summary, the administrative data provide information on parental SES, teachers’ grades averaged over grade 9, score on the national exam taken at the end of grade 9 (in June 2013), and option assignment at the beginning of grade 10 (in September 2013). The survey data provide information on aspirations, academic capacity in November 2012, parents’ immigration status, students’ self-esteem, and students’ beliefs on social fatalism. Both datasets also include gender and age. The survey questionnaire was administered at the beginning of grade 9 in order to capture students’ aspirations at a point in time when discussions about option assignment at school had not yet begun. More specifically, while students might have discussed option assignment with their parents, families would not yet have made a formal decision. Moreover, no information on teachers’ opinions is officially provided during the first term, so that when students took the survey they

⁸In particular our sample overrepresents Priority Education junior highs compared to the full set of junior highs in the Paris metropolitan area (56% versus 22%).

were unlikely to know which option their teachers thought would be most appropriate for them.

4.3 Variables of interest

Salient options, Attainable options, and Aspirations

To measure students' educational aspirations, students were asked first which options they are aware of (salient options)⁹ then, among these options, which they feel academically capable of pursuing (attainable options) and finally, among these options, which they prefer (aspiration). By construction, aspirations are thus included among the attainable options, which in turn are included among the salient options¹⁰. These questions were first asked with regard to high school options, and then for higher education options. The questions were entirely open, representing a fundamental value of this paper relative to papers using MCQ in that we are able to capture as closely as possible students' salient, attainable, and preferred academic options and occupations; our measure of the aspiration window is not distorted by a provided set of existing options.

For salient and attainable options, we construct the following dummies to indicate whether the student mentions: "No option" (meaning the student does not answer), "Vocational high school," and "Academic high school" at the high school level; and "No option," "1-4 year of college," and "graduate studies" at the higher education level. For preferred options, we construct four dummies to indicate whether the student prefers: "No answer", "No high school," "Vocational high school," and "Academic high school" at the high school level; and "No answer," "No higher education," "1-4 year of college," and "graduate studies" at the higher education level. Students who provided several answers may fall into several categories (except "No option"/"No answer"). We provide detailed information on data construction in Appendix A.

Finally, after the questions on salient, attainable and preferred educational options, students were asked which job(s) they would like to do in the future. On average, students provided 1.7 jobs. We coded responses according to the number of years of education required to prepare for the job and ranked them according to four categories: "No answer," "No higher education," "1-4 years of college," or "graduate studies"¹¹.

Table 1 shows descriptive statistics on educational salient, attainable, and preferred options, as well as

⁹A fifth of the students were randomly chosen within each class to complete a different questionnaire, which includes a list of existing options both at the high school and higher education levels. These students were not asked which options they know, but directly which options they feel capable of pursuing. The number of observations for salient options is thus smaller than for attainable and preferred options. Note that this feature of the questionnaires is not exploited in this paper.

¹⁰In practice in the data, most students follow these implicit rules when they answer the survey questions. At most, across all types of options, only 1.9% of the students do not follow this rule.

¹¹We used ONISEP's website, the principal French institute providing information on academic paths and jobs, to associate the number of years of education required for each job. When jobs are not precise and can be associated with different levels of education (e.g., "IT engineer" which can be associated with at least a 2-year college education and at most a 5-year college education), as is the case with roughly 29% of the answers, we build two extreme scenarios and use the lowest number of years of education compatible with the provided answer.

professional aspirations. We see that very few students prefer “No high school” so this category will not be part of our econometric analysis.

Academic capacity in November 2012

The starting point of this paper is that aspiration is the capacity to set goals for the future that are in line with one’s potential. A key variable is thus students’ academic capacity, that we proxy by their current capacity at performing at academic tasks, together with other measures of cognitive and non-cognitive skills.

We use academic test scores in November 2012 to measure academic performance at the same time as aspirations. Two tests (a 45-minute and a 20-minute test) covering grade 8’s math curriculum were administered one week apart in class by the research team in November 2012. The use of tests administered on two different days, one week apart, allows to limit measurement error due to personal temporary dispositions. We average individual scores on the two tests (see more information about these two tests and the construction of the score in Appendix A). We are confident about the quality of the measure of academic performance in November 2012 given that the two tests were administered under strict and rigorous conditions, and designed to avoid ceiling effects (as shown on Figure 4).¹²

We also have additional proxies of cognitive and non-cognitive skills in November 2012. We first use the Raven Progressive Matrices (RPM) test to measure students’ cognitive ability independent of any prior knowledge. This test is a non-verbal multiple choice test using drawings (Raven et al. [2003]) and is one of the most commonly used measures of fluid intelligence, which is seen by psychologists as a measure of the capacity to acquire more knowledge and at faster rates.

We also use dummies indicating whether the student ever repeated or skipped a grade (based on age), as well as two measures of student behavioral conduct: first, the total number of questions that students attempted to solve on the two academic tests (independent of whether they answered correctly), reflecting the effort that the students invested in taking the tests¹³. The second measure is the score of self-perceived behavioral conduct based on the “Self-Perception Profile for Adolescents” (SPPA) scale developed by Susan Harter in its French version (Bariaud [2006]). The “Behavioral Conduct” subscale taps the degree to which one likes the way s/he behaves, does the right thing, acts the way s/he is supposed to act, and avoids getting into trouble.

¹²The correlation between the test scores in November 2012 and in June 2013 is 0.78.

¹³As questions on the math tests are open questions, a student is considered as having “attempted to solve the question” if s/he wrote down some calculation and/or provided an answer, independent of whether the answer was right or not.

Family characteristics

Our data contains information on both guardians (parents) type of occupation. We define high-SES students as students for whom at least one guardian has an occupation that corresponds to five or more years of education (32% of students), low-SES students as students whose both parents have occupations that do not require higher education (46%), and the other students (22%) are called intermediate-SES students (for further information, see Appendix A). Besides, we define immigrant families as families in which *both* parents were born abroad. In our sample, 38% of families are immigrants (for further information, see Appendix A).

Scholastic self-esteem, social fatalism, importance of the cost of education, and social preferences

Students' self-perception of their scholastic competence, or "scholastic self-esteem," is measured using the "Self-Perception Profile for Adolescents" (SPPA) conceived by Susan Harter (Harter [1988]). The "Scholastic Competence" subscale includes five items: "being just as smart as others," "doing school work quickly," "doing well at class work," "feeling pretty intelligent," and "almost always figuring out the answers in class." Our measure of scholastic self-esteem uses the standardized score over all five items.

To measure fatalism, we compute the social gap in assessed probabilities of success in high school (*perceived* gap), and compare it to actual social gap in probabilities of success in high school measured using administrative data (*real* gap). Fatalism happens when the perceived gap is greater than the real gaps. To measure the *perceived* gap students were asked to assess the probability of success in high school of a hypothetical *high-achieving* student on a scale from 0 to 10 in two situations: (i) if "s/he lives in an advantaged neighborhood", or (ii) if "s/he lives in a disadvantaged neighborhood". To estimate the *real* gap corresponding to this *perceived* gap, we measure eight actual social gaps in probabilities of "success in high school" in order to map the different interpretations students may have had of the exercise. We first associate "succeeding in high school" to two events: "entering academic high school right after high school" (i.e. without repeating 9th grade) on the one hand, and "passing the end of academic high school exam" on the other hand¹⁴. Also, we interpret "high-achieving student" either in a broad sense (students above the median), either in a more restricted sense (students in the top quartile) using scores on the national exam at the end of junior high school. Finally, we interpret "lives in an advantaged/disadvantaged neighborhood" as either "attending a priority education/non-priority education junior high school"¹⁵, or "being from a low/high-SES family".

¹⁴The gaps on the probability of passing the national exam at the end of academic high school that are presented are without grade repetition before the end of high school. And the gaps on the probability of passing the national exam at the end of academic high school "at some point" (whether you repeat a grade or not to get there) are even smaller.

¹⁵"Priority education" being a label for junior high schools in which the population of students is from a disadvantaged social background, i.e. located in poor neighborhood.

This gives eight real gaps to compare with the perceived gap.

Finally, students were asked what factors are important to them when they form their educational aspirations. Precisely, students had to indicate the three factors that are most important to them out of a list of nine factors: financial cost, family example, friends' opinion, teachers' opinion, academic performances, information received from relatives, friends' choice, parents' preferences, and teachers' biases. We construct three indicators out of this question: "cost of education matters", "parents' example matters", "parents' wishes matter", each of them being equal to 1 for students who mention respectively "financial cost", "family example" or "parents' wishes" among these three main factors. Besides, students had to consider a hypothetical high-performing student and answer questions on whether this student should choose an educational option based on her best friends' choice (as opposed to her academic performance), whether she would suffer to leave her friends, whether her friends would be resentful if she does, and whether they would laugh at her. We thus construct a fourth indicator, namely "friends' opinion matters", that is equal to 1 for students who answered "yes" to at least 2 questions out of 4 regarding the hypothetical high-performing student, or mentioned either "friends' opinion" or "friends' choice" among the three main factors which are important to them when they choose their preferred option.

5 Empirical Strategy

5.1 Social Inequalities in aspirations

We begin by measuring social inequalities in aspirations. Our identification relies on the fact that family background is determined by the accident of birth. More specifically, the reasons why aspirations are correlated with parental SES and immigrant status are all consequences of family characteristics correlated with SES and immigration: parents' level of education, parents' involvement in their child's education, parents' choice of housing and school location, characteristics of parents' friends and networks, genetics, etc. Any difference in aspirations between low-SES and high-SES or immigrant versus non-immigrant students is thus the consequence of these family characteristics correlated with parental background. Here, we are not interested in the pure effect of family background on aspirations *everything else being equal*, but in the *ecological* effects of family SES and immigrant status which incorporate all dimensions of students' life that result from parental SES and immigrant status. We only separate two social dimensions, namely parental SES and immigrant status, as Caille (2007) shows that, in France, first-generation immigrants have higher aspirations than non-immigrants. To replicate this result and separate the effect of social background from the effect of immigration status, our specification includes dummies indicating parental SES as well as a

dummy indicating whether students come from immigrant families. The effect of socio-economic status is thus considered independently of whether students are immigrants.

We first present raw differences in educational and professional aspirations between students from low and high-SES families:

$$x_{ij}^* = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \varepsilon_{ij} \quad (1)$$

where x_{it}^* is a dummy indicating if option x (vocational high school, academic high school, nohigher education, graduate studies, job requiring no higher education, and job requiring graduate studies) is preferred by student i in class j at time t . $LowSES_i$ indicates that none of the parents are intermediate nor high-skilled workers, $IntermSES_i$ indicates that none of the parents are high-skilled workers but at least one parent is intermediate, and $Immigrant_i$ indicates that both parents were born abroad. We interpret β and γ as the ecological effects of parental SES (once immigration status is taken into account), and δ as the independent ecological effect of being born in an immigrant family (once SES is taken into account). β , γ , and δ are thus measures of raw social inequality in aspirations.

Then, we measure the remaining social gap once we control for academic capacity. Indeed, the capacity to aspire is the capacity to set goals in line with one’s potential, and current academic capacity is an obvious determinant of one’s academic potential (the academic aspect of w in the constraint defining F_e). We consider that students who show similar measures of academic performance, and cognitive and non-cognitive skills that are relevant for academic success, have similar current academic capacities. We thus add to the previous model a vector $AcadCap_{it}$ which includes dummies for deciles in test scores in November 2012, dummies for Raven Progressive Matrices scores, dummies for the number of questions that students tried to solve on the two tests they took in November 2012 (effort put into the tests), and deciles of self-perception of behavioral conduct. Note that we do *not* assume that similar current academic capacity means similar academic potential, as academic potential also depends on academic advancement in the future. We discuss students’ anticipations about future academic advancement in the next section as a potential mechanism explaining social differences in aspirations.

Another way parental SES and immigrant status may influence students’ academic potential is through the quality of school environment (neighborhood, teacher, and peer quality). School environment may indeed affect educational and professional preferences if students take their peers’ preferences into account when forming their own preferences for instance, or through differences in the provision of information, in perceptions of one’s academic capacity due to school stigma, or in actual school quality. We add to

the previous model class fixed-effects FE_j in order to isolate the role of school and class environment in explaining raw differences in aspirations.¹⁶ We are aware that class fixed-effects capture not only the role of peer and teacher quality in explaining students’ aspirations, but also the role of some parental characteristics influencing the choice of neighborhood, school and class (e.g. parental concern for education or involvement in education) and potentially correlated with students SES. This is why using class fixed effects may lead us to underestimating social differences in aspirations. So if anything, the true social differences in aspirations may be larger than the one measured in this paper. In the interest of simplification, we qualify this mechanism as the role of “class environment.” As a result, we present estimates from the two following models:

$$x_{ij}^* = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \varepsilon_i \quad (2)$$

$$x_{ij}^* = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \delta FE_j + \varepsilon_i \quad (3)$$

Comparing the coefficients on SES and immigrant in equations (1) and (2) thus provides evidence of the importance of one’s current academic capacity in explaining social differences in aspirations. Similarly, comparing the coefficients on SES and immigrant in equations (2) and (3) provides evidence of the importance of class environment in explaining social differences in aspirations. The remaining coefficients on SES and immigrant in equation (3) then represent differences in aspirations between *equally-performing classmates* from different social origins.

Finally, we test whether social differences in short term aspirations are fully driven by differences in long term aspirations. This is crucial to understand the origins of the social differences in aspirations. Indeed, if social differences in educational aspirations were fully explained by differences in professional aspirations, then the question would be whether these latter aspirations are optimal (i.e. leading to maximised individual welfare).¹⁷ As described in our model in Section 3, educational and professional aspirations are sequentially-dependent. Professional aspirations should logically drive educational aspirations after high school, which should logically drive educational aspirations after junior high. We thus estimate an equation of educational aspirations after high school similar to equation (3) but controlling for professional aspirations, as well as an

¹⁶When we implement this model using class fixed-effect, 90% of the classes are used in the identification of the differences by social status as they include at least one student from each of the three SES categories (low-, intermediate-, and high-SES), and 84% of the classes are used in the identification of the differences by social and immigration status as they include at least one student from each of the three SES categories and at least one immigrant and one non-immigrant.

¹⁷In theory, social differences in professional aspirations could indeed be compatible with maximised individual welfare. This would happen for instance if students anticipate perfectly social discrimination on the labor market, or if they anticipate perfectly social differences in returns to education, or if social preferences on the labor market enter students’ utility function. We are not able to test these assumptions with our data, but as we find that social differences in educational aspirations are *not* driven at all by differences in professional aspirations, we can still shed light on the optimality of students’ aspirations.

equation of educational aspirations after junior high similar to equation (3) but controlling for professional and after high school aspirations.

5.2 Mechanisms leading to social inequalities in aspirations

We test explanations for the differences in aspirations between equally-performing classmates from different social origins. Based on our framework of aspirations presented in Section 3, there are three main reasons why aspirations may be socially different: differences in salient options X_e , differences in feasible (i.e. attainable and affordable) options F_e , and the presence of social preferences in students' utility function. To disentangle the relative contributions of these reasons, we first test the existence of social inequalities in salient and attainable options among equally-performing classmates. To do so, we run the same regression as equation (3) replacing aspirations by salient and attainable options as the dependent variables.

$$Salient_{ij} = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \delta FE_j + \varepsilon_i \quad (4)$$

$$Attain_{ij} = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \delta FE_j + \varepsilon_i \quad (5)$$

Then, we test whether social inequalities in salient options fully explain social inequalities in attainable options. To do so, we control for students' salient options in the regression of attainable options¹⁸:

$$Attain_{ij} = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \delta FE_j + \mu Salient_{ij} + \varepsilon_i \quad (6)$$

Finally, we test whether social inequalities in salient and attainable options fully explain social inequalities in aspirations. To do so, we control for students' attainable options in the regression of aspirations (equation 3):

$$x_{ij}^* = \alpha + \beta LowSES_i + \gamma IntermSES_i + \delta Immigrant_i + \lambda AcadCap_i + \delta FE_j + \mu Attain_{ij} + \varepsilon_i \quad (7)$$

As $F_e \subset \{Attainable\ Options\} \subset X_e$, the coefficients on SES and immigrant in equation (7) capture the part of social differences in aspirations between *equally-performing classmates* that is *not* due to differences in perception of one's academic potential nor in salience of existing options, but to either differences in financial constraints or social preferences. Conversely, comparing the coefficients on SES and immigrant in

¹⁸Note that for social inequalities in attainable options after High School, we also control first for attainable options after Junior High as we want to study the part of social inequalities in attainable options after High School that is not already driven by social inequalities in attainable options after Junior High.

equations (3) and (7) provides evidence of the importance of perception of one’s academic potential and of salience of existing options in explaining social differences in aspirations. In the end, we thus isolate the role of salience of existing options, the role of perception of one’s academic potential, and the role of social preferences and financial constraints.

When social gaps remain in equations (6) and (7), we finally use additional data to explore the potential nature of these gaps. To explore why equally-performing classmates with identical salient options do not feel capable of pursuing the same options, we examine student’s perceptions of their own *current* academic capacity and academic potential in the future thanks to our measures of scholastic self-esteem and social fatalism. Similarly, we explore why equally-performing classmates with identical attainable options do not have the same aspirations using reported sensitivity to the cost of education and reported social preferences (in terms of sensitivity to peers’ and parents’ opinion).

6 Results

6.1 Aspirations

Table 2 presents social differences in aspirations. Regarding aspirations after junior high (Panel 1), Columns 1 and 4 show that low-SES students are four times more likely to aspire to a vocational high school than the high-SES (18.5% instead of 4.5%), whereas 27% less likely to aspire to an academic high school (58.2% instead of 79.6%)¹⁹. Columns 2-3 and 5-6 show that much of these differences in aspirations after junior high can be attributed to differences in current academic ability and school environment. However, low-SES students are still twice more likely to aspire to a vocational high school (11.3% instead of 4.5%), and 6.3% less likely to aspire to an academic high school, than *equally-performing* high-SES *classmates*²⁰. Interestingly, these differences concern both the low-achievers and medium-achievers (bottom and medium terciles of test scores), but not the high-achievers (top tercile) (results not shown, available upon request). Intermediate-SES students show the same pattern as low-SES students relative to the high-SES whether we control or not for current academic ability and school environment, although differences are half as large. Finally, immigrant students follow the opposite pattern: they are significantly less likely to aspire to a vocational high school and more likely to aspire to an academic high school than equally-performing non-immigrant classmates.

¹⁹Note that the coefficients in columns 1 and 4 are not quite symmetric due to a lower answer rate from low-SES students (see Table A.1 Panel 1 column 1). For simplicity, given the very low proportion of students answering “no high school” as their preferred option after junior high (as seen in Table 1 and explained in section 4.3), we do not report or comment on results for this remaining outcome, although they are available upon request.

²⁰Note that there is no more difference in answer rate by social background once current academic ability and school environment are taken into account (see Table A.1 Panel 1 column 3).

Table 2 Panel 2 presents the social differences in aspirations after high school. For simplicity, we focus on the two extreme aspirations: “no higher education” and “graduate studies”.²¹ Column 1 shows that low-SES students are three times more likely to aspire to no higher education (24.7% versus 8.3% among high-SES students), and symmetrically almost three times less likely to aspire to graduate studies (7.6% versus 20.9% among high-SES students). Columns 2-3 show that a large part of these social inequalities in aspirations can be attributed to differences in current academic ability and school environment, as again the differences are smaller when we control for academic ability and class fixed-effects. However, large differences remain: low-SES students are still 93% less likely to aspire to no higher education, and conversely 20% less likely to aspire to graduate studies, than their high-SES equally-performing classmates.²² Note that the differential preference for no higher education is larger for the low-achievers, while the differential preference for graduate studies is driven by the high-achievers (results not shown, available upon request). The same holds for intermediate-SES students but the differences are less pronounced, and in the end controlling for current academic ability and school environment leads to differences that are not significant anymore. On the contrary, immigrant students are still a bit more ambitious than their non-immigrant equally-performing classmates: they are less likely to prefer no higher education, and more likely to prefer graduate studies (while the latter is not observed when current academic ability is not taken into account).²³

Finally, Table 2 Panel 3 presents the social differences in professional aspirations in terms of diploma required for the preferred jobs. Aspirations for jobs follow the same general patterns as educational aspirations but the differences between the low-SES and the high-SES are much smaller, while on the opposite the differences between immigrant and non-immigrant are larger. Low-SES students are (only) 14% more likely to aspire to a job that does not require higher education (a difference which is driven by the medium-achievers), and they are as likely to aspire to a job that requires graduate studies as their high-SES equally-performing classmates. On the contrary, immigrants are 25% more likely to aspire to an occupation that requires graduate studies than equally-performing non-immigrant classmates.²⁴ This is consistent with Caille’s (2007) finding that immigrants exhibit an excess of ambition relative to non-immigrants.

²¹The results for the two intermediate outcomes “no response” and “1-4 years of college” are shown in Table A.1, Panel 2.

²²All these social differences in aspirations for after High School cannot be driven by social differences in answer rate as Table A.1 Panel 2 shows that there are none.

²³For immigrants, Table A.1 Panel 2 shows that these differences in aspirations for after High School could be driven by lower answer rates for immigrants than for non-immigrants.

²⁴All these differences in professional aspirations with respect to social background and to immigration status cannot be driven by social differences in answer rate as Table A.1 Panel 3 shows that there are none.

6.2 Are social differences in short-term aspirations driven by long term aspirations?

Table 3 shows first that aspirations are often dynamically inconsistent. For instance, consider the students who aspire to a job that requires graduate studies: only 22.2% prefer graduate studies although graduate studies are necessary to obtain the job they aspire to, and only 81.4% prefer academic high school although one cannot pursue graduate studies after vocational high school. As a robustness check, we show that same patterns emerge when we focus on the first job mentioned among the professional aspirations instead of all the jobs (the first job mentioned being plausibly the most preferred). To a lesser extent, we also find that, among students who aspire to graduate studies, not all of them mention academic high school as their preferred option after junior high. Students are thus far from being fully consistent in their aspirations at different time horizons. This lack of realism is important, as it may lead students to make irreversible decisions in the short-term, like entering vocational high school while aspiring to a job that requires some higher education (vocational high school does not, for example, allow to enroll in medicine; more generally, only 5% of students completing vocational high school go to university). The observed inconsistencies between educational and professional aspirations suggest that these consequences are not fully anticipated and internalised by teenagers, potentially creating frustration when students realise that their educational choices do not match their professional aspirations.

Second, Table 4 shows that professional aspirations do not explain the social inequalities in educational aspirations. We see indeed that the differences in aspirations between low/intermediate-SES and high-SES remain about the same when we control for students' professional aspirations (Columns 2, 5, 8, and 10) and when we do not (Columns 1, 4, 7, and 9). This is true even if professional aspirations do correlate with educational aspirations (the coefficients are of the expected sign and highly significant, and the adjusted R-squared increases). These findings are important in interpreting the differences in educational aspirations between low and high-SES students: social groups differ much more in the way they plan to invest in education than in the way they think about their future occupation. At 15 years-old, social differences in educational aspirations among equally-achieving students are not driven by social differences in professional aspirations.

In contrast, aspirations after high school play a role in the social inequalities in aspirations after junior high. Column 3 shows that the gap in preference for vocational high school between the low-SES and the high-SES is reduced from 7.3 percentage points to 5.8 percentage points when we control for aspirations after high school. Similarly, Column 6 shows that the gap in preference for academic high school between

the low-SES and the high-SES is reduced from 4.4 percentage points to 2.1 percentage points (a difference which is no longer significant) when we control for aspirations after high school. These findings suggest that social inequalities in aspirations for high school and for higher education are probably driven by the same mechanisms while this is not the case for professional aspirations. And in any case it means that social inequalities in aspirations cannot be explained by students anticipating social discrimination on the labor market or social differences in returns to education, nor by students having social identity-driven preferences concerning the labor market.

6.3 Why are aspirations socially different?

6.3.1 Social differences in salient and attainable options

Table 5 Panel 1 shows that there are social differences in salient option sets among equally-performing classmates. When only 81.1% of high-SES students mention vocational high school in the set of existing options, low- and intermediate-SES students are respectively 5.6 and 5.2 percentage points more likely to mention it compared to their high-SES equally-performing classmates, a difference that is likely to be due to a higher number of relatives who have attended vocational high school.²⁵ On the contrary, 93.8% of high-SES students mention academic high school in the set of existing options and this proportion is the same for their low- and intermediate-SES equally-performing classmates, which shows that academic high school is common knowledge for all students. Regarding higher education, a large proportion of students are not able to mention any existing option even among the high-SES (31.7%), and this proportion is 5.9 percentage points (19%) larger among their low-SES equally-performing classmates (but this estimate is imprecise). Low-SES students are symmetrically 5.5 percentage points (15%) less likely to mention graduate studies in the set of existing options after high school than their high-SES equally-performing classmates (this estimate is also imprecise). Note that the lack of awareness of graduate studies among low-SES students is driven by the high-achievers (top tercile of test scores) (results not shown, available upon request). Overall, low-SES students have wider salient option sets for high school, but smaller option sets for higher education, than the high-SES. Note that immigrant students have the same salient option sets than their equally-performing classmates.

Table 5 Panel 2 presents the social differences in attainable option sets among equally-performing classmates. For the high school level, low- and intermediate-SES students are more likely to feel academically capable of pursuing vocational high school (Column 1), but this is entirely due to the fact that vocational high

²⁵Table A.2 Panel 1 Column 1 also shows that high-SES students seem more hesitant in answering than their equally-performing classmates, and this is actually driven by the low-achievers (bottom tercile of test scores). This may indicate that low-achieving high-SES are not even aware of the existence of vocational high schools.

school is more salient to them (Column 2). On the contrary, low-SES students are 6.9 percentage points less likely to feel academically capable of pursuing academic high school than their high-SES equally-performing classmates (Column 3), which is not related to a difference in salience (Column 4). Note that this difference is driven by both the low- and medium-achievers (results not shown, available upon request). At the higher education level, low-SES students are 8.1 percentage points more likely to cite no attainable option in higher education (Column 5), a difference which remains significant even among those who feel capable of pursuing the same options in high school (Column 6) and have the same salient options in higher education (Column 7). The opposite holds for graduate studies: low-SES students are 5.9 percentage points less likely to cite graduate studies in their attainable options (Column 8), which is only slightly related to the fact that they don't feel capable of pursuing the same options in high school (Column 9), and related to - but not fully explained by - the fact that they don't have the same salient options in higher education (Column 10). Note that this latter difference is driven by the high-achievers (results not shown, available upon request). Finally, we do not find any differences in attainable option sets for high school between intermediate- and high-SES equally-performing classmates, while for higher education these differences are very similar to those between low- and high-SES equally-performing classmates.

To summarise, we find that low-SES students have different salient and attainable option sets than their high-SES equally-performing classmates: vocational high school is more salient to them; academic high school is as salient but less attainable; more students mention no existing options in higher education and among those who do, more find that higher education is not attainable; finally graduate studies are less salient and, when salient, less attainable. In contrast, immigrant students have similar salient and attainable option sets than their equally-performing classmates.

To what extent are social differences in aspirations due to social differences in salient and attainable option sets? Table 6 Columns 2, 4, 6, 8, 10, and 12, present the social differences in educational and professional aspirations among equally-performing classmates who have similar attainable option sets - which means that the process of selecting attainable options among salient options led them to the same set. We see much less differences between low- and high-SES students than without controlling for attainable options as in Table 2 (which results are reported in Columns 1, 3, 5, 7, 9, and 11 in Table 6 to facilitate the comparison). In particular, there is no more significant differences in preference for academic high school, graduate studies, and jobs that do not require higher education. The differences that remain concern the preference for vocational high school, and the preference for no higher education, but these are about half as large as the original differences (respectively 3.6 p.p. versus 6.9, and 4.7 p.p. versus 7.7). These findings provide evidence

that a large part of the social differences in aspirations are due to social differences in salient and attainable option sets.

6.3.2 Factors that may explain social differences in attainable options and aspirations

While differences in salient option sets derive directly from differences in the available stock of information and experiences that families transmit to their descendants, factors driving social differences in attainable option sets and in aspirations (given attainable option sets) among equally-performing classmates are more intriguing and call for further investigation. Building on our theoretical framework, we explore three sets of factors. The first set aims to explain attainable options so it includes factors related to students' perception of their academic potential: social fatalism, academic self-esteem, sensitivity to parents' example. The second factor is related to financial feasibility: importance of the cost of education. Finally, the third set is related to the presence of social preferences in the students' utility function, so it includes the importance of parental wishes and of friends' opinion.

First, Table 7 presents evidence on social fatalism. Students report that success in high school of a hypothetical high-achieving student is 33.5 percentage points less likely if the student comes from a disadvantaged neighborhood than if she comes from an advantaged neighborhood (Column 5). We see that the *actual* social gaps (Columns 1-4) are always smaller than this *perceived* social gap, whatever the statistical interpretation we give to the question in our survey (see Section 4.3 for a detailed explanation of our measures of the *actual* social gaps). Specifically, if we interpret “comes from a disadvantaged neighborhood” as “the school is in priority education”, we see that high-achieving students in priority education actually have both a higher probability to enter academic high school right after junior high than those in non-priority education, and a higher probability to pass the national exam at the end of academic high school.²⁶ If we interpret “comes from a disadvantaged neighborhood” as “is from a low-SES family”, top-quartile (resp. above median) low-SES students are 5.3 (resp. 12.8) percentage points less likely to enter an academic high school right after junior high, and 7.8 (resp. 16.7) percentage points less likely to pass the high school final exam than high-SES students.²⁷ Being from a low-SES family is thus associated with an objective disadvantage for later success in high school. However, the perceived disadvantage is disproportionately larger (Column 5). The average student thus proved to be too fatalistic regarding the extent to which social origin affects later success in high school. In what follows, we construct a dummy variable “Is fatalistic” indicating that the

²⁶The fact that high-achieving students are more likely to pass the national exam at the end of academic high school in priority education schools is entirely explained by the fact that they have a higher probability to enter academic high school, which reflects the fact that a high-achieving student is seen as more able in a low-achieving school than in other schools.

²⁷See Appendix A for a detailed description of these statistics.

student’s perceived gap of success in high school if one comes from a disadvantaged neighborhood relative to an advantaged neighborhood is larger than three times the largest actual gap we can observe in the data (i.e. three times 16.7).

Table 8 compares means of all factors by social and immigration status among equally-achieving classmates. Interestingly, we find the same proportion of “fatalistic” students whatever their parents’ SES, at about 15% (Column 1), which indicates that excessive social fatalism regarding education is a common feature shared by all social categories in France (and also students at all levels of proficiency, results available upon request). Low-SES students thus overestimate their relative disadvantage, but high-SES students similarly overestimate their relative advantage, meaning that this factor could explain part of the social differences in attainable options.

Regarding scholastic self-esteem (Table 8 Column 2), it appears that immigrant students have the same self-esteem as their equally-performing non-immigrant classmates, whereas low- and intermediate-SES students have a respectively 0.145 and 0.092 standard deviation lower scholastic self-esteem than their equally-achieving high-SES classmates. Importantly, our measure of scholastic self-esteem is based on perceptions of one’s *current* academic performances (see explanations in Section 4.3). Students who objectively have similar *current* academic performances have thus different perceptions of their *current* academic performances depending on their social origin. This social difference in scholastic self-esteem is the largest among high-achievers (results available upon request). This finding provides evidence that scholastic self-esteem is prone to social stereotype susceptibility, indicating that social identity creates mental models affecting how an individual experiences what she experiences, as proposed in Karla Hoff and co-authors’ models (see Hoff and Pandey, 2006 and 2012, Fehr and Hoff, 2011, and Hoff and Stiglitz, 2010 and 2016). Again, it means that social difference in scholastic self-esteem could also explain part of the social differences in attainable options.

Table 8 Columns 3-6 presents social differences in the proportions of students for which parents’ example / parents’ wishes / friends’ opinion / the cost of education matter(s). Among the high-SES students, 10.9% mention family example as part of the three main factors that matter in setting their educational aspirations, 17.2% mention parents’ wishes, and 19.7% mention the cost of education. Finally, 36.8% of the students meet the criteria of our “friends’ opinion matters” indicator (see the criteria in Section 4.3). The first line shows that low-SES students appear as sensitive to these factors as their high-SES equally-achieving classmates. The intermediate-SES students are more sensitive to the cost of education, and less sensitive to

friends' opinion, than their high-SES equally-performing classmates.²⁸ Finally, immigrant students appear more sensitive to parents' wishes, and less sensitive to the cost of education, than their equally-performing classmates.²⁹ Overall, the fact that all students declare that family example, parents' wishes, and cost of education, matter in setting their educational aspirations is consistent with the fact that these factors could explain social differences in aspirations. This is true even in the absence of social differences in these factors as low- and high-SES students by definition do not have the "same" parents and do not face the same financial constraints.

6.3.3 The role of self-esteem, social fatalism, sensitivity to the cost of education, and social preferences

The previous statistics help us understand how much students are fatalistic and self-confident, how much they take parents, friends, and the cost of education into account when they form their attainable options and aspirations, and whether these mechanisms are socially differential. We acknowledge that these measures are far from capturing in a satisfactory way students' utility function and constraints parameters. With this important limitation in mind, we nevertheless test whether the variables described in the previous section play a role in the remaining social differences in attainable options and aspirations once neutralised the role of school environment, current academic performances, and salient option sets.

Attainable options Table 9 focuses on the mechanisms that could explain the remaining social differences in attainable options. In Table 5 Panel 2, we have seen that the low-SES feel less capable of pursuing academic high school than their *equally-performing* high-SES *classmates* with similar salient option sets, and that the low- and intermediate-SES feel less capable of pursuing graduate studies and are more likely to cite no attainable option in higher education. The factors that can contribute to these differences are those related to students' feeling of academic capacity both *currently* and in the *future*, namely self-esteem in terms of *current* academic performances, and social fatalism. Moreover, following the role model literature, a potential explanation for social differences in students' feeling of academic capacity may be sensitivity to parents' example. In Table 9, we thus add our measures of social fatalism (Panel 1), academic self-esteem (Panel 2), and sensitivity to parents' example (Panel 3) in equation 6 to test whether they contribute to social differences in attainable options once salient option sets are taken into account.

Panel 1 shows that social fatalism plays a role in social differences in attainable options. Columns (1),

²⁸Note that the coefficients for low- and intermediate-SES students for these two factors are not statistically different though, and going in the same direction.

²⁹Note that sensitivity to these factors is similar whatever the students' levels of proficiency (results available upon request).

(3), and (5) report the results from Table 4 Panel 2 that we already discussed. Once the dummy “Fatalistic” is taken into account, the coefficient on low-SES is reduced from 4.1 to 2.9 p.p. (columns 3 and 4) for the outcome “no attainable option in higher education”, and from -3.3 to -2.5 p.p. for the outcome “graduate studies are attainable”, and these coefficients are no longer significant. This means that, among students who are not very fatalistic, low-SES students are about as likely to cite no attainable option in higher education and to feel capable of pursuing graduate studies as their high-SES equally-performing classmates with similar salient option sets. On the contrary, among students who are very fatalistic, low-SES students are +6 p.p. (respectively -4.4 p.p.) more likely to cite no attainable option in higher education (respectively feel capable of pursuing graduate studies) as their high-SES equally-performing classmates with similar salient option sets - although these estimates are very imprecise. These findings suggest that reducing social fatalism may be a promising way to reduce social inequalities in attainable option sets.

Panel 2 shows that scholastic self-esteem also plays a role in social differences in attainable options. For attainable options in high school, we find that, among students with an average level of self-esteem, low-SES students are 6.6 p.p. less likely to feel capable of pursuing academic high school than their high-SES equally-performing classmates with similar salient option sets. However, among students with a one standard deviation higher level of self-esteem, low-SES students are just 1.9 p.p. less likely to feel capable of pursuing academic high school than their high-SES equally-performing classmates with similar salient option sets. The same does not seem to hold for the social differences in the feeling that higher education options are attainable. Overall, these results suggest that increasing academic self-esteem could be an efficient way to reduce social inequalities in feeling capable of pursuing academic high school. Note that such a policy is justified for two reasons: first, low-SES students have a lower scholastic self-esteem than their high-SES equally-performing classmates; second, students’ self confidence is lower in France than in most of the other 64 countries participating in PISA (PISA 2012).

Finally, Panel 3 shows that students’ sensitivity to their parents’ example also plays a role in social differences in attainable options and may thus explain part of the previous results. While among students who do not mention parents’ example as an important factor low-SES students are just 5.1 p.p. less likely to feel capable of pursuing academic high school than high-SES students, this difference jumps to 15.5 p.p. among students for whom parents’ example matters (Column 2). Similarly, among students for whom parents’ example matters, intermediate-SES students are 12.4 p.p. less likely to feel capable of pursuing graduate studies than high-SES students, whereas the gap is only 2.4 among students who do not mention parents’ example as an important factor (Column 6). When family serves as a role model, the social

inequalities in feeling academically capable are thus very large.

Overall, these findings provide evidence that the fact that students' perceptions are stereotyped does affect their set of attainable options. And as we have also shown in Table 6 that social differences in attainable options explain a large part of social differences in aspirations, it suggests that reducing social fatalism, scholastic lack of self-esteem, and sensitivity to parents' example, can help reduce social differences in aspirations.

Aspirations Tables 10 focuses on the mechanisms that could explain the remaining social differences in aspirations (i.e. preferred options) once neutralised the role of school environment, current academic performances, and salient option sets. . In Table 6, we have seen that the low-SES are more likely to prefer vocational high school and no higher education than their equally-performing high-SES classmates with similar attainable option sets. In our model, this may relate to either affordability of educational options (feasible options have to be both attainable and affordable), or the presence of social preferences in the students' utility function. In Table 10, we add our measures of the importance of the cost of education (Panel 1), the importance of parents' wishes (Panel 2), and the importance of friends' opinion (Panel 3) in equation 7 to test whether they contribute to the social differences among equally-performing classmates with similar attainable option sets.

We find evidence that low- and intermediate-SES students for whom the cost of education is important are more likely to prefer vocational high school than low-SES students for whom the cost of education is less important (Panel 1 Column 2). Importantly, there is no more difference in the likelihood to prefer vocational high school between the low- and the high-SES students for whom the cost of education is less important. This finding suggests that liquidity and credit constraints play a role in the social inequalities in educational aspirations among equally-performing classmates with similar attainable option sets.

We also find evidence that the low-SES students for whom parents' wishes are important are more likely to prefer no higher education than the low-SES students for whom parents' wishes are less important (Panel 2 Column 4). Among students for whom parents' wishes are less important, the gap in preference for no higher education between low- and high-SES is 30% smaller than among all students (3.3 p.p. instead of 4.7). As these results are observed for all three terciles of test scores (results available upon request), reducing the importance of parents' wishes for low-SES students by making other factors more salient, or increasing high-SES parents' preference for vocational high school by highlighting its benefits, may thus help reduce the gap in preference for no higher education.

We don't find evidence that the importance of friends' opinion plays a role in the social inequalities in educational aspirations among equally-performing classmates with similar attainable option sets. This may be due to the very fact that we are restricting our measure of social inequalities in educational aspiration within class, which limits differences in the type of friends low and high-SES students may have. It may obviously also be due to the poor quality of our measure of friend-sensitive preferences. This study does not allow for concluding on this factor.

6.3.4 Summary of the findings

The previous findings provide a rich and comprehensive view on why aspirations are socially different among students who have similar academic performances and belong to the same class. The first important factor is the salience of existing options, which turns out to contribute to the social differences in aspirations for vocational high school, no higher education, graduate studies, and jobs which do not require higher education. The second important factor is self-perception of one's academic potential, which turns out to contribute to the social differences in aspirations for academic high school, no higher education, graduate studies, and jobs which do not require higher education. Importantly, our results provide evidence that students' beliefs and perceptions are biased in a way that is in line with social stereotypes, and that these biases participate in the social differences in the set of attainable options. The third factor relates to liquidity and credit constraints, which participate in the social differences in aspirations for vocational high school. Finally, the fourth factor is parent-sensitive preferences, which seem to contribute to the social differences in aspirations for no higher education.

7 Discussion: Are Aspirations Optimal?

From students' perspectives, aspirations are optimal if they lead to maximum welfare for themselves. In this section, we first show that aspirations have an impact on later school outcomes and discuss to what extent our findings provide evidence that aspirations may not, in fact, lead to maximum welfare.

7.1 Do aspirations affect later educational and professional outcomes?

Social inequalities in aspirations would not matter if aspirations did not influence later outcomes. Do low aspirations lead to lower educational and professional outcomes in their own right? To the best of our knowledge, five papers provide experimental evidence on the impact of aspirations on subsequent behavior and outcomes. Comparing immigrants in the U.S. from different countries, Figlio et al. (2016) show that

students from countries with long-term oriented attitudes perform better and improve more between the third and eighth grades than students from cultures that do not emphasise the importance of delayed gratification. These results are striking, in particular because large changes in ranking between the third and eighth grades are unusual and because the size of the effect is comparable to the effect of having a mother with a four-year college degree (versus no high school) for second generation immigrants. Goux et al. (2016) report on an experiment in France where parents of low-achieving grade 9 students were invited to an individual meeting with the school principal where they were sensitised to the importance of adjusting expectations to student performances. As a result, low-achieving students were more likely to enter vocational high school and less likely to repeat a grade with the hope of entering an academic high school the next year, which led to fewer dropouts. A change in parental aspirations was thus effective at decreasing school dropouts. In Oyserman et al. (2006), 12 individual meetings that provided low-SES students with new “Academic Possible Selves” together with strategies to attain these selves increased aspirations and school performances. In Bernard et al. (2013), Ethiopian farmers were invited to watch video documentaries about people who had succeeded in agriculture or small businesses, which led to higher productivity and output. Finally, Beaman et al. (2012) show that the reservation of leadership positions for women on Indian village councils increased both girls’ aspirations and their educational attainment.

In Appendix B, we provide suggestive evidence that, in the context of this paper, low aspirations at the beginning of grade 9 do lead to lower school outcomes in the short-term. Although we do not have an experimental source of variation in aspirations that would allow us to perfectly identify the causal impact of aspirations on school achievement, we first observe that once academic capacity and class fixed effects are controlled for,³⁰ adding rough or detailed controls for parents’ SES and immigration status does not affect our estimates of the remaining correlation between aspirations and later academic outcomes. This result is not due to poor quality measures as these variables are strong predictors of our outcomes and are highly correlated with aspirations in the first place. Interestingly, we also find that aspirations are still correlated with later outcomes within SES (if anything, the effect is bigger for low-SES), or when we control for teachers’ grades on top of everything else. Given these results and the quality and variety of our controls (see Appendix B for more details on our empirical strategy), we argue that our data are consistent with the hypothesis that aspirations are not simply a consequence of realised outcomes, but also a cause of later outcomes.

adding rough or detailed controls for parents’ SES and immigration status does not affect our estimates

³⁰Note that measuring the effect within class allows us to exclude any confounding factors linked to sorting between schools and classes, but also makes the identification very demanding as we exclude any real effect that may exist across classes.

of the remaining correlation between aspirations and later academic outcomes (see columns 5 and 6 of Appendix Tables B1-B3). This result is not due to poor quality measures, as these variables are strong predictors of our outcomes and are highly correlated with aspirations in the first place. Interestingly, we also find that aspirations are still strongly correlated with later outcomes within SES and that, if anything, the effect is bigger for low-SES (see Appendix Table B5). Finally, the results are robust when we control for teachers' grades (which are endogenous to aspirations) in addition to all other controls (see Appendix Table B4). Given these findings and the quality and variety of our controls (see Appendix B for more details on our empirical strategy), we argue that our data are consistent with the hypothesis that aspirations are not simply a consequence of realised outcomes, but also a cause of later outcomes. Specifically, we find that, among equally-achieving classmates with similar parental SES and immigration status, aspiring to attend an academic high school (compared to a vocational high school or having no aspiration) at the beginning of grade 9 is associated with significant increases in both the annual average grade and the test score at the end of grade 9 of respectively 0.211 and 0.171 standard deviations, as well as a 17.6 p.p. increase in the probability of entering an academic high school in grade 10 (Appendix Tables B1-B3).

There may be some situations where low aspirations are not detrimental in terms of educational attainment. For example, if better school performance in the short-term does not lead to greater school attainment later on. This may be true for weak students who would not succeed in an academic high school. To this regard, Goux et al. (2016) show that weaker students would be better off entering a vocational high school instead of trying an academic high school and then needing to drop out. While this result may well apply to a subsample of students in our bottom tercile³¹, medium and top-achievers should, however, be able to complete academic high school and some higher education, such that reduced school outcomes in grade 9 due to low aspirations will likely eventually lead to lower school attainment for many of these students.

If school attainment has a positive return on the labor market, low school attainment leads to suboptimal job market outcomes. The vast literature on the returns to education shows, in fact, that returns are substantial: about 10% higher wages per additional year of higher education (see Oreopoulos and Petronijevic 2013 for a review), with no evidence that returns are different for low- and high-SES students. Moreover, the cost of education in France is particularly low: 79% of students enrolled in academic high schools attend public (tuition-free) high schools³², and most higher education institutions are entirely free (including the most selective schools for low-SES students thanks to income-based scholarships). Reduced educational

³¹The academic performance of the students in Goux et al. (2016) are slightly worse than those of the bottom tercile students in this paper.

³²[http://www.education.gouv.fr/cid57111/1-education-nationale-en-chiffres.html#Le second degré](http://www.education.gouv.fr/cid57111/1-education-nationale-en-chiffres.html#Le%20second%20degr%C3%A9)

attainment is thus likely to result in suboptimal economic outcomes.

7.2 Biased foundations of aspirations

Our findings first show that some differences in aspirations between equally-performing low- and high-SES classmates are due to unawareness of existing options. This would not ultimately affect individual welfare if the academic options that are not salient were not attainable or preferred anyway. However, as noted in Section 6, graduate studies are less salient to high-achieving low-SES students than to high-achieving high-SES students, while vocational high school is less salient to low-achieving high-SES students than to low-achieving high-SES students, which leaves room for situations where non-salient options *could* be attainable and preferred. In the absence of opposite evidence, one cannot assume that non-salient options are always dominated by salient ones.

Second, social differences in aspirations between equally-performing low- and high-SES classmates are also due to differences in attainable options, i.e. to differences in feelings about one's academic potential. Low-SES students are correct to anticipate lower academic potential in the future relative to high-SES students that perform equally in the present: their social background is a clear objective disadvantage, as shown by the negative coefficient of low-SES family on short-term academic progress in Tables B.1 and B.2. They do not, however, correctly assess this objective disadvantage since they both underestimate their *present* academic capacity (especially the high-achievers), and overestimate the way social background influences their future probability of success (Tables 6 and 7). Social stereotypes and fatalism thus bias students' perceptions, casting doubt on the accuracy of their perceptions of their academic potential. The issue is that fatalistic anticipations are self-fulfilling: they cause low aspirations, in turn leading to lower school outcomes than what would have been achieved with higher aspirations (as shown in Appendix B). This confirms that social stereotypes affect behavior (aspirations) in ways that make the beliefs come true (Hoff and Pandey 2006, 2012; Fehr and Hoff 2011; Hoff and Stiglitz 2016). Together, unawareness of existing options and biased self-perceived academic potential are thus the source of an aspirations failure.

Finally, the fact that students aspire to jobs that require more years of education than what they plan to invest in (Table 3) raises the concern that students also lack awareness of the link from education to jobs. Specifically, the observation that social groups differ much more in the way they plan to invest in education than in the way they think about their future occupation (Tables 2 and 4) indicates that low-SES students will end up more often frustrated than the high-SES: they will realise at some point that their educational choices do not allow them to embrace the job to which they aspire.

8 Conclusion

This paper provides evidence that students' educational aspirations are influenced by their parents' socioeconomic status and highlights three reasons why educational aspirations may not lead to maximised individual welfare. First, students do not always assess their academic potential at its true value, as suggested by the facts that some students are sensitive to their parents' example, that low-SES students underestimate their *present* academic ability relative to their equally-achieving high-SES classmates, and that their views on the influence of social origin on *future* academic success appear highly fatalistic. These stereotyped perceptions affect the self-perceived set of attainable options in ways that perpetuate social inequalities. Second, we show that unawareness of existing options plays a role in shaping socially differential aspirations. Finally, many students ignore the link between educational choices and possible jobs, as shown by the frequent inconsistencies between educational and professional aspirations.

Consistent with the existing literature, our results also suggest that the very fact that one has low aspirations creates a disadvantage in its own right. Overall, the paper thus reveals the existence of an aspiration-based poverty trap that concerns low-SES students of all academic proficiency levels. While low-SES students have a clear factual disadvantage from the beginning, this aspiration trap drags them down even further. By contrast, being from a first-generation-immigrant family actually boosts educational and professional aspirations. These results reflect a market failure that rationalises some form of policy intervention to increase upward mobility, in particular appropriate information, growth-mindset, and self-esteem building interventions to help students aspire to their true potential.

Whether higher aspirations, school attainment, and job outcomes would ultimately make low-SES students happier remains a key question. We do not preclude the possibility that they would feel socially isolated or at odds with their cultural values, as suggested by the economics of identity literature. Still, the inconsistency between educational and professional aspirations suggests that this is not what drives social differences in aspirations. This is why this paper begs further discussion of whether preferences are optimal in all domains of individual decision-making. Most of the economic literature concurs with the Latin maxim, *de gustibus non est disputandum*³³, such that personal preferences are merely considered as subjective opinions that cannot be right or wrong. If preferences are formed on a clear-sighted and informed basis, this may be true. But if preferences are formed on the basis of misperceptions and a lack of information, preferences may be the root of a market failure. It is along these lines that this paper encourages further research on the long-term consequences of educational aspirations, particularly their consequences on welfare in adulthood.

³³"In matters of taste, there can be no disputes."

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Figures

Figure 1: Test Scores in June 2013 by option Assignment in September 2013

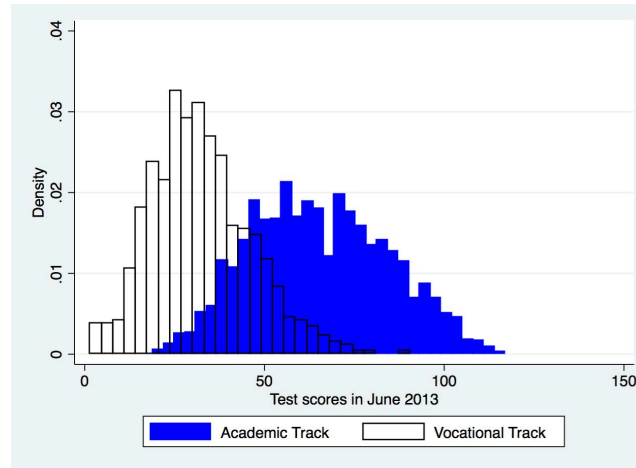


Figure 2: Proportion of Low- and Intermediate-SES Families at the School Level: Our Set of 59 Junior Highs versus All Junior Highs in the Paris metropolitan area

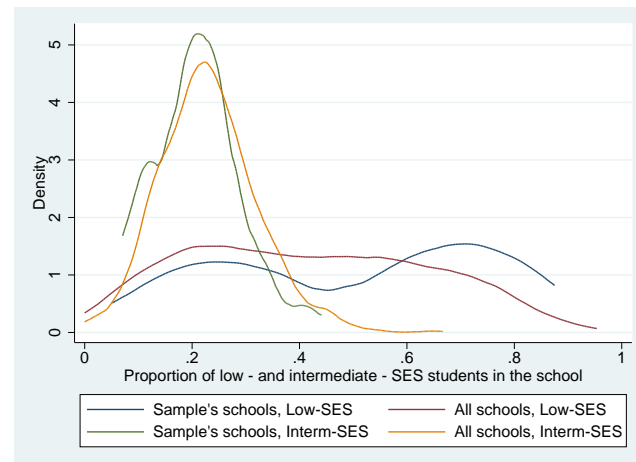


Figure 3: Average School Test Score: Our Set of 59 Junior Highs versus All Junior Highs in the Paris metropolitan area

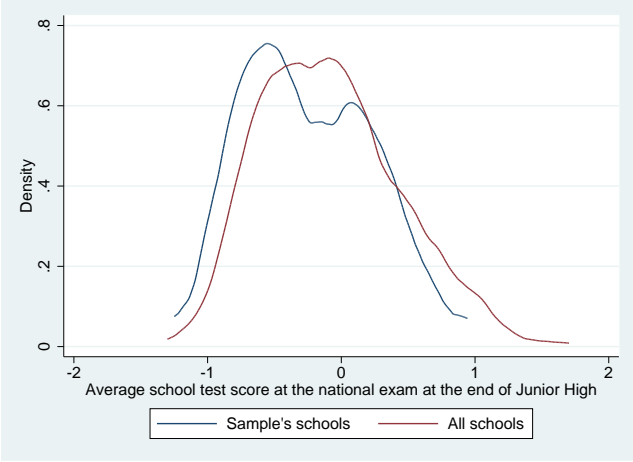
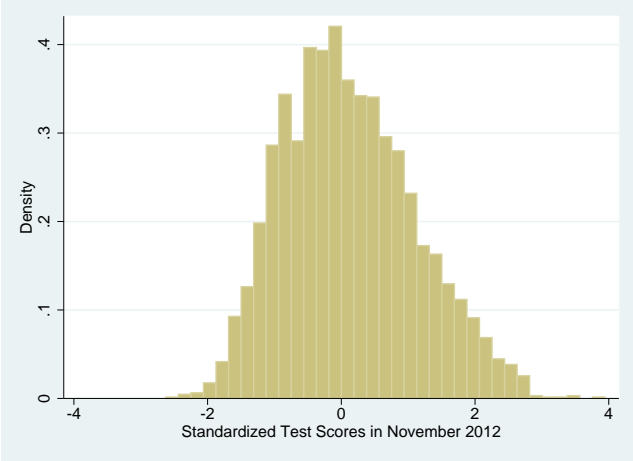


Figure 4: Distribution of Test Scores in November 2012



TABLES

Table 1: Descriptive Statistics on Salient, Attainable and Preferred Options

Panel 1: Options after Junior High						
	No option	No High Sch.	Voca. High Sch.	Acad. High Sch.	Nb. of options	Nb. of Obs.
Salient options	0.076	-	0.818	0.905	3.92	2663
Attainable options	0.100	-	0.677	0.774	1.42	3332
Preferred option	0.219	0.002	0.119	0.672	0.91	3332
Panel 2: Options after High School						
	No option	No Higher Ed.	1-4 yrs college	Graduate stud.	Nb. of options	Nb. of Obs.
Salient options	0.439	-	0.514	0.250	1.74	2673
Attainable options	0.530	-	0.413	0.159	0.82	3332
Preferred option	0.380	0.170	0.357	0.127	0.78	3332
Panel 3: Jobs						
	No resp.	No Higher Ed.	1-4 yrs college	Graduate stud.	Nb. of jobs	Nb. of Obs.
Preferred job	0.207	0.406	0.330	0.402	1.67	3332

Lecture note: 7.6% of students did not mention any salient option for after Junior High, while 81.8% mentioned Vocational High School and 90.5% mentioned Academic High School. On average, they all mentioned 3.92 salient options for after Junior High.

Table 2: Social Differences in Academic and Professional Aspirations

	(1)	(2)	(3)	(4)	(5)	(6)
Panel 1: Preferred options after Junior High						
	Vocational High School			Academic High School		
Low SES family	0.140*** (0.015)	0.065*** (0.014)	0.068*** (0.016)	-0.214*** (0.019)	-0.073*** (0.017)	-0.050** (0.019)
Intermediate SES family	0.078*** (0.013)	0.030** (0.013)	0.029* (0.015)	-0.129*** (0.024)	-0.036* (0.022)	-0.021 (0.024)
Immigrant family	-0.033** (0.015)	-0.049*** (0.014)	-0.040*** (0.014)	0.012 (0.021)	0.046** (0.019)	0.037 (0.023)
Nb Obs	3322	3322	3322	3322	3322	3322
Adjusted R-squared	0.030	0.094	0.129	0.037	0.135	0.166
Mean among high-SES families	0.045	0.045	0.045	0.796	0.796	0.796
Mean among non-immigrant families	0.114	0.114	0.114	0.694	0.694	0.694
Panel 2: Preferred options after High School						
	No Higher Education			Graduate studies		
Low SES family	0.164*** (0.016)	0.081*** (0.016)	0.077*** (0.018)	-0.133*** (0.021)	-0.067*** (0.019)	-0.041** (0.021)
Intermediate SES family	0.078*** (0.015)	0.027* (0.016)	0.020 (0.016)	-0.103*** (0.023)	-0.054** (0.023)	-0.033 (0.025)
Immigrant family	-0.029* (0.015)	-0.048*** (0.015)	-0.052*** (0.018)	0.009 (0.012)	0.024** (0.012)	0.029** (0.014)
Nb Obs	3313	3313	3313	3313	3313	3313
Adjusted R-squared	0.032	0.105	0.131	0.029	0.063	0.087
Mean among high-SES families	0.083	0.083	0.083	0.209	0.209	0.209
Mean among non-immigrant families	0.160	0.160	0.160	0.140	0.140	0.140
Panel 3: Preferred Jobs						
	No Higher Education			Graduate studies		
Low SES family	0.115*** (0.025)	0.027 (0.023)	0.048** (0.023)	-0.108*** (0.023)	0.003 (0.024)	-0.009 (0.025)
Intermediate SES family	0.074*** (0.025)	0.013 (0.023)	0.012 (0.026)	-0.066** (0.026)	0.013 (0.027)	0.019 (0.028)
Immigrant family	-0.062*** (0.017)	-0.085*** (0.018)	-0.074*** (0.021)	0.088*** (0.021)	0.113*** (0.020)	0.097*** (0.022)
Nb Obs	3330	3330	3330	3330	3330	3330
Adjusted R-squared	0.009	0.039	0.061	0.010	0.057	0.102
Mean among high-SES families	0.351	0.351	0.351	0.446	0.446	0.446
Mean among non-immigrant families	0.416	0.416	0.416	0.382	0.382	0.382
<i>Other controls for all panels:</i>						
Deciles in test scores in Nov. 2012		Y	Y		Y	Y
Dummies for score on Raven matrices		Y	Y		Y	Y
Effort put into the test		Y	Y		Y	Y
Self-Perception of Behavioral Conduct		Y	Y		Y	Y
Class fixed effects			Y			Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option in his/her preferred options. 'No Higher Education' means that the student wants to work directly after High School. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France.

Table 3: Consistency between short term and long term aspirations

Sample restricted to students who...	Educational Aspirations after Junior High				Educational Aspirations after High School				
	No option (1)	Voca. High Sch. (2)	Acad. High Sch. (3)	Nb. of Obs. (4)	No option (5)	No Higher Ed. (6)	1-4 yrs college (7)	Graduate stud. (8)	Nb. of Obs. (9)
... aspire to a job that requires:									
- No higher educ.	0.266	0.200	0.548	1353	0.354	0.277	0.314	0.080	1346
- Graduate stud.	0.148	0.044	0.814	1336	0.328	0.071	0.440	0.222	1337
... mention as a 1st job a job that requires:									
- No higher educ.	0.288	0.246	0.478	931	0.366	0.341	0.263	0.047	924
- Graduate stud.	0.129	0.033	0.846	1030	0.312	0.056	0.455	0.240	1031
... mention among their preferred options after High School:									
- No higher educ.	0.328	0.355	0.330	561	-	-	-	-	-
- Graduate stud.	0.052	0.026	0.929	422	-	-	-	-	-

Lecture note: out of the 1353 students who aspire to a job that requires no higher education, 26.6% did not mention any preferred option after Junior High.

Table 4: Do differences in long term aspirations fully explain social differences in short term aspirations?

Variable	Educational Aspirations after Junior High						Educational Aspir. after High School			
	Vocational High School			Academic High School			No Higher Educ.		Graduate stud.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Low SES family	0.076*** (0.019)	0.073*** (0.019)	0.058*** (0.018)	-0.046** (0.022)	-0.044** (0.022)	-0.021 (0.021)	0.077*** (0.018)	0.073*** (0.018)	-0.041** (0.021)	-0.041** (0.021)
Intermediate SES family	0.032** (0.016)	0.033** (0.015)	0.026* (0.015)	-0.013 (0.024)	-0.015 (0.022)	0.001 (0.021)	0.020 (0.016)	0.020 (0.015)	-0.033 (0.025)	-0.035 (0.025)
Immigrant family	-0.042*** (0.014)	-0.031** (0.014)	-0.026* (0.014)	0.033 (0.023)	0.014 (0.023)	0.012 (0.022)	-0.052*** (0.018)	-0.034** (0.016)	0.029** (0.014)	0.016 (0.014)
Prof. asp.: No response		-0.101*** (0.020)	-0.081*** (0.018)		0.059** (0.029)	0.050* (0.029)		-0.129*** (0.023)		-0.014 (0.017)
Prof. asp.: 1-4 yrs college		-0.054*** (0.016)	-0.034** (0.014)		0.073*** (0.022)	0.042** (0.021)		-0.112*** (0.017)		0.007 (0.013)
Prof. asp.: Graduate stud.		-0.116*** (0.014)	-0.087*** (0.014)		0.177*** (0.021)	0.116*** (0.020)		-0.166*** (0.018)		0.120*** (0.015)
Educ. asp. after High Sch.: No response			-0.164*** (0.021)			0.139*** (0.027)				
Educ. asp. after High Sch.: 1-4 yrs college			-0.152*** (0.020)			0.288*** (0.026)				
Educ. asp. after High Sch.: Graduate stud.			-0.125*** (0.019)			0.258*** (0.024)				
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nb Obs	2989	2989	2989	2989	2989	2989	3313	3313	3313	3313
Adjusted R-squared	0.124	0.147	0.183	0.163	0.191	0.248	0.131	0.172	0.087	0.116
Mean among high-SES families	0.042	0.042	0.042	0.794	0.794	0.794	0.083	0.083	0.209	0.209
Mean among non-immigrant families	0.114	0.114	0.114	0.696	0.696	0.696	0.160	0.160	0.140	0.140
Mean Prof. asp.: No higher educ.	0.199	0.199	0.199	0.548	0.548	0.548	0.277	0.277	0.080	0.080
Mean Educ. asp.: No higher educ.	0.359	0.359	0.359	0.322	0.322	0.322	1.000	1.000	0.000	0.000

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option in his/her preferred options. 'No Higher Education' means that the student wants to work directly after High School. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France.

Table 5: Social Differences in the Aspiration Window: Salient and Attainable Options

Variable	Options after Junior High				Options after High School					
	Vocational High Sch. (1)	(2)	Academic High Sch. (3)	(4)	No option in Higher Educ. (5)	(6)	(7)	Graduate studies (8)	(9)	(10)
Panel 1: Salient options										
Low SES family	0.056** (0.023)		0.005 (0.015)		0.059 (0.039)			-0.055 (0.035)		
Intermediate SES family	0.052** (0.026)		0.020 (0.019)		0.025 (0.035)			-0.039 (0.032)		
Immigrant family	-0.026 (0.018)		0.013 (0.017)		-0.016 (0.026)			0.022 (0.022)		
Nb Obs	2651		2651		2651			2651		
Adjusted R-squared	0.051		0.084		0.085			0.117		
Mean high-SES families	0.811		0.938		0.317			0.377		
Mean non-immigrant families	0.833		0.916		0.414			0.278		
Panel 2: Attainable options										
Low SES family	0.046** (0.021)	-0.005 (0.011)	-0.069*** (0.021)	-0.071*** (0.019)	0.081** (0.033)	0.068** (0.033)	0.038* (0.021)	-0.059*** (0.021)	-0.054** (0.022)	-0.034** (0.015)
Intermediate SES family	0.062*** (0.024)	0.014 (0.010)	0.019 (0.024)	0.008 (0.022)	0.065** (0.033)	0.077** (0.034)	0.056** (0.023)	-0.054*** (0.019)	-0.057*** (0.020)	-0.039** (0.015)
Immigrant family	-0.011 (0.020)	0.012 (0.010)	0.036 (0.023)	0.028 (0.021)	-0.033 (0.028)	-0.026 (0.026)	-0.015 (0.017)	0.021 (0.017)	0.018 (0.017)	0.011 (0.013)
Salient options include a Vocational HS		0.901*** (0.019)		-0.021 (0.022)						
Salient options include an Academic HS			0.045 (0.028)	0.604*** (0.031)						
Attainable options include a Vocational HS						-0.105*** (0.024)	-0.030 (0.021)		0.032* (0.017)	0.012 (0.013)
Attainable options include an Academic HS						-0.247*** (0.030)	-0.095*** (0.026)		0.086*** (0.018)	0.041*** (0.016)
Salient options include 1-4 yrs college							-0.535*** (0.020)			-0.012 (0.009)
Salient options include Graduate studies							-0.221*** (0.026)			0.421*** (0.025)
Nb Obs	2651	2651	2651	2651	2651	2651	2651	2651	2651	2651
Adjusted R-squared	0.043	0.750	0.211	0.361	0.088	0.141	0.488	0.094	0.107	0.369
Mean high-SES families	0.783	0.783	0.877	0.877	0.456	0.456	0.456	0.217	0.217	0.217
Mean non-immigrant families	0.799	0.799	0.789	0.789	0.568	0.568	0.568	0.139	0.139	0.139
Mean Salient after JH: no option	0.046	0.046	0.133	0.133	0.898	0.898	0.898	0.015	0.015	0.015
Mean Attain. after JH: no option	0.000	0.000	0.000	0.000	0.901	0.901	0.901	0.007	0.007	0.007
Mean Salient after HS: no option	0.693	0.693	0.619	0.619	0.968	0.968	0.968	0.004	0.004	0.004
<i>Other controls for Panels 1 and 2:</i>										
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option as an existing option, i.e. as a salient option (Panel 1), or as an academically attainable option (Panel 2). ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France.

Table 6: Social Differences in Academic Aspirations: Role of Perception of Attainability

Variable	Preferred Options after Junior High				Preferred Options after High School				Preferred Jobs			
	Vocational High Sch.		Academic High Sch.		No Higher Educ.		Graduate studies		No Higher Educ.		Graduate studies	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Low SES family	0.069*** (0.017)	0.036*** (0.013)	-0.049** (0.020)	0.007 (0.017)	0.077*** (0.018)	0.047*** (0.016)	-0.041** (0.021)	0.002 (0.013)	0.045* (0.024)	0.022 (0.023)	-0.009 (0.025)	0.025 (0.025)
Intermediate SES family	0.028* (0.015)	0.023* (0.013)	-0.021 (0.025)	-0.021 (0.020)	0.020 (0.016)	0.013 (0.016)	-0.033 (0.025)	0.006 (0.017)	0.011 (0.026)	0.004 (0.026)	0.020 (0.029)	0.034 (0.029)
Immigrant family	-0.042*** (0.014)	-0.032*** (0.012)	0.035 (0.023)	0.011 (0.018)	-0.051*** (0.018)	-0.040** (0.017)	0.028** (0.014)	0.009 (0.009)	-0.072*** (0.021)	-0.064*** (0.022)	0.098*** (0.022)	0.084*** (0.023)
Attainable options include a Vocational HS		0.165*** (0.014)		0.007 (0.013)		0.081*** (0.013)		-0.006 (0.012)		0.074*** (0.016)		-0.042** (0.020)
Attainable options include an Academic HS		-0.337*** (0.022)		0.609*** (0.018)		-0.235*** (0.025)		0.027*** (0.009)		-0.172*** (0.023)		0.200*** (0.025)
Attainable options include 1-4 yrs college		-0.004 (0.012)		0.091*** (0.015)		-0.096*** (0.013)		0.010 (0.010)		-0.036* (0.019)		0.073*** (0.020)
Attainable options include Graduate studies		0.040*** (0.011)		0.055*** (0.017)		-0.015 (0.012)		0.589*** (0.026)		-0.042 (0.026)		0.172*** (0.030)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nb Obs	3308	3308	3308	3308	3308	3308	3308	3308	3308	3308	3308	3308
Adjusted R-squared	0.130	0.302	0.162	0.430	0.132	0.214	0.086	0.474	0.061	0.084	0.100	0.153
Mean high-SES families	0.045	0.045	0.797	0.797	0.083	0.083	0.209	0.209	0.352	0.352	0.446	0.446
Mean non-immigrant families	0.114	0.114	0.696	0.696	0.160	0.160	0.140	0.140	0.415	0.415	0.383	0.383
Mean Attain. after JH: no option	0.067	0.067	0.159	0.159	0.281	0.281	0.009	0.009	0.474	0.474	0.217	0.217
Mean Attain. after HS: no option	0.165	0.165	0.533	0.533	0.263	0.263	0.015	0.015	0.467	0.467	0.296	0.296

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. In columns 1-8, the dependent variable is a dummy variable indicating whether the student mentioned the option in his/her preferred options after Junior High (columns 1-4), or after High School (columns 5-8). ‘No Higher Education’ means that the student wants to work directly after High School. In columns 9-12, the dependent variable is a dummy variable indicating whether the student mentioned as a preferred job a job that requires no higher education (column 9-10), or a job that requires graduate studies (columns 11-12). ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France.

Table 7: Evidence of Social Fatalism: Real and Perceived Gaps in the Probability of Success of Good Students from Different Social Backgrounds

(a) Real gaps in the probability of...	... entering an Acad. HS right after JH		... passing the end of Acad. HS exam		(b) Perceived gap in the probability of success of a <i>hypothetical high achieving</i> student coming from a <i>disadvantaged</i> VS <i>advantaged</i> neighborhood
	For students above the median	in the top quartile	For students above the median	in the top quartile	
	(1)	(2)	(3)	(4)	(5)
Between...					
... priority education and others:	4.4 (0.3)	2.2 (0.3)	0.9 (0.4)	1.2 (0.4)	-33.5 [25.5]
... very low- and high-SES:	-12.8 (0.2)	-5.3 (0.2)	-16.7 (0.3)	-7.8 (0.3)	

The real gaps are calculated on the whole population of French 9th grade students excluding those who already repeated 9th grade (when we include them the gaps are very similar). In columns 1-4, the probability of entering academic High School right after Junior High and the probability of passing the end of academic High School exam are defined without repeating a grade (and gaps calculated by allowing students to repeat a grade are even smaller). In column 5, the “probability of success” is the probability that the hypothetical high achieving student follows his preferred track. Standard errors appear in parenthesis and are clustered at the school level and robust. Standard deviations are reported in square brackets.

Table 8: Social Differences in Potential Explanatory Factors

	Is fatalistic (1)	Scholastic self-esteem score (2)	Family example matters (3)	Parents' wishes matter (4)	Friends' opinion matters (5)	Cost of educ. matters (6)
Low SES	-0.020 (0.018)	-0.145*** (0.044)	0.024 (0.019)	0.011 (0.020)	-0.031 (0.026)	0.028 (0.024)
Intermediate SES	-0.015 (0.021)	-0.092* (0.050)	0.031 (0.019)	0.007 (0.019)	-0.060*** (0.023)	0.059** (0.024)
Immigrant family	-0.012 (0.016)	-0.035 (0.037)	-0.004 (0.015)	0.051** (0.022)	-0.011 (0.020)	-0.033* (0.019)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y	Y
Nb Obs	3245	3271	3199	3199	3311	3185
Adjusted R-squared	0.014	0.347	0.007	0.031	0.024	0.037
Mean among high-SES families	0.164	0.306	0.109	0.172	0.368	0.197
Mean among non-immigrant families	0.150	0.082	0.122	0.176	0.348	0.238

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. In columns 1 and 3-6, the dependent variable is a dummy variable. In column 2 it is a standardized score. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France.

Table 9: Factors Explaining Social Differences in Attainable Options given Salient Options

Variable	Attainable options					
	Academic High Sch.		No opt. in High.Ed.		Graduate studies	
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL 1: Role of Social Fatalism						
Low SES	-0.071*** (0.019)	-0.060*** (0.021)	0.041* (0.022)	0.029 (0.024)	-0.033** (0.015)	-0.025 (0.016)
Intermediate SES	0.003 (0.022)	-0.004 (0.025)	0.054** (0.023)	0.035 (0.025)	-0.039** (0.015)	-0.032* (0.017)
Immigrant family	0.032 (0.021)	0.024 (0.021)	-0.019 (0.018)	-0.010 (0.020)	0.012 (0.013)	0.003 (0.013)
Social Fatalism		0.006 (0.033)		-0.010 (0.045)		0.014 (0.036)
Social Fatalism * Low SES		-0.070 (0.063)		0.060 (0.063)		-0.044 (0.041)
Social Fatalism * Intermediate SES		0.062 (0.046)		0.112* (0.059)		-0.031 (0.044)
Social Fatalism * Immigrant Family		0.067 (0.054)		-0.054 (0.044)		0.073* (0.039)
Nb Obs	2611	2611	2599	2599	2599	2599
Adjusted R-squared	0.365	0.366	0.486	0.486	0.370	0.370
PANEL 2: Role of Scholastic Self-Esteem						
Low SES	-0.071*** (0.019)	-0.066*** (0.019)	0.042** (0.021)	0.040* (0.021)	-0.034** (0.015)	-0.031** (0.015)
Intermediate SES	0.007 (0.022)	0.004 (0.022)	0.056** (0.023)	0.053** (0.022)	-0.038** (0.015)	-0.034** (0.015)
Immigrant family	0.031 (0.022)	0.033 (0.021)	-0.017 (0.017)	-0.016 (0.017)	0.011 (0.013)	0.011 (0.014)
Scholastic self-esteem		0.034** (0.014)		-0.047** (0.019)		0.038*** (0.013)
Scholastic self-esteem * Low SES		0.047** (0.020)		0.012 (0.019)		-0.033** (0.014)
Scholastic self-esteem * Intermediate SES		0.034 (0.021)		-0.011 (0.026)		-0.029 (0.019)
Scholastic self-esteem * Immigrant Family		-0.001 (0.016)		0.019 (0.017)		-0.004 (0.012)
Nb Obs	2613	2613	2603	2603	2603	2603
Adjusted R-squared	0.361	0.377	0.486	0.489	0.367	0.369
PANEL 3: Role of Family example						
Low SES	-0.063*** (0.020)	-0.051** (0.021)	0.040* (0.021)	0.039* (0.022)	-0.032** (0.015)	-0.029* (0.016)
Intermediate SES	0.012 (0.022)	0.019 (0.023)	0.053** (0.023)	0.040* (0.024)	-0.036** (0.016)	-0.024 (0.016)
Immigrant family	0.028 (0.021)	0.018 (0.022)	-0.019 (0.018)	-0.021 (0.019)	0.011 (0.013)	0.013 (0.015)
Family example matters		0.004 (0.025)		-0.055 (0.052)		0.060 (0.045)
Family example matters * Low SES		-0.104** (0.049)		0.028 (0.070)		-0.038 (0.057)
Family example matters * Intermediate SES		-0.072 (0.049)		0.114 (0.075)		-0.100* (0.057)
Family example matters * Immigrant Family		0.086 (0.061)		0.008 (0.065)		-0.016 (0.040)
Nb Obs	2561	2561	2553	2553	2553	2553
Adjusted R-squared	0.359	0.360	0.490	0.490	0.372	0.373
Additional controls for all regressions:						
Attainable options for High School			Y	Y	Y	Y
Salient options for High School	Y	Y				
Salient options for Higher Education			Y	Y	Y	Y
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y	Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option in his/her academically attainable options. ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France.

Table 10: Factors Explaining Social Differences in Aspirations given Attainable Options

Variable	Preferred options			
	Vocational High School (1)	High School (2)	No Higher Educ. (3) (4)	
PANEL 1: Role of Cost of Education				
Low SES	0.037*** (0.013)	0.016 (0.016)	0.046*** (0.017)	0.043** (0.020)
Intermediate SES	0.019 (0.013)	-0.000 (0.014)	0.015 (0.016)	0.004 (0.019)
Immigrant family	-0.034*** (0.012)	-0.028* (0.015)	-0.038** (0.017)	-0.046** (0.020)
Cost matters		-0.044*** (0.016)		-0.040 (0.027)
Cost matters * Low SES		0.092*** (0.033)		0.013 (0.047)
Cost matters * Intermediate SES		0.077*** (0.029)		0.049 (0.033)
Cost matters * Immigrant Family		-0.020 (0.033)		0.038 (0.038)
Nb Obs	3174	3174	3174	3174
Adjusted R-squared	0.306	0.308	0.209	0.209
PANEL 2: Role of Parents' Wishes				
Low SES	0.037*** (0.013)	0.040*** (0.014)	0.047*** (0.017)	0.033* (0.017)
Intermediate SES	0.019 (0.013)	0.017 (0.013)	0.016 (0.016)	0.015 (0.015)
Immigrant family	-0.036*** (0.013)	-0.044*** (0.014)	-0.039** (0.017)	-0.042** (0.018)
Parents' wishes matter		-0.015 (0.018)		-0.022 (0.022)
Parents' wishes matter * Low SES		-0.014 (0.032)		0.068** (0.031)
Parents' wishes matter * Intermediate SES		0.008 (0.035)		0.006 (0.043)
Parents' wishes matter * Immigrant Family		0.038 (0.033)		0.011 (0.031)
Nb Obs	3187	3187	3187	3187
Adjusted R-squared	0.308	0.307	0.210	0.211
PANEL 3: Role of Friends' opinion (index)				
Low SES	0.037*** (0.013)	0.044*** (0.016)	0.047*** (0.017)	0.045** (0.018)
Intermediate SES	0.023* (0.013)	0.020 (0.019)	0.012 (0.016)	0.011 (0.020)
Immigrant family	-0.033*** (0.012)	-0.031** (0.014)	-0.039** (0.017)	-0.032 (0.021)
Friends' opinion matters		0.003 (0.016)		0.019 (0.017)
Friends' opinion matters * Low SES		-0.023 (0.025)		0.007 (0.032)
Friends' opinion matters * Intermediate SES		0.009 (0.034)		0.008 (0.033)
Friends' opinion matters * Immigrant Family		-0.007 (0.019)		-0.021 (0.034)
Nb Obs	3292	3292	3292	3292
Adjusted R-squared	0.299	0.298	0.215	0.215
Additional controls for all regressions:				
Attainable options for High School	Y	Y	Y	Y
Attainable options for Higher Education	Y	Y	Y	Y
Deciles in test scores in Nov. 2012	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option in his/her preferred options. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France.

APPENDIX A: APPENDIX TABLES

Table A.1: Social Differences in Academic and Professional Aspirations (other outcomes)

	(1)	(2)	(3)	(4)	(5)	(6)
Panel 1: Preferred options after Junior High						
	No response					
Low SES family	0.088*** (0.017)	0.019 (0.017)	-0.005 (0.018)			
Intermediate SES family	0.059*** (0.021)	0.011 (0.021)	-0.001 (0.023)			
Immigrant family	0.018 (0.017)	-0.001 (0.017)	-0.003 (0.022)			
Nb Obs	3322	3322	3322			
Adjusted R-squared	0.009	0.040	0.055			
Mean among high-SES families	0.161	0.161	0.161			
Mean among non-immigrant families	0.202	0.202	0.202			
Panel 2: Preferred options after High School						
	No response			1-4 years college		
Low SES family	0.008 (0.028)	-0.004 (0.028)	-0.033 (0.029)	-0.084*** (0.024)	-0.040* (0.024)	-0.025 (0.026)
Intermediate SES family	0.043 (0.032)	0.030 (0.031)	0.012 (0.032)	-0.065** (0.025)	-0.040 (0.025)	-0.025 (0.027)
Immigrant family	0.031* (0.017)	0.024 (0.017)	0.040* (0.021)	-0.014 (0.020)	0.001 (0.019)	-0.019 (0.023)
Nb Obs	3313	3313	3313	3313	3313	3313
Adjusted R-squared	0.001	0.011	0.026	0.006	0.029	0.037
Mean among high-SES families	0.360	0.360	0.360	0.414	0.414	0.414
Mean among non-immigrant families	0.368	0.368	0.368	0.373	0.373	0.373
Panel 3: Preferred Jobs						
	No response			1-4 yrs college		
Low SES family	-0.013 (0.019)	-0.020 (0.019)	-0.034 (0.021)	-0.009 (0.024)	-0.004 (0.027)	0.018 (0.028)
Intermediate SES family	-0.003 (0.022)	-0.004 (0.022)	-0.014 (0.024)	-0.032 (0.023)	-0.031 (0.025)	-0.016 (0.026)
Immigrant family	-0.020 (0.017)	-0.019 (0.017)	-0.024 (0.018)	0.028 (0.022)	0.028 (0.024)	0.047** (0.024)
Nb Obs	3330	3330	3330	3330	3330	3330
Adjusted R-squared	0.000	0.005	0.036	0.000	0.011	0.015
Mean among high-SES families	0.218	0.218	0.218	0.334	0.334	0.334
Mean among non-immigrant families	0.216	0.216	0.216	0.320	0.320	0.320
<i>Other controls for all panels:</i>						
Deciles in test scores in Nov. 2012		Y	Y		Y	Y
Dummies for score on Raven matrices		Y	Y		Y	Y
Effort put into the test		Y	Y		Y	Y
Self-Perception of Behavioral Conduct		Y	Y		Y	Y
Class fixed effects			Y			Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option in his/her preferred options (Panels 1 and 2), or whether he mentioned no preferred job (Panel 3, columns 1-3), or a preferred job that requires 1-4 years college (Panel 3, columns 4-6). ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France.

Table A.2: Social Differences in the Aspiration Window: Salient and Attainable Options (other outcomes)

Variable	Options after Junior High No option in High Sch.		Options after High School 1-4 yrs college		
	(1)	(2)	(3)	(4)	(5)
Panel 1: Salient options					
Low SES family	-0.027**		-0.047		
	(0.013)		(0.040)		
Intermediate SES family	-0.028*		-0.007		
	(0.015)		(0.035)		
Immigrant family	-0.001		0.019		
	(0.016)		(0.026)		
Nb Obs	2651		2651		
Adjusted R-squared	0.050		0.058		
Mean high-SES families	0.056		0.614		
Mean non-immigrant families	0.063		0.532		
Panel 2: Attainable options					
Low SES family	-0.019	-0.008	-0.069**	-0.057*	-0.029
	(0.013)	(0.014)	(0.034)	(0.034)	(0.019)
Intermediate SES family	-0.051***	-0.033**	-0.040	-0.051	-0.034
	(0.016)	(0.015)	(0.034)	(0.034)	(0.022)
Immigrant family	0.003	0.007	0.036	0.028	0.019
	(0.018)	(0.014)	(0.027)	(0.025)	(0.016)
Salient options include a Vocational HS		-0.130***			
		(0.025)			
Salient options include an Academic HS		-0.568***			
		(0.040)			
Attainable options include a Vocational HS				0.098***	0.017
				(0.023)	(0.020)
Attainable options include an Academic HS				0.237***	0.076***
				(0.029)	(0.025)
Salient options include 1-4 yrs college					0.635***
					(0.020)
Salient options include Graduate studies					0.102***
					(0.025)
Nb Obs	2651	2651	2651	2651	2651
Adjusted R-squared	0.050	0.405	0.069	0.118	0.530
Mean high-SES families	0.085	0.085	0.495	0.495	0.495
Mean non-immigrant families	0.096	0.096	0.401	0.401	0.401
Mean Salient after JH: no option	0.821	0.821	0.087	0.087	0.087
Mean Attain. after JH: no option	1.000	1.000	0.092	0.092	0.092
Mean Salient after HS: no option	0.199	0.199	0.027	0.027	0.027
<i>Other controls for Panels 1 and 2:</i>					
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y
Class fixed effects	Y	Y	Y	Y	Y

Each column reports the coefficients of a OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy variable indicating whether the student mentioned the option as an existing option, i.e. as a salient option (Panel 1), or as an academically attainable option (Panel 2). ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France.

APPENDIX B: APPENDIX TABLES

Table B.1: Correlation between Aspirations and Annual Average Grade

Variable	Annual teachers' grade					
	(1)	(2)	(3)	(4)	(5)	(6)
Preferred tracks include an Academic HS	0.689*** (0.036)	0.291*** (0.034)	0.223*** (0.030)	0.219*** (0.028)	0.215*** (0.028)	0.211*** (0.028)
Preferred tracks include a Master's degree	0.465*** (0.040)	0.197*** (0.035)	0.166*** (0.035)	0.134*** (0.042)	0.122*** (0.040)	0.120*** (0.041)
Repeated a grade			-0.281*** (0.038)	-0.289*** (0.041)	-0.271*** (0.040)	-0.274*** (0.041)
Skipped a grade			0.271*** (0.056)	0.220*** (0.060)	0.201*** (0.059)	0.211*** (0.058)
Girl			0.245*** (0.030)	0.244*** (0.029)	0.249*** (0.028)	0.249*** (0.028)
Low SES family					-0.281*** (0.036)	
Intermediate SES family					-0.212*** (0.033)	
Immigrant family					0.021 (0.033)	
Detailed SES						Y
Detailed immigration status						Y
Deciles in test scores in Nov. 2012		Y	Y	Y	Y	Y
Score on Raven matrices			Y	Y	Y	Y
Effort put into the test			Y	Y	Y	Y
Self-Perception of Behavioral Conduct			Y	Y	Y	Y
Class fixed effects				Y	Y	Y
Nb Obs	3101	3101	3101	3101	3101	3101
Adjusted R-squared	0.153	0.449	0.516	0.570	0.580	0.581
Mean among students whose pref. tracks do not include an Academic High School:					-0.512	
Mean among students whose pref. tracks do not include a Master's degree:					-0.089	

Each column reports the coefficients of a different OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is the standardized annual average of teachers' grades. "Pref. tracks include an Academic HS" is a dummy indicating that preferred options after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France. Controls for "Detailed SES" correspond to controls for each family's socioeconomic status (SES) stratified into six categories based on the parents' occupation, together with controls for whether the student has one parent who is unemployed and for whether she has one parent who is retired, separately for each parent when there are two. Controls for "Detailed immigration status" correspond to controls for whether the student has one parent or both who were born in a non-OECD country, and at least one parent colored (defined base on the country of birth). Students' score at Raven matrices is controlled for using dummies indicating the number of wrong answers. 'Proxy for Conscientiousness' corresponds to dummies indicating the number of questions that the student tried to solve for each test in November. When controlling for the immigration status, for the employment status, and for the score at Raven matrices, we also add controls for missing data for each characteristic.

Table B.2: Correlation between Aspirations and Test Score at the National Exam

Variable	Test scores in June 2013					
	(1)	(2)	(3)	(4)	(5)	(6)
Preferred tracks include an Academic HS	0.718*** (0.034)	0.240*** (0.028)	0.190*** (0.025)	0.177*** (0.021)	0.172*** (0.021)	0.171*** (0.021)
Preferred tracks include a Master's degree	0.506*** (0.053)	0.165*** (0.037)	0.147*** (0.036)	0.109*** (0.036)	0.097*** (0.033)	0.092*** (0.033)
Repeated a grade			-0.319*** (0.028)	-0.316*** (0.031)	-0.299*** (0.031)	-0.293*** (0.032)
Skipped a grade			0.278*** (0.052)	0.266*** (0.058)	0.246*** (0.056)	0.253*** (0.055)
Girl			0.082*** (0.023)	0.071*** (0.023)	0.072*** (0.023)	0.072*** (0.022)
Low SES family					-0.270*** (0.032)	
Intermediate SES family					-0.217*** (0.030)	
Immigrant family					0.030 (0.025)	
Detailed SES						Y
Detailed immigration status						Y
Deciles in test scores in Nov. 2012		Y	Y	Y	Y	Y
Score on Raven matrices			Y	Y	Y	Y
Effort put into the test			Y	Y	Y	Y
Self-Perception of Behavioral Conduct			Y	Y	Y	Y
Class fixed effects				Y	Y	Y
Nb Obs	3101	3101	3101	3101	3101	3101
Adjusted R-squared	0.170	0.616	0.651	0.699	0.708	0.709
Mean among students whose pref. tracks do not include an Academic High School:						-0.521
Mean among students whose pref. tracks do not include a Master's degree:						-0.081

Each column reports the coefficients of a different OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is the standardized test score at the national exam in June. "Pref. tracks include an Academic HS" is a dummy indicating that preferred options after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France. Controls for "Detailed SES" correspond to controls for each family's socioeconomic status (SES) stratified into six categories based on the parents' occupation together with controls for whether the student has one parent who is unemployed and for whether she has one parent who is retired, separately for each parent when there are two. Controls for "Detailed immigration status" correspond to controls for whether the student has one parent or both who were born in a non-OECD country, and at least one parent colored (defined base on the country of birth). Students' score at Raven matrices is controlled for using dummies indicating the number of wrong answers. 'Proxy for Conscientiousness' corresponds to dummies indicating the number of questions that the student tried to solve for each test in November. When controlling for the immigration status, for the employment status, and for the score at Raven matrices, we also add controls for missing data for each characteristic.

Table B.3: Correlation between Aspirations and Assignment to the Academic Track

Variable	Entered an Academic High School					
	(1)	(2)	(3)	(4)	(5)	(6)
Preferred tracks include an Academic HS	0.364*** (0.018)	0.222*** (0.022)	0.197*** (0.020)	0.182*** (0.020)	0.179*** (0.019)	0.176*** (0.020)
Preferred tracks include a Master's degree	0.115*** (0.016)	0.044*** (0.015)	0.040*** (0.015)	0.029 (0.018)	0.022 (0.017)	0.020 (0.018)
Repeated a grade			-0.182*** (0.020)	-0.182*** (0.021)	-0.175*** (0.021)	-0.174*** (0.021)
Skipped a grade			0.034* (0.018)	0.032 (0.021)	0.022 (0.020)	0.021 (0.019)
Girl			0.052*** (0.015)	0.050*** (0.015)	0.050*** (0.015)	0.048*** (0.015)
Low SES family					-0.132*** (0.016)	
Intermediate SES family					-0.084*** (0.017)	
Immigrant family					0.032* (0.017)	
Detailed SES						Y
Detailed immigration status						Y
Deciles in test scores in Nov. 2012		Y	Y	Y	Y	Y
Score on Raven matrices			Y	Y	Y	Y
Effort put into the test			Y	Y	Y	Y
Self-Perception of Behavioral Conduct			Y	Y	Y	Y
Class fixed effects				Y	Y	Y
Nb Obs	3101	3101	3101	3101	3101	3101
Adjusted R-squared	0.171	0.354	0.392	0.418	0.427	0.428
Mean among students whose pref. tracks do not include an Academic High School:					0.472	
Mean among students whose pref. tracks do not include a Master's degree:					0.698	

Each column reports the coefficients of a different OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is a dummy indicating whether the student has been assigned to the academic track. “Pref. tracks include an Academic HS” is a dummy indicating that preferred options after middle school include an academic high school. ‘Low-SES family’ is a dummy variable indicating that both parents have occupations that do not require higher education. ‘Intermediate-SES family’ is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. ‘Immigrant Family’ is a dummy variable indicating that both parents of a student were born outside of France. Controls for “Detailed SES” correspond to controls for each family’s socioeconomic status (SES) stratified into six categories based on the parents’ occupation, together with controls for whether the student has one parent who is unemployed and for whether she has one parent who is retired, separately for each parent when there are two. Controls for “Detailed immigration status” correspond to controls for whether the student has one parent or both who were born in a non-OECD country, and at least one parent colored (defined base on the country of birth). Students’ score at Raven matrices is controlled for using dummies indicating the number of wrong answers. ‘Proxy for Conscientiousness’ corresponds to dummies indicating the number of questions that the student tried to solve for each test in November. When controlling for the immigration status, for the employment status, and for the score at Raven matrices, we also add controls for missing data for each characteristic.

Table B.4: Shorter term correlation between Aspirations and Academic Outcomes, Controlling for Annual Average Grade

Variable	Test scores in June 2013			Entered an Academic HS		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferred tracks include an Academic HS	0.088*** (0.022)	0.067*** (0.020)	0.067*** (0.020)	0.128*** (0.014)	0.114*** (0.014)	0.111*** (0.014)
Preferred tracks include a Master's degree	0.057* (0.031)	0.028 (0.025)	0.020 (0.025)	0.013 (0.012)	0.010 (0.012)	0.005 (0.012)
Repeated a grade	-0.177*** (0.024)	-0.161*** (0.024)	-0.147*** (0.024)	-0.080*** (0.014)	-0.076*** (0.016)	-0.073*** (0.016)
Skipped a grade	0.152*** (0.037)	0.149*** (0.041)	0.145*** (0.040)	0.018 (0.015)	0.025 (0.016)	0.018 (0.016)
Girl	-0.040** (0.019)	-0.065*** (0.017)	-0.064*** (0.018)	-0.010 (0.012)	-0.013 (0.013)	-0.014 (0.013)
Detailed SES			Y			Y
Detailed immigration status			Y			Y
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Score at Raven matrices	Y	Y	Y	Y	Y	Y
Effort put into the test	Y	Y	Y	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y	Y	Y	Y
Class fixed effects		Y	Y		Y	Y
Deciles in average annual grade	Y	Y	Y	Y	Y	Y
Nb Obs	3101	3101	3101	3101	3101	3101
Adjusted R-squared	0.771	0.829	0.831	0.632	0.650	0.653
Mean among students whose pref. tracks do not include...						
... an Academic HS:	-0.521	-0.521	-0.521	0.472	0.472	0.472
... a Master's degree:	-0.081	-0.081	-0.081	0.698	0.698	0.698

Each column reports the coefficients of a different OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is either the standardized test score at the national exam in June (columns 1-3), either a dummy indicating whether the student has been assigned to the academic track (columns 4-6). "Pref. tracks include Academic HS" is a dummy indicating that preferred options after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France. Controls for "Detailed SES" correspond to controls for each family's socioeconomic status (SES) stratified into six categories based on the parents' occupation, together with controls for whether the student has one parent who is unemployed and for whether she has one parent who is retired, separately for each parent when there are two. Controls for "Detailed immigration status" correspond to controls for whether the student has one parent or both who were born in a non-OECD country, and at least one parent colored (defined base on the country of birth). Students' score at Raven matrices is controlled for using dummies indicating the number of wrong answers. 'Proxy for Conscientiousness' corresponds to dummies indicating the number of questions that the student tried to solve for each test in November. When controlling for the immigration status, for the employment status, and for the score at Raven matrices, we also add controls for missing data for each characteristic.

Table B.5: Correlation between Aspirations and Educational Outcomes, by SES

Variable	Annual Average Grade (1)	Test Scores in June (2)	Entered an Academic HS (3)
Preferred tracks include an Academic HS	0.118** (0.052)	0.119** (0.046)	0.090** (0.036)
Preferred tracks include a Master's degree	0.153*** (0.048)	0.087 (0.054)	0.023 (0.014)
Pref. tracks include an Academic HS * Low-SES family	0.105 (0.089)	0.037 (0.064)	0.114** (0.055)
Pref. tracks include an Academic HS * Intermediate-SES family	0.152* (0.082)	0.066 (0.066)	0.098** (0.048)
Pref. tracks include an Academic HS * Immigrant family	-0.005 (0.076)	0.026 (0.056)	0.017 (0.048)
Pref. tracks include a Master's degree * Low-SES family	-0.023 (0.096)	0.019 (0.091)	0.050 (0.052)
Pref. tracks include a Master's degree * Intermediate-SES family	0.044 (0.093)	0.099 (0.095)	0.035 (0.039)
Pref. tracks include a Master's degree * Immigrant family	-0.087 (0.087)	-0.068 (0.080)	-0.075* (0.045)
Low SES family	-1.622*** (0.428)	-0.206 (0.320)	-0.235 (0.280)
Intermediate SES family	0.605 (0.726)	1.437** (0.590)	0.245 (0.391)
Immigrant family	0.530 (0.566)	0.524 (0.575)	-0.257 (0.357)
<i>Other controls: per se and interacted with low-SES family and immigrant family:</i>			
Repeated a grade	Y	Y	Y
Skipped a grade	Y	Y	Y
Girl	Y	Y	Y
Deciles in test scores in Nov. 2012	Y	Y	Y
Dummies for score on Raven matrices	Y	Y	Y
Effort put into the test	Y	Y	Y
Self-Perception of Behavioral Conduct	Y	Y	Y
Class fixed effects (<i>without interactions</i>)	Y	Y	Y
Nb Obs	3101	3101	3101
Adjusted R-squared	0.582	0.706	0.435
Mean among students whose pref. tracks do not include an Academic HS:	-0.512	-0.521	0.472
Mean among students whose pref. tracks do not include a Master's degree:	-0.089	-0.081	0.698

Each column reports the coefficients of a different OLS regression. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard errors appear in parenthesis and are clustered at the school level and robust. The dependent variable is the standardized annual average of teachers' grades (column 1), the standardized test score at the national exam in June (column 2), or a dummy indicating whether the student has been assigned to the academic track after 9th grade (column 3). "Pref. tracks include Academic HS" is a dummy indicating that preferred options after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that both parents have occupations that do not require higher education. 'Intermediate-SES family' is a dummy variable indicating that at least one parent has an occupation that requires higher education while none has an occupation that corresponds to five or more years of education. 'Immigrant Family' is a dummy variable indicating that both parents of a student were born outside of France. Controls for "Detailed SES" correspond to controls for each family's socioeconomic status (SES) stratified into six categories based on the parents' occupation, together with controls for whether the student has one parent who is unemployed and for whether she has one parent who is retired, separately for each parent when there are two. Controls for "Detailed immigration status" correspond to controls for whether the student has one parent or both who were born in a non-OECD country, and at least one parent colored (defined base on the country of birth). Students' score at Raven matrices is controlled for using dummies indicating the number of wrong answers. 'Proxy for Conscientiousness' corresponds to dummies indicating the number of questions that the student tried to solve for each test in November. When controlling for the immigration status, for the employment status, and for the score at Raven matrices, we also add controls for missing data for each characteristic.

Appendix A: Context, Sampling, and Data Construction

Background on the French education system

The curriculum in academic high schools is the same for all students in the first year (grade 10). Students then choose among 10 different tracks in grades 11 and 12: literature, social sciences, and sciences constitute the *Général* track, while management, industrial technology, health, laboratory science, art, life sciences, and hospitality constitute the *Technologique* track. All academic tracks end with the Baccalaureate graduation exam and give access to any higher education pathway, although access to the more selective pathways is conditional on performance (teacher grades) and curriculum (e.g. students who graduate in literature cannot enroll in engineering schools). In contrast, vocational high schools offer a large variety of tracks as soon as grade 10, which differ in terms of the length of the program (2-year or 3-year tracks), the subjects (construction, sanitation, mechanics, electrical technology, commerce, secretarial work, agriculture, and other services), and pedagogical approach (with or without an apprenticeship).

The process of track assignment starts in the middle of grade 9¹, and at the end of the school year. At the end of the winter term, in March, families fill out a form to indicate their preference to the teaching staff (academic track, 3-year vocational track, 2-year vocational track, or grade repetition); the teaching staff then express an opinion on this preference. In June, families choose a track and teachers validate or veto this choice based on the student's academic performance. If teachers veto the choice of the family, the family meets with the principal. If disagreement persists, the family can request an appeals committee whose decision is definitive. An important feature of this procedure is the leading role of the family, who is the first to express their preference. The legal framework insists on the idea that teachers' role is corrective and must respect families' decisions unless the student's performance is not compatible. Note also that the track assignment procedure does not take into account students' performance on the national exam taken at the end of June. Student performance is thus assessed solely on the basis of grades given by teachers over the course of the academic year.

Sample

The main reason for which the sampling strategy of the schools was not random is that school principals had to agree to participate in the study, meaning that the junior highs in our sample are headed by principals who may be more interested than others in research on social inequalities .

Of the 6,903 students registered in the 59 junior high schools, 5,660 students (82%) completed both the first math test and the questionnaire combined with the second math test one week later. Attrition at this stage is due to student absenteeism. To avoid any breach of confidentiality and thus increase principals' willingness to participate, we did not collect names, administrative identifiers, or complete dates of birth in our independent test or survey. Therefore, we had to match our survey data with the administrative

¹The legal framework is available at <http://eduscol.education.fr/pid23597-cid53993/textes-reference.html>.

data using school, class, year of birth, month of birth, and sex. If there were more than one match using these matching variables, we then added parents' socio-economic status as an additional matching variable as students were asked in the questionnaire to report their parents' occupations. We used the administrative classification of occupations to code parental SES in order to obtain the same variable as the one available in the administrative data. A total of 3,793 students (67% of the surveyed students) were matched this way. Ultimately, 10% of the remaining students had missing values for their track assignment in September 2013² so our final matched sample thus consists of 3,414 students in 59 junior high schools.

Data Construction

Measure of salient options, attainable options, and educational aspirations

At the high school level, students were asked what options they know, which options they feel academically capable of pursuing, and which option they prefer. For salient and attainable options, we coded answers in three categories to indicate whether the student mentions: "Academic high school," "Vocational high school," and "No option"³. For preferred options, we coded answers in four categories to indicate whether the student prefers: "Academic high school," "Vocational high school," "No high school," and "No answer". When the answer is vague or there is uncertainty about the corresponding category, we consider two extreme scenarios: for example, "music" can be associated with, at least, no high school education or, at most, academic high school (the literature track offers a music section). Since vague responses represent only 5% of the total responses, there is a very high correlation (0.93) between the overall results when these 5% of responses are classified according to the "pessimistic" scenario (where the inferred track is the least selective) and the overall results when the responses are classified according to the "optimistic" scenario (where the inferred track is the most selective). We present the results using the pessimistic scenario. Finally, 20 students gave only one vague response associated with no high school education according to the pessimistic scenario (e.g., students whose *unique* response is "music"). These few students were instead grouped in the "No response" category as we consider their answer as uninformative relative to the tracks they are aware of, feel academically capable of pursuing, or prefer.

Data construction is similar at the higher education level. Students' answers are coded according to the implied number of years of education: "school of architecture" is coded as 5 years, "university institutes of technology (IUT)" is coded as 2 years, etc. A handful of answers are vague and allow for different implied levels of education, like "university." In these cases, as before, we use the lowest number of years of education

²Reasons for this attrition are threefold: first, some students moved to an educational district outside of Paris, Créteil, and Versailles for which we have no data; second, some students dropped out of school and do not appear in any administrative dataset; third, some students enrolled in independent private schools, which do not report information to the Ministry of Education. These students were dropped from the study since we are interested in the full trajectory, from initial aspirations and academic performance to later academic performance, grades, and track assignment.

³For salient/attainable options students, we code as "No option" who say they do not know or feel capable of pursuing any option, as well as students who do not answer anything to these questions while still answering other questions of the questionnaire. Also, 18 students who did not answer any question on educational aspirations for both high school and higher education, and did not answer either to other parts of the questionnaire are excluded.

compatible with the answer. In the example of “university,” the shortest degree takes 3 years, so the answer is coded as 3 years. For salient and attainable options, we create three dummies to indicate whether the student mentions: “No option in higher education,” “1-4 years of college,” or “5 or more years of college” (referred to as “graduate studies”). For preferred options, we create four dummies indicating whether the student prefers: “No response,” “No higher education,” “1-4 years of college,” or “5 or more years of college” (referred to as “graduate studies”). As the questionnaire also asks students whether they would prefer working or pursuing in higher education after high school, all students who responded “work” are coded 1 in “No higher education” independently from the responses they provided for their preferred options..

In France, entering vocational high school requires lower grades than entering academic high school (see Figure 1), and continuing in graduate studies after the bachelor requires sufficient grades. It is natural for students who are asked about the options they feel capable of pursuing to just answer the “highest” (most selective) option they feel capable of pursuing, without bothering to mention other easier options that are obviously academically attainable as well. Indeed, only 16% of students who cite academic high school as attainable also cite vocational high school as attainable, and this proportion is similar for high-, intermediate- and low-SES students. To correct the data for this reporting bias, students who just answer that the most selective option is attainable, namely academic high school, are coded 1 not only for “academic high school is attainable” but also for “vocational high school is attainable” if vocational high school is mentioned in salient options. The same applies to graduate studies and 1-4 years college.

On average, students report 3.9 salient options, 1.4 attainable options, and 0.9 preferred options at the high school level (including 10% of students reporting 0 options). At the higher education level, on average students report 1.9 salient options, 0.9 attainable options, and 0.8 preferred options (including 44% of students reporting 0 options). Students who provide several preferences (11% at the high school level and 16% at the higher education level) may appear in several categories.

Academic capacity in November 2012

It was made clear that the tests would not have any academic consequences, they would not be graded by teachers, and would remain anonymous. Moreover, the two math tests were generally not administered during a math class. These precautions were taken to reduce the stereotype threat and any loss in self-confidence that could be associated with it, particularly for low-SES students. In comparison, teachers’ grades would be more prone to stereotype threats given that: (i) teachers’ beliefs about students’ capacity according to their SES may bias their assessments (Hanna and Linden, 2012); and (ii) stereotype susceptibility may affect student performance in class (Steele and Aronson, 1995, Croizet et al. 2001, Hoff and Pandey, 2006). None of the tests were announced beforehand so as to avoid pupil preparation - as it is likely that high-SES parents encourage and support at-home preparation more so than low-SES parents.

The test score in November 2012 is constructed using the two November math test scores on the one hand, and the relationship between the overall score in June 2013 (average of scores in math, French, history and

geography), the score in math in June 2013, and invariant student characteristics (gender, SES, year of birth, and classroom fixed effect) on the other hand. 83% of the variation in students' total scores on the national exam is explained by variation in math scores. Adding gender, SES, year of birth, and classroom fixed effects raises explanatory power to 87%. We estimate the coefficients of a regression of the overall score on the math score and student characteristics in June, and use these coefficients to estimate the overall score that a student would have had in November given her average math score in November and her characteristics. The correlation between the test scores in November 2012 and in June 2013 is 0.78.

Average teachers' grades over grade 9

The advantage of this measure as a control for academic capacity is that it provides more precise information about academic performance than a single test given that it smooths random volatility in individual single performances. While our test scores in November 2012 are not observed by any agent, the average annual grade adds an interesting element to the analysis since it reflects academic performance *as observed* by students, parents, and teachers themselves at the time of assignment to high school. It also more amply incorporates academic *behavior* compared to test scores: teachers' grades take into account manifestations of effort (or lack thereof), such as delays in assignment submission, in-class attitudes, participation, or even disciplinary issues and absenteeism (Avvisati et al. 2014). However, as discussed above, average annual grade also incorporates social factors like parental inputs or teachers' priors related to social stereotypes. Clearly an ideal measure of academic performance does not exist; both average annual grade and test scores in June 2013 have advantages and disadvantages. This paper consequently uses both to ensure the findings are robust to these different approaches to evaluating academic performance.

Family socio-economic status

The administrative data contains a 32-code scale of the two legal guardians' (i.e. generally parents') socio-economic status. The three-category classification separates "high-SES", "intermediate-SES", and "low-SES". Students are in the high-SES category (32% of the students) if at least one guardian (parent) of the student has an occupation that corresponds to five or more years of education which includes: lawyers, doctors, teachers, artistic freelancers, high-level civil servants, professors, researchers, journalists, artists, senior executives, engineers. Students belong to the intermediate-SES category (22%) if at least one parent has an occupation that corresponds to 1-4 years of higher education, which includes: nurses, technicians, clerical workers, caseworkers, childcare workers, craftsman, retail traders. Finally, students are in the low-SES category (46%) if both parents have no occupation or an occupation that corresponds to no higher education like labourers, cashiers, cleaners, babysitters, stock-controllers, garbage collectors, etc.

The six-category classification that we use in Appendix B divides families into 6 groups so as to obtain more homogenous social groups: "No parent has ever worked" (5%), "Maximum family SES is manual laborer" (17%), "Maximum family SES is low-skilled white-collar" (25%), "Maximum family SES is craftsman or retail

traders” (6%), “Maximum family SES is intermediate occupation” (15%), and “Maximum family SES is high-skilled occupation” (31%). The social hierarchy used to define these categories relies on the increasing average level of education required for these job categories: “manual laborer,” “low-skilled white-collar,” “craftsman and retail traders,” “intermediate occupation,” and “high-skilled occupation.” The average level of education by job category is computed using our research survey, which contains information on parent occupations and their levels of education.

Family immigration status

Among students whose both parents are not born in France, 60% come from Africa, 30% come from North Africa, 30% from Sub-Saharan Africa, 12% from Asia, 7% from the Middle East, 7% from the Caribbean, 5% from Portugal, 4% from Eastern Europe, 3% from Latin America, 2% from other European countries, and 0.5% from North America. Besides, 88% of immigrant families are of low-SES, such that immigrant families are largely a sub-group of low-SES families.

Appendix B: Do Aspirations Matter? Suggestive Evidence on the Impact of Aspirations on Short-Term Educational Outcomes

In this section, we examine how aspirations influence later school outcomes. While estimating the causal link from aspirations to later school outcomes would ideally require a randomized controlled manipulation of aspirations, our survey and administrative data provide exceptionally rich control variables that allow to control for a large number of confounding factors. Our results suggest that our estimates are close to the causal ones, showing that aspirations do influence later economic outcomes.

Later school outcomes

To study the influence of aspirations in November 2012 on later performances, we use three outcomes provided by the administrative data. The first is individual test scores on the national exam administered in June 2013. This test is anonymously and externally graded and includes math, French, history and geography. While the June test has a higher academic resonance than the test administered in November, it has no impact on later academic paths.⁴ The second is the average annual teachers' grade. This grade is the average of all the grades a student received from all teachers over the course of grade 9 (from September to June). In our empirical analysis, we use class fixed-effects to account for between-classroom and between-school variation in the grading system. The last one is track assignment in high school. This information comes from the administrative data and indicates whether the student "Entered vocational high school," "Entered academic high school," or "Repeated grade 9".

Empirical strategy

Our analysis focuses on the effect of the most ambitious aspirations - i.e. academic high school (versus vocational or no relevant response), and a master's degree (versus no relevant response, no higher education, or maximum 4 years in higher education) - on school achievement over the year or at the end of the year. Obviously, a simple correlation between aspirations and later school outcomes does not reflect the causal impact of aspirations, as aspirations and later school outcomes are both the products of other common factors. There are three categories of factors that can affect both aspirations and later school outcomes *independently of aspirations*: school-neighborhood characteristics, family characteristics, and students' academic skills. Our model is thus the following:

$$Y_{ijt_1} = \alpha + \beta Asp_{it_0} + \sum_{d=2}^{10} \gamma_d TestScore_{dit_0} + \lambda OtherSkills_{it_0} + \delta FE_j + \mu Fam_i + \epsilon_{ijt_0} \quad (1)$$

where Y_{ijt_1} stands for the outcome of student i in class j , i.e. either the average annual teachers' grade,

⁴Decisions on the assignment of high schools are made before the exam, and it is not necessary to pass the test to enter high school.

test score on the national exam in June 2013, or the track assignment for the following year measured in September 2013. t_0 indicates that the variable is measured in November 2012 (all right-hand side variables) and t_1 indicates that the variable is measured later. Asp_{it_0} is a vector of two dummies indicating whether academic high school and a master’s degree are included among student i ’s preferences in November 2012⁵. Our coefficients of interest are thus embodied in the β vector.

FE_j are class fixed effects: they are used to neutralize class, school, and neighborhood characteristics⁶. Class fixed-effects primarily capture the impact of peer and teacher quality on both students’ aspirations and later school performances. However, they also capture the impact of some parental characteristics, such as parental involvement in education, that lead to sorting between schools and classes and influence later school performance.

Academic performance is the product of both intellectual ability (cognitive skills) and effort put into learning, the result of non-cognitive skills such as motivation, persistence, self-esteem, diligence, etc. Our first control variable is current (November 2012) academic performance as measured by students’ scores on our two independent tests: $TestScore_{dit_0}$ is a dummy indicating whether the student’s academic test score in November 2012 is in decile d . We argue that our tests provide a good measure of academic level because they are taken one week apart (minimizing measurement error), and because the correlation between our test score and the score on the national exam at age 15 is 0.78. In Dalton et al.’s (2016) model, the current academic performance represents the “realized outcome” at the basis of aspirations.

One concern is that differential progression is not only the consequence of differential aspirations, but also the consequence of differential academic skills that are not reflected in the November 2012 academic test scores, especially intelligence and “Conscientiousness” (in the terminology of the Five-Factor Personality model). In fact, the literature shows that “Openness,” “Extraversion,” or “Agreeableness” do *not* correlate with school achievement once intelligence is controlled for (Poropat 2009). Importantly, concerning “Neuroticism” (the fifth factor), we argue that traits related to this dimension affect later school achievement in ways that cannot be distinguished from aspirations⁷.

In order to address this concern, we add additional control variables for both intelligence and conscientiousness ($OtherSkills_{it_0}$), and examine the sensitivity of our estimates to their inclusion: the score on the Raven Progressive Matrices test to proxy general intelligence; dummies for whether the student ever repeated or skipped a grade to control for observed extreme learning speeds⁸; a dummy for gender, because

⁵Note that 93% of those who aspire to master’s degree also aspire to an academic high school, while only 20% of those who aspire to an academic high school also aspire to a master’s degree.

⁶Neighborhood characteristics are neutralized using class fixed effects because in this study all the schools are public schools, and thus the great majority of the school population is defined by geographical zoning.

⁷Heckman et al. (2006) shows that “Neuroticism” correlates with school achievement. We postulate here that Neuroticism is *not* a confounding factor because this domain is inherent to aspirations: traits related to this domain (e.g. self-evaluation, self-esteem, self-efficacy, and optimism) affect later school outcomes only through their interaction with aspirations. For instance, low self-esteem causes inhibition, which we take as inseparable from low aspirations. Similarly, fatalism reduces the perceived return to effort and limits ambition and motivation, which similarly cannot be distinguished from low aspirations. Optimism works the opposite direction on ambition and motivation, but also inseparably from high aspirations.

⁸The French procedure to skip a grade requires IQ tests and psychological interviews to precisely assess the cognitive and non-cognitive skills of the student.

it has been proven that teenage girls are more self-disciplined and conscientious than boys (Duckworth and Seligman [2006]); dummies indicating the number of questions that the students tried to solve on the two academic tests as a measure of effort (especially in this context where the test had no academic consequences); and dummies for levels of self-perceived behavioral conduct to partly capture diligence and dutifulness.

Finally, Fam_i is a set of family characteristics. We use two different sets of control variables: basic and detailed. The first set includes just a dummy for low-SES indicating that none of the parents are high-skilled workers and a dummy for immigrant family indicating that both parents were born abroad. The second set includes five dummies for each sub-category of low-SES occupation⁹, two dummies indicating whether each parent is employed, unemployed, or retired, two dummies indicating whether each parent was born in a non-OECD country, and a dummy indicating whether one of the parents has darker skin (based on country of birth). Together these variables proxy parental education and income levels, as well as knowledge of the French curriculum; this detailed set of controls should capture these dimensions better than the basic set of variables. We do not claim that these variables fully capture the impact of family on both aspirations and later school outcomes as parental involvement can vary once these variables are taken into account (e.g. assistance with assignments, monitoring of homework schedule, management of sleep time). That said, the sensitivity of the coefficients on aspirations to replacing the basic set with the detailed set indicates whether unobserved family characteristics seem to bias our estimates.

Importantly, we also provide shorter-term estimates of the impact of aspirations on June 2013 academic test scores and September 2013 track assignments by controlling for average annual grade on top of all other controls. The advantage of this new estimation is that the average annual teachers' grade provides an excellent control for students' skills and family characteristics affecting academic achievement as it is based on multiple academic tests on all topics including both in-class and at-home assignments, as well as student behavior and conscientiousness (see Appendix A for a deeper discussion on teachers' grades). Both measurement error and omitted variable bias are therefore well addressed. Our model is the following:

$$Y_{ijt_2} = \alpha + \beta Asp_{it_0} + \sum_{g=2}^{10} \theta_g Grade_{git_1} + \sum_{d=2}^{10} \gamma_d TestScore_{dit_0} + \lambda OtherSkills_{it_0} + \delta FE_j + \mu Fam_i + \epsilon_{ijt_0} \quad (1')$$

where t_0 indicates that the variable is measured in November 2012, t_1 indicates that the variable is measured between September 2012 and June 2013, and t_2 indicates that the variable is measured later, i.e. in June or September 2013. $Grade_{git_1}$ is a dummy indicating whether the student's average annual grade is in decile g , and all other variables are similar to those in equation (1). Note that the interpretation of this new estimate is different from the earlier one in that it leaves very little time for aspirations to affect school outcomes since we compare students who not only have similar characteristics in November 2012 but also similar average teachers' grade *for the entire year*. In addition, it provides a lower bound of the true estimate since it excludes the impact of aspirations on June 2013 and September 2013 outcomes going through average

⁹See the Appendix A for further information on how we define these variables.

annual grade.

Results

Table B.1 presents the correlation between aspirations and average annual grade. Columns 1 to 6 show how the addition of our control variables affects this correlation.¹⁰ November 2012 academic test scores explain a large part of the variation in average annual grade (the R-squared rises from 0.15 to 0.45), and reduce by 58% the coefficient on aspirations (column 2), confirming that academic performance is a major determinant of both aspirations and later academic performance. The additional proxies for cognitive and non-cognitive skills (column 3) also add to the explanatory power of the model (from 0.45 to 0.52) and substantially reduce the coefficient on aspirations for academic high school (from 0.29 down to 0.22). While adding class fixed effects and family characteristics does improve the explanatory power of the model, it does not significantly affect the coefficient on aspirations (columns 4-5-6). Importantly, this is not due to poor quality measures as the contribution of family characteristics is important when we include them first as control variables.¹¹ The lack of impact of class fixed effects and family characteristics on the coefficients of aspirations thus means that our measures of academic, cognitive, and non-cognitive skills are doing a good job capturing students' academic potential, and that unobserved characteristics do not seem to bias our estimates. Consequently, we interpret the estimates in column 6 as the impact of aspirations on average annual grade, where we compare students who are in the same class, show similar academic, cognitive and non-cognitive measures in November 2012, and are from similar social backgrounds. We find that students who prefer an academic high school at the beginning of the year have a 0.21 standard deviations higher average annual grade compared to those who prefer a vocational high school or have no preference. Students who also prefer a master's degree have an additional 0.12 standard deviations higher average annual grade than those who do not. Both differences are significant at the 1% level.

Tables B.2 and B.3 show similar results for our two other outcomes. Controlling for initial academic capacity, class fixed effects, and family characteristics, students who aspire to an academic high school have a 0.17 standard deviation higher score in June 2013 and an 18 percentage point (37%) higher probability of entering an academic high school the following year compared to students who prefer vocational high school or have no preference (columns 6).¹² Moreover, students who also prefer a master's degree have an additional 0.09 standard deviations higher score in June 2013 than those who do not. On the contrary, aspiring to a master's degree doesn't increase the chance of entering an academic high school, consistent

¹⁰Interestingly, all control variables are highly significant and influence the average annual grade as expected. The only notable exception may be immigrant family, which sees no particular relationship with average annual grade once initial academic skills, class fixed effects and family characteristics have been taken into account. This finding - confirmed in Tables B.2 and B.3 - suggests that being from an immigrant family does not affect academic progress and high school track assignment separately from initial academic performances, school quality, and family SES.

¹¹The adjusted R-squared goes from 0.15 up to 0.24, meaning that they are strong predictors of our outcomes, and the coefficient on aspirations goes from 0.69 down to 0.58, meaning that they are highly correlated with aspirations in the first place (results available upon request).

¹²Students who initially aspire to academic high school have a symmetrically lower probability to enter in vocational high school the next year than those who prefer vocational high school or have no preference: -0.172 off 0.482. We find no difference in the probability to repeat, which concerns only 4.6% of students (results available upon request).

with the fact that aspiration to a master’s degree is not directly relevant to high school assignment (as noted above, almost all students who aspire to a master’s degree also aspire to an academic high school). Once again, adding family characteristics (in a rough or detailed way) does not affect substantially nor significantly the coefficients of aspirations for high school and higher education for these two outcomes (columns 4-6), while they largely increase the explanatory power of the model when they are included first¹³. Adding class fixed effects and rough controls for family characteristics decreases substantially the coefficients of aspiring to a master’s degree, but not significantly (columns 3-4 of Tables 2 and 3).

Interestingly, a subgroup analysis also shows that aspirations and academic outcomes are also significantly correlated within students’ SES, given all other controls (Table B.5). If anything, we find that the impact of aspirations are even larger for low-SES students. These results also hold for all three terciles of initial academic test score (results available upon request).

Finally, Table B.4 shows the shorter term effect of aspirations on the score on the national exam in June 2013 and on track assignment for the following year controlling for average annual teachers’ grade. Our preferred estimates in columns 3 and 6 show that students who are in the same class and have similar social background and academic skills *both* in November 2012 and all year long, have different later outcomes depending on their initial aspirations. More specifically, those who initially aspired to an academic high school in November 2012 obtain a 0.067 standard deviation higher score in June 2013 (column 3) and an 11 percentage point (23%) higher probability of entering an academic high school the following year (column 6) compared to those who preferred vocational high school or had no preference. These results thus show that initial aspirations impact performance on the national exam even when annual school performance is taken into account, and that track assignment is not based only on available information on academic performance (teachers’ grades) but that students’ preferences play an important role independently of their performances.

Consequently, given the quality and the variety of our other controls, we are confident that our estimates show that aspirations significantly affect academic achievement.

Interpretation

Overall, our estimates suggest that aspirations affect academic paths in two ways. First, aspirations affect academic progress in 9th grade. Second, aspirations affect decisions independently of academic performance. These results provide empirical evidence that aspirations determine effort as modelled in Ray (2006), Genicot and Ray (2015), and Dalton et al. (2016): students who have lower aspirations seem to invest less effort in their academic work, and thus achieve less and less compared to initially equally-able classmates from similar social backgrounds who had higher aspirations. Low aspirations become a source of disadvantage in their own right. Ray (2006) proposes that aspirations are not optimal when they are either too modest (easily satisfied) or too ambitious (unreachable) because such aspirations induce less effort than intermediate

¹³The R-squared increases from 0.17 to 0.36 when family characteristics are added in the explanatory variables test score in June 2013, and from 0.17 to 0.23 when they are added in the explanatory variables of track assignment in September 2013 (results available upon request).

aspirations. Our results indicate that, on average in France, the aspiration gap¹⁴ at school is too small rather than too large for both low- and high-SES students: those who aspire higher achieve higher outcomes. If the average aspiration gap was too large relative to the optimal level of aspirations, academic progress would be smaller for those who aspire higher. In France, the “fatalistic” failure in aspirations (too modest aspirations) thus dominates the “frustration” failure (too ambitious aspirations). We now turn to the question of whether this failure interacts with social inequalities, i.e. whether students who suffer from an aspirations failure more commonly hail from a low social background.

¹⁴Following Ray (2006), the “aspiration gap” is the gap between one’s current situation and his/her aspired situation.