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

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Abstract

This paper provides the first empirical evidence that adolescents' aspirations are socially biased not only because of taste or information issues, but also for psychological factors in line with social stereotypes. Using unique survey data combined with French administrative data, we find large social inequalities in aspirations between 14-year-old classmates with equal achievement. We show that these inequalities are mainly due, first, to biased differences in awareness of existing academic tracks after junior high, and, second, to biased feelings about one's ability to pursue these tracks. We find indeed that low-SES students underestimate their *current* academic capacity compared to their equally-achieving high-SES classmates, and that all students overestimate 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, suggesting that they cannot be explained by students anticipating different returns on the labor market or by differences in preferences for professional activities linked to social identity. Educational aspirations are thus socially biased, which matters as we also show that they *do* affect later school outcomes. Overall, such biases therefore prevent low-SES students from reaching their best educational outcomes in ways that are not compatible with maximized utility. The paper thus provides evidence of an *aspirations failure* that reinforces social inequalities at school, and calls for self-esteem building policies to strengthen the aspirations of the disadvantaged.

JEL Codes: I24, I21, J15, O15

Keywords: School Aspirations, Social Stereotypes, Social Inequality, Aspirations failure

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). An aspiration-based poverty trap then occurs when biased aspirations induce suboptimal investments and efforts to better one's life, resulting in poor outcomes compared to that which would have been achieved with adequate aspirations, in turn leading to lower aspirations, etc. This paper provides the first empirical evidence that adolescents' aspirations are socially biased due to psychological factors in line with social stereotypes, and that such biases reinforce social inequalities in educational attainment in ways that do not reconcile low outcomes and maximized utility. After a preliminary investigation of the effect of aspirations on later school outcomes, we provide a measure of social inequalities in aspirations and explore the mechanisms leading to these inequalities. This paper does not preclude that low socio-economic status (hereafter SES) students have good reasons to aspire lower than high-SES students, because they do. Instead, we question whether they correctly assess this objective disadvantage, i.e., whether the way students set their aspirations is fully rational. We provide evidence that they do not by exploring the importance of two mechanisms driving aspirations, namely awareness of existing academic tracks, and feelings about one's academic potential.

In France, the school curriculum is the same for all students up through junior high, but then gives way to a stratified system of high schools, where students pursue either an academic or a vocational track. At the end of junior high, students thus reach the first crossroads of their educational paths: based on their preferences, their parents' preferences, their achievements, and their teachers' opinions, a choice is made at the end of 9th grade that will, with some degree of irreversibility, determine their future academic and professional paths. In this paper, we study a sample of 3,415 students in their last year of junior high (i.e. 9th grade) in 59 French schools. We measure students' educational and professional aspirations at the beginning of 9th grade through a survey designed specifically for this study. To analyze the underlying mechanisms through which these aspirations are set, students were first asked to list all the existing tracks they are aware of (hereafter *salient* tracks) then, among these, which they feel capable of pursuing (hereafter *attainable* tracks), and finally, among the latter, which they would prefer to pursue (hereafter *preferred* tracks). To the best of our knowledge, this paper is the first to de-construct preferred options as embedded in the zone of self-perceived attainable and salient options ("aspiration window" in Ray's terminology). The survey

also measures their scholastic self-esteem and beliefs about the influence of social origin on future academic success, which allows us to investigate the importance of social stereotypes in explaining social differences in aspirations.

Social inequalities in educational aspirations would not matter if aspirations did not influence later outcomes. To this regard, we first examine the relationship between aspirations at the beginning of grade 9 and later school outcomes, and discuss the extent to which this relationship is driven by confounding factors. Our survey and administrative data allow us to control for three categories of confounding factors: school-neighborhood quality (using class fixed effects), parents' SES and immigration status, and students' academic capacity at the beginning of the year. Academic capacity includes both cognitive and non-cognitive skills of students that can predict their future academic outcomes; our exceptionally rich survey data allow us to control extensively for this dimension.[1] 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 observe that once academic capacity and class fixed effects are included,[2] 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. Moreover, 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, we argue that these estimates can reasonably be considered as causal.

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 induces significant increases in both the annual average grade and the test score at the end of grade 9 of respectively 0.17 and 0.22 standard deviation, as well as increases the probability of entering an academic high school in grade 10 by 37 percents. These estimates measure the impact of aspirations over a maximum of one year. Our data are thus consistent with the hypothesis that aspirations are not simply a consequence of realized outcomes, but also a cause of later outcomes. As the existing literature on the impact of aspirations on future outcomes is currently quite scarce (see Section 2 for a

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[1]Our survey data include: two academic tests given one week apart, a Raven Progressive Matrices test to measure fluid intelligence, a questionnaire measuring self-perception of behavioral conduct, a measure of the effort put into the two academic tests as an additional proxy of dutifulness, and finally, indicators of whether the student is female, skipped a grade, or repeated a grade.

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

review), these new estimates contribute to furthering current knowledge on this topic.

Secondly, we find clear evidence of large social differences in aspirations that are not only due to differences in academic capacity and school environment. For instance, taking these dimensions into account, low-SES students are still twice more likely to prefer vocational high school than high-SES students. One might thus question whether students set their aspirations in a way that allows them to achieve their best possible outcome -i.e. their highest possible level of welfare- given the constraints they face: are low-SES students indeed right to aspire lower? Likely, they are. Unsurprisingly, we find, for example, that low-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. More generally, even among students with equal academic potential, having different aspirations may still lead to the best possible outcome if students have different liquidity constraints in terms of the cost of education, different actual returns to education, or identity concerns. However, this does not mean that students do set their aspirations at the level that will lead them to their best possible outcomes. This is why this paper asks the question: do low-SES students correctly assess their objective disadvantages?

In answering this question, our paper is the first to provide empirical evidence of two key mechanisms of the theoretical literature on aspiration-based poverty traps leading to biases in adolescents' aspirations, namely levels of awareness of existing academic tracks and feelings about one's academic potential. Specifically, we show that low-SES students have different salient and attainable tracks than high-SES students, even once academic capacity and class fixed effects are controlled for. Relative to equally-achieving high-SES classmates, low-SES students are, for instance, 7% more likely to mention vocational high school and 15% less likely to mention a master's degree as part of the existing options. And once salient tracks are controlled for, low-SES students are still 4% less likely to state that academic high school is attainable, and 15% less likely to state that a master's degree is attainable, relative to equally-achieving high-SES classmates. Interestingly, these social differences in attainable and salient tracks concern both high, medium, and low-achieving students.

While differences in awareness of existing tracks can directly prevent low-SES students from reaching their best possible outcomes, it is necessary to further examine whether students correctly assess their attainable tracks, which involves both current academic capacity and future academic progress. We find evidence that they fail at both tasks. First, students exhibit excessively fatalistic views on the extent to which future academic success is determined by social background, overestimating this link compared to reality. Secondly, low-SES students - in particular the high-achievers - have lower *current* scholastic self-

esteem compared to equally-achieving high-SES classmates. More specifically, our measure of self-esteem explains 25% of the deficit in high-achieving low-SES students mentioning a master's degree among their attainable tracks. These findings highlight the role of social stereotypes in shaping students' perceptions and cognition, with important consequences for educational aspirations and later outcomes.

We then show that social differences in academic aspirations cannot be explained by differences in professional aspirations. Overall, academic aspirations are not consistent with professional aspirations, suggesting that teenagers do not see education as a pure investment for future employment, perhaps due to an ignorance of specific educational pathways to jobs. While this is true for high-SES students, it is stronger for low-SES students. For instance, low-SES students are as likely to prefer a job that requires a master's degree as their equally-achieving high-SES classmates, while they are 26% less likely to prefer to pursue a master's degree. Similarly, they are only 11% more likely to prefer a job that does not require a higher education, while they are 69% more likely to prefer finding a job right after high school. At 14 years-old, social groups differ much more in the ways they plan to invest in their educations than in the ways they think about their future occupations, suggesting that social inequalities cannot be explained by students anticipating different returns on the labor market or by differences in preferences for professional activities linked to social identity. These results thus cast further doubt on the fact that students set their aspirations at the exact level that will lead them to their highest possible level of welfare.

Finally, once socio-economic status is taken into account, students from immigrant families notably have generally more ambitious aspirations (both educational and professional) and similar academic paths compared to students from non-immigrant families, consistently with the existing literature. This result suggests that the aspiration-based educational trap demonstrated in this paper concerns socio-economic inequalities, but not necessarily ethnic inequalities.

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 orientation on educational performance. Second, it brings new evidence on the social determination of aspirations, a topic on which empirical studies remains 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 set. Our paper also adds to the empirical literature on the consequences of aspirations on economic outcomes (Oyserman et al. 2006, Beaman et al. 2012, Bernard et al. 2013, and Goux et al. 2016) by exploring their effects on academic progress and track assignment.

This paper also contributes to the behavioral economics of education, which highlights various biases in the ways students make decisions on 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 and 2016). Thanks to the ability to distinguish between salient, attainable, and preferred tracks, and to measure scholastic self-esteem and social fatalism[3], we are able to show that identity-based preferences are formed partly on the basis of differential awareness of existing tracks and differential self-perceived academic potential, 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 combined with the negative consequences of their social origin. We consequently see a rapid divergence in school outcomes between high- and low-SES students. 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, are therefore 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. That said, strengthening the capacity to aspire is *not* equivalent to raising aspirations for all low-SES students, which may in fact produce worse outcomes among the weakest students (Goux et al. 2016). Reducing social inequalities in education requires an adjustment in aspirations that brings them in line with students' actual potential, independent of their social background. This may in turn imply downward adjustments for low-achieving students and upward adjustments for medium and high-achieving students, especially low-SES students.

The remainder of the paper is organized as follows. Section 2 discusses the existing literature on aspirations, while Section 3 presents the data. Section 4 first introduces our empirical strategy for estimating the impact of aspirations on later school outcomes and then presents our results. Similarly, Section 5 first presents our empirical strategy for both estimating social differences in aspirations and disentangling some mechanisms leading to these differences, and then describes our results. Section 6 discusses the implications

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[3]We define social fatalism as the overestimation of the influence of social origin on future academic success compared to its real influence.

of our results on the optimality of aspirations in the short and long terms. Section 7 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 inequalities[4]. 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 realized 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 realized 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, realized 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). Our paper provides the first empirical evidence on these theories.

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[4]Aspirations 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.

2.2 Empirical evidence on the impact of aspirations on economic outcomes

To the best of our knowledge, four papers provide experimental evidence on the impact of aspirations on subsequent behavior and outcomes (Oyserman et al. 2006, Beaman et al. 2012, Bernard et al. 2013, and Goux et al. 2016). To draw a causal link between change in aspirations and change in outcomes, the effect of the randomly assigned treatment on realized outcomes has to go entirely through its effect on aspirations. In Goux et al. (2016), the treatment[5] credibly affects outcomes through parental aspirations. Students' aspirations were not, however, observed as the experiment was not designed to measure the impact of students' aspirations on later effort and outcomes. The impact of this intervention may go entirely through parents' preferences and decisions, with little or no influence on the relationship between students' aspirations and their efforts at school.[6]

In the other experiments, aspirations do credibly play a central role in changing behaviors and outcomes, although additional effects of the intervention may contribute to the improved outcomes in ways that may not be related to aspirations. For example, in Oyserman et al. (2006), the intervention[7] affected both aspirations and the capacity to perform better in school. In Bernard et al. (2013), Ethiopian farmers were invited to watch video documentaries about people who had succeeded in agriculture or small businesses which included both a role model effect and an informational effect on how to succeed. 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. However, Chattopadhyay and Duflo (2004) show that this policy also affected public good provision - increasing, for instance, the number of drinking water facilities - which could explain the increase in school participation of girls (given that girls are generally responsable for water duties).

To the best of our knowledge, there is no intervention that affects only students aspirations with no effect on other elements that potentially contribute directly to better school outcomes.

2.3 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

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[5] Parents of low-achieving grade 9 students were invited to an individual meeting with the school principal, where they were informed about the vocational and academic track options available after middle school, and sensitized to the importance of adjusting expectations to student performance.

[6] This experiment focuses exclusively on low-achieving students, whereas our paper provides results on the entire distribution of students.

[7] 12 individual meetings providing low-SES students with new "Academic Possible Selves" together with strategies to attain these selves, specifically methods to perform better in school.

Model": at equal IQ test score and rank in the class, 11th grade students whose fathers' had a low education level[8] 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 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 scores[9]), 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.[10] 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 track assignment: low-SES French students are less likely to enter selective tracks 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.

Our paper contributes to this literature by using unique data on students' aspirations that allow us to decompose aspirations into salient, attainable, and preferred tracks. This is the first paper providing evidence that social differences in aspirations are driven by differences in awareness of existing tracks and feelings about one's potential.

2.4 Optimality of socially-dependent preferences

The 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 maximized 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 and 2002).

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[8]The 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.

[9]Their 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.

[10]Hoxby and Turner (2015) then provide evidence of three potential mechanisms that can explain this gap: i) resource-intensive colleges and universities net prices were difficult to ascertain, ii) students found it difficult to navigate the vast quantity of information about college attributes, and iii) the application process itself appeared daunting. In Ray's setting, such mechanisms would be reflected by social differences in preferred tracks, and not by differences in attainable tracks. While in our context, in which we are studying aspirations of the whole distribution of end of middle-school students in France, we find large differences in attainable tracks and thus focus on providing evidence of some mechanisms leading to these differences.

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). 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 byinefficient 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, and making preferences, perceptions, and cognition subject to deep social influences. Our paper contributes to this literature by isolating the role of information and perception in shaping social differences in educational preferences.

3   Context and Data

3.1   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 that students who enroll in vocational high schools (Online Appendix 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 education[11], while only 25% of students who graduate from the 3-year vocational track get some higher education, while no students in the 2-year vocational track enroll in higher education[12] . Early specialization in vocational high schools makes changing tracks later difficult, and many higher education pathways are not accessible to students in vocational high schools.

The process of track assignment starts in March and ends in June of grade 9 (see more details on the French educational system and the procedure of track assignment in Online Appendix). 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.

3.2 Sample

Our data concern 59 junior highs from the Paris metropolitan area that are not representative of Parisian junior highs. Our sample differs from the national junior high population in terms of social composition as shown in Online Appendix Figure 2. This implies that our results may not be generalizable to all areas of France. To construct our sample, we merged data from two sources: (i) a research survey administered to ninth graders in the sampled 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 3,415 students, i.e. nearly half of the students registered in grade 9 in the sampled junior highs. Our sample is thus not representative of the original junior high population, so our findings on the role of aspirations may not generalize to all students. That said, our final sample looks quite similar to the initial population and is not statistically significantly different in terms of family background, test scores in June 2013, yearly grade average, gender, probability of having repeated a grade, or probability of having skipped a grade.

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 track 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

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

[12]3-year vocational-track (*Lycée Professionnel*) students have formal access to universities with their professional Baccalaureate, 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 Baccalaureate (*Baccalauréat*), students from 2-year vocational-track (*Centre de Formation par l'Apprentissage*) cannot access higher education (their diploma is "*Certificat d'Aptitude Professionnelle*"). (Afsa, 2009)

track assignment at school had not yet begun. More specifically, while students might have discussed track 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 were unlikely to know which track their teachers thought would be most appropriate for them.

3.3   Variables of interest

Aspirations

Following Ray (2006), we define aspirations as the preferred track within the zone of attainable tracks. To measure students' educational aspirations, they were asked first which tracks they are aware of (salient tracks) then, among these tracks, which they feel capable of pursuing (attainable tracks) and finally, among these tracks, which they would prefer (preferred track, or aspiration). By construction, the preferred track is included among the attainable tracks[13], which in turn are included among the salient tracks[14]. These questions were first asked with regard to high school tracks, and then for higher education tracks. 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 tracks and occupations; the measure of the aspiration window is not distorted by a provided set of existing tracks.

For each set of salient, attainable, and preferred tracks, we code the answers to indicate whether "No high school track is in the answer," "Vocational high school is in the answer," and "Academic high school is in the answer" for aspirations for high school; and whether "No higher education track is in the answer," "1-4 year of college is in the answer," and "5 or more year of collegeis in the answer" for aspirations for higher education. The questionnaire also included a question on whether the student preferred to find a job directly after high school or pursue a higher education. To measure professional aspirations, 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 five categories: "No Response," "No higher education," "1-2 years of college," "3-4 years of college," or "5 or more years of college". We provide detailed information on data construction in the Online Appendix.

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[13]There are few exceptions since it may be natural for students who are asked about the tracks they feel capable of pursuing to just answer the "highest" (most selective) track they feel capable of pursuing, instead of all of them.

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

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 Online Appendix). 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 rigourous conditions, and designed to avoid ceiling effects (as shown on Online Appendix Figure 3).[15]

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 tests[16]. The second measure is the score of self-perceived behavioral conduct based on the "Self-Perception Profile for Adolescents" (SPPA) scale developped 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.

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.

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[15] The correlation between the test scores in November 2012 and in June 2013 is 0.78.

[16] As 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.

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.[17] 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".

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, and other students are called low-SES students. Overall, 69% of the families are in the low-SES category, i.e. both parents have intermediate or low-skilled occupations. We also use more detailed controls for parents' occupation (see next section). Our survey data also provide information on the employment status (employed, unemployed, retired), and country of birth of both parents. 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 the Online Appendix).

Students' perceptions: scholastic self-esteem and social fatalism

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.

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 measure fatalism, we compute the gap in assessed probabilities of success in these two situations (*perceived* gap), and compare it to eight actual gaps in order to map the different interpretations students may have had of the exercise (*real* gaps, see Online Appendix

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

for details). Fatalism happens when the perceived gap is greater than the real gaps.

4   Do Aspirations Matter?

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.

4.1   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:

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

where Y_{ijt_1} stands for the outcome of student i in class j, i.e. either the average annual teachers' grade, 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 2012[18]. 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 characteristics[19]. 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

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[18]Note 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.

[19]Neighborhood 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.

parental involvment 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 aspirations[20].

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 speeds[21]; a dummy for gender, because 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

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[20] Heckman 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.

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

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 occupation[22], 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 the Online Appendix for a deeper discussion on teachers' grades). Both measurement error and omitted variable bias are therefore well addressed. Our model is the following:

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

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 annual grade.

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[22]See the Online Appendix for further information on how we define these variables.

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4.2 Results

Table 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.[23] 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 Appendix Table A1.a shows that the contribution of family characteristics is important when we include them first as control variables[24]. The lack of impact of class fixed effects and family characterictics 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 2 and 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).[25] Moreover, students who also prefer a master's degree have an additional

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[23]Interestingly, 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 Table 2 and 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.

[24]The 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 (columns 2-3)

[25]Students 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

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 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 first, as shown in Appendix Tables A1.a and A1.b[26]. 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 (Appendix Table A4). 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 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.

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in the probability to repeat, which concerns only 4.6% of students (results available upon request).

[26]From 0.17 to 0.36 for test score in June 2013, and from 0.17 to 0.23 for track assignment in September 2013

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 aspirations. Our results indicate that, on average in France, the aspiration gap[27] 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 thus dominates the "frustration" failure. 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.

5 Social Inequality in Aspirations and Underlying Mechanisms

In this section, we present our results on social inequality in aspirations and on the mechanisms driving these inequalities.

5.1 Empirical strategy

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 are all consequences of family characteristics correlated with SES: 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 students is thus the consequence of these family characteristics correlated with parental SES. Here, we are not interested in the pure effect of SES on aspirations *everything else being equal*, but in the *ecological* effect of SES which incorporates all SES-related dimensions. The only exception is the family immigration status. To this regard, Caille (2007) shows that 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 a dummy indicating whether students come from immigrant families. The effect of socio-economic status is thus considered independently of whether students

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[27]Following Ray (2006), the "aspiration gap" is the gap between one's current situation and his/her aspired situation.

are immigrants.

Aspirations are the product of a three-step process: 1) individual's awareness of existing tracks (salient tracks), 2) perceived capacity of pursuing these tracks (attainable tracks), and 3) personal preference (preferred track). We first present raw differences in salient, attainable, and preferred tracks between students from low and high-SES families:

$$[Salient/Attain/Pref]Track_{ijt} = \alpha + \beta LowSES_i + \gamma Immigrant_i + \varepsilon_{ijt} \qquad (2)$$

where $[Salient/Attain/Pref]Track_{ij}$ is a dummy indicating if Track (vocational high school, academic high school, no track in higher education, finding a job, or master's degree) is salient to / attainable for / preferred by students i in class j at time t. $LowSES_i$ indicates that none of the parents are high-skilled workers, and $Immigrant_i$ indicates that both parents were born abroad. We interpret β as the ecological effect of parental SES (once immigration status is taken into account), and γ as the independent ecological effect of being born in an immigrant family (once SES is taken into account). β is thus our measure of raw social inequality in aspirations.

Then, we want to 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 and professional potential. 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 deciles of November 2012 academic scores, dummies for Raven Progressive Matrices scores, dummies for the number of questions that students tried to solve on the two tests (effort put into the tests), and deciles of self-perception of behavioral conduct[28]. Note that we do *not* assume that similar current academic capacity means similar future academic potential. We discuss students' anticipations about future academic potential later in the paper.

Another way parental SES may influence students' aspirations is through the quality of the 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

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[28]In this model, we do not include dummies for skipping or repeating a grade since the probability that a student repeats or skips a grade is highly related to her family characteristics in addition to academic skills. With these dummies included, the results are qualitatively similar and quantitatively very close (available upon request). As we are interested in social differences in aspirations, we prefer to exclude these variables which encapsulate part of social inequality. In addition, we do not need to include gender since gender is orthogonal to family SES and immigration status.

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.[29] 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). In the interest of simplification, we qualify this mechanism as the role of "class environment." As a result, we present estimates from the following model:

$$[Salient/Attain/Pref]Track_{ijt} = \alpha + \beta LowSES_i + \gamma Immigrant_i + \lambda AcadCap_{it} + \delta FE_j + \varepsilon_{ijt} \qquad (3)$$

This model provides evidence on the degree to which the raw social differences observed in equation 2 are explained by academic capacity and school environment. The remaining coefficient on low-SES (resp. immigrant) family represents the differences between *equally-performing classmates* from low- and high-SES.

Interestingly, the data allow to disentangle additional mechanisms leading to these differences in aspirations. Once current academic capacity and class environment are taken into account, differences in preferences for track X indeed come from either differences in salience of existing tracks, in self-perceived academic ability, or in personal taste. To disentangle the relative contributions of these three mechanisms, we first add dummies indicating student i's salient tracks in the regression of attainable tracks:

$$Attain.Track_{ijt} = \alpha + \beta LowSES_i + \gamma Immigrant_i + \lambda AcadCap_{it} + \delta FE_j + \mu Salient.Track_{it} + \varepsilon_{ijt} \qquad (4)$$

We interpret the coefficient on low-SES as the difference in attainable tracks between low and high-SES students *due to* perception of one's academic potential as we compare students who are in the same class, have similar academic capacity, similar immigration background, and importantly, similar salient tracks. And similarly we then add dummies for student i's attainable tracks in the regression of preferred tracks, and interpret the coefficient on low-SES as the difference in preferred tracks between low and high-SES students *not* due to awareness of academic tracks and self-perception of academic ability as we compare students who are in the same class, have similar academic capacity, similar immigration background, and similar attainable tracks. This remaining gap in preferred tracks may be due, for instance, to different liquidity constraints in facing the cost of education, to different expected returns to education, or to identity concerns. Comparison with equation (3) gives the degree to which differences in preferred tracks are the

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[29]When we implement this model using class fixed-effect, 25% of the classes are not used in the identification as 24% include 100% of low-SES, and 1% includes 100% of high-SES.

consequence of self-perceived academic potential.

5.2 Social differences in aspirations and underlying mechanisms

5.2.1 Aspirations for high school

Table 5 presents differences in aspirations for high school (vocational or academic high school) and investigates whether these aspirations are sourced in a lack of salient and/or attainable tracks in high school.[30] Column 1 shows that low-SES students are as likely as high-SES to include vocational high school among their salient tracks (84% among low-SES students versus 81% among high-SES students, difference not significant), but much more likely to refer to vocational high school as an attainable and preferred track: 29% of low-SES students refer to vocational high school as an attainable track, and 16% as a preferred track, compared respectively to 15% and 4.5% of high-SES students. On the contrary, column 5 shows that low-SES students are slightly less likely to mention an academic high school among their salient tracks (89% versus 94% among high-SES students), and much less likely to refer to academic high school as attainable and preferred tracks: 72% of low-SES students refer to academic high school as an attainable track, 61% as a preferred track, compared respectively to 89% and 80% of high-SES students.

A large part of these differences can be attributed to differences in academic capacity and school environment (columns 2-3 and 6-7): among students who show similar capacity and belong to the same class, the gaps between low and high-SES students are generally smallerHowever, low-SES students are slightly more likely to mention vocational high school among their salient tracks (+ 6.8%), and as likely to mention academic high school compared to their equally-performing high-SES classmates (columns 3 and 7, panel 3). This indicates that high-SES students have a deficit in information (or awareness) at the beginning of grade 9 with regard to vocational high school. For attainable tracks, low-SES students have a 42% higher probability of citing vocational high school, and a 4.4% lower probability of citing academic high school, than equally-performing high-SES classmates (columns 3 and 7, panel 2). The fact that low-SES students more often cite vocational high school as attainable may seem surprising, but this is explained by students only citing the highest track that they find attainable, without bothering to mention other lower tracks that are obviously also attainable.[31] Finally, low-SES students have a 111% higher probability of prefering a vocational high school, and a 4.5% lower probability of prefering an academic high school, than equally-

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[30] For simplicity, we do not report or comment on results for the remaining outcome "no high school track", although they are available upon request.

[31] Indeed, we find that only 13% of students who cite academic high school as attainable also cite vocational high school as attainable, and this proportion is similar for both high- and low-SES students (gap of 2 percentage points, non-significant). Along these lines, when we impose vocational high school to be attainable when academic high school is (and when the student mentions vocational high school among the existing tracks), the previous results on attainable and preferred tracks remain qualitatively similar.

performing high-SES classmates (columns 3 and 7, panel 1). In contrast, it should be noticed that students from immigrant families have similar salient options, a lower probability of refering to vocational high school as attainable, and similar preferred tracks, than non-immigrant students, validating Caille's (2007) findings that first-generation immigrants have higher aspirations than non-immigrants.

Once salient tracks are controlled for, low-SES students are still 4% less likely to cite academic high school as attainable relative to their equally-performing high-SES classmates (column 8, panel 2)[32] They are also 37% more likely to refer to vocational high school as attainable (column 4, panel 2) but this is entirely due to the fact that students generally cite only the highest track that they find attainable, not bothering to cite other lower tracks that are obviously also attainable.[33]

Once attainable tracks are controlled for, low-SES students are still 49% more likely to prefer vocational high school than equally-performing high-SES classmates (column 4, panel 1), compared to 111% when attainable tracks are not controlled for. This result indicates that about half of the difference in aspirations for vocational high school among equally-achieving classmates is due to differences in self-perceived academic potential. The other half is attributable to differences in pure preferences, which may relate to differential liquidity constraints vis-à-vis the cost of education, differential returns to education, or identity concerns. Moreover, the social gap in preference for academic high school is entirely due to differences in self-perceived academic potential.[34] Overall, our results show that aspirations for high school are different among low and high-SES students not only due to differences in academic capacity, school environment, and preferences (which all play an important role), but also largely to differences in self-perception of academic potential. A subgroup analysis by terciles of academic test score shows that these results come from students in the bottom and medium terciles. In the top tercile, there are actually no differences in attainable and preferred tracks between low- and high-SES students.

5.2.2 Aspirations for Higher Education

Table 6 presents the differences in aspirations for higher education. For simplicity, we focus on the two extreme aspirations: "finding a job right after high school" and "master's degree".[35] Column 1 shows that low-SES students are much more likely to cite no salient track (41%, versus 28% among high-SES students), as well as no attainable track in higher education (65%, versus 50% among high-SES students), and to

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[32]Note that, in Tables 5 and 6, the results stay qualitatively the same when we restrict the sample to students who were not provided with the list of existing options.

[33]When we impose vocational high school to be attainable when academic high school is (and when the student mentions vocational high school among the existing tracks), we no longer find a gap in attainable track for vocational high school once we control for salient tracks; other results on preferred tracks remain qualitatively similar.

[34]The same holds for the difference in the preference for vocational high school between immigrants and non-immigrants.

[35]The results for the remaining intermediate outcome "1-4 years of college" are available upon request.

prefer finding a job right after high school (22%, versus 8% among high-SES students). On the contrary, column 5 shows that low-SES students are less likely to bring up a master's degree among their salient tracks (20%, versus 38% among high-SES students), in their attainable tracks (11%, versus 26% among high-SES students), and in their preferred track (10%, versus 23% among high-SES students). Of note, immigrant students are remarkably similar to non-immigrant students with respect to salient, attainable, and preferred tracks in higher education.

Much of the difference between low and high-SES students can be attributed to differences in academic capacity and school environment, and yet the gaps remain substantial even among equally-achieving classmates (columns 2-3 and 6-7). Low-SES students have a 12% higher probability of citing no salient track and a 12% smaller probability of citing a master's degree as a salient track than equally-performing high-SES classmates (although these differences are not statistically significant) (panel 3), they have about the same probability of citing no attainable tracks, but still a 26% lower probability of mentioning a master's degree as an attainable track (panel 2), and finally they are 64% more likely to prefer finding a job right after high school, and 20% less likely to prefer a master's degree (panel 1). In contrast, immigrants' preferences are biased against finding a job relative to equally-achieving non-immigrant classmates (columns 2-4 panel 1).

The stronger preference for finding a job right after high school among low-SES students is not driven much by differences in salient and attainable tracks: once attainable tracks are controlled for, low-SES students are still 53% more likely to prefer finding a job than equally-performing high-SES classmates (column 4, panel 1). In contrast, the bias against master's degree among low-SES students is entirely driven by a master's degree being both less salient and less attainable. Differences in master's degree as salient account for half of the differences in master's degree as attainable (columns 7-8, panel 2), and differences in master's degree as attainable account for the totality of differences in preference for a master's degree (columns 7-8, panel 1).

Social differences in aspirations for a master's degree are thus *not* due to personal taste, and *not* only due to social differences in academic capacity and school environment, but also to differences in awareness and self-perceived academic potential. A subgroup analysis by terciles of academic test score shows that low-SES students in the top tercile are the most concerned by these deficits in information and self-perceived academic potential regarding a master's degree, while the excess probability of preferring to find a job right after high school for low-SES students is mostly driven by the bottom tercile.

5.2.3 Professional aspirations

The first thing to notice about professional aspirations is that, for all students, academic aspirations are not even close to being consistent with professional aspirations. For instance, among high-SES students, 23.3% aspire to a master's degree as an educational track, while 44.6% aspire to a job that requires at least a master's degree. This dynamic is similarly true for low-SES students. This suggests that teenagers do not see education as a pure investment for a future job, perhaps due to ignorance of specific educational pathways to employment. At this age, educational aspirations are not entirely driven by professional aspirations. 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 at least a master's degree (vocational high school does not, for example, allow to enroll in medecine; 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 internalized by teenagers, potentially creating frustration when students realize that their educational choices do not match their professional aspirations.

To add to this, Table 7[36] shows that social differences in professional aspirations are also not aligned with the social differences in academic aspirations that we find above. As soon as academic performance and class fixed-effects are controlled for (columns 2-3, 5-6, 8-9, and 11-12), social differences in professional aspirations disappear. Professional aspirations thus do *not* drive the gap in academic aspirations that we find above. For instance, while low-SES students are as likely to prefer a job that requires a master's degree as their equally-achieving high-SES classmates, they are also 26% less likely to prefer a master's degree as an educational track. And while they are as likely to prefer a job that does not require any higher education, they are 69% more likely to say that they prefer finding a job right after high school. 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.

The same does not hold true in the comparison of immigrants and non-immigrants: our results show that immigrants are more likely to aspire to occupations that require a master's degree than equally-achieving non-immigrant classmates. This is consistent with Caille's (2007) finding that immigrants exhibit an excess of ambition relative to non-immigrants. Teenagers' lack of realism is thus even more pronounced among

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[36] In this table, the level corresponding to job preference after high school is the lower level required for the job mentioned by the student.

immigrants: 11.7% aspire to a master's degree while 43.5% aspire to a job that requires master's degree (a 32 points gap); and among non-immigrants, 15.6% aspire to master's degree while 38.2% aspire to a job that requires a master's degree (a 23 points gap). As long as students do not make irreversible decisions in the short-term like entering a vocational high school, aspirations for higher education may adjust to professional aspirations later on when students receive additional information on higher education in high school. Our results thus suggest that immigration status is not such a concern in terms of inequality, in that immigrant students have 1. the same probability of aspiring to an academic high school (Table 5, panel 1 column 7), and 2. the same probability of entering an academic high school given their aspiration (Table 3 column 8) as equally-achieving non-immigrant classmates.

5.2.4 Evidence on self-perceived academic capacity and social fatalism

Our previous results show that low-SES and high-SES students differ in their educational aspirations not only because they have different current academic capacity, school environnment, and preferences towards education, but also due to different levels of awareness of academic tracks and different self-perceived academic potential. Tables 8.a and 8.b provide additional evidence on the ways family SES can influence self-perceived academic potential.

Table 8.a first shows that students have fatalistic views on the extent to which social origin affects later success in high school. Part (a) reports the eight real gaps described in the Online Appendix that correspond to the gap estimated by the students of our sample which is reported in part (b). It clearly shows that the perceived social gap for high-achieving students is much larger that the actual gap, whatever the exact definition of the actual gap. Specifically, 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.[37]When one compares low- and high-SES students[38], the results are less surprising. It shows that top-quartile (resp. above median) low-SES students are 4.1 (resp. 10.0) percentage points less likely to enter an academic high school right after junior high, and 6.1 (resp. 13.2) percentage points less likely to pass the high school final exam than high-SES students. Being from a low-SES family is thus associated with a *real* disadvantage in terms of later success. However, the *perceived* disadvantage is disproportionately

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[37]The 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. This last result is probably due to the fact that a high-achieving student is seen as more able in a low-achieving school than in other schools.

[38]We report these results because, while answering the survey, students may have interpreted "lives in an advantaged/disadvantaged neighborhood" as "being from a low/high-SES family".

larger: column (b) shows that, on average, students perceive that the gap in the probability of succeeding in high school for a hypothetical high-achieving student is 33.5 points lower when s/he lives in a disadvantaged neighborhood relative to an advantaged neighborhood. Whatever the interpretation students have of the question, they thus perceive a much higher correlation between social background and later success in high school than the actual correlation. Interestingly, Table 8.b. column 1 shows that equally achieving classmates from different social backgrounds have exactly the same fatalistic views. Overall, our data show that social fatalism regarding education is excessive and similar between low and high-SES students who perform equally and are in the same class, which may explain the observed differences in their attainable tracks. The issue is that fatalistic anticipations are self-fulfilling: overly fatalistic anticipations of future academic success may cause low aspirations, in turn leading to lower school outcomes than what would have been achieved with higher aspirations (as shown in Section 4). The lack of accuracy in one's perception of his/her academic potential can thus be the source of an aspirations failure.

Moreover, column 2 of Table 8.b shows that low-SES students have a 0.12 standard deviation lower scholastic self-esteem than equally-achieving high-SES classmates. As our measure of scholastic self-esteem is based on perceptions of one's current academic capacity, there is nothing here related to anticipations of the future. This means that students who have similar *objective* current academic capacities, simultaneously have different *subjective* current academic capacities. Interestingly, this result is true for students of all school proficiency levels, although more pronounced for low-SES students in the top tercile for whom the gap in scholastic self-esteem is 0.15 standard deviations relative to equally-achieving high-SES classmates. For students in the top tercile, we find that the deficit in aspirations due to family SES concerns the master's degree, and is partly due to ignorance and partly due to self-perceptions of academic potential. By introducing our measure of scholastic self-esteem in equation (4) for students in the top tercile, we find that scholastic self-esteem explains 27% of the deficit in low-SES top-students mentioning a master's degree among their attainable tracks[39].

These findings provide evidence that social identity creates mental models affecting how an individual experiences what he experiences, as proposed in Karla Hoff and co-authors' models: beliefs related to social inferiority affect self-confidence, self-perceived probability of success, and behavior (aspirations) in ways that make the beliefs come true (Hoff and Pandey 2006, 2012; Fehr and Hoff 2011; Hoff and Stiglitz 2016). Our empirical results support this view: scholastic self-esteem is prone to stereotype susceptibility related to

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[39]More specifically, we add deciles of scholastic self-esteem and deciles of scholastic self-esteem interacted with SES in model (4) on the subgroup of students in the top tercile with master's degree as attainable as the dependent variable. In model (4), the coefficient on low-SES is -0.064, significant at the 10% level. In the augmented version, the coefficient on low-SES is -0.047 and no longer significant, which represents a 27% reduction in the coefficient on low-SES.

parental SES, which results in different sets of attainable tracks, which in turn result in different preferred tracks, and eventually affects school outcomes.

6 Discussion: Are Aspirations Optimal?

From the students' perspective, aspirations are optimal if they lead to maximum welfare. Our findings provide three reasons why aspirations may not, in fact, lead to maximum welfare.

First, some differences in aspirations between equally-achieving low and the high-SES classmates are due to differences in awareness of existing tracks, particularly regarding a master's degree among students in the top-tercile. This result likely reflects a lack of information, a simple reason why preferences may not be optimal, i.e. may not lead to maximum welfare.

Second, social differences in aspirations for vocational high school, academic high school, and master's degree among equally-achieving classmates are mostly due to differences in the tracks that students feel capable of pursuing (attainable tracks), i.e. to differences in self-perceived potential. Low-SES students are correct to anticipate lower academic capacity in the future relative to high-SES students that perform equally in the present: their social background is indeed a clear factual disadvantage, as shown by the negative coefficient of low-SES family on short-term academic progress in Tables 1, 2 and 4. They do not, however, correctly assess this objective disadvantage. They are indeed likely to underestimate their future academic potential since they both underestimate their present academic capacity and overestimate the way social background influences their future probability of success (Table 8). For this reason, it should not be taken for granted that students assess their academic potential at its true value. Social stereotypes and fatalism bias students' perceptions, casting doubt on the accuracy of their perceptions of their academic potential.

Finally, low aspirations are a source of suboptimality in their own right. In section 4, we show that low aspirations lead to lower school performance in the short-term. There is a negative impact of being from a low-SES family on short-term outcomes, but there is also an additional negative impact of having low aspirations *ceteris paribus* that is observed for both high and low-SES students (Appendix Table A4). If school attainment has a positive return on the labor market, this mechanism can lead 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 schools[40], and most higher education institutions are entirely free for low-SES students (including the most selective schools). Reduced educational attainment is thus likely to result in suboptimal job market outcomes.

There may be some situations where low aspirations are not detrimental in terms of long-term welfare. 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 tercile[41], 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 and job market outcomes for many of these students. To add to this, lower school and job market outcomes may be compatible with higher welfare due to identity concerns and social preferences. The identity literature provides several explanations of this phenomenon including: resembling and conforming to friends' behavior, affirming one's social identity to maintain a sense of unity, or fighting a threat of losing one's culture (Akerlof and Kranton 2002, Fryer 2006, Fang and Loury 2005, Bénabou and Tirole 2011, Carvalho and Koyama 2013). However, both the fact that low-SES students aspire to jobs that require many more years of education than what they plan to invest (Tables 5, 6 and 7), and 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, caste doubt on whether lower school attainment and job market outcomes will lead to maximum welfare.

7   Conclusion

This paper provides evidence that students' educational aspirations are influenced by their parents' SES, and that these aspirations contribute to the short-term evolution of school outcomes. As school outcomes are themselves a determinant of aspirations, our results reveal the existence of an aspiration-based inequality trap which 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.

A natural question is whether these results reflect a market failure that would rationalize some form of

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[40]http://www.education.gouv.fr/cid57111/l-education-nationale-en-chiffres.html#Le second degré

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

policy intervention. Do students have suboptimal aspirations that in turn lead to suboptimal educational, job market, and welfare outcomes? This paper provides evidence of three reasons why aspirations may not be optimal. First, it cannot be taken for granted that students assess their academic potential at its true value, as suggested by the fact that low-SES students underestimate their present academic ability relative to their equally-achieving high-SES classmates, and by the fact that their views appear excessively fatalistic. Such stereotyped beliefs may affect the perception of attainable options in ways that perpetuate social inequalities. Second, we show that non-awareness of some existing academic tracks, particularly master's degrees, plays a role in shaping socially differential aspirations. Finally, the very fact that one aspires low creates a disadvantage in its own right. Students would benefit from higher aspirations in terms of short-term school outcomes, which would likely result in higher school attainment and job outcomes in the longer term, except perhaps for very weak students.

The question of welfare is somewhat more difficult. Whether higher aspirations, school attainement, and job outcomes would ultimately make low-SES students happier, remains an open question. They may, for example, feel socially isolated or at odds with their cultural values, as suggested by the identity literature. Our results, however, show that low-SES students have professionnal aspirations that are much higher in terms of required diploma than what they plan to invest in education, a result that is not quite consistent with the view that increased educational and professional levels would hurt their welfare.

This paper begs further discussion of whether preferences are optimal. Most of the economic literature concurs with the latin maxim, *de gustibus non est disputandum*[42], such that personal preferences are merely 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, and the design of appropriate interventions to help disadvantaged students aspire at their true potential to increase upward mobility.

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[42]"In matters of taste, there can be no disputes"

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Table 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***	0.291***	0.223***	0.219***	0.216***	0.211***
	(0.036)	(0.034)	(0.030)	(0.028)	(0.028)	(0.028)
Preferred tracks include a Master's degree	0.465***	0.197***	0.166***	0.134***	0.122***	0.120***
	(0.040)	(0.035)	(0.035)	(0.042)	(0.040)	(0.041)
Repeated a grade			-0.281***	-0.289***	-0.271***	-0.274***
			(0.038)	(0.041)	(0.041)	(0.041)
Skipped a grade			0.271***	0.220***	0.204***	0.211***
			(0.056)	(0.060)	(0.060)	(0.058)
Girl			0.245***	0.244***	0.249***	0.249***
			(0.030)	(0.029)	(0.029)	(0.028)
Low-SES family					-0.248***	
					(0.031)	
Immigrant family					0.015	
					(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	0.579	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. The dependent variable is the standardized annual average of teachers' grades. "Pref. tracks include an Academic HS" is a dummy indicating that preferred tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 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***	0.240***	0.190***	0.177***	0.173***	0.171***
	(0.034)	(0.028)	(0.025)	(0.021)	(0.021)	(0.021)
Preferred tracks include a Master's degree	0.506***	0.165***	0.147***	0.109***	0.097***	0.092***
	(0.053)	(0.037)	(0.036)	(0.036)	(0.033)	(0.033)
Repeated a grade			-0.319***	-0.316***	-0.299***	-0.293***
			(0.028)	(0.031)	(0.031)	(0.032)
Skipped a grade			0.278***	0.266***	0.248***	0.253***
			(0.052)	(0.058)	(0.057)	(0.055)
Girl			0.082***	0.071***	0.073***	0.072***
			(0.023)	(0.023)	(0.023)	(0.022)
Low-SES family					-0.245***	
					(0.028)	
Immigrant family					0.025	
					(0.024)	
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	0.707	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. 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 tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. '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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 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***	0.222***	0.197***	0.182***	0.180***	0.176***
	(0.018)	(0.022)	(0.020)	(0.020)	(0.019)	(0.020)
Preferred tracks include a Master's degree	0.115***	0.044***	0.040***	0.029	0.022	0.020
	(0.016)	(0.015)	(0.015)	(0.018)	(0.017)	(0.018)
Repeated a grade			-0.182***	-0.182***	-0.175***	-0.174***
			(0.020)	(0.021)	(0.021)	(0.021)
Skipped a grade			0.034*	0.032	0.024	0.021
			(0.018)	(0.021)	(0.020)	(0.019)
Girl			0.052***	0.050***	0.050***	0.048***
			(0.015)	(0.015)	(0.015)	(0.015)
Low-SES family					-0.110***	
					(0.015)	
Immigrant family					0.028	
					(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	0.426	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. 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 tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. '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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 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***	0.067***	0.067***	0.128***	0.114***	0.111***
	(0.022)	(0.020)	(0.020)	(0.014)	(0.014)	(0.014)
Preferred tracks include a Master's degree	0.057*	0.028	0.020	0.013	0.010	0.005
	(0.031)	(0.025)	(0.025)	(0.012)	(0.012)	(0.012)
Repeated a grade	-0.177***	-0.161***	-0.147***	-0.080***	-0.076***	-0.073***
	(0.024)	(0.024)	(0.024)	(0.014)	(0.016)	(0.016)
Skipped a grade	0.152***	0.149***	0.145***	0.018	0.025	0.018
	(0.037)	(0.041)	(0.040)	(0.015)	(0.016)	(0.016)
Girl	-0.040**	-0.065***	-0.064***	-0.010	-0.013	-0.014
	(0.019)	(0.017)	(0.018)	(0.012)	(0.013)	(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. The dependent variable is a dummy indicating whether the student has been assigned to the academic track. "Pref. tracks include Academic HS" is a dummy indicating that preferred tracks after middle school include an academic high school. 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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 5: Academic Aspirations after Junior High

Variable	Vocational High School				Academic High School			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel 1: Preferred tracks after Junior High								
Low-SES family	0.117***	0.050***	0.050***	0.022**	-0.183***	-0.058***	-0.036*	-0.008
	(0.012)	(0.012)	(0.014)	(0.010)	(0.018)	(0.015)	(0.019)	(0.016)
Immigrant family	-0.024	-0.045***	-0.037***	-0.011	-0.000	0.041**	0.034	0.013
	(0.015)	(0.014)	(0.014)	(0.011)	(0.021)	(0.019)	(0.023)	(0.018)
Attainable tracks includes a Vocational HS				0.320***				-0.082***
				(0.020)				(0.021)
Attainable tracks includes an Academic HS				-0.186***				0.611***
				(0.020)				(0.020)
Nb Obs	3322	3322	3322	3322	3322	3322	3322	3322
Adjusted R-squared	0.025	0.093	0.128	0.385	0.032	0.134	0.165	0.427
Mean among high-SES families:		0.045				0.796		
Mean among non-immigrant families:		0.114				0.694		
Panel 2: Attainable tracks after Junior High								
Low-SES family	0.134***	0.071***	0.064***	0.057***	-0.169***	-0.053***	-0.039**	-0.035*
	(0.017)	(0.017)	(0.019)	(0.019)	(0.016)	(0.013)	(0.016)	(0.018)
Immigrant family	-0.052***	-0.074***	-0.064***	-0.071***	-0.005	0.036**	0.026	0.022
	(0.020)	(0.019)	(0.021)	(0.022)	(0.022)	(0.018)	(0.021)	(0.021)
Salient tracks includes a Vocational HS				0.263***				-0.022
				(0.025)				(0.022)
Salient tracks includes an Academic HS				-0.020				0.607***
				(0.030)				(0.030)
Nb Obs	3322	3322	3322	2663	3322	3322	3322	2663
Adjusted R-squared	0.019	0.067	0.104	0.144	0.036	0.171	0.204	0.362
Mean among high-SES families::		0.153				0.890		
Mean among non-immigrant families::		0.236				0.796		
Panel 3: Salient tracks after Junior High								
Low-SES family	0.026	0.063***	0.055**		-0.043***	0.006	0.013	
	(0.019)	(0.020)	(0.023)		(0.013)	(0.013)	(0.015)	
Immigrant family	-0.043**	-0.032*	-0.023		-0.008	0.007	0.016	
	(0.017)	(0.017)	(0.018)		(0.014)	(0.013)	(0.017)	
Nb Obs	2663	2663	2663		2663	2663	2663	
Adjusted R-squared	0.002	0.017	0.051		0.005	0.064	0.087	
Mean among high-SES families:		0.810				0.937		
Mean among non-immigrant families:		0.831				0.913		
Deciles in test scores in Nov. 2012		Y	Y	Y		Y	Y	Y
Dummies for score at Raven matrices in Nov. 2012		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

Each column reports the coefficients of a different OLS regression. The dependent variable is a dummy variable indicating whether the preferred (panel 1) / attainable (panel 2) / salient (panel 3) tracks include a vocational HS (columns 1-4) or an Academic HS (columns 5-8). 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 6: Academic Aspirations after High School

Variable	Finding a job				Master's degree			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel 1: Preferred tracks after High School								
Low-SES family	0.140***	0.062***	0.052***	0.043***	-0.137***	-0.073***	-0.046**	-0.001
	(0.013)	(0.013)	(0.014)	(0.013)	(0.023)	(0.022)	(0.023)	(0.016)
Immigrant family	-0.019	-0.044***	-0.053***	-0.048***	0.005	0.022*	0.025	0.006
	(0.015)	(0.014)	(0.017)	(0.016)	(0.014)	(0.013)	(0.016)	(0.010)
Attainable tracks includes 1-4 yrs college				-0.130***				-0.013
				(0.014)				(0.011)
Attainable tracks includes a Master's degree				-0.082***				0.626***
				(0.015)				(0.027)
Nb Obs	3201	3201	3201	3201	3106	3106	3106	3106
Adjusted R-squared	0.027	0.109	0.134	0.166	0.032	0.068	0.097	0.500
Mean among high-SES families::			0.081				0.233	
Mean among non-immigrant families::			0.162				0.156	

Variable	No tracks in HE				Master's degree			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel 2: Attainable tracks after High School								
Low-SES family	0.143***	0.042*	0.029	0.011	-0.153***	-0.081***	-0.067***	-0.036***
	(0.026)	(0.025)	(0.028)	(0.021)	(0.018)	(0.017)	(0.020)	(0.013)
Immigrant family	-0.027	-0.059***	-0.036*	-0.018	0.008	0.027**	0.031*	0.012
	(0.020)	(0.018)	(0.020)	(0.016)	(0.014)	(0.013)	(0.017)	(0.013)
Salient tracks includes 1-4 yrs college				-0.477***				-0.004
				(0.021)				(0.009)
Salient tracks includes a Master's degree				-0.243***				0.424***
				(0.024)				(0.026)
Nb Obs	3313	3313	3313	2656	3313	3313	3313	2656
Adjusted R-squared	0.016	0.061	0.071	0.410	0.036	0.083	0.091	0.367
Mean among high-SES families::			0.504				0.261	
Mean among non-immigrant families::			0.588				0.174	

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel 3: Salient tracks after High School								
Low-SES family	0.131***	0.046*	0.033		-0.180***	-0.078***	-0.047	
	(0.028)	(0.027)	(0.033)		(0.028)	(0.026)	(0.031)	
Immigrant family	0.025	-0.003	0.006		-0.016	0.008	0.021	
	(0.023)	(0.021)	(0.026)		(0.019)	(0.017)	(0.021)	
Nb Obs	2656	2656	2656		2656	2656	2656	
Adjusted R-squared	0.018	0.061	0.056		0.039	0.094	0.118	
Mean among high-SES families::			0.276				0.377	
Mean among non-immigrant families::			0.347				0.278	
Deciles in test scores in Nov. 2012		Y	Y	Y		Y	Y	Y
Dummies for score on Raven matrices in Nov. 2012		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

Each column reports the coefficients of a different OLS regression. The dependent variable is a dummy variable indicating whether the preferred (panel 1) / attainable (panel 2) / salient (panel 3) tracks include finding a job (columns 1-4) or a Master's degree (columns 5-8). 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 7: Professional Aspirations

Variable	No response			No higher ed.			1-4 yrs college			5 or more yrs college		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Low-SES family	-0.009	-0.013	-0.025	0.101***	0.021	0.032	-0.017	-0.015	0.002	-0.093***	0.008	0.004
	(0.018)	(0.019)	(0.020)	(0.023)	(0.021)	(0.022)	(0.021)	(0.023)	(0.023)	(0.022)	(0.023)	(0.024)
Immigrant family	-0.022	-0.021	-0.025	-0.056***	-0.084***	-0.072***	0.031	0.032	0.050**	0.082***	0.111***	0.095***
	(0.016)	(0.017)	(0.018)	(0.017)	(0.018)	(0.021)	(0.022)	(0.023)	(0.024)	(0.021)	(0.020)	(0.022)
Deciles in test scores in Nov. 2012		Y	Y		Y	Y		Y	Y		Y	Y
Dummies for score on Raven matrices in Nov. 2012		Y	Y		Y	Y		Y	Y		Y	Y
Effort put into the test		Y	Y		Y	Y		Y	Y		Y	Y
Self-Perception of Behavioral Conduct		Y	Y		Y	Y		Y	Y		Y	Y
Class fixed effects			Y			Y			Y			Y
Mean among high-SES families	0.218	0.218	0.218	0.351	0.351	0.351	0.334	0.334	0.334	0.446	0.446	0.446
Mean among non-immigrant families	0.216	0.216	0.216	0.416	0.416	0.416	0.320	0.320	0.320	0.382	0.382	0.382
Nb Obs	3330	3330	3330	3330	3330	3330	3330	3330	3330	3330	3330	3330
Adjusted R-squared	0.000	0.005	0.036	0.008	0.038	0.061	0.000	0.011	0.014	0.009	0.058	0.101

(header spanning: "Level corresponding to job preference after High School")

Each column reports the coefficients of a different OLS regression. The "Level corresponding to job preference after HS" is the lower level required for the job mentioned by the student. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table 8.a: 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...				(b) **Perceived gap** in the probability of success of a *hypothetical high achieving* student coming from a *disadvantaged* VS *advantaged* neighborhood
	... entering an Acad. HS right after JH		... passing the end of Acad. HS exam		
	For students		For students		
	above the median	in the top quartile	above the median	in the top quartile	
Between...					
... priority education and others:	4.4	2.2	0.9	1.2	-33.5
	(0.3)	(0.3)	(0.4)	(0.4)	[25.5]
... low- and high-SES:	-10.0	-4.1	-13.2	-6.1	
	(0.2)	(0.2)	(0.2)	(0.2)	

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). 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). The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level. Standard deviations are reported in square brackets.

Table 8.b: Gaps in Social Fatalism and Self-Perceived Academic Capacity

	For a hypothetical high achieving student: **Perceived gap** between her/his prob. of success if s/he lives in an advantaged neighborhood and if s/he lives in a disadvantaged neighborhood (1)	Scholastic self-esteem (2)
Low-SES family	-0.011	-0.120***
	(0.012)	(0.040)
Immigrant family	-0.003	-0.039
	(0.012)	(0.037)
Deciles in test scores in Nov. 2012	Y	Y
Dummies for score on Raven matrices in Nov. 2012	Y	Y
Effort put into the test	Y	Y
Self-Perception of Behavioral Conduct	Y	Y
Class fixed effects	Y	Y
Nb Obs	3245	3271
Adjusted R-squared	0.041	0.347
Mean among high-SES families	0.365	0.306
Mean among non-immigrant families	0.346	0.082

Each column reports the coefficients of a different OLS regression. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Reading note: The "probability of success" is the probability that the hypothetical high achieving student follows his preferred track; on average, students estimate this probability to be 85.5%. If s/he lives in a disadvantaged neighborhood, students from high-SES families estimate this probability to be 36.6 percentage points lower (row "Mean among high-SES families"). This gap is not statistically significantly different for students from low-SES families.

APPENDIX TABLES

Table A.1.a: Correlation between Aspirations and Academic outcomes: quality of the measure of parents' social background

Variable	Annual teachers' grade					Test scores in June 2013				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Preferred tracks include an Academic HS	0.689***	0.599***	0.577***	0.574***	0.211***	0.718***	0.588***	0.563***	0.527***	0.171***
	(0.036)	(0.037)	(0.038)	(0.039)	(0.028)	(0.034)	(0.032)	(0.031)	(0.033)	(0.021)
Preferred tracks include a Master's degree	0.465***	0.344***	0.337***	0.289***	0.120***	0.506***	0.333***	0.323***	0.267***	0.092***
	(0.040)	(0.042)	(0.042)	(0.048)	(0.041)	(0.053)	(0.046)	(0.047)	(0.044)	(0.033)
Low-SES family		-0.570***					-0.784***			
		(0.039)					(0.044)			
Immigrant family		-0.104***					-0.207***			
		(0.040)					(0.034)			
Repeated a grade					-0.274***					-0.293***
					(0.041)					(0.032)
Skipped a grade					0.211***					0.253***
					(0.058)					(0.055)
Girl					0.249***					0.072***
					(0.028)					(0.022)
Detailed SES			Y	Y	Y			Y	Y	Y
Detailed immigration status			Y	Y	Y			Y	Y	Y
Deciles in test scores in Nov. 2012					Y					Y
Score at Raven matrices					Y					Y
Effort put into the test					Y					Y
Self-Perception of Behavioral Conduct					Y					Y
Class fixed effects				Y	Y				Y	Y
Nb Obs	3101	3101	3101	3101	3101	3101	3101	3101	3101	3101
Adjusted R-squared	0.153	0.231	0.244	0.293	0.581	0.170	0.335	0.360	0.425	0.709
Mean among students whose pref. tracks do not include...										
... an Academic High School:	-0.512	-0.512	-0.512	-0.512	-0.512	-0.521	-0.521	-0.521	-0.521	-0.521
... a Master's degree:	-0.089	-0.089	-0.089	-0.089	-0.089	-0.081	-0.081	-0.081	-0.081	-0.081

Each column reports the coefficients of a different OLS regression. 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 tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. '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. 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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table A.1.b: Correlation between Aspirations and Academic outcomes: quality of the measure of parents' social background (3rd outcome)

Variable	Entered an Academic HS				
	(1)	(2)	(3)	(4)	(5)
Preferred tracks include an Academic HS	0.364***	0.332***	0.321***	0.309***	0.176***
	(0.018)	(0.020)	(0.020)	(0.021)	(0.020)
Preferred tracks include a Master's degree	0.115***	0.071***	0.067***	0.054***	0.020
	(0.016)	(0.016)	(0.016)	(0.018)	(0.018)
Low-SES family		-0.210***			
		(0.017)			
Immigrant family		-0.019			
		(0.018)			
Repeated a grade					-0.174***
					(0.021)
Skipped a grade					0.021
					(0.019)
Girl					0.048***
					(0.015)
Detailed SES			Y	Y	Y
Detailed immigration status			Y	Y	Y
Deciles in test scores in Nov. 2012					Y
Dummies for score on Raven matrices					Y
Effort put into the test					Y
Self-Perception of Behavioral Conduct					Y
Class fixed effects				Y	Y
Nb Obs	3101	3101	3101	3101	3101
Adjusted R-squared	0.171	0.222	0.233	0.251	0.428
Mean among students whose pref. tracks do not include...					
... an Academic High School:	0.472	0.472	0.472	0.472	0.472
... a Master's degree:	0.698	0.698	0.698	0.698	0.698

Each column reports the coefficients of a different OLS regression. 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 tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. '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. 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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

Table A.2: 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	0.120**	0.125***	0.089**
	(0.052)	(0.047)	(0.036)
Preferred tracks include a Master's degree	0.160***	0.089	0.023
	(0.046)	(0.054)	(0.014)
Pref. tracks include an Academic HS * Low-SES family	0.132**	0.061	0.112**
	(0.067)	(0.055)	(0.044)
Pref. tracks include an Academic HS * Immigrant family	-0.012	0.009	0.025
	(0.073)	(0.053)	(0.048)
Pref. tracks include a Master's degree * Low-SES family	0.004	0.056	0.051
	(0.076)	(0.079)	(0.036)
Pref. tracks include a Master's degree * Immigrant family	-0.118	-0.081	-0.083*
	(0.081)	(0.076)	(0.044)
Low-SES family	Y	Y	Y
Immigrant family	Y	Y	Y
Other controls: per se and interacted with low-SES family and immigrant family:			
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 (*without interactions*)	Y	Y	Y
Nb Obs	3101	3101	3101
Adjusted R-squared	0.579	0.706	0.430
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. The dependent variable is either the standardized annual average of teachers' grades, either the standardized test score at the national exam in June, either a dummy indicating whether the student has been assigned to the academic track after 9th grade. "Pref. tracks include an Academic HS" is a dummy indicating that preferred tracks after middle school include an academic high school. 'Low-SES family' is a dummy variable indicating that none of the parents are high-skilled workers. 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. The standard errors are clustered at the school level and robust; they are reported in parenthesis. * indicates significance at the 10% level, ** indicates significance at the 5% level, *** indicates significance at the 1% level.

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