Aspirations and the Perpetuation of Social Inequalities: Evidence from Academic Paths in France [*]

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Abstract

This paper provides empirical evidence on how aspirations are formed and affect individual behaviour, decisions and paths in the context of education. Using unique survey data merged with administrative data on French ninth graders, we show that low-SES students have lower aspirations than their equally-achieving high-SES classmates. Furthermore, academic track assignments to high school the next year are even more unequal due to dysfunctional dynamics: first, both low aspirations and low SES are associated with slower academic progression over the year. Second, aspirations and parent SES play a role in track assignment independently from one's academic performance. Our results suggest that in France an aspirational trap at school contributes to the poverty trap leading to the perpetuation of social inequalities.

JEL Codes: I24, I21, J15, O15

Keywords: School Aspirations, Aspiration windows, Track choices, Inequality, Poverty Trap

1 Introduction

The degree to which socio-economic background determines human capital formation is a key policy question: how much of school achievement is determined by your parents' background? Intergenerational correlation in years of schooling between parents and children is found between 0.30 and 0.50 in seven OECD countries including the United States (Hertz et al. 2007). Björklund and Salvanes (2010) review the literature on sibling correlations in years of schooling and find that, in all countries for which they found data, more than 50% of the variation in years of schooling

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can be attributed to factors shared by siblings. In France, the link between social background and school achievement is particularly strong: the social gap in maths score in 2012 is the most important over all OECD countries, and it has increased by 33% since 2003 (PISA, 2012)[1]. Such a dynamic locks generations and social groups into a cycle of low achievement. In order to break this vicious circle, it is crucial to understand the mechanisms by which the socio-economic status (henceforth SES) of the students influences their academic achievement. This paper focuses on academic aspirations as a potential mechanism behind the self-perpetuation of social inequalities in school achievement.

Aspirations are the set of goals that individuals form about themselves for the future. As Appadurai (2004) stresses, aspirations should be considered as a *capacity* in which people may differ: some people are more "capable" than others to set appropriate goals for their future, meaning goals which are in line with their potential and conduct to the best outcomes possible. The recent economic theory has argued that aspirations can be the source of a poverty trap based on two different mechanisms. The first mechanism relies on the idea that the disadvantaged have different aspirations than the advantaged because aspirations are formed using comparisons with near-peers, which restricts the zone of attainable and desired selves (Appadurai, 2004; Ray, 2006; Ray and Génicot, 2015; see Section 2 for more details). The second mechanism relies on the idea that the aspiration level of the poor diverges from the one of the rich because the poor internalize that they have a lower return to effort, while people in general do not internalize the effect of realized outcomes on aspirations (Dalton et al. 2015): at similar initial aspirations, the poor choose a lower level of effort than the rich, which results in lower realized outcomes, and consequently lower aspirations, etc. The common prediction of these models is that aspirations are a vector of widening social inequalities. This paper contributes to this literature by providing empirical evidence of these predictions in the context of education in France. Comparing students who are in the same class and have the same academic performance, we explore whether aspirations are directly influenced by parental SES (H1), and whether later outcomes are influenced by parental SES (H2) and by aspirations (H3). This paper provides evidence that academic aspirations cause a rapid divergence of school outcomes between high- and low-SES students.

We use data from ninth graders spread over 59 junior high schools in the Paris metropolitan

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[1]Preciseley, in 2012 being from a more advantaged background in France induces a 57 points increase of the maths score when the average for OECD countries is 39 points, and it was of 43 points in 2003 in France. In 2010-2012, 65% of individuals aged 25-29 from high or medium socio-economic status families completed some higher education, while only 30% from low socio-economic status families did so (Le Rhun, 2015)

area. We implemented a survey at the beginning of the school year to assess their educational aspiration window (i.e. the set of tracks that they feel capable of pursuing, or set of *attainable* options), their aspirations (i.e. their preferences within this window), as well as their occupational aspirations. In France, grade 9 is the last year in junior high school where the curriculum is uniform for all students. At the end of the year, this uniform schooling system gives place to a stratified system of high schools which involves academic and vocational tracks. For the first time in their life, a choice is thus to be made between different educational options that will, due to irreversibility, determine their future academic and professional path. The paper uses both externally graded test scores and teachers' grades to measure academic performance, and includes class fixed effects to isolate the effects of parent SES from neighbourhood, teacher and peer effects. The paper thus consistently compares low-SES students with their high-SES classmates who achieve academically similarly.

Concerning our first question (H1), we find clear evidence that aspirations are not just determined by the realized outcomes but also by the social background, as hypothesized by Appadurai, Génicot and Ray. Low-SES students have indeed different aspiration windows than their equally-achieving high-SES classmates: the former are 42% more likely to include vocational high school and 18% more likely to have no idea of any attainable option after high school, while 3% less likely to include academic high school and 27% less likely to include master degrees in their attainable options. These findings confirm that aspiration windows are socially determined, inducing an excess on the less selective margin and a deficit on the more selective margin among the disadvantaged relative to the equally-achieving advantaged. Moreover, the different sets of attainable options are doubled with different preferences: at equal aspiration windows, low-SES students are more likely to aspire to vocational high school, to no higher education and to a job right after high school, and less likely to aspire to academic high school. The combination of different aspiration windows and of different preferences within a given aspiration window suggests that social inequalities in academic aspirations are partly a matter of taste, and partly a matter of what students feel capable of pursuing. In contrast, professional aspirations are not socially differential within the class: parental SES does not influence the number of years of education associated with the jobs students aspire to, suggesting that if social origin eventually affects occupations it would be due to differential investment in education, not to differential early occupational preferences.

Importantly, we find that high school assignment the next year is even more unequal than initial

academic aspirations. With similar test scores at the beginning of grade 9, low-SES students are three times more likely to enter a vocational high school in grade 10 than their high-SES classmates (19% versus 6%), and symmetrically less likely to enter an academic high school (78% versus 92%). This result shows that social inequalities in aspirations are not corrected over the year, for instance through parental or school staff action, but are actually amplified. We find two mechanisms for this amplification. First, low-SES students have a slower academic progression over the year than their high-SES classmates who had similar academic performance and similar aspirations at the beginning of the year. These findings corroborate hypothesis (H2) that parental SES affects later outcomes independently from aspirations, suggesting a combination of lower effort and lower return to effort as hypothesized by Dalton and co-authors. Second, low aspirations are also associated with a slower academic progression independently of the social background, confirming hypothesis (H3) that low aspirations have dynamic effects on later outcomes, as supposed by Ray, Dalton and co-authors. Finally, aspirations and parent SES play a role in track assignment independently from students' academic achievement, suggesting that those who participate in the process, in particular parents and teachers, not only echo students' early preferences but also accentuate the social inequalities. In the end, since low-SES students are more likely to aspire low relative to high-SES, they are more likely to suffer from the negative consequences of low aspirations on top of the negative consequences of their social origin, which explains the dramatic divergence in academic paths between low and high SES.

This paper thus brings new evidence on the social determination of aspirations. To date, the empirical evidence of the social determination of aspirations remains thin. The main contributions were provided using data from the 1960s (Sewell et al. 1969, Sewell et al. 1970, Jencks et al. 1983), and a recent contribution shows that among the highest-achieving US students (top 4% at college assessment test scores), low-income students are less likely to apply to selective universities than high-income students (Hoxby and Avery, 2013). Our paper adds to this literature by using a large sample of students in compulsory education of all school proficiency levels and by exploring detailed measures of aspirations in the short, medium and long term. To our best knowledge, no other paper observes the aspiration window (i.e. the zone of attainable selves) in addition to aspirations (the preferred selves within the aspiration window). Papers usually focus on preferences which are a mix of who I can be and who I would like to be. Being able to distinguish the two concepts is important for policy intervention since aspiration windows are based on information and perceptions while

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preferences within the aspiration window are based on tastes.

Our paper then adds to the empirical literature on the consequences of aspirations on economic outcomes. This literature consists in a few field experiments in which the intervention proved to affect both aspirations and final educational or economic outcomes (Oyserman et al. 2006, Beaman et al. 2012, Bernard et al. 2013, and Goux et al. 2014), though one cannot always exclude that other effects of the interventions might have contributed to the improved outcomes in ways that may not be related to students' aspirations. We add to this literature by exploring the consequences of aspirations on short-term academic progression and track assignment. We provide robustness checks to convince that our identification strategy rules out a number of confounding factors and that an important part of the relationship between students' aspirations and later school outcomes can reasonably be considered as causal.

Our findings finally speak to the literature on the role of social identity in economic behaviour. Following Akerlof and Kranton (2000, 2002), a number of models incorporate identity into a standard utility-maximizing problem to explain why individuals whose decisions seem sub-optimal may in fact act strategically given the presence of identity concerns, thus maximizing their welfare. In contrast, the stereotype threat literature highlights potential detrimental impacts of social identity on behaviors, suggesting that the resulting outcomes may not be individually efficient (Hoff and Pandey 2006, 2011; Hoff and Fehr 2011; Hoff and Stiglitz 2010). Section 2 provides a more detailed presentation of this literature which offers explanations of why low-SES students aspire differently than high-SES. We also report in a separate paper new findings from empirical tests of these explanations (Guyon and Huillery 2015).

Our results have important policy implications. Given the relationship between socio-economic status and aspirations on the one hand, and between aspirations and later academic paths on the other hand, aspirations seem to be a cause of widening social inequalities at school. It means that educational interventions aiming at reducing social inequalities in academic performances, like extra-tutoring or reduced class size targeted on low-SES students, would not be sufficient to close the gap. A combination of these interventions with actions to strengthen the capacity to aspire would be required otherwise aspiration failures would continue to dampen academic outcomes of the disadvantaged. However, strengthening the capacity to aspire is *not* equivalent to raising up aspirations for all low-SES students, which may produce worse outcomes among low-achieving students (Goux et al. 2014). The reduction of social inequalities in education requires to adjust

aspirations in ways that make it in line with one's real potential and independent of one's social background, which implies both upward and downward adjustments. Finally, welfare implications remain an open question: whether adjusted aspirations and reduced social inequalities in academic paths come with positive welfare effects requires more investigation and research on longer-term outcomes.

The remainder of the paper is organized as follows. Section 2 presents the conceptual framework of aspirations used in the rest of the paper. Section 3 presents the data we use and section 4 presents our empirical strategy. Section 5 presents the results, section 6 provides some robustness checks, and section 7 concludes.

2 Conceptual Framework

This section presents the conceptual framework that motivates our empirical strategy. Building on the theoretical literature on the effect of social identity on aspirations and economic behavior, we propose a framework for the determination of educational aspirations.

Models of Social Background and Aspirations

The theoretical literature on aspirations emerged a decade ago at the intersection of anthropology and economics (Appadurai, 2004; Ray, 2006). According to these authors, the capacity to aspire is a "specific future-oriented instance of culture" that is socially determined because the experiences from which one learns "the map to explore the future" are formed in the "thick of social life". The individuals who populate poor people's possible selves are different from those who populate rich people's possible selves because people use comparisons and similarities when they form their zone of attainable individuals. The capacity to aspire is thus inherently unequal between rich and poor. An aspirational trap then occurs when low aspirations induce low investment and effort to better one's life, resulting in poor outcomes and again low aspirations. 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: aspirations are influenced by society-wide distribution of income in the current generation. In relatively equal societies, aspirations of the relatively poor are easier to satisfied so growth is more equally distributed and creates convergence. In contrast, unequal societies make aspirations of the poor more often frustrated, inducing lower investment and growth for the poor, and widening society-wide inequalities. In this first class of

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models, social background has a direct impact on aspirations.

Dalton et al. (2015) develop a different model in which aspirations are not inherently socially determined but still participate 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 beneficial. This lower effort induces lower realized outcomes, which 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, and so do the realized outcomes because of the initial anticipation of lower returns to effort. What creates a trap is the fact that, from there, lower aspirations will also induce lower outcomes, that will again induce themselves lower aspirations, etc, starting a vicious circle that will lock individuals in a poverty trap.

These theories of aspiration-based poverty traps thus draw on a common dynamic going from aspirations to effort, realized outcomes, and back to aspirations. They both highlight the idea that aspirations impact future outcomes through their effect on effort. In this paper, we test this hypothesis by exploring the impact of aspirations on academic progression. However, they differ essentially in the action of social origin: either directly on aspirations' levels (Appadurai 2004, Ray 2006, Génicot and Ray 2015), or on returns to effort (Dalton et al. 2015), suggesting different determinants of aspirations. In Dalton and co-authors, aspirations are fully determined by realized outcomes, which are themsleves the product of effort which is itself affected by external constraints linked to social background. In this view, aspirations are thus determined by these external constraints through their effect on realized outcomes. Part of these constraints maybe intermalized by anticipation of the lower return of effort they can cause, but they would still affect outcomes even if they are not internalized. We define such factors as *structural*[2]. By contrast, Appadurai, Ray and Génicot have a broader view of aspirations as influenced not only by structural factors, but also by factors that may not affect the final outcomes would they not affect aspirations. Appadurai (2004) indeed mentions the values and norms associated with one's cultural background, as well as the "stock of available experiences" that form aspirations. Ray (2006) also mentions the flow of information and role models available in one's network as influencing the aspiration window. These elements may arguably not influence the realized outcomes in the absence of variations in aspirations. We define such factors as *behavioral*. However, we need a more precise view on what determines educational aspirations, in particular to clarify the way the empirical analysis should

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[2]It is thus what Dalton calls "external constraints", but we prefer the term "structural factors" as part of it can be internalized.

be organized.

A Framework of the Determinants of Educational Aspirations

Building on on these models of aspirations and on the identity literature, we catalog six main factors that play a role in determining educational aspirations. This list will be useful to better understand how social background may affect aspirations, as well as to identify the potential counfounding factors when we estimate the impact of aspirations on later academic outcomes. The first four factors determine one's aspiration window, meaning the tracks students feel capable of pursuing. The last two factors determine the preferred options within the aspiration window.

1. *Knowledge of existing tracks*: information about existing tracks is a key factor as, by definition, aspirations are formed based on the set of options the student has in mind, "the flow of information" mentioned in Ray (2006) or the "stock of available experiences" mentionned in Appadurai (2004). It is a behavioral factor since this knowledge would not affect the final outcomes independently of students' aspirations.

2. *Current academic achievement*: the current academic achievement contributes to educational aspirations following the view of Dalton et al. (2015) that aspirations result from the current realized outcomes. In the French education system, track assignment depends heavily on academic achievement: low-achieving students would generally not be accepted in the academic track. Also, as current academic achievement is a good predictor of future academic achievement, educational aspirations logically depend on current academic achievement even at the higher education level. It is a structural factor since it would affect the outcomes even in the absence of effect on aspirations.

3. *Perception of current academic achievement*: Hoff and Stiglitz (2010) build a theoretical model of identity-based poverty trap where beliefs related to social inferiority bias the *perceived* probability of success. Even with the same academic achievement, two students may not perceive their achievement in the same way: this self-perception of academic ability is also called "academic self-esteem" and can be prone to stereotype susceptibility (Hoff and Pandey 2006, 2011; and Hoff and Fehr 2011). We see this factor as behavioral since it does not affect direclty school outcomes except through its effect on students' plans, confidence and ambition which are reflected in aspirations.

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4. *Anticipation of future academic achievement*: anticipations can contribute to the formation of aspirations because aspirations are goals for the future so they should be in line with one's future performance. While current academic achievement should be strongly correlated with future performance, students may still have different expectations about the evolution of their performance over time.[3] Part of these anticipations may be rational, recognizing that parents provide technical inputs that influence academic progression over time (homework assistance, monitoring of take-home assignments' schedule, management of sleeping time, etc.): this part will be included in structural factors. However, some anticipations can also be based on beliefs related to social inferiority which can cause behavior adjustement making them become true, as modelled in Hoff and Stiglitz (2010): this part will thus be included in behavioral factors.

5. *Anticipation of returns to education*: each student has her own beliefs about the returns to education she will get in life in general and on the labor market. These beliefs would not affect aspiration windows since it is not related to tracks students feel capable of pursuing, but it would affect aspirations (i.e. preferences within this window) to the extent that education is an investment. The rational part of these anticipations is a structural factor, while misperceptions and self-fulfilling anticipations would be a behavioral factor.

6. *Personal taste*: personal taste should be a strong factor of aspirations within the aspiration window. The identity literature provides different explanations why personal taste regarding education may vary with social background and be in line with family's and peers' tastes. Individuals get a utility from keeping close to one's network (Fryer 2007, Fang and Loury 2005) and from affirming their social identity: it limits disruption and maintains a sense of unity (Akerlof and Kranton 2000 and 2002), it signals values and beliefs to avoid cognitive dissonance (Benabou and Tirole 2011). Resisting education may also be a way to fight the threat of loosing one's culture (Carvalho and Koyama 2014). We view personal taste as a behavioral factor.

As such, aspirations are an output synthetizing a set of behavioral and structural factors[4]. Any intervention aiming at decreasing social inequalities in aspirations would have to target one of these

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[3]Since our analysis compares students who are in the same class, anticipations of future academic performance do not differ due to current peers, teachers and school. However, they can differ according to one's family background.

[4]We intentionaly do not list students' motivation as part of the determining factors of aspirations. This is because aspirations and motivation are simultaneously determined in our model. First, motivation is also determined by all factors that determine aspirations (in this case, the "personal taste" factor would then be more the taste for effort, studies or reputation). Second, motivation can then impact aspirations, but aspirations may also impact motivation, this is why we see them as simultaneously determined.

factors. Similarly, any causal effect of students' aspirations on their academic outcomes will be due to an effect of these factors, that are partly unobservable but all synthesized in the aspirations.

We also highlight the fact that different factors lead to different welfare implications. On the one hand, current academic performance, personal tastes and the *rational* anticipations of one's future academic achievement and returns to education reconcile low aspirations and maximized utility: information-based and taste-based behaviors may be detrimental in terms of school outcomes but still optimal for individuals. On the other hand, the other factors are all related to ignorance and misperceptions, which lead to sub-optimal behaviors, decisions, and outcomes. This second class of factors points to the risk that endogenous preferences perpetuate social inequalities.

3 Context and Data

3.1 Background on French Education System

In France, the curriculum is the same from kindergarten to the end of junior high school. Junior high school entails grade 6 to 9. After finishing junior high school, 60% of pupils enroll in academic high school while 40% of pupils enroll in 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 academic high schools are much more performant that students who enroll in vocational high schools (Figure 1). Besides, academic and vocational high schools also differ in their link to higher education. Academic high schools do not provide a professional degree so students are expected to get some higher education: in fact, 92% of students who graduate from academic high school enroll in higher education[5] (Afsa, 2009). In contrast, vocational high schools provide students with a professionnal degree allowing them to find a job with no further education: in fact, only 25% of students who graduate from the vocational 3-year track get some higher education, while no students in the vocational 2-year track get higher education[6] (Afsa, 2009). The early specialization in vocational high school makes later track changes difficult, and many higher education pathways are not accessible for students in vocational high schools[7].

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

[6] Access to higher education requires the obtention of a *Baccalauréat* thus 2-year vocational track (*Centre de Formation par l'Apprentissage*) students do not access higher education (their diploma is a *Certificat d'Aptitude Professionnelle*). 3-year vocational track (*Lycée Professionnel*) students have formal access to universities with their professional *baccalauréat*, but they are not prepared to it so in practice less than 5% do enroll a university. The other 20% enroll in 2-year technical programs.

[7] The curriculum in academic high school is common in the first year (grade 10), then students choose among 10 different tracks in grades 11 and 12: literature, social sciences or sciences constitute the *Général* track, while

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Hence, the choice that ninth graders make between academic and vocational high schools is a crucial milestone with important consequences on final educational and occupational attainment. The procedure of track assignment starts in the middle of grade 9 and ends in June. At the end of the Winter term, in March, families indicate their preference to the teacher conference (academic track, 3-year vocational track, 2-year vocational track, or grade repetition), and the teacher conference expresses an opinion on this preference[8]. At the end of the school year, in June, families choose a track and the teacher conference validates or invalidates this choice based on students' performances. If teachers invalidate the choice of the family (about one case out of four according to Caille 2005), the family meets with the provost. If disagreement persists, the family can seize an appeal committee whose decision is definitive. An important feature of this procedure is the leading role of families who move first. The legal framework insists on the idea that teachers' role is corrective and needs to respect families' preferences and responsability unless student performances are not compatible (Caille, 2005, p.78). Note also that the procedure of track assignment does not take into account students' performance at the national exam that takes place in the end of June and is anonymously graded in July. Students' performances are thus assessed on the basis of teachers' grades all over the academic year.

3.2 Data

Junior High School Sampling Strategy

59 junior high schools from the three educational districts of the Paris metropolitan area participate in the study: 6 in the Paris district, 15 in the Créteil district (east of Paris), and 38 in the Versailles district (west of Paris). The sampling strategy was not random so our sample is not representative of the French nor of the Parisian junior high schools. The main reason is that the provost had to accept to participate in the study, which means that the junior high schools in our sample are headed by provosts who may be more concerned by the topic of the study than the average junior high school. We also followed two research-based selection criteria independent from the purpose of this paper and linked to the "quality" of the school in terms of success to the national exam at the

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management, industrial technology, health, laboratory science, art, life sciences, and hospitality constitute the *Technologique* track. All academic tracks end with the graduation exam *Baccalauréat* and give access to any higher education pathways, although access to the more selective pathways is conditional on performances (teacher grades) and curriculum adequation (for instance ingeneering schools can hardly be accessed by students who graduate in literature). In contrast, vocational high schools offer a large number of tracks as soon as grade 10, varying in terms of number of years of education (2-year or 3-year tracks), topics (construction, sanitation, mechanics, electrical technicians, commerce, secretaries, agriculture, and other services), and pedagogy (with or without apprenticeship).

[8]The legal framework is available at http://eduscol.education.fr/pid23597-cid53993/textes-reference.html.

end of junior high school[9]. In the present paper, we focus on the effect of social background *within* class so these features of our sampling strategy are neutral for the analysis except that it affects the representativity of the sampled population. Our sample is indeed different from the national junior high school population in terms of school social composition: our sample over-represents junior high schools both with 40-60% and above 90% low-SES, at the expense of the most advantaged (below 40% low-SES) and intermediary (60-80% low SES) junior high schools (Figure 2). This implies that our results may not generalize to all areas in France.

Data Sources

Data come from two sources: (i) administrative data collected by the statistical unit of the Ministry of Education[10], and (ii) a research survey administered to ninth graders in the sampled junior high schools. The administrative data contains information about parent SES, teachers' grades averaged over grade 9, score at a national standardized anonymously graded test that is taken in June 2013 at the end of grade 9, and track assignment in September 2013 at the beginning of grade 10. The research survey was administered in November 2012 in two parts. First, students took a math test consisting in seven exercises covering grade 8's math curriculum. The test was administered in class by one of their teachers who did not have to be the math teacher. However, students were informed that the math test would be graded by independent researchers, and that their score will be kept strictly confidential. Second, one week after, students took a 50-minute questionnaire to assess their educational aspiration windows, their educational aspirations, as well as their occupational aspirations[11]. The questions were kept totally open to capture as truly as possible students' attainable and preferred academic tracks and occupations: the measure of the aspiration window is not distorted by a provided set of existing options. For instance, the use of an MCQ format could have increased the salience of some options that low-SES students do not naturally consider.

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[9]First, we favored junior high schools with low and high success rates rather than intermediary, while excluding outliers with extremely low and high rates. Second, we selected our sample so that the geographical location of the schools ensured that their students had equivalent access on average to any educational track, both at the high school and higher education level, to rule out the effect of the supply of education as a determinant of aspirations. The point is to be able to study some specific "school context" effects in another paper.

[10]MEN-MESR, Direction de l'Evaluation, de la Prospective et de la Performance, "Bases Scolarité" 2012 and 2013, and "Base DNB" 2013.

[11]The questionnaire was administered early in grade 9 in order to capture students' aspirations at a point of time where discussions about track assignment at school did not start yet. In particular, they might have discussed with their parents about track assignment but no formal choice by the family has been made yet. Moreover, no information about teachers' opinion is provided during the first term so when students take the survey they are unlikely to know what teachers think about their assignment.

Student Sample

From the 6,903 students registered in the 59 junior high schools of our sample, 5,672 took both the math test and the questionnaire: response rate was found 87% in the first visit and 88% in the second visit, resulting in a combined response rate of 82%. Attrition is due to student absenteism, which may be due to sickness or volontary class skipping, and in very few cases to refusal to take the test and/or the questionnaire. Math tests and questionnaires were matched in class after the questionnaire was completed and then anonymized. We were not authorized to collect any students' identifier in our independent test and survey[12], so we matched the test and survey data with administrative data using school, class, year of birth, month of birth, and parents' socio-economic status[13]. Since this information does not constitute a unique identifier, duplicates were dropped, as well as observations with incomplete information for these characteristics. 67% were matched, resulting in a 3,789 student sample. Finally, 10% of these students have missing values for their track assignment in September 2013. The reasons for this attrition are three-fold: first, some students move in an educational district different from Paris, Créteil and Versailles for which we have no data; second, some students drop out of school and do not appear in any administrative dataset; third, some students enroll in independent private schools which do not report information to the Ministry of Education. These students were dropped of the study since we are interested in the full trajectory going from initial aspirations and academic performance to later academic performance, grades, and track assignment.

Our final sample thus consists in 3,415 students, namely half of the students registered in the sampled junior high schools in grade 9. Attriters are students who are more likely to be absent, have by chance a classmate sharing the same month or birth, sex and parent SES, and are more likely to move outside the Paris region, stop education, or enroll in the private sector. We do not claim in any way that the resulting student sample is representative of the original junior high school population, and acknowledge that our findings on the role of aspirations may not apply to attriters. However, non-attriters look quite similar to the initial population in terms of family background (68% in both groups), test scores in June 2013 (144 versus 141 points), yearly grade average (85 versus 82 points), gender (52% versus 51% girls), probability of having repeted a grade (22% versus 23.5%), and probability of having skipped a grade (4% in both groups), none of these differences

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[12]Names, administrative identifier, or complete date of birth were not collected to avoid breach of confidentiality.
[13]Students were asked in the questionnaire to report parents' occupation. We used the administrative classification of occupations to code parental SES in order to get the same variable as in the administrative data.

being important and significant.

Variables of Interest

Educational Aspiration Windows   Following Ray (2006), we define aspiration windows as the zone of attainable academic tracks. To construct this zone, students were asked first what tracks they know, and second, among the tracks they know, which ones they feel capable of pursuing. These questions were asked first at the high school level and next at the higher education level. We coded and aggregated students' answers to create dummies indicating levels of aspirations of the student. At the high school level, the dummies indicate whether the student is in the categories "No response", "Vocational high school is among attainable tracks", and "Academic high school is among attainable tracks". At the higher education level, the dummies indicate whether the student is in the categories: "No response", "1-2 years college is among attainable paths", "3-4 years college is among attainable paths", and "5 years college or more is among attainable paths". We report in the Data Appendix detailed information on data construction..

Educational Aspirations   Aspirations are defined as the preferred track within the aspiration window (Ray, 2006). Among tracks they feel capable of pursuing, students were asked which one they prefer. On average students report 0.9 preferred tracks at the high school level and 0.8 preferred tracks at the higher education level. Outcomes are constructed following the same procedure as for aspiration windows, resulting in dummies indicating wether the student fall into the following categories: "No preference", " "Vocational is preferred", "Academic is preferred" at the high school level; "No preference", "1-2 years college is preferred", "3-4 years college is preferred", and "5 years or more college is preferred" at the higher education level. Students who provide several preferences (11% at the high school level and 16% at the higher education level) may enter into several categories. Finally, the questionnaire includes a question on whether the student prefers to find a job after high school or pursue in higher education. We use a dummy indicating whether the student prefers to find a job after high school as an additional measure of educational aspirations.

Professional Aspirations   Students were asked which job(s) they would like to have. On average, students provided 1.7 jobs (including 20% who provided no job). We coded jobs according to the number of years of education required to practice them and created dummies indicating whether the student enter in the categories "No Response", "No higher education", "1-2 years college", "3-4

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years college", "5 years college of more" (see the Data Appendix for more information on these variables).

Academic Performance   Measuring student academic performance is crucial in our analysis. The starting point of this paper is that aspirations is a capacity, namely the capacity to set goals for the future which are in line with one's potential. A key variable is thus students' academic potential or performance, i.e. how able students are in performing academic tasks. This paper uses primarily anonymous and externally graded test scores to measure academic performance, as these have the advantage of being unaffected by teachers' beliefs and less prone to stereotype threats and parental inputs than teachers' grades. One concern is that performance at a test varies at the individual level due to random deviations around average ability. We measure academic performance at two points of time: a math test was administered in November 2012 to measure performance at the beginning of the year, and we use a national exam in June that includes both math, French and history to measure performance at the end of the year. Using the relationship between the total score and the score in math at the national exam, we estimate the total score that a student would have had in November given her score in math and her invariant characteristics (see the Data Appendix for more information on this variable).

In addition to test score, we also make use of teachers' grades to propose an alternative measure of academic performance. Our measure of teachers' grades is the average of all teachers' grades obtained in grade 9 from September to June as reported in the administrative data. The advantage of this measure is that it smooths random variations at the individual level and encompasses in this way richer information about student's performance than a single test. However, the inconvenient of teachers'grades is that it may incorporate social factors unrelated to the true academic performance: (i) parent SES may influence how their child's academic ability materializes into grades: parents help their child with home assignments, preparation of the in-class tests[14], appropriate behavior in class, etc.; (ii) teachers' beliefs on students' ability according to their SES may bias their assessment (Hanna and Linden, 2012; Merle, 1998); (iii) stereotype susceptibility may affect

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[14]The test administered in November 2012 was clearly disconnected from any academic stake, not going to be graded by teachers, and explicitly anonymous. Moreover, this test - that focuses on maths - was often not administered during a maths class. These precautions were thus very likely to reduce the stereotype threat and the loss in self-confidence that could be associated with it for low-SES students. They also highly reduced the chance that students prepared for this test, which is important as it is plausible that high-SES parents encourage and support more at-home preparation for usual tests set by teachers than low-SES parents, or provide a better environment for work. This would indeed result in differential performances as measured by grades despite equal performance at our externaly set and graded test.

student performances in class (Hoff and Pandey, 2004; Steele and Aronson, 1995, Croizet et al. 2001, 2004; Dee, 2009)[15]. In fact, Table A1 shows that teachers' grades are 0.28 standard deviations lower for low-SES students compared to high-SES in the same class who had equivalent test scores in November (column 1), and 0.07 standard deviations lower for low-SES students compared to high-SES who had equivalent test scores in June (which is consistent with our following results on academic progression presented in the next section) (column 2). Overall, this is clear evidence that, at equal test scores and within class, teachers' grades are lower for the low-SES relative to the high-SES. Since there are both good and bad reasons why teachers' grades are lower for the low-SES relative to the high-SES, we want to remain agnostic about the costs and benefits to include teachers' grades in the measure of academic performance in addition to test scores. We will thus use both test scores only and tests scores plus teachers' grades in our empirical analysis.

Finally, while test scores reflect an impartial measure of academic performance, they are not observed by any agent. Therefore, teachers' grades add an interesting ingredient to the analysis since it reflects academic performance as observed by students, parents and teachers themselves. As such, aspirations are likely to be formed on the basis of teachers' grades. Whether teachers' grades should be considered as an additional tool to measure academic performance or as a cause of the social inequalities in aspirations depends on the interpretation of the difference between test scores and teachers' grades.

Track Assignment   Track assignment is observed in the administrative data. We use dummies indicating whether the student "Entered vocational high school", "Entered academic high school", or "Repeated grade 9".

Family Socio-Economic Status   The administrative data contains socio-economic status of each legal representative. The socio-economic status is coded on a 32-code scale, each code being 2-digit. In this paper we construct two classifications of the family socio-economic status: a rough classification containing 2 categories, and a detailed classification containing 6 categories (see the Data Appendix for a description of these classifications). Overall, 31% of the families are in the high-SES category, the low-SES category being defined as the other 69% families where both parents have intermediate or low-skilled occupations. Our preferred specification uses the two-category

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[15]As our empirical setting compares students in the same class, between-class and between-school variations in the grading system is not an issue in our analysis.

classification, but we show in the Robustness Checks section that the results are robust to the use of the six-category classification.

Immigrant Family Finally, we construct a dummy for immigrant families indicating whether both parents are born abroad, and use it as a control variable. Data on the country of birth of the parents comes from our research survey. In our sample, 38% of families are immigrant, among which 60% come from Africa[16]88% of immigrant families are low-SES families so immigrant families are almost a sub-group of low-SES families. Following Caille (2007) who shows that immigrant families have higher aspirations for their children than non-immigrant families, our main specification uses the immigrant dummy as a control variable to capture the systematic difference between immigrant and non-immigrant families when it comes with academic and professional aspirations.

Scholastic Self-Esteem In the robustness checks, we use students' self-perception of their scholastic competence, or "scholastic self-esteem", as an instrument for educational aspirations. To measure this dimension, we use the "Self-perception profile for adolescents" (SPPA) conceived by the psychologist S. Harter in 1988 in its French version (translation done by the psychologist F. Bariaud in 2006). Our measure of scholastic self-esteem uses the average standardized score over five items (see the Data Appendix for more information on this variable).

4 Empirical Strategy

4.1 Specification used to study the consequences of social background on aspirations and track assignment

Our research design is based on a within class identification. Our general equation of interest is as follows:

$$Y_{ij} = \alpha + \beta LowSES_i + \sum_{d=2}^{10} \gamma_d TestScore_{di} + \delta FE_j + \eta X_{ij} + \epsilon_{ij}$$

where Y_{ij} is the outcome measure for individual i in class j, $LowSES_i$ is a dummy indicating whether the student is from a low-SES family, $TestScore_{di}$ are dummies indicating whether the student is from the decile d of the test score distribution in Novembre 2012, FE_j are class fixed-effects, X_{ij} are control variables including dummies for gender and for the immigration status of

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[16]30% come from Northern Africa, 30% from Sub-Saharan Africa, 12% from Asia, 7% from the Middle East and another 7% from the Carribean, 5% from Portugal, 4% from Eastern Europe, 3% from Latin America, 2% from other European countries, and 0.5% from North America.

the family, and ϵ_{ij} represents the error term. In this part of our analysis, the outcome measure Y_{ij} is either students' attainable tracks, preferred track, or track assignment just after junior high school.

We also use an alternative measure of academic achievement which takes teachers' grades into account. The equation is the same as the first one with additional dummies $YearlyGrade_{d'i}$ for whether the student is in decile d' of the average yearly grade distribution:

$$Y_{ij} = \alpha + \beta LowSES_i + \sum_{d=2}^{10} \gamma_d TestScore_{di} + \sum_{d'=2}^{10} \gamma_{d'} YearlyGrade_{d'i} + \delta FE_j + \eta X_{ij} + \epsilon_{ij}$$

Since teachers' grades are socially differential for reasons that may or may not be related to academic performance (see Section 3), we consider this alternative estimate of β as a lower bound of the effect of family background on aspirations.

Family background is determined by the accident of birth. The reasons for which aspirations and track assignment are correlated with parent SES are all consequences of the family characteristics: parents' level of education, parents' involvement in their child's school life, parents' choices of education for their child, the characteristics of parents' friends and network in general, genetics, etc. In that sense, any difference in aspirations between the low and the high-SES is the consequence of the family characteristics *via* the differences in academic achievement, in social networks, in school quality, etc. However, our parameter of interest is not the sum of all consequences of social background on aspirations: following the definition of aspirations as the capacity to "set goals for the future which are in line with one's potential", we don't expect students of different potential to aspire equally. We thus want to exclude the channels by which family background affects one's actual academic potential. This is why our analysis first compares students who have similar academic performance: we argue that students who have equal test scores (and equal teachers' grades) in grade 9 have very close academic potential. Second, our analysis includes class fixed effects to isolate the effects of parent SES from neighbourhood, teacher and peer effects, which are additional determinants of academic potential. In fact, parental choices result in differences in school quality and peer composition that have direct consequences on academic performance. We thus compare low-SES students with their high-SES *classmates* from the same decile of the test score distribution (and teachers grades). If social inequalities were entirely reflected in school and class selection, we would not see any difference left in this within-class framework. Our measure of social inequalities in aspirations thus excludes the part of family background expressed in school

and class selection, which probably provides a lower bound of the effects of family background, but ensures that the observed effects are entirely due to family background of students having equal academic potential.

Conditional on the fact that students who are in the same class and have equal test scores (and teachers' grades) have equivalent academic potential, we argue that β identifies the causal effect of being from a low social background family on aspirations. One caveat to interpret β as the causal effect of being low-SES on aspirations is the fact that students' academic level may not be well measured by the test scores' and teachers grades' deciles. This measurement error would indeed bias the γ coefficients downward and thus bias β upward in absolute value as low-SES students have on average lower test scores and thus lower outcomes. Importantly, we have seen that the variation in students' maths score explains 83% of the variation in students' total score at the national exam in June (average over the math, French and history scores), so the November math test is likely to be pretty efficient in measuring students' achievement in November. Moreover, the addition of teachers' grades helps a lot to reduce the noise and get a precise measure of academic performance (even if the use of this measure may lead to an underestimation of β as discussed in section 3). For these reasons our measure of academic performance is arguably a very good measure compared to standards in this literature.

4.2 Specifications used to study the role of aspirations and external factors in the amplification of social inequalities

In the second part of our analysis, we investigate how aspirations for high school at the beginning of grade 9 and students' SES relate to academic progression over the year, and whether they play a role in track assignment at the end of the year independently from students' academic performance. To explore how family background and aspirations affect academic progression, we estimate the following equation:

$$Y_{ij} = \alpha + \beta LowSES_i + \theta Asp_i + \sum_{d=2}^{10} \gamma_d TestScore_{di} \left(+ \sum_{d'=2}^{10} \gamma_{d'} YearlyGrade_{d'i}\right) + \delta FE_j + \eta X_{ij} + \epsilon_{ij}$$

where Y is the test score at the national exam at the end of the year and Asp_i is a vector of two dummy variables indicating whether the student has "No preference" for any high school track and "Vocational High School" among his preferred options, the reference being students who prefer "Academic High School". For the same reasons as before, we interpret β as the causal

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impact of social background on academic progression given equivalent potential and aspirations at the beginning of the year. We also interpret θ as the causal impact of aspirations on academic progression given equivalent potential and social background at the beginning of the year.

To explore how family background and early aspirations affect track assignment in June independently from academic performance, we estimate the following equation:

$$Y_{ij} = \alpha + \beta LowSES_i + \theta Asp_i + \sum_{d=2}^{10} \gamma_d TestScore\_Nov_{di} + \sum_{d=2}^{10} \gamma_d TestScore\_Jun_{di}$$

$$(+ \sum_{d'=2}^{10} \gamma_{d'} YearlyGrade_{d'i}) + \delta FE_j + \eta X_{ij} + \epsilon_{ij}$$

where Y is a dummy indicating whether the student was assigned to vocational high school, academic high school, or repeated grade 9. Asp_i is the same vector as in the previous equation. In order to rule out the role of all academic factors, we control for the decile of test score in both November and June, as well as of teachers' grades. We thus interpret β (resp. θ) as the effect of social background (resp. students early aspirations) on track assignment independently from academic factors.

What caveats do we have to consider to interpret β and θ as the causal effects of SES and aspirations on final test scores and the procedure of track assignement? First, these estimates can be biased due to measurement errors. For instance, a part of unmeasured aspirations could be correlated with students' SES and thus be included in β. The same is true conversely for θ. In section 6, we provide evidence that this measurement error issue is unlikely to drive our results as both β and θ are robust to the inclusion of more detailed measures of aspirations and SES.

Second, the correlation θ measured between students' aspirations and outcomes may be due to a third factor that impacts aspirations on one hand, and outcomes on another hand but not through aspirations. Given our econometric specifications, such a confounding factor must not be reflected in our measures of students' SES, test scores, and teachers' grades. Among the six determining factors of aspirations that we cataloged in Section 2, any potential confounding factor would be one that could also contribute to students' academic outcomes *independently* from aspirations, i.e a structural factor. Current academic achievement, the first factor, is captured by our measures of test scores and teachers' grades so it does not bias θ. The other structural determinant of aspirations thatcould bias θ is students' rational anticipation of future academic achievement. Given that we

study students in the same class and with the same current academic performance, the factors that can affect future academic performances and can be anticipated today are related to parents' technical inputs that influence academic progression over time independently of aspirations (e.g. homework assistance, monitoring of take-home assignments' schedule, or management of sleeping time). These parental inputs may not be captured by parental SES, and part of them may actually be orthogonal to SES. To test whether such rational anticipations drive the correlation between aspirations and later school outcomes, we instrument aspirations using students' current scholastic self-esteem in the Robustness Checks section (and discuss there the validity of this IV strategy).

5   Results

In this section, we present our main results on the social inequalities in aspirations and its dynamics with school outcomes. Our analysis focuses on low-SES versus high-SES students, although all tables include a dummy indicating the immigration status to make sure that the effect of social background is not an immigration story, and to confirm the result of Caille (2007) that first-generation immigrants have higher aspirations than non-immigrants. We find similar results: students from immigrant families have higher aspirations than non-immigrants, especially in terms of jobs, which may reflect the fact that the decision to migrate comes with the desire to upgrade their children's opportunities and social status. Besides, we find no differential teachers' grades, academic progression, and procedure of track assignment between immigrants and non-immigrants. We do not detail furthermore the effect the immigration status in the rest of the paper, and the effect of the socio-economic status is considered independently of the immigration status.

5.1   Social differences in aspirations

How much students' aspirations vary according to their parents' SES? This section presents the differences in educational and professional aspirations for students in the same class who have the same academic performance.

Educational Aspiration Windows

Table 1 shows that aspiration windows at the beginning of grade 9 are socially different among students who are in the same class and have similar test scores in November (columns 1, 3 and 5). Low-SES students are 42% more likely to include vocational high school in their set of attainable

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tracks (+6pp, significant at the 1% level), while they are less likely to include academic high school (-3pp, significant at the 10% level) and to have an empty window (-3pp, significant at the 5% level). This result indicates that low-SES students have more often ideas about their near-future academic options, and that the options who populate their zone of attainable selves are less selective than high-SES students. If teachers' grades are taken into account (columns 2, 4 and 6), we find that low-SES students are still more likely to include vocational high school and less likely to have an empty window, but the inclusion of academic high school in the window is no more differential. This finding suggests that the fact that low-SES students feel less capable of entering an academic high school is all driven by the fact that they get lower teachers' grades despite an equal performance at the test. However, teachers' grades do not close the gap in the two other categories.

Aspiration windows are also socially different at the higher education level (Table 2). First, low-SES students are 18% more likely to have no idea of what they would be capable of pursuing (40% versus 34% among the high-SES students, this difference being significant at the 5% level). Second, they are 27% less likely to include highest education attainments (5 years college or more) in their set of attainable paths (19% versus 26% among high-SES, significant at the 1% level). We do not find differences in the presence of intermediate education levels (1-2 years college and 3-4 years college) in the aspiration windows. These findings indicate that low-SES students have less ideas about their far-future academic options, which seems to be related to the fact that they have lower teachers' grades (column 2). Moreover, their zone of attainable selves proves again more modest than high-SES's one, and this result remains true at equal teachers' grades in addition to test scores (column 10).

Decomposing the analysis by academic performance levels brings interesting patterns. Low-achieving low-SES students' aspiration windows seem more adjusted to their academic performance than their high-SES counterparts: they are less often empty and more often include vocational high school (Appendix Table A2). In contrast, medium- and high-achieving low-SES students' aspiration windows seem less adjusted to their academic performance than their high-SES counterparts: medium-achieving students feel less capable of academic high school (Appendix Table A2), and high-achieving students feel less capable of 5 years or more of higher education (Appendix Table A3), although their current academic performance does not contraindicate such aspirations.

Educational Aspirations

Education aspirations follow similar patterns as aspiration windows (Table 3, Panel 1). While the proportion of students who have no preference is not socially differential, academic preferences are clearly more modest among low-SES students. At the high school level, low-SES students are 120% more likely to prefer vocational high school than their high-SES counterparts (10% versus 5%), this difference being in fact driven by low- and medium-achieving students (Appendix Tables A4, A5 and A6). They are also less likely to prefer academic high school, which this time is driven by medium- and high-achieving students - although point estimates are less precise. Again, teachers' grades explain the difference in the proportion of students who prefer academic high school (column 6), but not all the difference in the preference for vocational high school (column 4).

At the higher education level, low-SES students are 78% more likely to prefer finding a job after high school without going to college (14% versus 8% among high-SES), and symmetrically less likely to prefer doing 5 years or more of higher education (18% versus 24% among high-SES, both differences being significant at the 1% level) (Table 4, Panel 1, columns 5 and 11). These differences are reduced but still significant when we compare students with equal test scores and teachers grades (Table 4, Panel 1, columns 6 and 12). The higher proportion of students who prefer finding a job after high school comes from low-achieving low-SES students (Appendix Table A7, A8 and A9), which is consistent with their higher preference for vocational high school, and may be more appropriate to their low academic performances. In contrast, high-achieving low-SES students exhibit aspirations that do not seem appropriate to their academic performances: they are 32% less likely to prefer postgraduate studies, and twice as much likely to prefer finding a job after high school than their high-SES counterparts.

Controlling for their aspiration windows shows that a substantial part of the difference in academic preferences comes from the difference in what students can think of and feel capable of pursuing (Tables 3 and 4, Panel 2): differences between high and low-SES students who have identical aspiration windows are smaller. In particular, the preference for postgraduate studies no longer socially differential among students with equal aspiration windows. However, the other differences in preferences are still significant, which suggests that overall the source of differential aspirations is two-fold: the *zone* of attainable selves on the one hand, and *taste* for these attainable selves on the other hand.

The empirical literature showing that aspirations are impacted by individuals' social background

is quite limited. The first evidence was provided in the 1960s using US data in what is known as the "Wisconsin Model": at equal IQ test and rank in the class, 11th grade students whose father has a low education level are less likely to aspire to and reach college than those whose father has a higher education level (Sewell and al. 1969).[17] More recently, Hoxby and Avery (2013) show that among the highest-achieving US students (top 4% at college assessment test scores), low-income students are less likely to apply to selective universities than high-income students, although the cost of attending a highly selective university would not have been larger. Our findings add to this literature by showing that the social inequalities in aspirations exist in France and do not concentrate only on top students.

Professional Aspirations

Table 5 shows that parental SES does not cause any gap in professional aspirations. At this age, the most popular occupations are ones that either require postgraduate studies (doctor was a very popular response, as well as journalist and lawer), or do not require higher education at all (for instance musician or artist were also quite popular answers). Note also that 22% of students do not have idea of a job they would like to have. At equal academic performance (including or not teachers' grades), low and high SES students have professional aspirations which require the same level of education. This finding sheds new light on social inequalities in France: social groups differ in the way they think about their education, but they do not differ in the way they think about their job. Students thus have the same ultimate goals but do not invest similarly to reach these goals. It means that preferences for education are not, at this age, pure investments adjusted to future jobs. Among the determinants of educational aspirations, anticipations of lower returns to education are thus unlikely to explain the lower educational aspirations of the low-SES since this would translate into lower occupational aspirations. Different tastes regarding occupations do not seem to drive the different educational aspirations.However, professional aspirations may adjust to realized investments in education *ex post*, which would create higher professional aspirations for the high-SES compared to the low-SES in the future. In this case professional aspirations may appear adjusted to investments in education *ex post* while they were not adjusted *ex ante*.

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[17]In this first paper, the external validity was very limited since the study uses a sample of Wisconsin farmers' sons. Variations in social origins were tiny and one could worry that the results were too specific to this particular rural and low educated population. Also, the measurement of academic achievement raised concerns since rank in the class depends heavily on the composition of the class: the best student in a poorly achieving class is not comparable to the best student in a highly achieving class. Additional papers therefore extended this first result using broader population and better measurements of academic achievement - both a test score and teachers' grades (Sewell et al. 1970, Jencks et al. 1983).

5.2 Social differences in track assignment

Academic assignment in grade 10 is highly socially differential (Table 6). Consider two students in the same class with equal test scores at the beginning of grade 9 (they are also of the same sex and same immigration status), one being low-SES and the other high-SES. The next year, the low-SES student is 13pp more likely to attend a vocational high school and 14pp less likely to attend an academic high school (these differences being significant at the 1% level)[18](columns 1, 3, 5). This means that low-SES students are three times more likely to enter a vocational high school in grade 10 than their high-SES equally-able classmates (19% versus 6%), and symmetrically 15% less likely to enter an academic high school (78% versus 92%). Academic assignments to high school are thus even more unequal than initial academic aspirations: low-SES students are *two* times more likely to prefer vocational high school at the beginning of the year, but *three* times more likely to enter a vocational high school the next year, than their high-SES equally-able classmates.

Adding teachers' grades in the measure of academic performance does not change the view: low-SES students are still twice as much likely to enter a vocational high school as their equally-achieving high-SES classmates (Table 6, column 1), which is bigger than the 77% gap in the proportion of students whose initial aspiration was vocational high school (Table 3, Panel 1, column 4). Moreover, while initial aspiration for academic high school was not differential (Table 3, Panel 1, column 6), low-SES students are now 6 percentage points less likely to enter an academic high school than their equally-achieving high-SES classmates (Table 6, column 2). Whatever the measure of academic performance, the initial social inequalities in aspirations are thus not corrected over the year, but are actually amplified.

What elements fuel the initial differences in aspirations and amplify initial social inequalities? One hypothesis is that students' preferences and/or academic performance may change over the year in ways that make social inequalities larger at the end of the year. This would be the case if low-SES students' academic performance decreases relative to their high-SES *initially* equally-able classmates, or if low-SES students' preferences tend to change more often in favor of vocational high school over the year due to the influence of their network (friends, relatives) or the information

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[18]There is a French literature on the social inequalities in track assignment: Girard and Bastide (1963), Duru-Bellat (1988) and Davaillon et Nauze-Fichet (2004) show that low-SES French students are less likely to enter selective tracks than high-SES students who have the same teachers' grades. Felouzis (2003) and Broccolichi et Sinthon (2011) extend this results using independently graded test scores instead of teachers' grades, similarly to what we do in this paper. Yet there is little empirical evidence so far that can shed light on the mechanisms behind this phenomenon, in particular the extent to which social inequalities in track assignment are due to the pupils themselves, or to their teachers and parents. Our paper adds to this literature by pointing to the role of students' preferences in the production of social inequalities.

they receive from the teachers. A second hypothesis is that students' preferences and academic performance may remain stable over the year but other actors would add on initial social inequalities in aspirations, like teachers and/or parents who play a key role in the track assignment process, as described in section 3.1. In the next section, we explore some of these mechanisms that can explain the amplification of the initial social inequalities.

5.3 The role of aspirations and structural factors in the amplification of social inequalities

The previous results show that equally-achieving students have unequal aspirations at the beginning of grade 9 according to their SES, and that they are even more unequally assigned to high school tracks. This section examines factors that contribute to this amplification of social inequalities.

Academic Progression

One reason why social inequalities widen over the year is that low-SES students may progress slower than high-SES students as a consequence of their social background and/or their lower aspirations. Table 7 presents how test scores at the end of the year are associated with SES and aspirations, conditional on test scores at the beginning of the year (columns 1 and 2). We find that test scores in June are 0.27 standard deviations lower for low-SES than for high-SES, 0.36 standard deviations lower for students who aspire to vocational high school than for students who aspire to academic high school, and 0.25 standard deviations lower for students who have no aspiration for high school than for students who aspire to academic high school. Both students' social background[19] and students' aspirations are thus strong determinants of their academic progression from the beginning to the end of the year. The relationship between parent SES and academic progression reflects the fact that, depending on their SES, parents provide more or less inputs to their child's performance such as help with homework, extra tutoring, or school-related activities' management (e.g. going to bed early). We interpret the relationship between students' aspirations and academic progression as evidence that aspirations determine effort and investment: students who have lower aspirations invest less effort in class and at home, and thus achieve less and less compared to initially equally-able classmates who have higher aspirations.

In the case teachers' grades would improve our measure of academic performance, we also

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[19]Caille and Rosenswald (2006), Broccolichi and Sinthon (2011), and Cayouette-Rembliere (2013) also give evidence of the fact that low-SES students progress less than high-SES students at equivalent initial academic achievement.

compare test scores in June among students with equal test scores in November *and* equal average yearly grade (columns 3 and 4). Since the average yearly grade reflects the perceived average academic level over the whole year, and under the reasonable hypothesis that academic progression is on average linear, the average yearly grade should reflect academic performance in the middle of the year, i.e. in February. Hence, the time over which we estimate academic progression when we control for teachers' grades is reduced from 8 months (November-June) to 5 months (February-June). Also, as discussed earlier, if teachers' grades are biased towards high-SES students, controlling for teachers' grades would bias our estimation downward. Still, we find that low-SES students end up with 0.12 standard deviations lower test scores in June than their high-SES classmates who had equal test scores in November *and* equal average yearly grade; we also find a significant decline in academic performance for students who aspire to vocational high school or have no aspirations compared to those who aspire to academic high school (respectively -0.08 and -0.09 standard deviations in June test scores).

These findings suggest that aspirations play an important role in academic progression, even in the short run. Empirically, few studies provide evidence on the consequences of aspirations on subsequent behavior and outcomes. Bernard et al. (2011) show that Ethyopian farmers who express fatalistic views also demand less long-term loans and loans for productive purposes, although this correlation is not intrepreted as causal since third factors that are not included in the model could drive both fatalistic views and investment behavior. The literature also contains experiments providing exogenous sources of variations of aspirations (Oyserman et al. 2006, Beaman et al. 2012, Bernard et al. 2013, and Goux et al. 2014). In these experiments, a randomly assigned intervention changes both aspirations and realized outcomes. To draw a causal link between the change in aspirations and the change in outcomes, the effect of the intervention on realized outcomes has to go entirely through its effect on aspirations. Although aspirations do credibly play a central role in changing behaviors and outcomes in these experiments, one cannot exclude that other effects of the interventions might contribute to the improved outcomes in ways that may not be related to aspirations[20].

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[20]In Oyserman et al. (2006), the intervention consists in 12 sessions providing low-SES students with new "Academic Possible Selves" as well as with strategies to attain these selves, meaning strategies to perform at school. In Bernard et al. (2013), Ethyopian farmers were invited to watch video documentaries about people who had succeeded in agriculture or small businesses which include both a role model effect and an informational effect on how to succeed. In Goux et al. (2014), parents of low-achieving grade 9 students were invited to a meeting with the school provost in which they were informed about existing tracks after middle school, while pointed out the importance of adjusting expectations to students performance and shown videos of students explaining how they perform in vocational education, although they failed in middle-school. The intervention was able to adjust parents' track choice for their child

The impact of aspirations and of social background on academic progression may explain why track assignment in grade 10 is more socially unequal than educational aspirations at the beginning of grade 9. In fact, track assignment takes place at the end of the year so it is likely to be based on academic performances at the end of the year. In Appendix Table A10, we compare track assignment of classmates who have equivalent test scores in November *and* in June (columns 1, 3 and 5), as well as students who also have the same average yearly grade (columns 2, 4 and 6). The results show that social inequalities are reduced by about 45% (from about 13.5pp to about 7.5pp), suggesting that the slower academic progression of the low-SES relative to the high-SES explains an important part of the social gap in track assignment (the reduction is small when teachers' grades are taken into account since the average yearly grade already includes the academic progression over the year). However, low-SES students are still about twice as much likely to enroll in vocational high school, and symmetrically less likely to enroll in academic high school, which suggests that the differential academic progression does not explain all the social inequalities in track assignment. Overall, even using the most complete set of information on students' academic performance that an econometrician can use - which is already more than what the education system itself can use - track assignment is still socially differential. We thus argue that the remaining differences in track assignment are due to non-academic factors.

Non-Academic Factors: Preferences and External Actors

In Table 8, we add students' aspirations at the beginning of the year as an additional explanatory variable of track assignment to test the importance of students' early aspirations in track assignment. The results show that early aspirations have a large effect on track assignment at the end of the year, independently of family background and all measures of academic performance: students who prefer vocational high school in November are 24 percentage points (200%) more likely to enter a vocational high school than their same-background equally-achieving classmates who prefer academic high school (Table 8, columns 2). Students' early aspirations are thus a strong predictor

which importantly led to a reduction in dropouts together with a change in track assignment, from repeating a grade or dropping-out to entering a vocational track or apprenticeship. However, the findings show no change in students' behavior and performances in grade 9, and there is no data on students' aspirations (only applications are available, which are decided by both parents and students after receiving teachers' opinion). The impact of this intervention may thus go entirely through parents' decisions with no lesson on the relationship between students' aspirations and effort at school. Finally, Beaman et al. (2012) show that the reservation of leadership positions for women in Indian village councils increased both girls' aspirations and 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 (knowing that girls are usually in charge of water duties). Overall, it seems difficult to create an intervention that would affect only aspirations with no effect on other elements that contribute to producing the outcomes independently from aspirations.

of final track assignment, suggesting that academic performances are not the only parameter that play a role in track assignment and that the main actors in the procedure of track assignment, i.e. parents and teachers, echoe largely students' early preferences.

However, low and high-SES students still do not have the same probability to enter an academic or a vocational high-school at equal academic achievement and equal early preferences. Low-SES are still 86% more likely to enroll in vocational high school (11.9% versus 6.4% among the high-SES, significant at the 1% level), and symmetrically less likely to enroll in an academic high school (86.7% versus 91.8%, significant at the 1% level), despite equal early academic performance, teachers' grades, final academic performance, and initial aspirations (Table 8, columns 2, 4 and 6). We see two explanations for this result. Either low and high-SES students' preferences have evolved over the year in ways that emphasize the initial social inequalities in aspirations and are independent of their academic performances, *a priori* through interactions with friends, parents and teachers. Or parents and teachers who take an active part in the procedure of track assignment act in ways that accentuate the tendency of low-SES students' to aspire lower than the high-SES: teachers may deny them access to academic high school more often, or parents may put less pressure for their child to attend an academic high school whatever their grades[21]. In both cases, track choices are socially differential at the end of the year despite equal initial preferences and equal academic performance suggesting that the actions of external actors amplify the initial social inequalities in students' aspirations.

To conclude, the very large social inequalities in track assignment are the consequence of three congruent factors: (i) students' early aspirations are socially different and play a role in track assignment at the end of the year, (ii) low-SES progress less relative to high-SES as a consequence of both their social background and their lower aspirations; and (iii) other actors who take part in the track assignment procedure, namely parents and teachers, accentuate the initial social inequalities in aspirations.

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[21]Pirus (2013) finds that family wishes at the end of grade 9 are socially differential at equal teachers' grades: among students with grades ranging between 10 and 12 out of 20 (middle-low achieving students), 9 out of 10 high-SES parents ask for academic track while 6 out of 10 low-SES parents. However, this study does not disentangle between students' aspirations and parents' action, and uses teachers' grades as a measure of students' performance which is problematic since teachers' grades are not comparable across schools and classes.

6 Robustness checks

We test here several alternative specifications to strengthen the interpretation of our results. The first two tests investigate measurement error issues and show that more detailed definitions of our main explanatory variables do not affect the results. The last test provides evidence that allows for excluding potential confounding factors.

6.1 Using a more precise definition of parents' SES

As discussed in section 4.2, it may be that the correlations between aspirations and outcomes do not reflect a causal impact of aspirations if parents' SES is not measured precisely enough. To show that this measurement error issue is not driving our results, we use a much more detailed definition of parents' SES that divides the low-SES families into five groups to get more homogenous social groups: "No parent has ever worked", "Maximum family SES is manual laborer", "Maximum family SES is low-skilled white-collar", "Maximum family SES is craftsman or storekeeper", and "Maximum family SES is intermediate occupation" (see Data Appendix). Appendix Tables A11 and A12 show that the coefficients on the aspirations variables are only very marginally modified (and in a non-significant way) compared to those obtained with the two-category classification[22]. This result means that aspiration coefficients do not seem to be affected by how the parents' SES is defined, providing some clue that measurement error in parents' SES is not driving our results on aspirations given parents' SES.

6.2 Using a more exhaustive definition of students' aspirations

Similarly, as discussed in section 4.2 when we intend to separate the effects of parents' SES and students' aspirations on students' academic outcomes, it may be that the correlation between students' SES and their outcomes does not reflect a causal impact if aspirations are not measured precisely enough. To show that this measurement error issue is not driving our results, we include a more exhaustive list of students' aspirations by including aspirations for higher education. Appendix tables A13 and A14 show that the coefficient on the parents' SES dummy is only very marginally modified (and in a non-significant way) compared to those obtained using only aspirations for high school as a control[23]. This result confirms that the effect of parents' SES is not affected at all

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[22]Note that, comfortably, in each table the effect of parents' SES varies in a very smooth way between the five new categories from the lowest category to the highest one.

[23]Note that in all tables the coefficients on the aspirations for high school are smaller in magnitude as the dummy indicating whether the student mentionned "Finding a job" among her preferred options after high school captures

by how students' aspirations are defined, providing some clue that measurement error in students' aspirations is not driving our results on the effect of parents' SES given students' aspirations.

6.3 Using students' scholastic self-esteem as an instrument for their aspirations

Our last check aims at ruling out the potential confounding mechanism that could explain the correlation we find between aspirations and educational outcomes, namely students' anticipation of future academic achievement if they are rational. As discussed in Section 4, given that we study students in the same class, and with the same current academic performance and SES, such a correct anticipation could be due to parental technical inputs that influence academic progression over time independently of aspirations and are captured by parental SES: homework assistance, monitoring of take-home assignments' schedule, management of sleeping time, etc.

To rule out this mechanism, we instrument aspirations using students' scholastic self-esteem. We argue that, within class and given current academic performance and SES, students' scholastic self-esteem can impact progression and track assignment only through its effect on aspirations. In particular, we argue that it is not related to students' anticipation of future academic achievement. This is because the five questions that we use to compute our scholastic self-esteem score concern the student's self-perception of her current scholastic ability (how quick and efficient they are, how well the respond in class) or of her general intellectual ability. By using this instrument, we thus capture the part of students' aspirations that is explained by their present-looking self-esteem and get rid of the potential forward-looking components of aspirations that could bias our estimate of its impact on academic progression..

Columns 1 and 2 of Table 9 first show the first-stage results using a synthetic dummy for aspirations indicating wether the student has "No preference for high school" or mentionned "Vocational high school" among her preferred options, as opposed to students who mentionned "Academic high school" among her preferred options. It shows that a one-standard-deviation increase in scholastic self-esteem leads to a 10pp increase (significant at the 1% level) in the probability of having no preference or preferring vocational high school, i.e. almost a 50% increase (a 49% increase for high-SES and a 46% increase for low-SES). The table then shows the results of the second-stage and of the OLS regressions with this simplified outcome. Controlling for teachers' grades, and consistently with Table 7, the OLS regression shows that test scores in June are 0.08 standard

part of what these dummies used to capture.

deviations lower for students who aspire to vocational high school or have no aspiration than for students who aspire to academic high school, while the IV regression measures a much stronger impact of 0.70 standard deviations. Similarly regarding track assignement, the OLS regression shows, consistently with Table 8, that students who prefer vocational high school or have no preference for high school in November are 12 percentage points more likely to enter a vocational high school than their same-background equally-achieving classmates who prefer academic high school, while the IV regression measures a much stronger impact of 31 percentage points. These results show that for both progression and track assignment, the initial bias was actually downward, and not upward as one could have suspected, which translates the fact that our aspiration variables are subject to an important measurement error that crushes the potential upward bias. Indeed, our measure of scolastic self-esteem is a continuous variable based on five questions to students whereas we measure aspirations using one or two dummies based on one question, leading to a lower measurement error. Overall, this robustness check confirms that our main estimates provide lower bounds for the impact of students' aspirations on their educational outcomes.

7 Conclusion

This paper provides evidence that students' educational aspirations are influenced by their family background on the one hand, and that these aspirations participate to the short-term evolution of school outcomes on the other hand. As school outcomes are themselves a determinant of aspirations, these two results reveal the aspiration-based low-achieving trap engendered by social inequalities. Low-SES students start with clear factual disadvantages, but this aspiration trap drag them down even more than expected. A natural question is whether it reflects a market failure which would rationalize some form of policy intervention. Is there evidence that students have suboptimal aspirations and are making suboptimal decisions? In terms of income and occupation, the answer depends on how educational attainment impacts later job market outcomes for the low-SES and the high-SES. If the returns to education are very low for the low-SES relative to the high-SES, reducing inequalities at school may not reduce inequalities in terms of income and occupation. As the vast literature on returns to education shows rather high returns to education without evidence that low-SES benefit less, it is likely that social inequalities in education partitipate to social inequalities in income.

However, the question is more difficult when it comes to welfare. Whether adjusted aspirations

and reduced social inequalities in education would make people happier remains an open question. We cannot take as granted that a low-SES person who invests more in education and gets a higher income will feel better as an adult than if she does not invest in education: she may feel socially isolated, or inconsistent with her cultural values, as suggested by the identity literature. However, our results show that low-SES students do not only differ in their taste but also in the tracks they feel capable of pursuing, which raises the issue of the validity of this feeling and of the optimality of their final decision.

This paper thus questions whether preferences can be wrong and should be discussed. Most of the economic literature is based on the latin maxim that *de gustibus non est disputandum*[24], so that everyone's personal preferences are merely subjective opinions that cannot be right or wrong. If preferences are formed on a clear-sighted and informed knowledge base, this should be true. But if preferences are formed on the ground of misperception and ignorance, for instance the ignorance of some academic options or misperception of one's probability of success, preferences may be the root of a market failure. Further empirical research on the reasons why low-SES students have lower aspirations than high-SES is thus needed.

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[24]Meaning "In matters of taste, there can be no disputes".

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Data Appendix

Construction of the Educational Aspiration Windows

Students were asked first what tracks they know, and second, among the tracks they know, which ones they feel capable of pursuing. On average students report 1.4 tracks they feel capable of at the high school level[25] (including 10% of students reporting 0 tracks) and 0.9 tracks they feel capable of at the higher education level[26] (including 44% of students reporting 0 tracks). 99% students report between 0 and 5 attainable tracks at each level.

Given the open nature of these questions, the actual denomination of tracks varies a lot. At the high school level, a majority of answers are very precise (e.g. "scientific *baccalauréat*" or "2-year vocational track in hairstyling") or quite precise (e.g. "academic high school", "vocational *baccalauréat*"), while a minority -5%- of answers are vague (e.g. "high school", "music"). We coded the answers in order to classify them into four categories: academic high school, vocational high school, no high school, and no response. When the answer is vague and there is uncertainty about the corresponding category, we consider two extreme scenarii: for instance, "music" may be associated with at least no high school education, or at most academic high school (the literature track offers a music section). Since the vague responses represent only 5% of responses, there is a very high correlation (0.93) between the classification in the "pessimistic" scenario (in which the inferred trackis the less selective) and in the "optimistic" scenario (in which the inferred track is the most selective). We present the results using the pessimistic scenario but they are identical in the optimistic one. Then, we aggregate answers at the student level to create dummies indicating whether the student is among the following categories: "No response", "Vocational high school is among attainable tracks", and "Academic high school is among attainable tracks". Students who reported several answers can be in both the academic and the vocational categories. Students who wrote "I don't know", "None", *only* answers that are not relevant like "Travelling", or who did not write anything, constitute the "No response" category. Finally, 20 students reported only one vague response that is associated with no high school education in the pessimistic scenario (e.g. students whose *unique* response is "music"). These few students were grouped with the "No response" category as we consider that their answer does not inform us about which track they feel capable of pursuing.

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[25]From an average 3.9 tracks they know

[26]From an average 1.9 tracks they know

Data construction is similar at the higher education level. Students' answers are coded according to the implied number of years of education: "school of architecture" is coded as 5 years, "I.U.T" is coded as 2 years, etc. A handful of answers are vague and allow for different implied levels of education, like "university". In that case, as before, we use the lowest number of years of education compatible with the answer. In the example of "university", the shortest degree requires 3 years so the answer is coded as 3 years. We create dummies indicating whether the student fall into the following categories: "No response", "No higher education is among attainable paths", "1-2 years college is among attainable paths", "3-4 years college is among attainable paths", and "5 years college or more is among attainable paths". We do not use the dummy indicating whether "No higher education is among attainable paths" because the answers that fall into this category are often imprecise and make this category too heterogenous: a third of the answers in this category are vague like "artist", "singer", "pianist", etc. These answers allow for different implied levels of education including "No higher education" but also quite high levels of education (e.g. conservatoire, "Ecole des Beaux-Arts", etc.). For this reason, we think that this category is too heterogenous to draw clear conclusions.

Professional Aspirations

We used the website of ONISEP, the principal French institute providing information on academic paths and jobs to associate the number of years of education required by each job. When jobs are not precise and can be associated to different levels of education -29% of anwers, like "IT engineer" which can be associated to at least 2-year college education and at most 5-year college education, we build two extreme scenarii and use the lowest number of years of education compatible with the answer in this paper. We check that our results are robust to the use of the optimistic scenario and indicate whenever a result is not robust.

Academic Ability

The test score in November is constructed using the math test score on the one hand, and the relationship between the total score in June, the score in math in June, and invariant students' characteristics (gender, SES, year of birth, and class fixed effect) on the other hand. 83% of the variation in students' total score at the national exam is explained by the variation in math scores. Adding gender, SES, year of birth and class fixed effects raises explanatory power to 87%. We estimate the coefficients of a regression of the total score on the math score and students

characteristics in June, and use these coefficients to estimate the total score that a student would have had in November given her score in math and her characteristics.

Family Socio-Economic Status

The two-category classification separates "High-SES" from "Low-SES" based on whether at least one legal representative of the student (parent) has an occupation that corresponds to five years or more of education. The list of these occupations is: legal, medical, teaching and artistic freelance occupations; high-level civil servants; professors; researchers; journalists; artists; senior executives; engineers. They account for 25% of representatives 1 and 20% of representatives 2.

The six-category classification divides the low-SES families into 5 groups to get more homogenous social groups: "No parent has ever worked", "Maximum family SES is manual laborer", "Maximum family SES is low-skilled white-collar", "Maximum family SES is craftsman or storekeeper", and "Maximum family SES is intermediate occupation". The social hierarchy used to define these categories relies on the increasing average level of education throughout the job categories "manual laborer", "low-skilled white-collar", "craftsman and storekeeper", and "intermediate occupation". The average level of education by job category is computed using our research survey which contains information about both parent occupations and levels of education.

Scholastic Self-Esteem

Scholastic self-esteem is measured using the "Self-perception profile for adolescents" (SPPA) which describes two adolescents with opposite characteristics on each item, and the person who answers needs to pick first which adolescent they look like the most, and then whether the characteristic is true or very true for themselves. The "Scholastic Competence" scale includes five items. The first one compares one adolescent who thinks she is just as smart as others to one wonders if she is as smart as others; the second similarly refers to "Doing school work quickly", the third to "Doing well at class work", the fourth to "Feeling they are pretty intelligent", and the last one to "Almost always figuring out the answers in class". Precisely, the answer to each item is coded as an integer between 1 and 4, 4 corresponding to the most positive answer in terms of self-competence assessment, and 1 to the lowest. Our measure of scholastic self-esteem uses the average standardized score over all five items.

Figure 1: Test scores in June 2013 by track assignment in September 2013
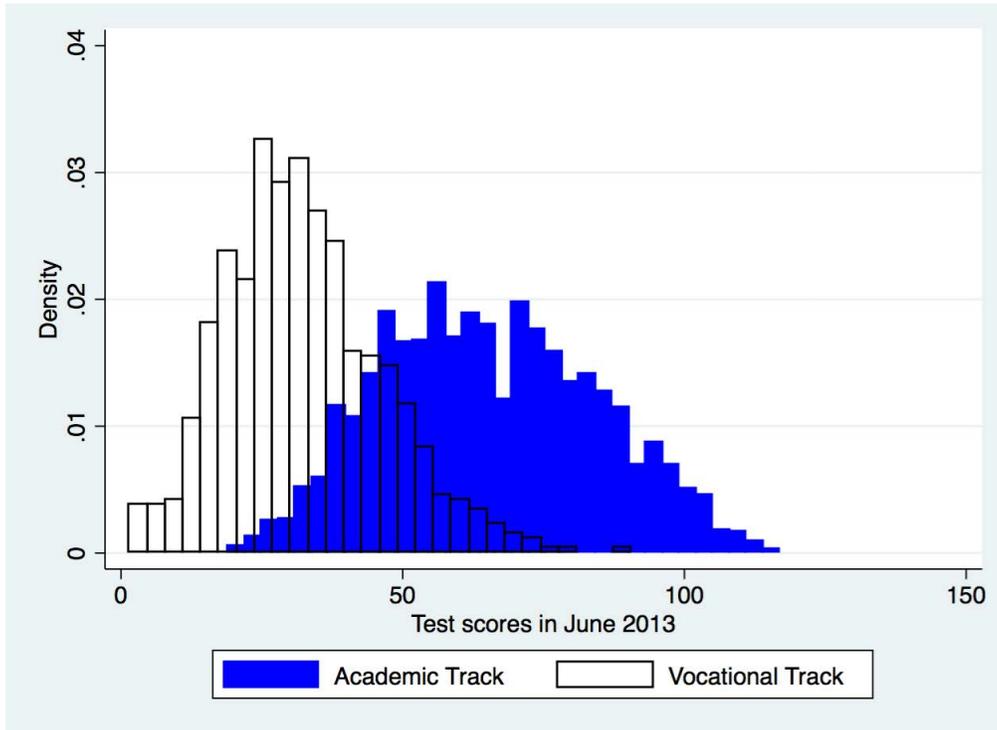
Figure 2: Proportion of low-SES families at the school level: our sample versus junior high school population
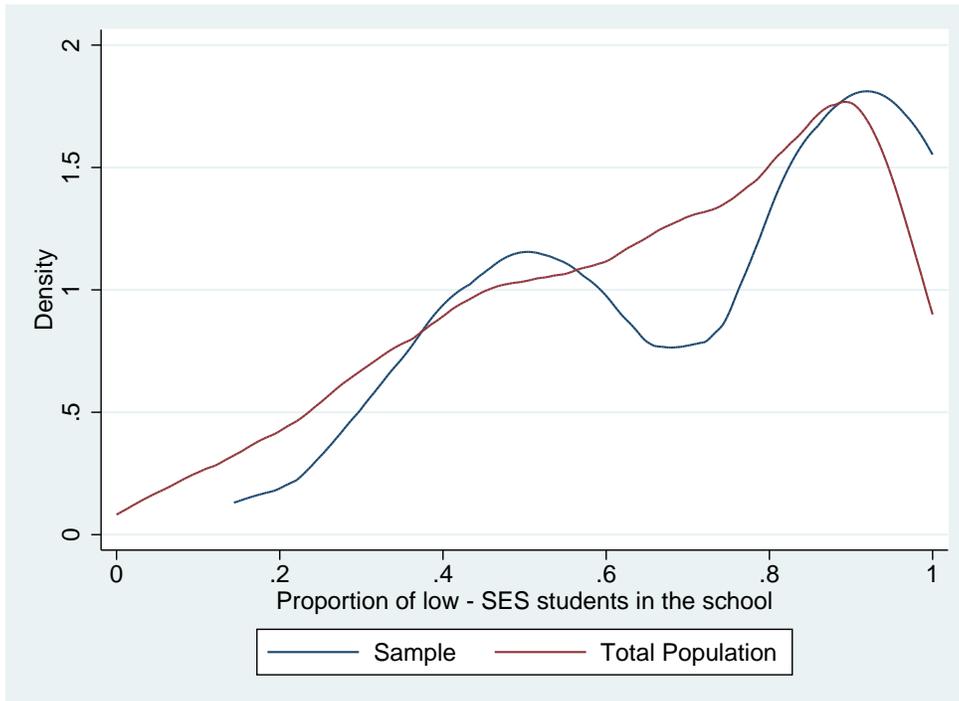
Table 1: Academic Aspiration Windows after Junior High School at Equal Test Score and Teachers' Grades

| | Attainable options after JHS | | | | | |
| | No response | | Vocational HS | | Academic HS | |
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Low-SES family	-0.028**	-0.038***	0.064***	0.041**	-0.031*	0.001
	(0.011)	(0.011)	(0.021)	(0.021)	(0.016)	(0.015)
Immigrant family	0.019	0.018	-0.067***	-0.070***	0.009	0.013
	(0.016)	(0.016)	(0.022)	(0.021)	(0.022)	(0.020)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.073	0.073	0.152	0.152	0.889	0.889
Mean among non-immigrant families	0.081	0.081	0.236	0.236	0.803	0.803
Nb Obs	3113	3113	3113	3113	3113	3113
Adjusted R-squared	0.057	0.063	0.087	0.115	0.185	0.234

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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: Academic Aspiration Windows after High School at Equal Test Score and Teachers' Grades

Variable	No response		1-2 yrs college		3-4 yrs college		5 or more yrs college	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Low-SES family	0.062**	0.040	-0.009	-0.009	-0.016	0.005	-0.070***	-0.053**
	(0.029)	(0.028)	(0.020)	(0.020)	(0.021)	(0.021)	(0.021)	(0.021)
Immigrant family	0.007	0.006	-0.016	-0.016	0.013	0.015	0.035*	0.035*
	(0.028)	(0.027)	(0.017)	(0.017)	(0.021)	(0.021)	(0.018)	(0.018)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.341	0.341	0.172	0.172	0.308	0.308	0.260	0.260
Mean among non-immigrant families	0.416	0.416	0.161	0.161	0.263	0.263	0.177	0.177
Nb Obs	3106	3106	3106	3106	3106	3106	3106	3106
Adjusted R-squared	0.067	0.078	0.007	0.008	0.043	0.059	0.087	0.108

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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: Academic Aspirations after Junior High School at Equal Test Score and Teachers' Grades

Variable	No response		Vocational HS		Academic HS	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel 1: preferred options						
Low-SES family	-0.003	-0.019	0.054***	0.035**	-0.041**	-0.008
	(0.018)	(0.018)	(0.015)	(0.014)	(0.019)	(0.019)
Immigrant family	0.004	0.003	-0.033**	-0.036**	0.024	0.027
	(0.020)	(0.020)	(0.015)	(0.015)	(0.023)	(0.021)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.163	0.163	0.045	0.045	0.795	0.795
Mean among non-immigrant families	0.195	0.195	0.113	0.113	0.702	0.702
Nb Obs	3113	3113	3113	3113	3113	3113
Adjusted R-squared	0.047	0.058	0.106	0.133	0.143	0.179
Panel 2: preferred options given attainable options						
Low-SES family	0.012	0.003	0.030***	0.020*	-0.033*	-0.015
	(0.017)	(0.017)	(0.011)	(0.010)	(0.018)	(0.017)
Immigrant family	-0.005	-0.006	-0.008	-0.010	0.009	0.012
	(0.016)	(0.016)	(0.013)	(0.013)	(0.019)	(0.019)
Poss. options includes Vocational HS	0.034*	0.022	0.383***	0.368***	-0.395***	-0.370***
	(0.020)	(0.021)	(0.023)	(0.023)	(0.029)	(0.029)
No response for poss. options after JHS	0.614***	0.602***	0.005	-0.008	-0.613***	-0.590***
	(0.033)	(0.033)	(0.018)	(0.017)	(0.030)	(0.031)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.163	0.163	0.045	0.045	0.795	0.795
Mean among non-immigrant families	0.195	0.195	0.113	0.113	0.702	0.702
Nb Obs	3113	3113	3113	3113	3113	3113
Adjusted R-squared	0.222	0.226	0.336	0.342	0.338	0.348

The column super-header reads "Preferred options after JHS".

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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: Academic Aspirations after High School at Equal Test Score and Teachers' Grades

Variable	No response (1)	No response (2)	Finding a job (3)	Finding a job (4)	1-2 yrs college (5)	1-2 yrs college (6)	3-4 yrs college (7)	3-4 yrs college (8)	Masters (9)	Masters (10)
Panel 1: preferred options										
Low-SES family	-0.008	-0.005	0.063***	0.036***	-0.008	-0.011	-0.015	0.001	-0.061***	-0.045**
	(0.028)	(0.027)	(0.015)	(0.014)	(0.020)	(0.020)	(0.018)	(0.018)	(0.023)	(0.022)
Immigrant family	0.043**	0.043**	-0.049***	-0.052***	-0.015	-0.015	-0.004	-0.002	0.032*	0.033*
	(0.021)	(0.021)	(0.016)	(0.016)	(0.015)	(0.015)	(0.019)	(0.019)	(0.018)	(0.018)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.356	0.356	0.081	0.081	0.136	0.136	0.249	0.249	0.239	0.239
Mean among non-immigrant families	0.362	0.362	0.160	0.160	0.132	0.132	0.217	0.217	0.159	0.159
Nb Obs	3106	3106	3008	3008	2913	2913	2913	2913	2913	2913
Adjusted R-squared	0.019	0.019	0.121	0.158	0.024	0.024	0.021	0.030	0.092	0.104
Panel 2: preferred options given attainable options										
Low-SES family	-0.044**	-0.030	0.051***	0.029**	-0.001	-0.002	-0.010	-0.008	-0.011	-0.008
	(0.020)	(0.019)	(0.014)	(0.013)	(0.016)	(0.015)	(0.012)	(0.013)	(0.016)	(0.016)
Immigrant family	0.041**	0.042**	-0.048***	-0.050***	-0.003	-0.003	-0.006	-0.006	0.009	0.010
	(0.019)	(0.019)	(0.016)	(0.015)	(0.011)	(0.011)	(0.013)	(0.013)	(0.012)	(0.012)
No response for poss. options after HS	0.535***	0.539***	0.077***	0.072***	-0.125***	-0.126***	-0.189***	-0.189***	-0.112***	-0.113***
	(0.025)	(0.024)	(0.025)	(0.025)	(0.021)	(0.020)	(0.021)	(0.021)	(0.021)	(0.021)
Poss. options includes 1-2 yrs college	0.009	0.008	-0.044**	-0.042**	0.511***	0.510***	-0.164***	-0.164***	-0.090***	-0.092***
	(0.022)	(0.021)	(0.018)	(0.019)	(0.030)	(0.030)	(0.021)	(0.021)	(0.025)	(0.025)
Poss. options includes 3-4 yrs college	0.001	-0.010	-0.082***	-0.067***	-0.132***	-0.133***	0.529***	0.527***	-0.078***	-0.081***
	(0.022)	(0.022)	(0.016)	(0.014)	(0.019)	(0.019)	(0.025)	(0.025)	(0.023)	(0.023)
Poss. options includes Masters	-0.045**	-0.053**	-0.059***	-0.046**	-0.075***	-0.073***	-0.179***	-0.181***	0.571***	0.568***
	(0.023)	(0.023)	(0.018)	(0.018)	(0.017)	(0.017)	(0.026)	(0.026)	(0.028)	(0.028)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.356	0.356	0.081	0.081	0.136	0.136	0.249	0.249	0.239	0.239
Mean among non-immigrant families	0.362	0.362	0.160	0.160	0.132	0.132	0.217	0.217	0.159	0.159
Nb Obs	3106	3106	3008	3008	2913	2913	2913	2913	2913	2913
Adjusted R-squared	0.307	0.315	0.159	0.187	0.459	0.459	0.507	0.507	0.504	0.505

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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: Professional Aspirations at Equal Test Score and Teachers' Grades

Variable	No response (1)	No response (2)	No higher ed. (3)	No higher ed. (4)	1-2 yrs college (5)	1-2 yrs college (6)	3-4 yrs college (7)	3-4 yrs college (8)	5 or more yrs college (9)	5 or more yrs college (10)
Low-SES family	-0.024	-0.025	0.034	0.013	-0.013	-0.010	0.023	0.023	-0.003	0.021
	(0.021)	(0.022)	(0.023)	(0.022)	(0.020)	(0.021)	(0.017)	(0.018)	(0.024)	(0.024)
Immigrant family	-0.010	-0.010	-0.082***	-0.083***	0.009	0.010	0.023	0.024	0.074***	0.074***
	(0.019)	(0.019)	(0.022)	(0.022)	(0.015)	(0.015)	(0.015)	(0.015)	(0.023)	(0.023)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.217	0.217	0.353	0.353	0.276	0.276	0.090	0.090	0.445	0.445
Mean among non-immigrant families	0.203	0.203	0.424	0.424	0.256	0.256	0.104	0.104	0.391	0.391
Nb Obs	3121	3121	3121	3121	3121	3121	3121	3121	3121	3121
Adjusted R-squared	0.034	0.035	0.063	0.073	0.016	0.017	0.044	0.046	0.094	0.110

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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: Track Assignment to Equal Initial Test Scores and Teachers' Grades

Variable	Entered Voca. HS (1)	Entered Voca. HS (2)	Entered Acad. HS (3)	Entered Acad. HS (4)	Stayed in Middle Sch. (5)	Stayed in Middle Sch. (6)
Low-SES family	0.130***	0.066***	-0.137***	-0.062***	0.007	-0.004
	(0.014)	(0.012)	(0.015)	(0.012)	(0.009)	(0.008)
Immigrant family	-0.031*	-0.040***	0.023	0.034***	0.008	0.006
	(0.017)	(0.014)	(0.019)	(0.012)	(0.009)	(0.008)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.064	0.918	0.918	0.018	0.018
Mean among non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Nb Obs	3121	3121	3121	3121	3121	3121
Adjusted R-squared	0.272	0.516	0.312	0.619	0.036	0.075

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in November 2012 are controlled for by deciles. 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: Academic Progression over the Academic Year

Variable	Test scores in June 2013			
	(1)	(2)	(3)	(4)
Low-SES family	-0.291***	-0.272***	-0.122***	-0.120***
	(0.028)	(0.027)	(0.021)	(0.021)
Immigrant family	0.003	-0.007	0.013	0.010
	(0.026)	(0.025)	(0.022)	(0.022)
Pref. options includes Vocational HS		-0.356***		-0.079***
		(0.041)		(0.029)
No response for pref. options after JHS		-0.250***		-0.088***
		(0.032)		(0.025)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y
Deciles in average yearly grade			Y	Y
Class fixed effects and Controls	Y	Y	Y	Y
Mean among high-SES families	0.677	0.677	0.677	0.677
Mean among non-immigrant families	0.224	0.224	0.224	0.224
Mean among students with pref. for Acad. HS	0.268	0.268	0.268	0.268
Nb Obs	3121	3113	3121	3113
Adjusted R-squared	0.615	0.631	0.807	0.808

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. In this table, test scores in June 2013 are normalised test scores. Coefficients can be interpreted as standardized effect sizes. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' average yearly grade and test scores in Nov. 2012 are controlled for by deciles. 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: Track Assignment at Equal Teachers' Grades, End-of-the-year Test Score, and Initial Educational Aspirations

Variable	Entered Voca. HS		Entered Acad. HS		Stayed in Middle Sch.	
	(1)	(2)	(3)	(4)	(5)	(6)
Low-SES family	0.068***	0.055***	-0.067***	-0.051***	-0.001	-0.004
	(0.013)	(0.012)	(0.013)	(0.011)	(0.008)	(0.008)
Immigrant family	-0.020	-0.028**	0.014	0.024**	0.006	0.004
	(0.015)	(0.013)	(0.015)	(0.011)	(0.009)	(0.008)
Pref. options includes Vocational HS	0.282***	0.239***	-0.250***	-0.196***	-0.032***	-0.043***
	(0.028)	(0.024)	(0.026)	(0.022)	(0.011)	(0.012)
No response for pref. options after JHS	0.080***	0.063***	-0.089***	-0.069***	0.010	0.006
	(0.016)	(0.015)	(0.016)	(0.013)	(0.010)	(0.010)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.064	0.918	0.918	0.018	0.018
Mean among non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Mean among students with pref. for Acad. HS	0.120	0.120	0.854	0.854	0.026	0.026
Nb Obs	3113	3113	3113	3113	3113	3113
Adjusted R-squared	0.496	0.570	0.553	0.662	0.054	0.080

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in Nov. 2012 and June 2013 are controlled for in these regressions. Students' average yearly grade and test scores in Nov. 2012 and June 2013 are controlled for by deciles. 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 9: Test Scores and Track Assignment at Equal Teachers' Grades, End-of-the-year Test Score, and Initial Educational Aspirations

Variable	First Stage		IV			OLS		
	No pref. or Voca. HS preferred after JHS		Test score in June 2013	Entered Voca. HS	Entered Acad. HS	Test score in June 2013	Entered Voca. HS	Entered Acad. HS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Scholastic Self-Esteem	-0.101***	-0.099***						
	(0.009)	(0.010)						
Low-SES family	0.011	0.015	-0.108***	0.057***	-0.053***	-0.117***	0.059***	-0.054***
	(0.020)	(0.019)	(0.022)	(0.013)	(0.011)	(0.020)	(0.012)	(0.011)
Immigrant family	-0.040*	-0.037*	-0.013	-0.023*	0.022*	0.008	-0.028**	0.026**
	(0.020)	(0.020)	(0.026)	(0.013)	(0.011)	(0.022)	(0.013)	(0.011)
No pref. or Voca. HS preferred after JHS			-0.696***	0.271***	-0.246***	-0.084***	0.115***	-0.107***
			(0.131)	(0.072)	(0.066)	(0.023)	(0.015)	(0.012)
Deciles in test scores in Nov. 2012	Y		Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013		Y		Y	Y		Y	Y
Deciles in average yearly grade	Y	Y	Y	Y	Y	Y	Y	Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.208	0.208	0.677	0.064	0.918	0.684	0.063	0.918
Mean among non-immigrant families	0.307	0.307	0.224	0.197	0.775	0.236	0.194	0.779
Mean among students with pref. for Acad. HS	-	-	0.268	0.120	0.854	0.278	0.118	0.857
Nb Obs	3059	3180	3059	3059	3059	3059	3059	3059
Adjusted R-squared	0.208	0.218	0.738	0.534	0.633	0.807	0.559	0.651
Kleibergen-Paap rk Wald F	-	-	117.506	102.684	102.684	-	-	-
Cragg-Donald Wald F	-	-	100.664	90.191	90.191	-	-	-

The table reports the coefficients of OLS and IV regressions including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in June 2013 are controlled for in these regressions. Students' average yearly grade and test scores in Nov. 2012 and June 2013 are controlled for by deciles. 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 A1: Teachers' Grades at Equal Test Score

Variable	Average yearly grade	
	(1)	(2)
Low-SES family	-0.279***	-0.072***
	(0.033)	(0.024)
Immigrant family	-0.008	-0.020
	(0.037)	(0.031)
Deciles in test scores in Nov. 2012	Y	
Deciles in test scores in June 2013		Y
Class fixed effects and Controls	Y	Y
Mean among high-SES families	0.501	0.501
Mean among non-immigrant families	0.146	0.146
Nb Obs	3121	3243
Adjusted R-squared	0.472	0.725

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. In this table, average yearly grades are normalised test scores. Coefficients can be interpreted as standardized effect sizes. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and June 2013 are controlled for by deciles. 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 A2: Academic Aspiration Windows after Junior High School at Equal Test Score and Teachers' Grades by Terciles

Variable	No response		Vocational HS		Academic HS	
	(1)	(2)	(3)	(4)	(5)	(6)
Tercile 1: weakest test scores in Nov. 2012						
Low-SES family	-0.092	-0.114*	0.157***	0.153**	-0.070	-0.036
	(0.061)	(0.061)	(0.058)	(0.061)	(0.069)	(0.067)
Immigrant family	0.019	0.019	-0.032	-0.028	-0.025	-0.026
	(0.037)	(0.036)	(0.048)	(0.048)	(0.047)	(0.045)
Tercile 2: medium test scores in Nov. 2012						
Low-SES family	-0.045*	-0.051*	0.027	0.018	0.028	0.046
	(0.027)	(0.028)	(0.042)	(0.043)	(0.036)	(0.036)
Immigrant family	0.027	0.024	-0.072*	-0.078**	0.003	0.014
	(0.034)	(0.035)	(0.040)	(0.038)	(0.041)	(0.038)
Tercile 3: strongest test scores in Nov. 2012						
Low-SES family	-0.003	-0.007	0.010	0.006	-0.017	-0.014
	(0.015)	(0.015)	(0.040)	(0.039)	(0.019)	(0.018)
Immigrant family	-0.009	-0.013	-0.056	-0.058	0.021	0.024
	(0.022)	(0.020)	(0.036)	(0.037)	(0.026)	(0.024)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.178	0.178	0.212	0.212	0.712	0.712
Mean among non-immigrant families	0.143	0.143	0.380	0.380	0.583	0.583
Nb Obs	980	980	980	980	980	980
Adjusted R-squared	0.029	0.040	0.110	0.127	0.138	0.191

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A3: Academic Aspiration Windows after Junior High School at Equal Test Score and Teachers' Grades by Terciles

Variable	No response		1-2 yrs college		3-4 yrs college		5 or more yrs college	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tercile 1: weakest test scores in Nov. 2012								
Low-SES family	0.102	0.077	-0.081	-0.071	-0.008	-0.001	-0.057	-0.050
	(0.070)	(0.074)	(0.061)	(0.063)	(0.046)	(0.046)	(0.046)	(0.047)
Immigrant family	0.009	0.011	-0.031	-0.033	0.015	0.019	0.044**	0.042**
	(0.044)	(0.045)	(0.032)	(0.030)	(0.025)	(0.027)	(0.017)	(0.017)
Tercile 2: medium test scores in Nov. 2012								
Low-SES family	0.014	0.002	0.015	0.015	-0.030	-0.026	-0.006	0.002
	(0.052)	(0.050)	(0.035)	(0.035)	(0.056)	(0.054)	(0.031)	(0.032)
Immigrant family	-0.023	-0.033	0.005	0.005	0.080**	0.090**	0.021	0.021
	(0.051)	(0.048)	(0.032)	(0.031)	(0.040)	(0.040)	(0.032)	(0.033)
Tercile 3: strongest test scores in Nov. 2012								
Low-SES family	0.063	0.057	-0.027	-0.030	0.037	0.047	-0.093**	-0.086**
	(0.041)	(0.042)	(0.029)	(0.030)	(0.041)	(0.043)	(0.039)	(0.039)
Immigrant family	0.073	0.070	-0.004	-0.012	-0.070	-0.065	0.050	0.057
	(0.057)	(0.055)	(0.044)	(0.042)	(0.055)	(0.054)	(0.060)	(0.059)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.457	0.457	0.198	0.198	0.164	0.164	0.138	0.138
Mean among non-immigrant families	0.543	0.543	0.157	0.157	0.143	0.143	0.055	0.055
Nb Obs	974	974	974	974	974	974	974	974
Adjusted R-squared	0.019	0.030	-0.014	-0.012	0.035	0.052	0.044	0.048

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A4: Academic Aspirations after Junior High School at Equal Test Score and Teachers' Grades for Tercile 1

Variable	No response		Vocational HS		Academic HS	
	(1)	(2)	(3)	(4)	(5)	(6)

Tercile 1: weakest test scores in Nov. 2012

Panel 1: preferred options

Low-SES family	0.032	0.019	0.094**	0.092**	-0.110*	-0.095
	(0.065)	(0.066)	(0.037)	(0.040)	(0.062)	(0.061)
Immigrant family	-0.013	-0.009	-0.015	-0.013	0.009	0.005
	(0.047)	(0.048)	(0.037)	(0.036)	(0.049)	(0.047)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.212	0.212	0.153	0.153	0.644	0.644
Mean among non-immigrant families	0.289	0.289	0.246	0.246	0.483	0.483
Nb Obs	980	980	980	980	980	980
Adjusted R-squared	0.012	0.017	0.034	0.044	0.089	0.119

Panel 2: preferred options given attainable options

Low-SES family	0.082	0.085	0.014	0.014	-0.085	-0.087
	(0.052)	(0.052)	(0.031)	(0.033)	(0.057)	(0.058)
Immigrant family	-0.023	-0.020	0.001	0.001	0.005	0.002
	(0.038)	(0.039)	(0.032)	(0.032)	(0.043)	(0.044)
Poss. options includes Vocational HS	0.062	0.057	0.504***	0.499***	-0.538***	-0.530***
	(0.039)	(0.042)	(0.038)	(0.039)	(0.040)	(0.041)
No response for poss. options after JHS	0.654***	0.649***	-0.011	-0.019	-0.650***	-0.640***
	(0.050)	(0.051)	(0.027)	(0.030)	(0.047)	(0.048)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.212	0.212	0.153	0.153	0.644	0.644
Mean among non-immigrant families	0.289	0.289	0.246	0.246	0.483	0.483
Nb Obs	980	980	980	980	980	980
Adjusted R-squared	0.245	0.243	0.336	0.337	0.381	0.386

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the weakest tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A5: Academic Aspirations after Junior High School at Equal Test Score and Teachers' Grades for Tercile 2

Variable	No response		Vocational HS		Academic HS	
	(1)	(2)	(3)	(4)	(5)	(6)

Tercile 2: medium test scores in Nov. 2012

Panel 1: preferred options

Low-SES family	-0.043	-0.054	0.046*	0.037	0.014	0.030
	(0.040)	(0.040)	(0.025)	(0.024)	(0.041)	(0.040)
Immigrant family	0.042	0.044	-0.071**	-0.080***	0.022	0.027
	(0.043)	(0.042)	(0.029)	(0.030)	(0.045)	(0.043)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.212	0.212	0.069	0.069	0.725	0.725
Mean among non-immigrant families	0.202	0.202	0.120	0.120	0.688	0.688
Nb Obs	1041	1041	1041	1041	1041	1041
Adjusted R-squared	0.022	0.037	0.079	0.110	0.058	0.101

Panel 2: preferred options given attainable options

Low-SES family	-0.018	-0.026	0.038**	0.032*	-0.001	0.008
	(0.037)	(0.036)	(0.018)	(0.017)	(0.034)	(0.033)
Immigrant family	0.030	0.033	-0.043*	-0.050*	0.006	0.009
	(0.034)	(0.033)	(0.025)	(0.026)	(0.033)	(0.034)
Poss. options includes Vocational HS	0.054	0.024	0.405***	0.395***	-0.443***	-0.406***
	(0.041)	(0.042)	(0.045)	(0.045)	(0.056)	(0.058)
No response for poss. options after JHS	0.568***	0.557***	0.054	0.047	-0.598***	-0.582***
	(0.061)	(0.061)	(0.039)	(0.038)	(0.050)	(0.050)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.212	0.212	0.069	0.069	0.725	0.725
Mean among non-immigrant families	0.202	0.202	0.120	0.120	0.688	0.688
Nb Obs	1041	1041	1041	1041	1041	1041
Adjusted R-squared	0.176	0.188	0.328	0.335	0.271	0.285

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the medium tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A6: Academic Aspirations after Junior High School at Equal Test Score and Teachers' Grades for Tercile 3

Variable	No response		Vocational HS		Academic HS	
	(1)	(2)	(3)	(4)	(5)	(6)
Tercile 3: strongest test scores in Nov. 2012						
Panel 1: preferred options						
Low-SES family	-0.039	-0.041	0.022	0.015	0.024	0.029
	(0.027)	(0.027)	(0.019)	(0.018)	(0.031)	(0.032)
Immigrant family	-0.029	-0.027	0.009	0.000	0.024	0.027
	(0.032)	(0.031)	(0.016)	(0.015)	(0.034)	(0.031)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.129	0.129	0.014	0.014	0.857	0.857
Mean among non-immigrant families	0.130	0.130	0.024	0.024	0.848	0.848
Nb Obs	1092	1092	1092	1092	1092	1092
Adjusted R-squared	0.034	0.034	0.131	0.176	0.063	0.063
Panel 2: preferred options given attainable options						
Low-SES family	-0.036	-0.037	0.020	0.014	0.023	0.025
	(0.025)	(0.026)	(0.016)	(0.016)	(0.030)	(0.030)
Immigrant family	-0.026	-0.022	0.016	0.007	0.015	0.015
	(0.026)	(0.025)	(0.016)	(0.014)	(0.030)	(0.028)
Poss. options includes Vocational HS	-0.051	-0.052	0.135***	0.128***	-0.067	-0.063
	(0.032)	(0.033)	(0.035)	(0.035)	(0.044)	(0.043)
No response for poss. options after JHS	0.582***	0.585***	0.009	-0.010	-0.589***	-0.581***
	(0.122)	(0.123)	(0.032)	(0.022)	(0.125)	(0.126)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.129	0.129	0.014	0.014	0.857	0.857
Mean among non-immigrant families	0.130	0.130	0.024	0.024	0.848	0.848
Nb Obs	1092	1092	1092	1092	1092	1092
Adjusted R-squared	0.138	0.138	0.205	0.243	0.151	0.148

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the strongest tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A7: Academic Aspirations after High School at Equal Test Score and Teachers' Grades for Tercile 1

Variable	Preferred options after HS									
	No response		Finding a job		1-2 yrs college		3-4 yrs college		Masters	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Tercile 1: weakest test scores in Nov. 2012

Panel 1: preferred options

Low-SES family	-0.024	-0.020	0.112*	0.092	-0.059	-0.045	0.030	0.036	-0.044	-0.039
	(0.072)	(0.073)	(0.067)	(0.071)	(0.062)	(0.063)	(0.055)	(0.055)	(0.051)	(0.052)
Immigrant family	0.061	0.059	-0.030	-0.026	-0.039	-0.039	0.007	0.012	0.022	0.020
	(0.045)	(0.044)	(0.040)	(0.040)	(0.032)	(0.032)	(0.027)	(0.029)	(0.020)	(0.020)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.397	0.397	0.174	0.174	0.184	0.184	0.097	0.097	0.126	0.126
Mean among non-immigrant families	0.357	0.357	0.316	0.316	0.154	0.154	0.120	0.120	0.056	0.056
Nb Obs	974	974	939	939	916	916	916	916	916	916
Adjusted R-squared	0.045	0.046	0.078	0.098	0.025	0.031	-0.010	0.003	0.045	0.051

Panel 2: preferred options given attainable options

Low-SES family	-0.066	-0.053	0.084	0.071	0.008	0.013	0.042	0.041	-0.014	-0.013
	(0.054)	(0.054)	(0.069)	(0.072)	(0.034)	(0.037)	(0.035)	(0.035)	(0.031)	(0.032)
Immigrant family	0.060	0.057	-0.022	-0.019	-0.015	-0.013	-0.006	-0.005	-0.007	-0.009
	(0.038)	(0.038)	(0.038)	(0.038)	(0.023)	(0.023)	(0.021)	(0.021)	(0.015)	(0.015)
No response for poss. options after HS	0.400***	0.409***	0.066	0.061	-0.100**	-0.103**	-0.087**	-0.093**	-0.076**	-0.072**
	(0.052)	(0.051)	(0.060)	(0.064)	(0.049)	(0.050)	(0.040)	(0.040)	(0.034)	(0.033)
Poss. options includes 1-2 yrs college	0.019	0.012	-0.115**	-0.108*	0.553***	0.547***	-0.107**	-0.104**	-0.071	-0.070
	(0.044)	(0.044)	(0.054)	(0.057)	(0.068)	(0.069)	(0.043)	(0.045)	(0.049)	(0.049)
Poss. options includes 3-4 yrs college	-0.056	-0.074	-0.171***	-0.153***	-0.106*	-0.112*	0.629***	0.631***	-0.047	-0.042
	(0.068)	(0.065)	(0.057)	(0.057)	(0.061)	(0.060)	(0.064)	(0.063)	(0.041)	(0.040)
Poss. options includes Masters	-0.035	-0.028	-0.201***	-0.194***	-0.097*	-0.095*	-0.063	-0.078	0.601***	0.601***
	(0.063)	(0.064)	(0.062)	(0.068)	(0.055)	(0.055)	(0.062)	(0.061)	(0.078)	(0.076)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.397	0.397	0.174	0.174	0.184	0.184	0.097	0.097	0.126	0.126
Mean among non-immigrant families	0.357	0.357	0.316	0.316	0.154	0.154	0.120	0.120	0.056	0.056
Nb Obs	974	974	939	939	916	916	916	916	916	916
Adjusted R-squared	0.224	0.238	0.133	0.143	0.469	0.467	0.518	0.527	0.481	0.480

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the weakest tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. The standard errors are clustered at the school level and robust; they are reported in parenthesis. *

Table A8: Academic Aspirations after High School at Equal Test Score and Teachers' Grades for Tercile 2

Variable	No response		Finding a job		1-2 yrs college		3-4 yrs college		Masters	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Tercile 2: medium test scores in Nov. 2012

Panel 1: preferred options

Low-SES family	-0.004	-0.013	0.007	-0.001	0.010	0.009	-0.023	-0.022	0.007	0.020
	(0.049)	(0.050)	(0.034)	(0.036)	(0.037)	(0.036)	(0.049)	(0.048)	(0.037)	(0.037)
Immigrant family	0.030	0.027	-0.105***	-0.108***	-0.006	-0.002	0.056	0.058	0.020	0.019
	(0.047)	(0.046)	(0.032)	(0.034)	(0.031)	(0.031)	(0.043)	(0.042)	(0.036)	(0.036)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.403	0.403	0.146	0.146	0.114	0.114	0.224	0.224	0.141	0.141
Mean among non-immigrant families	0.402	0.402	0.182	0.182	0.124	0.124	0.196	0.196	0.118	0.118
Nb Obs	1041	1041	1000	1000	973	973	973	973	973	973
Adjusted R-squared	0.018	0.012	0.035	0.070	-0.023	-0.028	-0.022	-0.015	0.023	0.033

Panel 2: preferred options given attainable options

Low-SES family	-0.013	-0.015	0.003	-0.003	-0.008	-0.010	-0.012	-0.013	0.011	0.019
	(0.031)	(0.032)	(0.035)	(0.036)	(0.027)	(0.026)	(0.028)	(0.029)	(0.026)	(0.026)
Immigrant family	0.051	0.054	-0.096***	-0.100***	0.003	0.005	0.002	-0.001	0.005	0.005
	(0.038)	(0.038)	(0.031)	(0.033)	(0.021)	(0.022)	(0.024)	(0.023)	(0.024)	(0.023)
No response for poss. options after HS	0.468***	0.469***	0.098**	0.100**	-0.128***	-0.130***	-0.141***	-0.147***	-0.069*	-0.070*
	(0.048)	(0.048)	(0.039)	(0.041)	(0.042)	(0.042)	(0.051)	(0.052)	(0.040)	(0.040)
Poss. options includes 1-2 yrs college	-0.094*	-0.094*	-0.016	-0.012	0.557***	0.558***	-0.093*	-0.099*	-0.065	-0.066
	(0.048)	(0.049)	(0.046)	(0.046)	(0.053)	(0.051)	(0.055)	(0.054)	(0.041)	(0.042)
Poss. options includes 3-4 yrs college	-0.099**	-0.109**	-0.064**	-0.044	-0.122***	-0.125***	0.629***	0.623***	-0.036	-0.039
	(0.045)	(0.047)	(0.026)	(0.027)	(0.042)	(0.042)	(0.054)	(0.054)	(0.048)	(0.049)
Poss. options includes Masters	-0.077	-0.082	-0.090***	-0.077***	-0.117**	-0.112**	-0.120**	-0.127**	0.626***	0.623***
	(0.053)	(0.055)	(0.028)	(0.027)	(0.046)	(0.047)	(0.054)	(0.052)	(0.057)	(0.057)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.403	0.403	0.146	0.146	0.114	0.114	0.224	0.224	0.141	0.141
Mean among non-immigrant families	0.402	0.402	0.182	0.182	0.124	0.124	0.196	0.196	0.118	0.118
Nb Obs	1041	1041	1000	1000	973	973	973	973	973	973
Adjusted R-squared	0.342	0.341	0.082	0.107	0.504	0.507	0.551	0.553	0.536	0.539

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the medium tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A9: Academic Aspirations after High School at Equal Test Score and Teachers' Grades for Tercile 3

Variable	No response		Finding a job		1-2 yrs college		3-4 yrs college		Masters	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Tercile 3: strongest test scores in Nov. 2012

Panel 1: preferred options

Low-SES family	0.007	0.006	0.023	0.020	-0.020	-0.025	0.005	0.007	-0.072*	-0.064
	(0.043)	(0.045)	(0.021)	(0.021)	(0.033)	(0.034)	(0.043)	(0.044)	(0.037)	(0.040)
Immigrant family	0.044	0.046	-0.007	-0.009	0.007	-0.000	-0.086	-0.084	0.059	0.064
	(0.056)	(0.055)	(0.021)	(0.020)	(0.036)	(0.036)	(0.053)	(0.053)	(0.050)	(0.051)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.325	0.325	0.033	0.033	0.138	0.138	0.286	0.286	0.304	0.304
Mean among non-immigrant families	0.334	0.334	0.049	0.049	0.125	0.125	0.293	0.293	0.253	0.253
Nb Obs	1091	1091	1069	1069	1024	1024	1024	1024	1024	1024
Adjusted R-squared	0.031	0.027	0.118	0.118	0.049	0.048	0.002	-0.008	0.040	0.046

Panel 2: preferred options given attainable options

Low-SES family	-0.041	-0.038	0.020	0.017	0.010	0.008	-0.025	-0.029	-0.002	0.001
	(0.031)	(0.034)	(0.020)	(0.021)	(0.027)	(0.029)	(0.030)	(0.030)	(0.030)	(0.033)
Immigrant family	0.000	0.004	-0.013	-0.015	0.010	0.008	-0.021	-0.024	0.033	0.034
	(0.038)	(0.037)	(0.021)	(0.020)	(0.028)	(0.030)	(0.038)	(0.038)	(0.036)	(0.035)
No response for poss. options after HS	0.694***	0.695***	0.050*	0.048*	-0.134***	-0.134***	-0.266***	-0.263***	-0.186***	-0.185***
	(0.037)	(0.038)	(0.027)	(0.026)	(0.035)	(0.037)	(0.047)	(0.046)	(0.041)	(0.041)
Poss. options includes 1-2 yrs college	0.041	0.043	-0.026	-0.026*	0.444***	0.443***	-0.200***	-0.203***	-0.107**	-0.105**
	(0.036)	(0.036)	(0.016)	(0.015)	(0.053)	(0.054)	(0.039)	(0.039)	(0.052)	(0.050)
Poss. options includes 3-4 yrs college	0.074**	0.074**	-0.028*	-0.029*	-0.147***	-0.146***	0.423***	0.428***	-0.136***	-0.138***
	(0.033)	(0.034)	(0.015)	(0.015)	(0.028)	(0.029)	(0.035)	(0.034)	(0.036)	(0.036)
Poss. options includes Masters	-0.026	-0.026	-0.004	-0.004	-0.062**	-0.061**	-0.248***	-0.245***	0.520***	0.517***
	(0.034)	(0.034)	(0.011)	(0.012)	(0.028)	(0.027)	(0.040)	(0.042)	(0.043)	(0.042)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.325	0.325	0.033	0.033	0.138	0.138	0.286	0.286	0.304	0.304
Mean among non-immigrant families	0.334	0.334	0.049	0.049	0.125	0.125	0.293	0.293	0.253	0.253
Nb Obs	1091	1091	1069	1069	1024	1024	1024	1024	1024	1024
Adjusted R-squared	0.415	0.411	0.138	0.136	0.413	0.410	0.426	0.422	0.440	0.437

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender for students in the strongest tercile of test scores. The regressions in panel 1 show effect sizes for students' preferred academic aspirations without controlling for their attainable options. The regressions in panel 2 show effect sizes for students' preferred academic aspirations while controlling for their attainable options. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. The standard errors are clustered at the school level and robust; they are reported in parenthesis. *

Table A10: Track Assignment at Equal Teachers' Grade and End-of-the-year Test Score

Variable	Entered Voca. HS		Entered Acad. HS		Stayed in Middle Sch.	
	(1)	(2)	(3)	(4)	(5)	(6)
Low-SES family	0.077***	0.062***	-0.075***	-0.056***	-0.002	-0.006
	(0.013)	(0.012)	(0.013)	(0.011)	(0.008)	(0.008)
Immigrant family	-0.029*	-0.036***	0.022	0.030***	0.008	0.006
	(0.015)	(0.013)	(0.016)	(0.012)	(0.008)	(0.008)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.064	0.918	0.918	0.018	0.018
Mean among non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Nb Obs	3121	3121	3121	3121	3121	3121
Adjusted R-squared	0.458	0.544	0.527	0.646	0.051	0.074

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' average yearly grades, and test scores in Nov. 2012 and June 2013 are controlled for by deciles in these regressions. 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 A11: Academic Progression over the Academic Year

Variable	Test scores in June 2013			
	(1)	(2)	(3)	(4)
No parent has ever worked	-0.478***	-0.449***	-0.234***	-0.234***
	(0.054)	(0.052)	(0.049)	(0.049)
Max. family SES is manual laborer	-0.402***	-0.375***	-0.175***	-0.170***
	(0.042)	(0.041)	(0.034)	(0.034)
Max. family SES is low-skilled white-collar	-0.312***	-0.289***	-0.109***	-0.107***
	(0.033)	(0.031)	(0.025)	(0.025)
Max. family SES is craftsman or storekeeper	-0.290***	-0.276***	-0.128***	-0.127***
	(0.060)	(0.057)	(0.038)	(0.038)
Max. family SES is intermediate occupation	-0.225***	-0.212***	-0.093***	-0.092***
	(0.032)	(0.031)	(0.023)	(0.023)
Immigrant family	0.024	0.013	0.023	0.020
	(0.025)	(0.023)	(0.021)	(0.022)
Pref. options after JHS includes Vocational HS		-0.352***		-0.080***
		(0.041)		(0.028)
No response for pref. options after JHS		-0.246***		-0.087***
		(0.031)		(0.025)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y
Deciles in average yearly grade			Y	Y
Class fixed effects and Controls	Y	Y	Y	Y
Mean for families with max. SES of high-skilled	0.693	0.693	0.693	0.693
Mean for non-immigrant families	0.224	0.224	0.224	0.224
Nb Obs	3121	3113	3121	3113
Adjusted R-squared	0.618	0.633	0.807	0.808

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. A family's socioeconomic status (SES) is stratified into six categories based on the parents' occupation. The first five variables in the table are dummy variables for the maximum family SES. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' average yearly grade and test scores in Nov. 2012 are controlled for by deciles. 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 A12: Track Assignment at Equal Teachers' Grades, End-of-the-year Test Score, and Initial Educational Aspirations

Variable	Entered Voca. HS		Entered Acad. HS		Stayed in Middle Sch.	
	(1)	(2)	(3)	(4)	(5)	(6)
No parent has ever worked	0.066	0.050	-0.077*	-0.059*	0.012	0.009
	(0.045)	(0.039)	(0.043)	(0.034)	(0.026)	(0.026)
Max. family SES is manual laborer	0.066***	0.042**	-0.079***	-0.049***	0.013	0.007
	(0.022)	(0.019)	(0.021)	(0.017)	(0.014)	(0.014)
Max. family SES is low-skilled white-collar	0.082***	0.067***	-0.086***	-0.066***	0.003	-0.001
	(0.018)	(0.016)	(0.017)	(0.015)	(0.008)	(0.008)
Max. family SES is craftsman or storekeeper	0.028	0.016	-0.046	-0.031	0.018	0.015
	(0.028)	(0.026)	(0.030)	(0.025)	(0.023)	(0.022)
Max. family SES is intermediate occupation	0.058***	0.048***	-0.049***	-0.035**	-0.010	-0.012
	(0.017)	(0.015)	(0.017)	(0.015)	(0.009)	(0.009)
Immigrant family	-0.019	-0.026*	0.016	0.024**	0.003	0.001
	(0.015)	(0.013)	(0.015)	(0.012)	(0.009)	(0.008)
Pref. options after JHS includes Vocational HS	0.281***	0.239***	-0.249***	-0.196***	-0.032***	-0.043***
	(0.028)	(0.024)	(0.026)	(0.022)	(0.010)	(0.012)
No response for pref. options after JHS	0.079***	0.063***	-0.089***	-0.069***	0.010	0.006
	(0.017)	(0.015)	(0.016)	(0.013)	(0.010)	(0.010)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean for families with max. SES of high-skilled	0.060	0.060	0.922	0.922	0.017	0.017
Mean for non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Nb Obs	3113	3113	3113	3113	3113	3113
Adjusted R-squared	0.496	0.570	0.553	0.662	0.054	0.080

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. A family's socioeconomic status (SES) is stratified into six categories based on the parents' occupation. The first five variables in the table are dummy variables for the maximum family SES. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in June 2013 are controlled for in these regressions. Students' average yearly grade and test scores in June 2013 are controlled for by deciles. 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 A13: Academic Progression over the Academic Year

Variable	Test scores in June 2013			
	(1)	(2)	(3)	(4)
Low-SES family	-0.293***	-0.288***	-0.126***	-0.127***
	(0.032)	(0.032)	(0.025)	(0.025)
Immigrant family	-0.015	-0.019	0.014	0.012
	(0.028)	(0.027)	(0.023)	(0.023)
No response for pref. options after HS	-0.104**	-0.063	-0.016	-0.001
	(0.045)	(0.045)	(0.032)	(0.032)
Pref. options after HS includes 1-2 years college	-0.123***	-0.114***	-0.020	-0.020
	(0.044)	(0.043)	(0.035)	(0.035)
Pref. options after HS includes 3-4 years college	0.014	0.005	0.011	0.008
	(0.042)	(0.041)	(0.029)	(0.029)
Pref. options after HS includes finding a job	-0.377***	-0.274***	-0.078**	-0.053
	(0.051)	(0.051)	(0.038)	(0.039)
Pref. options includes Vocational HS		-0.247***		-0.049*
		(0.046)		(0.030)
No response for pref. options after JHS		-0.207***		-0.085***
		(0.034)		(0.026)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y
Deciles in average yearly grade			Y	Y
Class fixed effects and Controls	Y	Y	Y	Y
Mean among high-SES families	0.677	0.677	0.677	0.677
Mean among non-immigrant families	0.224	0.224	0.224	0.224
Nb Obs	2815	2810	2815	2810
Adjusted R-squared	0.633	0.641	0.808	0.809

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. In this table, test scores in June 2013 are normalised test scores. Coefficients can be interpreted as standardized effect sizes. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' average yearly grade and test scores in Nov. 2012 are controlled for by deciles. 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 A14: Track Assignment at Equal Teachers' Grades, End-of-the-year Test Score, and Initial Educational Aspirations

Variable	Entered Voca. HS		Entered Acad. HS		Stayed in Middle Sch.	
	(1)	(2)	(3)	(4)	(5)	(6)
Low-SES family	0.061***	0.048***	-0.059***	-0.042***	-0.002	-0.006
	(0.013)	(0.012)	(0.013)	(0.011)	(0.008)	(0.008)
Immigrant family	-0.022	-0.029**	0.015	0.025**	0.007	0.005
	(0.014)	(0.013)	(0.015)	(0.012)	(0.009)	(0.008)
Pref. options includes Vocational HS	0.243***	0.212***	-0.214***	-0.176***	-0.029**	-0.037**
	(0.028)	(0.025)	(0.027)	(0.022)	(0.014)	(0.015)
No response for pref. options after JHS	0.065***	0.055***	-0.076***	-0.063***	0.011	0.009
	(0.018)	(0.017)	(0.017)	(0.014)	(0.012)	(0.012)
No response for pref. options after HS	0.002	-0.006	0.007	0.016	-0.009	-0.010
	(0.015)	(0.013)	(0.015)	(0.014)	(0.008)	(0.008)
Pref. options after HS includes 1-2 years college	-0.009	-0.013	0.010	0.014	-0.000	-0.001
	(0.021)	(0.019)	(0.020)	(0.018)	(0.011)	(0.011)
Pref. options after HS includes 3-4 years college	-0.016	-0.015	0.019	0.017	-0.003	-0.002
	(0.017)	(0.014)	(0.017)	(0.013)	(0.009)	(0.009)
Pref. options after HS includes finding a job	0.085***	0.054*	-0.086***	-0.046*	0.000	-0.009
	(0.030)	(0.028)	(0.031)	(0.026)	(0.014)	(0.013)
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.064	0.918	0.918	0.018	0.018
Mean among non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Nb Obs	2810	2810	2810	2810	2810	2810
Adjusted R-squared	0.504	0.575	0.561	0.667	0.050	0.079

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in June 2013 are controlled for in these regressions. Students' average yearly grade and test scores in June 2013 are controlled for by deciles. 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 A15: Academic Progression in Math over the Academic Year

Variable	Math scores in June 2013			
	(1)	(2)	(3)	(4)
Low-SES family	-0.333***	-0.307***	-0.125***	-0.124***
	(0.036)	(0.034)	(0.027)	(0.027)
Immigrant family	-0.005	-0.016	0.012	0.010
	(0.027)	(0.025)	(0.023)	(0.024)
Pref. options includes Vocational HS		-0.395***		-0.034
		(0.044)		(0.028)
No response for pref. options after JHS		-0.263***		-0.060**
		(0.034)		(0.025)
Deciles in math scores in Nov. 2012	Y	Y	Y	Y
Deciles in average yearly grade			Y	Y
Class fixed effects and Controls	Y	Y	Y	Y
Mean among high-SES families	0.661	0.661	0.661	0.661
Mean among non-immigrant families	0.216	0.216	0.216	0.216
Nb Obs	3243	3235	3243	3235
Adjusted R-squared	0.519	0.538	0.737	0.738

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. In this table, math scores in June 2013 are normalised scores. Coefficients can be interpreted as standardized effect sizes. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' math scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A16: Track Assignment at Equal Initial Test Score and Teachers' Grades

Variable	Entered Vocational HS (1)	Entered Academic HS (2)	Stayed in Middle School (3)
Low-SES family	0.066***	-0.062***	-0.004
	(0.012)	(0.012)	(0.008)
Immigrant family	-0.040***	0.034***	0.006
	(0.014)	(0.012)	(0.008)
Deciles in test scores in Nov. 2012	Y	Y	Y
Deciles in average yearly grade	Y	Y	Y
Class fixed effects and Controls	Y	Y	Y
Mean among high-SES families	0.064	0.918	0.018
Mean among non-immigrant families	0.197	0.775	0.027
Nb Obs	3121	3121	3121
Adjusted R-squared	0.516	0.619	0.075

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in Nov. 2012 and average yearly grades are controlled for by deciles. 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 A17: Track Assignment at Equal Test Score and Teachers' Grades

Variable	Entered Voca. HS (1)	(2)	Entered Acad. HS (3)	(4)	Stayed in Middle Sch. (5)	(6)
Low-SES family	0.073***	0.056***	-0.075***	-0.054***	0.002	-0.002
	(0.013)	(0.012)	(0.013)	(0.011)	(0.008)	(0.008)
Immigrant family	-0.021	-0.031**	0.011	0.023*	0.010	0.008
	(0.016)	(0.013)	(0.017)	(0.012)	(0.008)	(0.008)
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Deciles in average yearly grade		Y		Y		Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.064	0.918	0.918	0.018	0.018
Mean among non-immigrant families	0.197	0.197	0.775	0.775	0.027	0.027
Nb Obs	3243	3243	3243	3243	3243	3243
Adjusted R-squared	0.457	0.547	0.524	0.649	0.048	0.073

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' test scores in November 2012 and June 2013 are controlled for by deciles. 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 A18: Track Assignment at Equal Teachers' Grades and Initial and End-of-the-year Test Scores

Variable	Without Preferences			With Preferences		
	Entered Vocational HS (1)	Entered Academic HS (2)	Stayed in Middle School (3)	Entered Vocational HS (4)	Entered Academic HS (5)	Stayed in Middle School (6)
Low-SES family	0.062***	-0.056***	-0.006	0.055***	-0.051***	-0.004
	(0.012)	(0.011)	(0.008)	(0.012)	(0.011)	(0.008)
Immigrant family	-0.036***	0.030***	0.006	-0.028**	0.024**	0.004
	(0.013)	(0.012)	(0.008)	(0.013)	(0.011)	(0.008)
Pref. options includes Vocational HS				0.239***	-0.196***	-0.043***
				(0.024)	(0.022)	(0.012)
No response for pref. options after JHS				0.063***	-0.069***	0.006
				(0.015)	(0.013)	(0.010)
Deciles in average yearly grade	Y	Y	Y	Y	Y	Y
Deciles in test scores in Nov. 2012	Y	Y	Y	Y	Y	Y
Deciles in test scores in June 2013	Y	Y	Y	Y	Y	Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.918	0.018	0.064	0.918	0.018
Mean among non-immigrant families	0.197	0.775	0.027	0.197	0.775	0.027
Nb Obs	3121	3121	3121	3113	3113	3113
Adjusted R-squared	0.544	0.646	0.074	0.570	0.662	0.080

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in June 2013 are controlled for in these regressions. Students' average yearly grade and test scores in November 2012 and June 2013 are controlled for by deciles. 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 A19: Track Assignment at Equal Teachers' Grades

Variable	Without Preferences			With Preferences		
	Entered Vocational HS (1)	Entered Academic HS (2)	Stayed in Middle School (3)	Entered Vocational HS (4)	Entered Academic HS (5)	Stayed in Middle School (6)
Low-SES family	0.062***	-0.062***	0.000	0.052***	-0.054***	0.002
	(0.013)	(0.012)	(0.008)	(0.012)	(0.012)	(0.008)
Immigrant family	-0.033**	0.025**	0.008	-0.025**	0.018	0.006
	(0.013)	(0.012)	(0.008)	(0.013)	(0.011)	(0.008)
Pref. options includes Vocational HS				0.265***	-0.224***	-0.041***
				(0.023)	(0.022)	(0.011)
No response for pref. options after JHS				0.085***	-0.092***	0.006
				(0.016)	(0.014)	(0.010)
Deciles in average yearly grade	Y	Y	Y	Y	Y	Y
Class fixed effects and Controls	Y	Y	Y	Y	Y	Y
Mean among high-SES families	0.064	0.918	0.018	0.064	0.918	0.018
Mean among non-immigrant families	0.197	0.775	0.027	0.197	0.775	0.027
Nb Obs	3243	3243	3243	3235	3235	3235
Adjusted R-squared	0.512	0.617	0.074	0.544	0.639	0.079

The table reports the coefficients of an OLS regression including class fixed effects and a control for students' gender. 'Low-SES Family' is a dummy variable indicating that a student is from a family with low socioeconomic status. 'Immigrant Family' is a dummy variable indicating that both parents of a student are born outside of France. Students' preferences after Junior High School, average yearly grades, and test scores in June 2013 are controlled for in these regressions. Students' average yearly grades are controlled for by deciles. 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.