The merits of boarding schools:

a quantitative evaluation of the effects of boarding schools of excellence on student performance

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Supervisor : Clément de Chaisemartin

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Alexandre Grellet

Members of the jury :

Clément de Chaisemartin supervisor
Professor of Economics, Department of Economics
Carlo Barone
Professor, Director of the Educational Policies Research Group, LIEPP

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For all the time I was studying within this master's, I was warned that writing a thesis can be a lonely task, and that we would experiment it with our master thesis. I can now say how wrong this is. Yes, we write alone, we code alone, we need to go along by ourselves. But never I have truly been alone. I would like to thank all my friends, from the master and beyond, who provided feedback and were there when I needed it the most: Mathias, Léa S, Léa G, Victor, Natalia, Dasha, Louise, Louis, Ryzlaine. I would also like to thank all the researchers I met at the DEPP for our discussions during lunches and for their excellent feedbacks. Particularly, I am grateful to Gustave Kenedi and Alexandre Touw for helping me in improving my coding skills. I am also very grateful to Axelle Charpentier, head of the office of educational evaluation and teacher practice studies at the DEPP, who proved to be such an efficient and friendly civil servant. More generally, I would like to thank the staff at DEPP for their support and for providing the data, as well as the Innovation, Data and Experimentation in Education (IDEE) program for their contribution to making more data available to researchers[1]. My thoughts also go to the teaching staff of this master, and in particular to my supervisor, Clément de Chaisemartin, who made this research possible by introducing me with boarding schools of excellence. I am very grateful for his time, friendliness and excellent advices. And, finally, I would like to thank my family, who carefully listened to me each time I saw them and presented them the current state of my research, and who provided me with love and support during my whole life.

All errors (if any), analyses and conclusions are my own and do not engage either the teaching staff at SciencesPo or the MENJ-DEPP.

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Reading advice

This master thesis is long compared to standards at SciencesPo. The reason mainly lies in large appendices, which can be skipped by readers not interested in technical details or in a deeper description of the boarding schools of excellence program. Moreover, due to numerous heterogeneity analyses and to comparisons of matching techniques, a lot of tables are available to readers. Most of these tables did not provide sufficient insights to be discussed in the body of this thesis, but are still presented if one would like to know more about the BSE program and its effects. To save on time, I would thus advise any reader interested only in the main results of the paper to skip appendices.

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Abstract

Boarding schools of excellence are one of the tools the French Ministry of education promoted over the last decades to reduce the achievement gap between socially privileged and under-privileged students. I evaluate the policy on the subset of 3 schools in which there are only boarders of excellence, and no half-board nor day students. Overall, I find consequent heterogeneity in the effects of these schools. They have large, positive, and significant effects on the grades (+11% of a standard deviation at middle-school national exam) and graduation propensity (+8% graduation from general track when they reach high-school) of middle-school students, while their effect is ambiguous at first-hand for high-school students (+14% graduation from general track, but -8% graduation overall). However, when one looks only at those students who decide to remain at least two years in the boarding schools, effects are always positive. These effects are not equally split between schools, there is indeed large variation in the efficiency of the program across boarding schools of excellence. Moreover, a large fraction of students leaves during the first year, and these students differ socio-economically from the students who remain (the latter are more likely to be male and to be academically weaker).

Introduction

> *Equality is not about giving the same to everyone, it is about giving more to those who have less.*
>
> Nicolas Sarkozy on September, 9, 2010, inaugurating a boarding school. My own translation.

In 2008, the French ministry of Education initiated a large boarding schools program, named "Internats d'Excellence" (boarding schools of excellence, shortened as BSE thereafter), as part of its broader plan aiming for equal opportunities for all children ("Plan Espoir Banlieues"). The aim of BSE is to "promote equal opportunities for pupils and students from modest backgrounds, in particular from urban policy districts and priority education areas, and to encourage social diversity within schools"[2]. In the French context, these priority education areas (ZEP) are zones that benefit from particular attention and dedicated means to promote equality between students. They mostly encompass households with under-privileged socio-economic status.

In this paper, I study the special case of dedicated boarding schools of excellence, meaning the subset of boarding schools of excellence that hosted no half-board nor day students and in which all boarders benefited from a seat of excellence. These

[2]Ministère de l'Education nationale et Ministère de la Ville, circulaire du 8 juillet 2010. My own translation.

The part about encouraging social diversity within schools was not as clear as the quote could tell however, as illustrated by the speech of Nicolas Sarkozy in 2011:

"[Boarding schools of excellence] are exclusively for families whose daily lives are difficult. Who are struggling to make ends meet. Boarding schools of excellence are not for children who have a room of their own in their parents' apartment and a computer at their disposal. Do you understand what I mean? I don't want to stigmatize anyone, I am describing a situation. Your parents work hard, struggle, salaries are small, life is difficult and not everyone can afford an apartment with a room for each child, equipped for each child. There are a lot of single-parent families, when you are a single-parent family, it is usually the mother who takes care of the children, you have to work and you can't be there when the boy or the girl comes back from school. Well, boarding schools of excellence are made for these families." My own translation.

schools allow to easily follow the career of students who studied there through administrative data, which allows researchers to use matching techniques as to assess the causal effect of the initiative. The main drawback to this availability of data is that dedicated boarding schools of excellence are only a small subset of the larger program, as illustrated by figure A.1 (based on Morel, 2014)), and thus cover a reduced share of boarding schools of excellence. Despite this limitation, and because the boarding schools of excellence program, and especially dedicated boarding schools, are expensive for the French ministry of Education, it is of considerable importance to examine the extent to which the plan has achieved its goals of reducing the achievement gap and providing equal opportunity for students. I thus explore the socio-economic characteristics of students in these schools to observe whether they achieved their promise of attracting under-privileged students (section 3).

Overall, I find that the program indeed targets students who face difficult studying conditions, both compared to students at the national level and to their peers before entering the boarding schools. More than 50% of them hold a means-tested grant from the French state, more than 25% live in single-parent family and 2% even live without any parent. They also come from families with below average social position index, a statistical construct from the French Ministry of education that indicates how likely a student is to succeed academically given the socio-economic status of her parents[3].

Thanks to these descriptive evidence, I am able to better inform my search for mechanisms affecting the efficiency of the program, measured through its effect on graduation rates and grades. To uncover the causal effect of attending a boarding school of excellence in such an observational setting, I rely on statistical matching methods. I match boarders with their former peers, and among these peers choose one of the same gender and i) who scored the most similarly at national middle-school exam for boarders entered at high-school, ii) who rank the closest on the social position index for middle-school students. I provide estimates with other techniques, such as propensity score matching, as robustness checks (section 4.3), and discuss the choice of a technique in section 4. Beyond testing the validity of my technique, these checks also provide useful insights, as they underline that matching based on the social position index of students can be a reliable strategy whenever measures of academic achievement are unavailable; which is a finding

[3]This statistical indicator comes from the analysis by Rocher (2016a), and is based on multiple correspondence analysis methodology.

I also discuss at the end of this paper (see section 5). To strengthen the claim that my estimates are causal, I also try to replicate the estimates by Behaghel et al. (2017), who benefited from randomized admissions in one boarding school of excellence and two cohorts. I am however unable to replicate these findings, as shown in section 4.1. Still, I find very similar values of outcomes for control units, raising confidence about my matching strategy. I argue that the reason why I cannot find the same estimates as Behagel et al. is because I cannot match all boarders they observed: particularly, I cannot match students who entered the boarding school in the first grade of middle-school (because I do not observe their peers). If this is the right hypothesis, it would mean that entering in BSE for the first grade at middle-school is more efficient than entering it after studying in another middle-school, which would be an interesting result for policy-making.

One of the main results from this research is that boarding schools of excellence have effects that differ strongly based on the grade level of students. It is very good for students who enter it during their middle-school years, less so for students who enter it during their high-school years. In fact, for students who entered at high-school, studying in a BSE increases strongly graduation rates from a general curriculum (+14%), but it decreases graduation rates overall (-8%) – meaning when we include technical and vocational tracks along the general one. By contrast, the effect for students in middle-schools is overall very positive: the intervention increases graduation rates from a general curriculum at high-school (+8%), and decreases proportionnally less overall graduations rates (-4% and non-significant). Moreover, and foremost, it positively affects schooling at middle-school for them, as they score higher at the national exam by 11% of a standard deviation[4], higher in French by 9% of a standard deviation and higher in history-geography and civic education by 14% of a standard deviation. Astonishingly given the literature, I observe a significant effect in French while non-significant in math, though positive (+3% of a standard deviation). This might be due to the importance of cultural activitities in BSE, of which humanities related activities seem to take the lion share, as transparent in Rayou and Glasman (2012). Unfortunately I cannot test specifically for the channels through which these effects appear, as the intervention is very broad (which is discussed in appendix C). However, Coulangeon and Fougère (2022) studied the impact of bringing under-privileged students to the opera in France, which is typically what BSE could do, and find somehow weak and arguably indirect effects that only benefited students who remained for the whole duration of

[4]The reference for the standard deviation is the national population.

the program (2 years), which they argue is due to selection bias, and in particular to resistance to legitimate culture by a fraction of students. Although this research does not give insights about the effect on French or in mathematics, it still provides valuable information about the effects of cultural activities on students – and they are surprisingly close to the ones I observe.

As for the explanation of the differences in effects for high-school and middle-school students, I suggest that this might be due to the age of these pupils and the rigor of the timetables. Indeed, the strict rules often used in BSE (see appendix A) could be less suited to older students, who might want more independence and be less likely to accept such a stringent setting.

Another important finding is that more time spent in BSE is good: students who attend the schools only for one year do not benefit, and are even actually harmed for high-school students, from the setting, while the effects are on average very positive for the students who remain at least two years. Fortunately, this does not seem to be completely due to endogeneous selection on unobservable characteristics, as those students who leave the boarding school after one year are considerably different from those who remain: they are nearly 3% less likely to be female, 6.2% less likely to be scholarship holders, 8.9% more likely to be born in France, 7.8% more likely to have repeated a class and they rank marginally higher on the social position index. In short, they are statistically different from the boarders who remain in most regards. This could inform further recruitment inside BSE.

A further main finding from this research is that the initial level of students matters quite a lot for the results: there are evidence that initially strong students are poorly served from the setting provided by BSE as they graduate significantly less from general curriculum, while the weaker students are the ones who benefit the most. This is also consistent with the fact that the lower the socio-economic status of a student, the higher the effect for her graduation from a general curriculum at high-school (especially for males). For instance, the students from the highest socio-economic stratum have an insignificant decrease in the propensity to graduate from a general curriculum (-1%), while students from the lowest socio-economic stratum have a very significant and economically sizable increase in the probability of graduation from the general curriculum (+28%).

A final important result is that the effects of boarding are not the same in all three schools, and can even be of reverse signs for some subpopulations. This

finding underlines that we might gain in understanding from the careful study of the different settings these schools provided to children. It also highlights that there is little external validity to the results presented in this paper, as we cannot know for sure what are the exact mechanisms for the increase in achievement of students without a more precise consideration of the characteristics of schools.

Literature review

My paper relates to multiple strands of literature. First, it builds on the large literature on the educational achievement gap and its determinants. This achievement gap is widely documented, and is studied along different group characteristics (e.g. gender, race, socio-economic status, geographical origin). Moreover, although it has been shown that it decreased throughout the second half of the XXth century (Barone and Ruggera, 2018), the focus is also on the quality of education and of the curricula followed by students[5]. It has been challenged that this decrease continued from the 1980s onward, as we now have evidence that the gap is widening again, in part due to inequalities driven by parental income (Reardon, 2018). This achievement gap is of considerable importance and interest, as education is a strong predictor of future life trajectory (whether it is by the formation of personnality skills as discussed by Heckman et al. (2013), or by the impact on earnings as studied by Heckman et al. (2008) and Reardon (2018)), and could thus increase intergenerational mobility, which is currently low both in the US (Chetty et al., 2014) and in France (Kenedi and Sirugue, 2022). Multiple explanations for this achievement gap have been proposed, and range from inequalities in teacher quality (Rivkin et al., 2005; Hanushek et al., 2023) to the crucial role of inequalities at home (for instance during childhood (Algan et al., 2022), and more generally in what regards family environment (Boonk et al., 2018)). My main contribution to this literature is in the spirit of the research reviewed by Fryer (2017), namely in the search for effective interventions to tackle this achievement gap. In this sense, I provide evidence for the effectiveness of a strong boarding school policy at increasing educational achievement of under-privileged students.

Moreover, the current paper relates to the nascent literature about the effect of boarding on students. Although there is a long history of boarding, in particular to form elites in the anglo-saxon world (Cookson and Persell, 1985), rigorous studies

[5]e.g. in the French context, attending a well-renowned Parisian university instead of small provincial university, or graduating from a general curriculum instead of a vocational one at high-school; in the US context, inequalities in quality of education are documented by the NCES, see for instance their 2019 report (McFarland et al., 2019) for a review of different inequalities, as well as Chetty et al. (2018) for the role of geographic origin on academic achievement.

about this setting only appeared recently in the litterature. This might be due to the considerable difficulties with evaluating the effect of boarding, as this experience involves multiple component and considering that application and admission into boarding schools are often far from random. However, in the XXIth century, as new policies emerged and put the spotlight on boarding schools, new research about its effects emerged. To my knowledge, there are now two rigorous studies evaluating the effects of boarding under normal conditions, meaning without any particular program on top of the boarding experience. Pioneered by Guo et al. (2021) the first analysis uses a matching strategy similar to the one in the current paper, and results in mitigated effects of boarding, with benefits for middle-school students but not for students in primary schools. Two years later, Farges and Monso (2023) studied the experience of boarding for high-school students in France. They find no effect of boarding on achievement of students. Overall, there thus seems to be little, if any, effects from usual boarding conditions, which is reassuring given the worries expressed by psychologists that boarding schools might hamper students well-being [6].

In addition, boarding was also used with the goal to reduce the achievement gap in mind. In the USA, the SEED boarding schools target students from poor background to give them a chance to fill the achievement gap. Curto and Fryer (2014) exploit the fact that, when there are more applicants than seats, admissions into the schools are randomized to estimate the causal effect of studying in these schools. They find a significant and positive effect on both reading (+21.1% of a standard deviation) and mathematics test scores (+22.9% of a standard deviation) *per year* spent in the SEED boarding school, which makes this intervention a highly effective one compared to standards into education; they also underline that these effects are higher for girls – who actually seem to drive the results – than for boys and that the schools are more effective for the poorest students – those who benefit from free or reduced-price lunch. Behaghel et al. (2017), who also benefited from randomized admission in an over-supplied school, find effects of similar size in the case of boarding schools of excellence in France, and indicate that it makes the intervention as cost-effective as a reduction in clase size by a factor of 2. However, they note that the effect of the program is concentrated on students who do not leave the boarding school after one year, which they explain by the decrease in psychological well-being they observe during the first year but

[6]These worries might have lowered since Martin et al. (2014) provided evidence that boarding schools do not clearly reduce well-being of students.

not during the second one. Unfortunately, they were only able to partner with one of those schools and for the first two years of the program. This paper is thus an extension of their, and the data includes the school and cohorts they studied.

Beyond the mere question of boarding schools, these papers, as the current one, contribute to the debate about substitutability of the inputs to schooling. In the present case, I question the ability of boarding schools as a substitute for a poor home environment and family context. For a review of the different inputs of schooling, I advise to read the article by Fryer (2017), and points out that, to my knowledge and in accordance with the findings from both the current research and the papers cited above, there is no evidence that parents can be completely substituted for, and thus that improving the home setting of students should remain an important policy objective if one wants to maximize academic performance of students – as well as their well-being.

Organization of this paper

My paper is organized as follows: in section 1, I provide a discussion of the use of boarding schools, as well as an introduction to boarding schools of excellence in the French context. Then, in section 2, I introduce the data I have been able to use, thanks to the help from the Evaluation, Forecasting and Performance Department (DEPP) within the French Ministry of Education. In section 3, I present in detail my analysis of the characteristics of students in boarding schools. In section 4, I discuss the use of matching in an observational context (subsection 4.1), before I discuss the causal effect of attending a boarding school on academic achievement. I also provide robustness checks for these results in subsection 4.3. Finally, I discuss my findings, including their implications for policy makers, in section 5.

Chapter 1

Boarding schools and the French program

Boarding schools have long been used by social and economic elites in the Anglo-Saxon world, with these influential households hoping that boarding schools will prepare their children to be ruling elites (Cookson and Persell, 1985). But boarding schools have also attracted early on interest from philanthropists and policy makers with the idea that they might help to provide children from disadvantaged households with better opportunities. The first large scale use of this kind of policy targeted American indians in the late XIXth century (Adams, 1995). Recently, boarding schools regained popularity among policy makers and several countries created new boarding schools targeting disadvantaged students (e.g. Guo et al., 2021; Behaghel et al., 2017; Curto and Fryer, 2014), and charter schools emerged with similar organization and aims in the USA (Dobbie and Fryer, 2020; Dobbie and Fryer Jr., 2011; Abdulkadiroğlu et al., 2011), at the same time as meritocratic thinking paved its way (Sandel, 2020).

In the French case, the motive of the boarding schools of excellence is to offer students living in disadvantaged areas and who do not have "favorable material conditions" the opportunity to "reach their full potential"[1]. It is assumed that, provided they are offered better studying conditions, deserving children could flourish and finally climb the social scale, and in particular that they could apply for "classes préparatoires aux grandes écoles" (a higher education curriculum mostly followed by upper-class children in France). BSE are seen as providing a rigorous study setting to students they host, which presumably lacks in their home

[1]Bulletin officiel n° 19 du 7 mai 2009 – Plan Espoir banlieues

neighborhood. In this respect, it is worthwhile to note that the first qualitative evaluations of the program underlined that households and institutional actors were not expecting the same study setting: the former just wanted their children to benefit from a "normal" school to study while the latter articulated their intervention around the ideas of merit and excellence, both of which had very different meaning for different actors (Rayou and Glasman, 2012). Schematically (and following the simple pipeline logic model from chapter 9 by Funnell and Rogers, 2011, in the representation of theoretical outcomes), the expected impact of boarding schools was arguably thought as depicted in figure A.4 by the central authorities (more information is provided about boarding schools of excellence in appendix A).

My aim is to evaluate how effective the program has been at reaching the intermediate and final goals it aims for, respectively to boost the academic performance of students in dedicated boarding schools and to achieve equality of opportunity for these students. However, guided by previous qualitative work by Rayou and Glasman (2012), Morel (2014), and Boulin (2013, 2018), and by the quantitative evaluation of the program by Behaghel et al. (2017), I expect representation of the effects of the program presented in figure A.5 to be more appropriate, making the effect of the program ambiguous at first-hand and allowing for quite heterogeneous effects both across students and across boarding schools.

As highlighted by figure A.5, the reality of boarding schools has likely both positive and negative effects on the careers of students, I am however unable to distinguish whether each separate component of the program has a positive (negative) effect on academic achievement, and can only estimate the average effect of the attendance to boarding schools on the boarders, although I discuss a framework to think about the effects of boarding schools of excellence in appendix C. If the program was effective at reaching its goals, we would expect to see a positive overall effect, and hopefully a strong one given the cost of the intervention (Cour des comptes, 2014) – especially since students were voluntary to study in these schools and they were likely in disadvantaged conditions before they entered (see Joly-Rissoan and Glasman, 2014, for the consequence of being voluntary for such program).

On the whole, and building on previous qualitative and quantitative works, my contribution for the French national debate is twofold:

- I provide **statistics about the socio-economic characteristics of the students** who attended the dedicated boarding schools and assess whether

they match the initial goal of the program.

Investigating whether the characteristics of students is in accordance with the objectives of the plan might seem straightforward – why would the government enforce a plan that does not coincide with its goal? – but it actually is not. Indeed, the French ministry of Education did not precise any recruitment rules[2], and thus all schools had to establish their own recruitment process, usually involving actors relevant to the welfare of students, such as nurses, and to the good functioning of the schools, such as principal educational adviser (Rayou and Glasman, 2012). Sometimes, there was long debate about the notion of excellence: is excellence only based on academic results? Is it based on in-class behaviour? Is it based on some notion of deservingness, acknowledging that some family situations might prevent children from both scoring well on tests and behaving properly? Although there has been no official written clarification about these issues, a speech by Nicolas Saroky in september 2011 tended to confirm the last interpretation of the policy[3].

Beyond these philosophical questions, to which my paper does not claim to answer nor to philosophically contribute to answering, I provide a detailed review of the characteristics of students in dedicated boarding schools and compare them with the announced goal of the program in section 3.

- I extend the **causal analysis of the quantitative effect of the program**

[2]This was a voluntary strategy, to allow for flexibility at the local level according to Nicolas Sarkozy :

"Let's keep flexibility at all costs: I would prefer no circular at all rather than too many circulars. Let the experience live, let it develop, there may be things we missed, and I say this to the excellent Rector who has my full confidence, but let it all live and you, the teachers, will bring back the exchanges of experience." My own translation from part of a speech on September 9 2010, at Marly Le Roy.

[3]My translation of the relevant part of the speech by N. Sarkozy:

"These boarding schools of excellence are for deserving children, students, teenagers, deserving young people. I want to explain this word: "deserving". "Deserving" does not mean that for boarding schools of excellence, we are only addressing the top of the class. I want to make this clear to all of us. Boarding schools of excellence are not a machine where we take the best and make them the super best. It's a place where all young people who want to get out, who want to succeed and who make an effort, are given an extra chance. Even - maybe especially - if they don't come out on top of the class. Am I making myself clear? The deserving student is not simply the one who does well in school. It can be him, so much the better. But it is also the one who, in the face of immense difficulties, continues to fight, does not give up, does not turn its back: this one, in my eyes, has as much merit as the first of the class. And there was no place in our school system for these children, "deserving", seen with this spirit. I mean, you can be below grade average and be very deserving, have potential."

This understanding of excellence is consistent with a broad and trendy use of the word "excellence" in the beginning of the XXIth century in France, as underlined by appendix figure A.2 and appendix figure A.3.

by Behagel et al. to more recent cohorts and more dedicated boarding schools using statistical matching methods.

As a reminder, the work by Behaghel et al. (2017), who benefited from a partnership with one of the dedicated boarding school and featured randomization on the students who entered the school when there were more applicants than seats, showed no effects of the boarding school in the first year but strong and significant effects of the boarding school in the second year.

The extension of the work by these authors, even if having lower internal validity, is important in the context of evaluating a policy that is currently being generalized, although not under the dedicated boarding school format. My analysis thus focuses on variables similar to those of Behagel et al.: grades at the French middle school exam (DNB), propensity to graduate from general, technical or vocational curriculum, and grades at these general, technical or vocational terminal exams. However, and contrary to Behaghel et al. (2017) who were able to collect data on well-being and psychology of students through questionnaires, I was unable to do so.

An important point with the boarding schools of excellence program, beyond grades and graduation rates, is the propensity to increase general knowledge and to form an upper class habitus, as encouraged by the large variety of extra-curricular activities (e.g. opera, theatre) proposed by these schools, a goal which is consistent with the will that these schools should help forming elites. Unfortunately, and like Behaghel et al. (2017), I *cannot assess either the effect of boarding schools on general knowledge or the formation of an upper-class habitus among students*, as I lack information about the extent and diversity of cultural activities within dedicated boarding schools. If one wants to learn more about this, I direct them to the previous qualitative report on this topic supervised by Rayou and Glasman (2012). For those who want an extremely simplified, two lines, summary of the results of the report regarding cultural activities, here it is: students considered the cultural activities were too numerous, and often felt compelled to participate with these activities, although participation was voluntary on paper; all schools had to organize these activities by themselves, it results that there were differences in the offer of activities across boarding schools.

Besides the use of these cultural activities to form elites, they might also have effects on the academic achievement of students: on one side, more opportunities might be good for general knowledge, and thus for academic achievement through

the ability to make quicker and higher quality connections between different items. Moreover, the subset of extra-curricular activities for which students encounter external professionals could also provide them with role models, which is shown to be beneficial for the curricula of children (Bhan, 2020; Riley, 2022), at least when perceived similarity with the role model is high (Allen and Collisson, 2020). Nonetheless, on the other side, such activities could be in direct competition with cognitive awareness when studying, say, mathematics, if they tire students too much. Thus, my analysis, which cannot quantify and/or distinguish the effects of teaching assistance, boarding experience, and cultural activities of students on their academic performance, *cannot be considered informative about the effects of cultural activities per se*[4].

Finally, boarding schools of excellence could well have had an effect on the citizenry of students. I cannot quantify either this effect, but I discuss it in section 5.

[4]For a novel paper on the effects of such cultural activities, see Coulangeon and Fougère (2022)

Chapter 2

Data

For the purpose of this analysis, I am able to use the FAERE ("Fichiers Anonymisés d'Elèves pour la Recherche et les Etudes") database, provided by the Evaluation, Forecasting and Performance Department (DEPP) of the French Ministry of Education. This dataset comprises anonymized information about virtually all – 99% – French students in secondary education. Its aim is to provide researchers with reliable, high-quality data fit to statistical use for their studies about the French education system. Due to its sensitivity, access to the data is restricted to allowed researchers and must take place within the premises of the department.

FAERE is a merge of multiple information systems from the DEPP. It encompasses the Bases Centrales "Scolarité", an information system updated every year under responsibility of the DEPP that gives exhaustive information about classes and students since 2005. It also includes the Base OCEAN and CYCLADES, which provide information about the grades of students at national exams. Finally, the dataset gives information about students following professionalizing vocational training, through the information system SIFA ("Système d'information de la formation des apprentis").

Overall, the dataset comprises hundreds of variables, and, as such, a researcher interested in using this data must accept to wait a considerable time to load and work with the dataset, and should consider keeping only variables of interest quite soon in her analysis. In the context of boarding schools of excellence, I decide to keep only 17 variables from the main database informative about characteristics of children and of their schools. I also keep 163 variables from the exam databases (details about these variables is given in appendix D). Moreover, I decided to stop my analysis with school year 2018-2019, as the next few years have been impacted

by COVID-19 and are thus less interesting for evaluating the effect of the program. Since my analysis focuses on the short-term outcomes of the program on secondary education, I also drop observations of students in post-secondary education[1], as well as students who were explicitly targeted by other programs[2]. My dataset thus comprises 46 169 624 student × year observations of the general population of students, and 7 392 student × year observations of boarders of excellence from school years 2008-2009 (when the first boarding school of excellence) to 2018-2019 (which encompasses all students who studied in one of the 3 dedicated boarding schools of excellence during this period). The main dataset I work with comprises all boarders of excellence and their peers the year before they entered the BSE, which represents 3 310 different boarders and 305 570 former peers, and 180 potential variables per observation (excluding variables I created myself by combining information from other sources and variables – see appendix D for details).

To ensure anonymity of boarding schools of excellence, I changed their name so that they are not identified anymore. Moreover, I only present in tables the characteristics of students for the subset of years when all schools were opened and I removed the number of observations from tables when these were introducing results for single schools. Both of these measures aim at protecting the identity of schools. Still, when statistical tests are performed (e.g. F-test for the equality of characteristics of students across years), these tests are performed on the estimates for all available years.

[1]In France, the prestigious curriculum of "classes préparatoires aux grandes écoles" (CPGE) takes place within the premises of high-schools and are thus included in the FAERE database.

[2]For instance, the "Mission to fight against school dropout" curriculum, which also targeted a few boarders of excellence and aims to prevent dropout from secondary education. I thus drop the X boarders of excellence targeted by the program.

Chapter 3

The characteristics of boarders of excellence

The aim of the boarding schools of excellence program, namely to give more resources to students in need, justifies a careful discussion of the characteristics of boarders.

In accordance with the goal of the program, boarders of excellence are on average disadvantaged compared to the national population, and they are also disadvantaged compared to students from the schools they frequented before and/or after their stay in boarding schools of excellence, as well as compared to their peers the year before they entered boarding schools. It should still be noted that the **socio-economic status of boarders improved in two boarding schools across time**, hinting that the recruitment process might have changed towards the acceptance of prospectively less disruptive students. Moreover, the host population of the third boarding school of excellence was statistically unstable through time, and the **population of boarders in the boarding schools differed statistically from one another in almost all years**. These facts are consistent with an admission policy unconstrained by rigorous recruitment guidelines, and with either i) an inability to observe which characteristics among boarders are the most decisive for the success of the boarding experience, or with ii) the importance of unobserved characteristics during the admission process. My hypothesis, following the insights from Kahneman et al. (2021) about human behaviour and of Rayou and Glasman (2012) about qualitative facts about BSE, is that the reality is a mix of both.

Moreover, an interesting finding is that **students who remain only a single**

year in BSE differ significantly from students who remain: they are plausibly academically weaker students compared to the stayers.

In the remaining of this section, I discuss in details these trends.

3.1 A socio-economically disadvantaged population

As stated in preamble, the **population of boarders is overall disadvantaged**. Boarders are *quite often non-nationals* (9.275%), *scholarship holders*[1] (53.746%), they are also likely *to have only one parent* (30%), or *even to have no parents at all* (2.3%). Similarly, they frequently *come from the most disadvantaged quartiles* of the French population, following the educational quartiles built by the Ministry of education[2].

Female (%)	Hold means-tested grant (%)	Never moved (%)	Single parent (%)
52.538	53.746	52.538	30
No parents (%)	French (%)	Grade repeater (%)	Grade skipper (%)
2.304	90.725	23.474	4.32
Leavers (%)	exam takers (%)	N	
8.36	18.55	3310	

sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 3.1: Summary of characteristics of boarders

3.1.1 Compared to the national population

Compared to the national population, boarders of excellence are 30% more likely to be scholarship holders, nearly 9% more likely to have only one parent and even 1.5% more likely to have no parents. They are also 6% less likely to be French (Table A.1). All of these differences with non-boarders are statistically significant. This points in the direction of a serious implementation of the policy with boards

[1]Scholarship holders are students who hold a means-tested grant funded by the French state. All taxable earnings are considered in the allowance of this grant, and the details about their allowance is available online both for middle-school and high-school students

[2]These quartiles are built around SES of legal representants: they do not correspond one-to-one to the richest quartiles, but rather represent how the children from each SES tend to fare at school.

of admission admitting only those students who would have suffered from worse study setting at home. Surprisingly enough, girls are over-represented compared to boys within BSE.

Furthermore, boarders also come more frequently from educationally disadvantaged SES, as indicated in table A.2. Students are 10.6% more likely to have a first parent[3] from the lowest possible socio-economic background and conversely 12.1% less likely to come from the most advantaged classes. They are also more likely to have their representant not having filled the information, which is associated with poor educational success for children (Rocher, 2016a).

Converting these categorical variables into a quantitative social position index, following Rocher (2016a), we can also observe that the distribution of SES among boarders is skewed to the left (figure A.6), adding further evidence that they are disadvantaged compared to the mean French student.

3.1.2 Compared to students who frequented the same schools

It might be however that the national population is not a relevant comparison group for the boarders of excellence, as we only have 3 treatment schools and these do not span the whole territory. Hence, I restrict in this section the data to the schools that at least one boarder of excellence frequented, meaning that if at least one boarder of excellence went into school S for school grade s, then I include all students from school S at school grade s as relevant comparison. From this little exercise, we can see that the qualitative results are similar, although the boarders of excellence now seem a bit less disadvantaged. In particular, they are now less than 1% more likely to have no parents and are only 4% *less* likely to be French nationals (Table A.3). This is also informative about the schools boarders of excellence frequented before and after their stay at the boarding school: these schools hosted students who were on average disadvantaged compared to the national sample, and who were less likely to be French nationals, meaning boarders were likely under-privileged by the school context they experienced outside the boarding schools of excellence.

The analysis of socio-economic status of the first parent of children points in the same direction. Boarders are still 10.6% less likely to have parents from the

[3]The first parent is normalized to be the father in the general case, and if not it is the mother whenever possible, otherwise it is the designed legal representant.

highest possible background, and 8.8% more likely to be of the lowest possible background (table A.4). They are however less likely to have their parents not filling the information, which is consistent with them being more often French nationals as non-nationals students could have allophone parents unable to understand the survey they are asked to answer.

Finally, note the impressive amount of students × year we observe in our restricted data: 13 886 937. This represents nearly a third of the total observations of the dataset and underlines the vast space covered by the trajectories of boarders: with a sample of only 3 000 students, one could potentially find peers for these youths in a third of French middle and high schools (assuming a smooth distribution of students across schools). This highlights the considerable difficulties one could face if trying to emphasize peer effects in a schooling context.

3.1.3 Compared to their peers the year before they entered the boarding school

Beyond the national population, and the population of students who frequented a school at least one boarder frequented at some point, the most relevant comparison group is the set of students who were peers to boarders the year just before they joined the boarding school. Again, boarders are disadvantaged compared to these peers. Interestingly though, these former peers are no more similar to boarders on the grounds of their observable family characteristics, but they are on the ground of their social origin (in terms of SES), which is consistent with the fact that social segregation is important in France (Dauphant et al., 2023).

They are still significantly more likely to be female (+3.4%), scholarship holders (+16.9%), grade skippers (+1.2%), to have only one parent (+11.5%) or even to have no parents at all (+1.4%) (table 3.2). However, they are not significantly different on their propensity to be grade repeaters or French nationals. Also note that boarders are more likely to live in a single parent family compared to their former peers (+11.5%) than compared to the national population (+5%). Combined with the fact that boarders are as likely to be non-French nationals as their former peers, this hints that families from foreign background might be more likely to send their children to a BSE especially when they are single parent family. As families with immigrant background have more children on average than French families do (see Héran and Pison, 2020), this is consistent with single parent families from foreign background sending their child to boarding schools, maybe to alleviate the

burden of caring for a child on a daily basis.

	Dependent variable:						
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	No parents (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Diff boarder - former peers	0.034***	0.169***	0.012	0.011***	0.115***	0.014***	0.004
	(0.009)	(0.008)	(0.008)	(0.003)	(0.007)	(0.002)	(0.005)
Former-peers	0.496***	0.307***	0.271***	0.026***	0.222***	0.014***	0.921***
	(0.001)	(0.001)	(0.001)	(0.0003)	(0.001)	(0.0002)	(0.0005)
Observations	309,262	309,262	309,262	309,262	309,262	289,131	309,262

Note: *p<0.1; **p<0.05; ***p<0.01

sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 3.2: Boarders differ from their former peers

As hinted above, the analysis of socio-economic status of the first parent of children also points in the direction of disadvantaged children, and even more so than at the national level (table 3.3). Compared to their former peers, boarders are nearly 5% less likely to come from the highest possible SES quartile, while around 5% more likely to come from the lowest SES indicators, and scoring 6 points lower on the social position index – which distribution is now remarkably less skewed to the left than compared to the national population (figure A.7).

	Dependent variable:					
	SES = A	SES = B	SES = C	SES = D	SES not filled	Social Position Index
	(1)	(2)	(3)	(4)	(5)	(6)
Diff boarder - former-peers	−0.046***	0.006	−0.007	0.025***	0.020***	−6.039***
	(0.007)	(0.006)	(0.008)	(0.008)	(0.004)	(0.626)
Former-peers	0.168***	0.121***	0.297***	0.362***	0.053***	99.831***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.0004)	(0.065)
Observations	309,262	309,262	309,262	309,262	309,262	309,262

Note: *p<0.1; **p<0.05; ***p<0.01

sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 3.3: Boarders are under-privileged compared to their former peers

These findings point towards a serious implementation of the policy, with recruitment of under-privileged students. However, it also questions the potential biases of boards, which admitted more girls than boys in BSE – an alternative

is that girls apply more to the schools than boys do, but I have no data about applications.

3.2 A time-changing population

Although they come from under-privileged population on average, there are **substantial variations of the socio-demographics of boarders over time.** In two boarding schools (de Beauvoir and Hugo), students become *less disadvantaged through time in terms of socio-economic status.* More generally, *most characteristics of boarders were unstable through time*, sometimes without any trend. Finally, it is interesting to note that the *characteristics of boarders differ substantially across schools.* In particular, girls and non-French students are over-represented at Sand compared to de Beauvoir and Hugo.

3.2.1 A progressively less disadvantaged population

If one was looking at the SES of students in boarding schools separately for each academic year, she might be surprised to observe a pattern pointing towards a lower share of students from disadvantaged background across time in 2 boarding schools. Indeed, one can already see from pie charts that students in BSE de Beauvoir and BSE Hugo became progressively less disadvantaged in the sense that they hosted less students from the lowest SES category (D) through time (figures A.22-A.28 and A.15-A.21). Taking an F-test for the equality of multiple means, I am even able to reject with high confidence the hypothesis that the share of students from the lowest backgrounds remained stable through time in these two schools (Tables A.8 and A.9). Similarly, the trend was in hosting students who had more often at least one parent and students who were less often scholarship holders (Tables A.5 and A.6).

These systematic changes hint about either a change in the characteristics that were given importance during the recruitment process or a change in the background of applicants (and likely a combination of both).Under the former hypothesis, we can guess an explanation of the following kind: it might be that students from lower SES triggered some level of unexpected events, troubles, inside the boarding schools and the boards of admission decided that they wanted students with exemplar behaviour. It might also be due to a change of teachers: as the documentary by

Delouvrié (2013) shows, some of the teachers in the boarding schools of excellence only wanted to work there for a few years. If the initial teachers in these boarding schools were the most motivated, or those who believed the most in the goal of the program, it could be that further recruited staff was not as willing to attract disadvantaged students as the initial one. Finally, it could also be that the board of admission or the regional direction of schooling wanted more social diversity within boarding schools (as shown in table 3.4, non-scholarship holders are far more likely to leave BSE, so one needs to recruit $X + \epsilon$ of them if she wants X to remain).

Still, it is quite plausible that, as more parents knew of the program, the pattern of applications changed across time. This would be interesting to know, as if the insights from Beuermann et al. (2023) and Abdulkadiroğlu et al. (2020) apply to the French case, this would mean that BSE are perceived as good schools (in some sense) by parents from middle- to upper- classes – while the effect of the BSE on initially high-performing students are low, as will be shown later and in accordance with Abdulkadiroğlu et al. (2020) who find that peer characteristics matter more than school effectiveness to parents (a result that could also explain why BSE leavers are less disadvantaged than BSE stayers).

3.2.2 An unstable population

More generally, we can observe that the population of boarders of excellence varied over time, which can be seen by looking at the socio-economic composition of BSE Sand. Relying on statistical tests for the equality of multiple means, I can also reject the hypothesis that the characteristics of students remained the same across time for multiple variables (Tables A.5-A.10). These changes of characteristics of new entrants in boarding schools of excellence is not surprising however: the program was initiated in 2009, and although it received considerable media attention, parents might have waited a bit to apply for the boarding schools, so that they have feedback about the quality of the program (and it might also be that parents needed time to understand the difference between BSE and "school rehabilitation facilities", which are boarding schools created at the same time but for very low achieving students, see appendix A). Under this hypothesis, there would be more applicants in the last years of the sample than in the first years (except for one of the BSE, as there were issues with the school in 2015 which could have incentivized parents not to apply for the school), and thus more room for choice of applicants (and more difficult decisions about the admissions).

Furthermore, it might be difficult for boards of admissions to exactly determine for which population the intervention would work best, and they might not be fully aware of socio-economic characteristics when they examine applications.

3.2.3 A population that differs across schools

Beyond being unstable at the general level, there are systematic differences between the three boarding schools of excellence: Sand hosts far more students who were not born in France than both de Beauvoir and Hugo in any year of the sample (it varies from 3% to 14.6% more), and this difference is statistically significant in all years from 2011 onward; Hugo hosts more scholarship holders than both other boarding schools in almost all years, although the difference is not always statistically significant; students at Sand are less likely to be grade repeaters than their counterparts at de Beauvoir and Hugo in all years after 2011 (Tables A.11-A.17). A final difference is that students at Sand are more likely to be girls than students in either de Beauvoir or Hugo. Beside these differences, the socio-economic composition of the population of students remains overall the same across schools for the whole period (Tables A.24-A.24).

3.3 Those who leave vs those who remain: a comparative analysis

On average, students who remain in BSE differ from those who leave, and we have plausible evidence that they are academically weaker students. It is indeed revealing that some of the most predicting variables for the propensity of leaving the boarding school are to be a grade repeater and to score low on the social position index (table 3.4). This is very unfortunate for a policy that is supposed to concentrate resources on a few students, but it is also consistent with confusion between BSEs and school rehabilitation facilities. By contrast, scholarship holders are more likely to remain in the BSE, which is very good news, as this is a population the program could have directly targeted.

Interestingly, students who did not declare to be French are considerably less likely to leave BSE, which might be due to them seeing BSE as a great opportunity to gain social prestige. Males are also more likely to leave the BSE than females are. To propose an explanation, one can dig into the gender studies literature: if

	Dependent variable:
	Propensity to leave after first year
Female	-0.026^{***}
	(0.009)
Grade repeater	0.078^{***}
	(0.011)
Grade skipper	-0.025
	(0.022)
Scholarship holder	-0.062^{***}
	(0.010)
Social position	-0.0003^{**}
	(0.0001)
Only one parent	0.003
	(0.010)
No parent	0.034
	(0.030)
Born in France	0.089^{***}
	(0.015)
Constant	0.170^{***}
	(0.022)
Note:	*p<0.1; **p<0.05; ***p<0.01
	sources: MENJ-DEPP, databases FAERE, 2009-2019

Table 3.4: Under-privileged students are more likely to remain in BSE

these male teenagers want to prove their manliness, they might try to breach the rules and might not accept the rigorous setting a boarding school provides, they might thus prefer to exit these schools.

Chapter 4

Boarding schools of excellence and academic success

4.1 Identification strategy

The estimation of causal effects of an educational program based on observational data is a delicate matter. Indeed, in an ideal world, statisticians would like to observe counterfactual outcomes, meaning the outcomes of treated individuals – those who receive the program – had they not been treated, as this would allow us to compare the outcomes with treatment to the outcomes in absence of any treatment, and even to compare any treatment to any other intervention – assuming we also observe counterfactuals for any other situation. Empirically, however, we can only observe the treated outcome for units receiving the program and the untreated outcome for units that do not receive it, which is "the fundamental problem of causal inference" (Holland, 1986).

In the following sections, I assume *stable unit treatment value*, known as SUTVA in the econometrics literature, to estimate the effects of the program. This assumption is common in econometrics and rules out interferences, meaning that only the treatment status (being a boarder or not) of a student herself matters for her outcome, not the whole vector of treatment. In mathematical terms, this means that for any individual $i \in \{1, \ldots, N\}$ whose treatment status is T_i and with outcome of interest Y, we must have:

$$Y(T_1, \ldots, T_N) = Y(T_i)$$

This assumption simplifies considerably my work as, although the modeling of interferences is of considerable importance, we currently have no definitive answer about how to handle general interferences setting – although we have insights for simpler settings, such as partial interference (Sobel, 2006; Hudgens and Halloran, 2008). The issue of interference for observational studies is even more important as it was shown that usual asymptotic theory is invalid if one wants to estimate the effect of a treatment when there is general interference, as samples cannot be considered independent and identically distributed anymore (Sofrygin and van der Laan, 2017; van der Laan, 2014). Still, because this issue deserves to be dealt with, I discuss it in section 5.1 and propose an interpretation of my results in case there are interferences. For now, I present how matching can provide a good method to estimate causal effects with observational data under SUTVA.

4.1.1 The role of matching for finding good counterfactual

Assuming SUTVA, a first – and often bad in empirical settings – idea is to consider that the outcomes of the non-treated individuals are good counterfactual outcomes for the treated ones. In most *randomized controlled trials*, this is actually the case and a difference-in-difference estimator – comparing the difference in outcomes of treated vs untreated units – yields the desired result (see for instance Fougère and Jacquemet, 2020, for a review of this litterature).

The simple difference-in-difference estimator is not readily available to observational studies. The outcomes of non-treated units in observational studies might considerably differ from the counterfactual outcomes of treated units: this is because treated and untreated units might differ considerably. In the case of the boarding schools of excellence, the main reason why a boarder of excellence would differ from a randomly selected non-boarder is selection bias. Indeed, in the present case, boarders (and their family) must have applied for the boarding schools first. Thus, it could be the case that applicants apply because they know they can expect high returns from the boarding schools. This phenomenon, known in the literature as an Ashenfelter's dip, implies that we cannot properly assess the effects of the boarding schools with naive strategies for quite a strong reason: the average non-boarder would likely not have benefited as much from the boarding school of excellence as the average boarder. A related issue is about what an Ashenfelter's dip might mean – and it also hints how we could solve the issue.

If there is selection bias, there is likely heterogeneity, not only within groups of boarders and non-boarders, but also across groups, meaning that we can likely find systematic differences in characteristics between the mean boarder and the mean non-boarder.

Fortunately, the matching method proposed by Rubin (1977) helps to develop an arguably causal estimate of the effect of a program from observational data. The main idea is the following: if boarders do not systematically differ from a subset of non-boarders, we can compare boarders to this specific subset. In particular, we would like to isolate a group of non-boarders who all had some chance to study in a boarding school of excellence, which results in the "overlap assumption", and for whom the outcomes of interest after attending or not the boarding schools of excellence would have been the same as for boarder conditional on their observed characteristics – the "conditional independence assumption". Statistically, and denoting T_i the dummy variable indicating whether a student is a boarder or not, indexing by $i \in \{1, \ldots, N\}$ students S_i, X_i being the characteristics of student S_i, and Y_i the outcome of interest for student S_i, we want to meet the overlap assumption for any such student S_i:

$$\forall i \in \{1, \ldots, N\}, 0 < P\left(T_i = 1 \mid X_i\right) < 1$$

and the conditional independence assumption:

$$Y_i \perp\!\!\!\perp T_i \mid X_i$$

The overlap assumption can be assessed from the data by computing propensity scores and verifying that there are no students whose propensity to join the boarding school was virtually 1. Empirically, this is the case, as all students have probability close to 0 of studying in a boarding school of excellence (this is not surprising given the large amount of students relative to the few places in boarding schools of excellence), which is illustrated in figure 4.1 and 4.2.

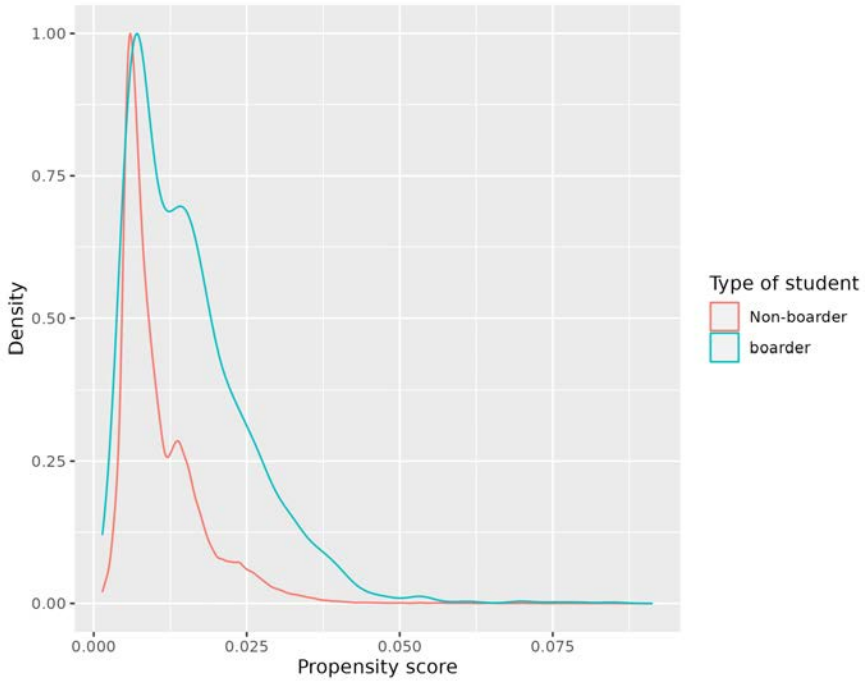

Figure 4.1: Propensity to be boarder at high-school given obervable characteristics

sources: MENJ-DEPP, databases FAERE, 2008-2019

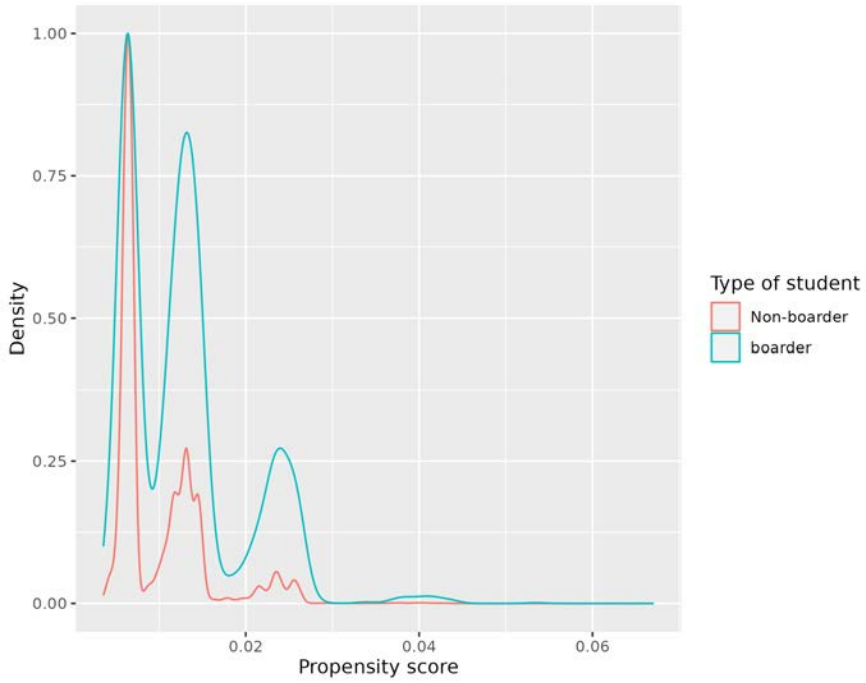

Figure 4.2: Propensity to be boarder at middle-school given obervable characteristics

sources: MENJ-DEPP, databases FAERE, 2008-2019

The conditional independence assumption cannot be assessed from the data but it is somehow realistic: the board of admission was only able to "guess" the effect of admission based on observable characteristics and was very unlikely to be able to deduce close estimates of the effect of admissions before-hand. Moreover, they might not have considered the efficiency of the program as the main criteria for admission, but rather could have thought about the fairness of admissions – which is consistent with the debates about the notion of excellence a lot of boards had (Rayou and Glasman, 2012).

Still, there is at least one strong reason why one might wonder whether conditional independence assumption is violated in the present case: boards of admissions often conducted meetings with parents and applicants. If the conditional independence assumption holds, it must be that these meetings were purposeless to the extent that they could not provide information about the applicant's effect of admission that could not already be assessed with statistically observable information. Indeed, if the meetings provided more information than genuinely deciding which characteristics among students should be given priority, conditional independence assumption would be violated as there would be an additional variable that

is informative about the effect of treatment that is not predicted by observable characteristics. Thus, there would be selection bias.

For the purpose of this paper, there are some reasons to believe that the extent of these unobserved variables is small, or at least that they would downsize the estimates, not increase it. The reasoning is that there might be such unobserved variables, as well as noise in the judgment of the board of admission (which is likely following the insights from Kahneman et al., 2021), but they would likely only have effects at the margins (i.e. even if such variables existed, they would not sizably change the population hosted in boarding schools). The plausibility of this claim lies in the kinds of unobserved variables we can expect: the first is about the conditions in neighborhoods, the second about conditions at home – both being quite important in the context of admission to boarding schools of excellence. The first should not be a big matter given the assignment of a school to French students, who must attend an elementary school and then a middle-school based on their living location, except rare exceptions. Since we can match students on their previous school (more about the matching procedure below), we can control for the characteristics in these neighborhoods, making it unlikely that control/treated students face considerably harsher conditions than their peers.

The second concern is about life at home: if boards of admission were able to discriminate through meetings the studying conditions at home with great precision, untreated potential outcomes of boarders and non-boarders could differ. This cannot be assessed directly through the data, but fortunately (in the sense that it is preferable to conclude such a costly policy to be under-effective than over-effective), it implies that the effect I estimate should be an under-estimation, if a mis-estimation, of the effect of boarding schools. This means that if I detect a significant effect of the program, it is likely to be even more sizable. Indeed, in this case, control students would experience better studying conditions than would have had boarders would they have not been admitted, hence their outcomes are likely to be better than the untreated outcomes of boarders. Still, one worry might remain: what if students selected as controls actually were applicants but were not admitted because they are disruptive? Unfortunately, I cannot directly ensure this is not of concern for middle-schoolers, I can however proxy this variable for high-schoolers since I observe their national middle-school grade and given that truly disruptive students are less likely to score very high on test scores.

In the present case, I test multiple matching techniques, of which the main one is based on exact matching on a few important characteristics. Indeed, although the Rubin assumptions seem plausible in the present case, and are necessary to my approach, I am not exactly in the rigorous setting he describes: for most students, there is no perfect control unit, meaning a unit with exactly the same observable characteristics for all variables. Fortunately, we have now developed new matching methods that allow to circumvent this problem. As discussed by Stuart (2010), there are a variety of modern matching techniques. In the present paper, the most elaborate technique I use is the conjunction of exact matching, and nearest-neighbour propensity scores matching (NNPSM) to have control students with characteristics as close as possible to treated students, which is of considerable importance as recruitment was done based on these observable characteristics. The usefulness of the propensity score approach[1] relies on the celebrated paper by Rosenbaum and Rubin (1983), who showed that propensity scores are balancing scores. This means that, when we have a control group C and a treatment group T, the multivariate distribution of the set of relevant characteristics X is the same for both groups when we control for the true propensity scores π to receive the treatment (ie. $\pi = P(T \mid X)$). In statistical terms, this writes as

$$P(X \mid T, \pi) = P(X \mid C, \pi)$$

But the propensity score method also has drawbacks. Some of the strongest opponents of this method are King and Nielsen (2019), who advise not to use propensity scores for causal inference as they argue it causes moral dependence. However, it has been argued that they ignore the balancing score property of propensity scores in their discussion, and that their critique only applies to the most used method: NNPSM with caliper (Guo et al., 2020). Still, I consider their main point valid, especially in the present case where there might be unobserved variables that condition the access to a boarding school of excellence. In particular, as is described in appendix A, the recruitment in boarding schools of excellence might have favored the enrollment of students from special neighborhoods, the "quartiers prioritaires des politiques de la ville", and these neighborhoods might be correlated with unobserved characteristics of students. To take into account this fact, I use exact matching on the initial schools of students: indeed, in France,

[1] I provide a beginner discussion of the mathematical properties of propensity scores in appendix B.

students are assigned a school based on the location their parents live in, all students in a given school – and especially elementary and middle schools – are thus far more likely to come from similar neighborhoods. They also faced similar schooling conditions before the entry in the boarding school, had similar teachers and similar peers. I also match exactly on gender of students – meaning administratively recorded gender. With my use of NNPSM, this exact matching is followed by propensity score matching to ensure balance of all characteristics in treatment and control groups.

However, one other drawback of the propensity score approach is that it increases the uncertainty around estimates, as we are adding to the inherent uncertainty with estimation of parameters an uncertainty related to the computation of propensity scores. In my case, since I have few variables to use in the computation of propensity scores, the uncertainty about their estimation is quite high. And it seems more interesting to use exact matching on a few characteristics of first importance: former school, and sex of the student. Among the potential control that pass this matching step, I choose as a control i) the student with the closest score at middle school exam for boarders entering at high-school; and ii) the student with the closest social position index for boarders entering at middle-school. Since there is no uncertainty in this procedure, we are left only with the inherent uncertainty in estimating effects of the program.

To assess the validity of my matching, I also provide a balance table for the characteristics of students in the treatment and control groups. These checks are important, as they assess the plausibility of the control students experiencing outcomes that are relevant counterfactuals for boarders. Unfortunately, one can see that, in the present case, control units are over-privileged compared to boarders: for boarders entering at high-school, control units are indeed less likely to hold a means-tested grant, to live in single parent family, to have no parents, to be French and they score lower on the social position index. They are however less often grade skippers. We can also notice with figure 4.3 that the distribution of grades between control and treated students overlap considerably – which indicates that control students are at least very comparable in terms of success at middle-school. For boarders entering at middle-school, table 4.2 highlights that balance is a bit better, although boarders are still under-privileged compared to control students, as they are still more likely to be scholarship holders, and to have only one parent, although they are a bit more likely to be French. We can also observe that they score similarly on the basis of their social position index. Overall, we also

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	−0.000	0.095***	0.027***	0.029	−0.011	0.094***	0.017**	−0.613
	(0.024)	(0.023)	(0.010)	(0.020)	(0.012)	(0.020)	(0.007)	(1.671)
Non-boarders	0.557***	0.364***	0.029***	0.210***	0.941***	0.178***	0.011**	99.321***
	(0.017)	(0.017)	(0.007)	(0.014)	(0.008)	(0.014)	(0.005)	(1.182)
Observations	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752
R^2	0.000	0.009	0.005	0.001	0.001	0.013	0.004	0.0001
Adjusted R^2	−0.001	0.009	0.004	0.001	−0.00004	0.012	0.003	−0.0005
Residual Std. Error (df = 1750)	0.497	0.490	0.201	0.417	0.247	0.415	0.140	34.975
F Statistic (df = 1; 1750)	0.000	16.370***	8.156***	2.050	0.938	22.272***	6.577**	0.135

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 4.1: Balance of characteristics for matching at high-school

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	0.000	0.139***	0.005	−0.028	0.048***	0.058***	−0.001	0.066
	(0.019)	(0.019)	(0.007)	(0.018)	(0.011)	(0.017)	(0.006)	(1.275)
Non-boarders	0.512***	0.396***	0.029***	0.306***	0.880***	0.253***	0.025***	91.973***
	(0.014)	(0.014)	(0.005)	(0.012)	(0.008)	(0.012)	(0.004)	(0.902)
Observations	2,676	2,676	2,676	2,676	2,676	2,676	2,676	2,676
R^2	0.000	0.019	0.0002	0.001	0.007	0.004	0.00001	0.00000
Adjusted R^2	−0.0004	0.019	−0.0002	0.001	0.006	0.004	−0.0004	−0.0004
Residual Std. Error (df = 2674)	0.500	0.494	0.175	0.455	0.293	0.449	0.154	32.983
F Statistic (df = 1; 2674)	0.000	52.948***	0.595	2.472	17.797***	10.994***	0.016	0.003

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 4.2: Balance of characteristics for matching at middle-school

have reasons to think this issue with balance is not very important, as we obtain qualitatively similar estimates with NNPSM matching while we obtain balance between control and treated units (see section 4.3). Moreover, if these differences mattered for my findings, they would most likely downsize my estimates since more privileged students tend to score higher on cognitive tests, implying that I could conclude the policy to be ineffective while it is actually effective. Hence, my estimates can be interpreted as a lower bound for the true effects under this assumption.

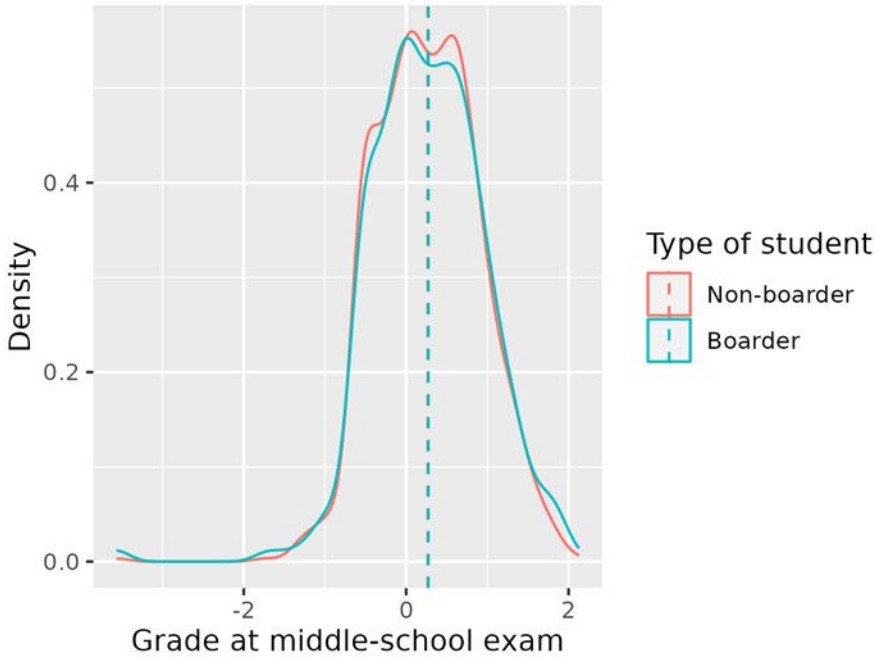

Figure 4.3: Overlap of grades at middle-school for boarders entering at high-school and their control units

sources: MENJ-DEPP, databases FAERE, 2008-2019

Furthermore, I try to ensure robustness of my method by relying on the paper by Behaghel et al. (2017). I match students only in the cohorts×boarding school studied by the authors; if the estimates I find by matching are close to those in their paper, this would indicate that my matching technique is reliable, as the estimates of Behaghel et al. (2017) were obtained by randomization. There are three limits to this exercise however: i) Behaghel et al. (2017) are able to use their own tests which students take after two years in the boarding school, while I must rely on the administrative data for grades at middle- / high- school exam, and ii) they compute their effects on both middle- and high- school students, while I need to match them separately and thus can only estimate the effect separately for both categories. Point i) generates a further difference between our work: iii) their reference point is grades of students who are counterfactuals to boarders (i..e. scores of boarders are compared to the scores of control students), while I am able to compare scores at the national level, which I prefer to do for the sake of readibility. Hence, in their results an estimated effect of 0.12σ is different from the same effect with my results, theirs are differences in standard deviations with respect to control students, while main are effects compared to the general (national) population, allowing a reader to see whether boarders score higher than

the average French students by adding the coefficient for boarder and for control units. As a result, my estimates of the effects of boarding at Sand on grades of students are a bit different from theirs (compare figure 4.4 and table 4.3), especially for grades on French for which I find far stronger effects than they do. Moreover, I find effects different from theirs for the consequences of boarding on obtaining a general diploma at high-school (see table 4.4). But, given the mean values of the outcomes for control units, the issue does not seem to be the matching strategy: I replicate very closely the estimates of the authors for control units of students entered at middle-school, and not so bad values for the control units of students entered at high-school. The differences in estimates thus come from the values of the outcomes for boarders: I cannot use all students from the authors' cohorts, as I need to drop students in the first year of middle-school (because I do not observe their former peers) and some high-school students (because their grades at high-school are unfilled so I cannot match them). As this second analysis is the most comparable, I cannot unambiguously conclude that the current analysis yields overall similar results as their, which raises caution about the results shown in section 4.2, although with the reassuring fact that I found similar values of outcomes for control units. Furthermore, note that I tend to under-estimate rhe effects found by Behagel et al., which is at least better than over-estimating it under skeptical policy-making.

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	-0.40^{***}	0.58^{***}	-0.51^{***}	-0.55^{***}	-0.44^{***}	-0.43^{***}
	(0.11)	(0.05)	(0.05)	(0.06)	(0.04)	(0.10)
Effect boarding	0.48^{***}	0.15^{**}	0.34^{***}	0.34^{***}	-0.03	0.50^{***}
	(0.13)	(0.06)	(0.06)	(0.07)	(0.05)	(0.12)
R^2	0.05	0.02	0.12	0.09	0.00	0.07
Adj. R^2	0.05	0.02	0.12	0.09	-0.00	0.06
Num. obs.	226	226	217	214	209	215
RMSE	1.04	0.47	0.46	0.54	0.38	0.95
N Clusters	121	121	120	119	117	120

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.3: Grades at middle-school for boarders at Sand entered at middle-school

Table 6: Effect of the boarding school on test scores

Panel A: First stage estimates

	Control mean	FS after 1 year	SE	FS after 2 years	SE	FS 1 = 2	N
Years of treatment	0.053	0.773***	0.040	1.327***	0.084	0.000***	744

Panel B: Intention to treat estimates

	Control mean	ITT after 1 year	SE	ITT after 2 years	SE	ITT 1 = 2	N
French	0.022	-0.060	0.109	-0.112	0.121	0.626	744
Mathematics	0.023	-0.014	0.094	0.251**	0.110	0.015**	735

Panel C: Two stage least squares estimates

	$E(Y_0\|C)$	2SLS after 1 year	SE	2SLS after 2 years	SE	2SLS 1 = 2	N
French	0.014	-0.077	0.140	-0.085	0.091	0.948	744
Mathematics	-0.026	-0.019	0.120	0.191**	0.082	0.064*	735

Notes. Panel A reports coefficients from a regression of the number of years spent in the school on a dummy for year 1 (column 2), the interaction of this dummy with our lottery offer (column 3), a dummy for year 2, the interaction of this dummy with our lottery offer (column 5), and the statistical controls listed in Section 2.2, within the sample of students who took at least one cognitive test. Panel B reports coefficients from regressions of French and math test scores on the same explanatory variables, within the sample of students who took these tests. Panel C reports coefficients from 2SLS regressions of the French and math tests scores on a dummy for year 1, the interaction of this dummy with the number of years spent in the school after one year (column 3), a dummy for year 2, the interaction of this dummy with the number of years spent in the school after two years (column 5), and the statistical controls listed in Section 2.2, using our lottery offer interacted with the year 1 and year 2 dummies as instruments, within the sample of students who took these tests. The second column of this panel reports an estimate of the mean of French and math test scores for compliers not enrolled in the school. We use propensity score reweighting to control for lottery strata. Standard errors reported in columns 4 and 6 are clustered at the student's level. In column 7, we report the p-value of a test of equality of the coefficients in the third and fifth columns. *significant at 10%; **significant at 5%; ***significant at 1%.

Figure 4.4: Effects found by Behagel et al.

These assumptions and the setting finally allow for the estimation of parameters relevant to policy-makers. Turning back to the question of Ashenfelter's dip, we can notice that the matching method arguably provides a

	Dependent variable:	
	Has high-school diploma (%)	General curriculum (%)
My final estimates (MS)	0.04	0.17***
	(0.06)	(0.06)
My closest estimates (MS)	0.107*	0.229***
	(0.063)	(0.078)
Behagel et al. (MS)	0.161**	0.252***
My final means for control units (MS)	0.68	0.29
Behagel et al. means for control units (MS)	0.666	0.317
My final estimates (HS)	−0.03	0.13***
	(0.05)	(0.06)
Behagel et al. (HS)	0.096*	0.181***
My final means for control units (HS)	0.85	0.62
Behagel et al. means for control units (HS)	0.761	0.606

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
MS: middle-school. HS: high-school.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on an intercept and a dummy variable indicating that a student is a boarder. Rows indicate the coefficients I estimated vs those estimated by Behagel et al. The final estimates are the ones using the methodology I retained for presentation, the closest estimates are the ones replicating the best the estimates by Behagel et al. With these last estimates, students who did not take any exam are pruned and considered as being beyond observation. By contrast, the methodology I retain in the remaining of this paper is to assume these students are dropout and consider they never graduated. Using this assumption gives considerably different estimates, as shown with my "final estimates". All matching strategies under my assumption gave similarly sized effects around 0 for overall graduation and 0.15 for effects on general curriculum, which are different from those in Behagel et al. However, I replicate well the graduation rates for control units (at least for middle-school students) found by the authors, which means my issues might come from unobserved boarders (I cannot match students in the first year at middle-school because I do not observe their former peers, and I cannot match students at high-school if them or their peers were not registered their grades at middle-school).
sources: MENJ-DEPP, databases FAERE (for matching students), OCEAN (for outcomes at high-school) and CYCLADES (for outcomes at middle-school), 2008-2019

Table 4.4: Comparison of Behagel et al. and my estimates for the effect of schooling at Sand on graduation rates at high-school

lower bound for the effect of the program on the boarders. But does this mean the effect I identify is policy relevant for a decision maker who would like to extend the program? Under a weak assumption, it turns out that it is. If a decision maker, or her statistics assistants, is ready to assume that the effect of the program is similar for the initial population – which I describe in section 3 – and for the new population, then the causal effect of boarding in a school of excellence is arguably similar. Although one might argue that the estimates I present have no full external validity, they still offer at least local external validity in the sense that they can guide the decision to stop the program or enlarge it to a relatively similar population. They also give insights about how to conduct the policy empirically, as results differ considerably across schools.

4.2 Results

Following the matching method introduced above, I am able to quantify the effects of boarding schools of excellence on the following outcomes of interest:

- For high-school students:
  - P (graduate)
  - P (graduate from general/technical/vocational curriculum)
  - P (graduate with honors)
  - Grades at high-school final exam
- For middle-school students:
  - Grade at middle-school exam
  - P (graduate)
  - P (graduate from general/technical/vocational curriculum)
  - P (graduate with honors)
  - Grades at high-school final exam

using the following regression

$$Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$$

where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term in a regression. To assess the significance of the estimates from these regressions, I follow de Chaisemartin and Ramirez-Cuellar (2022) who advise i) not to add pair fixed effects and ii) to cluster the standard errors at the pair level for most paired experiment settings, and especially the ones close to mine. The main difference with their article is that they derive their estimates for the case of a RCT, while I am using pairs in a matching context. Still, their insights would apply if the matching is perfect (so that we are in an "as if random" comparison), and we should follow these guidances. Another takeaway from their paper (and from Bai, 2022)) is that one should *not* drop units if there is attrition when attrition is not differential. In my case, some units are observed taking an exam, but their grades are not registered. I treat this case as if it was (non-differential) attrition[2], and keeps in the sample the student for which I observe the grade rather than dropping the whole pair.

Results in a nutshell

In short, the **effects of studying in a BSE differ considerably according to the school level of students**. Students entered at *high-school benefit considerably less from the intervention than those entered at middle-school* do. However, these **results hide heterogeneity across gender, initial academic performance of students, nationality, schools and time spent in BSEs**. Boys benefit from more positive effects than girls do. Students scoring at the top of the grade distribution[3] before their admission into BSE do not benefit much from being boarders of excellence and are even harmed on their propensity to graduate from a general track. On the contrary, students at the bottom of the distribution benefit a lot from the program: they graduate more, and more often from technical curriculum compared to vocational curriculum and to control units. In between, students with weak achievement are considerably harmed by the program and seem to be poorly advised in their academic orientation choices – they attempt more often a general exam, and although they graduate more often from this exam, a lot of students fail it and obtain no high-school diploma as a result. Additionally, the results differ considerably across schools, with students at Sand performing

[2]If students took the exam and their grades are not registered, the issue is probably more of an error in administrative record of grades than of selection; the underlying assumption is that no student is more/less likely to have their grade non-registered when taking the exam.

[3]This analysis can only be performed for high-school students, as France only recently created national tests for students in elementary school.

the best and driving by themselves alone some of the positive results. Finally, students who remain more than a single year in BSE benefit considerably less from the intervention than those who remain at least two years, for whom the effects are virtually never negative – this finding is stronger for students entered at high-school.

In the following subsections, I present separately results for high-school student (section 4.2.1), and middle-school students (section 4.2.2), before I introduce robustness checks for my results (section 4.3).

4.2.1 An ambiguous program for high-school students

As a background note, students who enter boarding schools at high-school are supposed to be aged 15 in France and they are supposed to end their high-school studies by their 18th birthday, thus the high-school curriculum has a duration of 3 years – except short vocational curriculum (CAP and BEP) which duration are only 2 years, but these are often taken in preparation for a vocational high-school regular exam (Baccalauréat professionnel).

The most interesting result regarding high-school boarders is that they graduate considerably more than their counterfactual from a general curriculum, 14% more often (in absolute values), which is a statistically significant, meaningful and economically sizable effect. This effect seems to come from a substitution between vocational and technical curricula towards a general curriculum, as point estimates for the effect of BSE on graduation from these curricula are respectively -9% and -13%. However, note that these numbers are in *absolute values*, meaning that the overall effect from boarding schools of excellence is a decrease in the overall graduation rate by a statistically significant and economically meaningful -8% (figure 4.5 and table A.25). This means students in BSE are both more likely to graduate from the most prestigious curriculum and less likely to graduate from any curriculum. To the extent that it is preferable to have a diploma rather than no diploma at all, the effect of BSE cannot be concluded to be unambiguously positive for students. However, this negative effect might be counteracted, as there are evidence that it is due (at least in part) to mistakes in orientation. Indeed, students at BSE are significantly and sizably more likely to fail the exam they attempt (figure 4.6 and table A.26). Moreover, and this is also an interesting result, they are far more likely to be absent at the final exam. While psychologists would likely be the best suited to propose an explanation, I argue that this might be due

to boarders rebelling against the rigorous setting in BSE by not taking the exam they were prepared for.

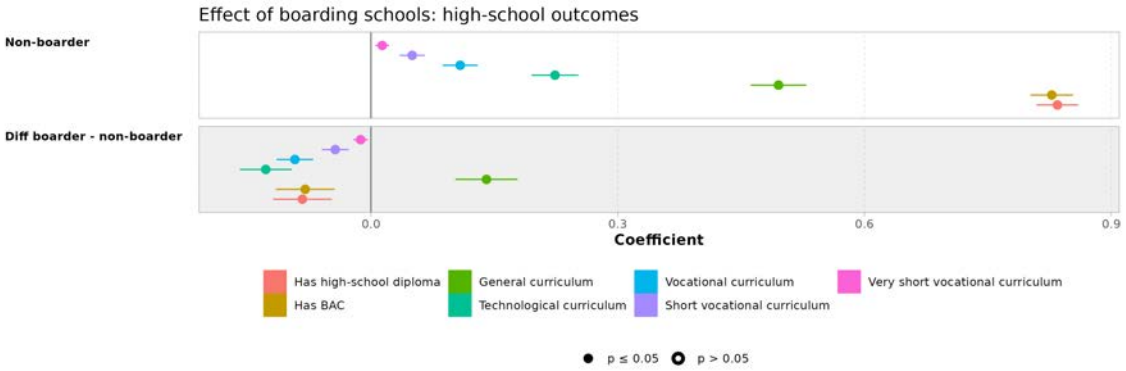

Figure 4.5: Effect of BSE on high-school graduation rates (%)
sources: MENJ-DEPP, databases FAERE, 2008-2019

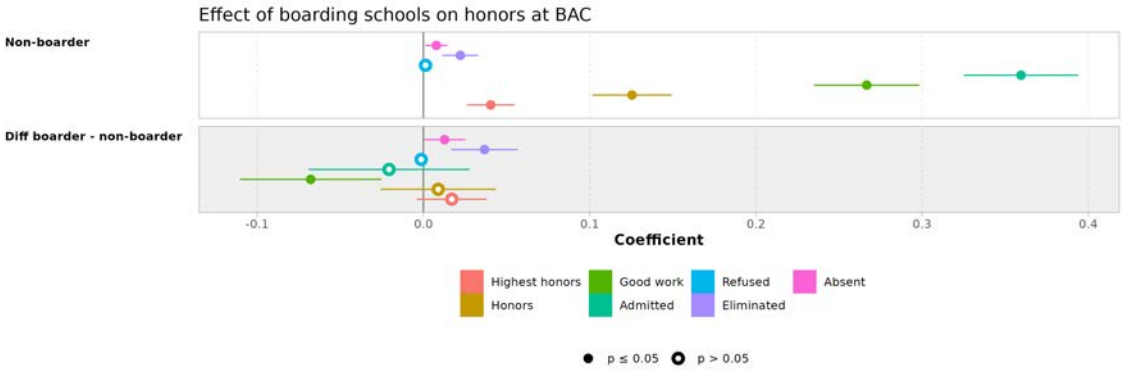

Figure 4.6: Effect of BSE on high-school admission results and presence (%)
sources: MENJ-DEPP, databases FAERE, 2008-2019

Beyond graduation rates, I used matching to attribute a control peer who studied in the same field to each boarder, and paid the price of it by poorer balance of characteristics and using somehow an outcome in the matching process – namely the field on which the student took the exam[4].

I find that boarders score sizably (but not significantly) lower than control students (in the same field) on mathematics (-9% of a standard deviation – thereafter σ) while significantly higher on French (+11%σ – see table A.27) – a result unusual

[4]Although this is an interesting thought experiment, be aware that it is not econometrically rigorous and should thus be interpreted with great caution and should definitely not be given causal interpretation.

in the field of education, as most interventions at this age increase math scores but not language scores. Interestingly, these positive results are mostly due to female boarders (table A.28). This astonishing effect on French language is discussed in section 5, as it is a regularity I also find at the middle-school level – though with positive effects on math this time.

Heterogeneous results: the case of gender

As written earlier, female and male do not benefit similarly from their schooling in BSE. To estimate the differences in effects for boys and girls, I estimate the following regression (benefiting from the fact that I match exactly on gender):

$$Y_i = \beta_0 + \beta_1 \cdot \text{Female}_i + \gamma \cdot \text{Boarder}_i + \zeta \cdot \text{Female}_i \cdot \text{Boarder}_i + \epsilon_i$$

where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.

Following the results of this regression, boys experience more positive effects on graduation rates than girls (although estimates for males are not significantly different from the ones for females). Quantitatively, BSE increase graduation rates from a general curriculum more for males than for females, respectively by 15% and 13% (as shown in table 4.5). Moreover, the program also decreased overall graduation for both sex, but the effect is stronger for females (-10% vs -7% for males), which could be explained by women dropping out more often than men following results in table 4.6 which indicates that female boarders are actually *more* likely to be admitted than male boarders *when they take the exam.*

In accordance with this second finding, the positive effect observed on French grades is mainly driven by girls, whose grade in French increases by 15%σ, and for whom point estimates are always higher than for males (table A.28).

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.80***	0.79***	0.44***	0.23***	0.12***	0.05***	0.01**
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Non-boarder: female	0.06**	0.06**	0.10***	−0.02	−0.02	−0.00	0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
Effect boarding (baseline = male)	−0.07**	−0.06**	0.15***	−0.12***	−0.10***	−0.04***	−0.01
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Effect boarding (female != male?)	−0.03	−0.03	−0.02	−0.01	0.01	−0.00	−0.00
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.01	0.03	0.03	0.04	0.02	0.01
Adj. R^2	0.01	0.01	0.03	0.03	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.49	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.5: Effectiveness of the program on graduation rates of students by gender

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: male (baseline)	0.03***	0.12***	0.23***	0.41***	−0.00	0.03***	0.01*
	(0.01)	(0.02)	(0.02)	(0.03)	(0.00)	(0.01)	(0.01)
Non-boarder: female	0.02	0.02	0.07**	−0.08**	0.00	−0.02*	−0.00
	(0.01)	(0.02)	(0.03)	(0.04)	(0.00)	(0.01)	(0.01)
Effect boarding (baseline = male)	0.03*	−0.03	−0.04	−0.04	0.00	0.04**	0.01
	(0.02)	(0.02)	(0.03)	(0.04)	(0.00)	(0.02)	(0.01)
Effect boarding (female != male?)	−0.02	0.07**	−0.05	0.04	−0.00	−0.00	−0.00
	(0.02)	(0.03)	(0.04)	(0.05)	(0.00)	(0.02)	(0.01)
R^2	0.00	0.01	0.01	0.01	0.00	0.01	0.00
Adj. R^2	0.00	0.01	0.01	0.00	−0.00	0.01	0.00
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.6: Effectiveness of the program on honors received at high-school exam by gender

Heterogeneous results: the case of initial student level

Another interesting question is to know whether the program was as effective for all students whatever the initial performance they demonstrated. Since I use nearest neighbour matching on the grades students received, control units have a similar distribution of grades at middle-school exam. Hence, with honors being determined

by final grade, more terms can be added to the regression, which becomes:

$$\begin{aligned} Y_i = \quad & \beta_0 + \beta_1 \cdot \text{Female}_i + \beta_2^\top \cdot \text{Level of honors}_i + \beta_3^\top \cdot \text{Level of honors}_i \cdot \text{Female}_i \\ & + \gamma \cdot \text{Boarder}_i + \xi^\top \cdot \text{Level of honors}_i \cdot \text{Boarder}_i \\ & + \zeta \cdot \text{Female}_i \cdot \text{Boarder}_i + \phi^\top \cdot \text{Level of honors}_i \cdot \text{Female}_i \cdot \text{Boarder}_i + \epsilon_i \end{aligned}$$

where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who failed middle-school , ζ is the effect of studying in a boarding school for female who failed middle-school exam compared to male, ξ is a vector containing the effect of boarding for male students who barely passed middle-school exam and who passed the exam with honors, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units who failed middle-school exam), β_1 is the mean value of the outcome for female control units who failed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term in a regression.

This analysis reveals that the negative effect on graduation rates is driven by academically weak students (those who passed middle-school exam with a low grade – between 10 and 14 out of 20). By contrast, the great winners from the policy are academically very weak students whose graduation rates increase by 4% for males and $-9\% - 5\% + 13\% + 11\% = 10\%$ for females – these point estimates are statistically insignificant but economically very large. On their side, top students graduate slightly less after the policy (-2% for males and -4% for females – table 4.7), and dramatically less from a general track (-12%). The mechanism seems to be poor orientation advise given to weak students in BSE: these students benefit from an outstanding +18% graduation rate from a general curriculum, which is more than compensated by a decrease in graduation rate from other curricula, hinting about a bad substitution between curricula rather than a good new orientation. In stark contrast, very weak students benefit from a very large increase in graduation from a general curriculum, but also benefit from a small increase in graduation from a technological curriculum. Interestingly, very weak female students also seem to substitute the least rewarding curricula in France (CAP) for a more rewarding vocational curriculum (BEP) with success (statistically significant point estimates). Still, that students who scored high at middle-school exam graduate less from a general curriculum is a very puzzling result. A hypothesis is that some of them

are recommended to attempt something else than a general track and there is peer effects in the choice of a track – note that this effect is not driven by a single school, but that 2 out of 3 feature this very negative effect for top scoring students.

Overall, there are thus evidence for bad orientation choices at high-school induced by BSE.

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	-0.09^{**}	-0.09^{**}	0.18^{***}	-0.15^{***}	-0.12^{***}	-0.05^{***}	-0.01
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding: weak females	-0.05	-0.04	0.00	-0.04	-0.01	-0.02	-0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding: very weak males	0.13	0.13	0.06	0.18	-0.11	-0.09	0.01
	(0.16)	(0.16)	(0.11)	(0.12)	(0.11)	(0.10)	(0.01)
Effect boarding: very weak females	0.11	0.13	0.01	0.05	0.07	0.23^{**}	-0.16
	(0.25)	(0.23)	(0.16)	(0.17)	(0.16)	(0.11)	(0.11)
Effect boarding: very good males	0.07	0.07	-0.12^{**}	0.09^{*}	0.11^{***}	0.05^{***}	0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: very good females	0.03	0.02	-0.03	0.05	-0.00	0.02	0.00
	(0.07)	(0.07)	(0.08)	(0.06)	(0.04)	(0.02)	(0.01)
R^2	0.09	0.10	0.21	0.08	0.07	0.04	0.03
Adj. R^2	0.08	0.09	0.20	0.07	0.06	0.03	0.03
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.39	0.39	0.44	0.35	0.23	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.7: Effectiveness of the program on graduation rates of students given honors received at middle-school exam

Heterogeneous results: SES categories

A further interesting question is to know whether the program was as effective for all students whatever their socio-economic status, summarized by the DEPP indicators (A,B,C and D, respectively for privileged to very under-privileged students). These results should however be interpreted with caution, as I do not match students on their socio-economic status and there are some difference between boarders and control units on this regard. I use a regression similar to the previous one

$$\begin{aligned} Y_i = & \beta_0 + \beta_1 \cdot \text{Female}_i + \beta_2^\top \cdot \text{SES}_i + \beta_3^\top \cdot \text{SES}_i \cdot \text{Female}_i \\ & + \gamma \cdot \text{Boarder}_i + \xi^\top \cdot \text{SES}_i \cdot \text{Boarder}_i \\ & + \zeta \cdot \text{Female}_i \cdot \text{Boarder}_i + \phi^\top \cdot \text{SES}_i \cdot \text{Female}_i \cdot \text{Boarder}_i + \epsilon_i \end{aligned}$$

where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Following table A.32, we can observe that the intervention is overall more effective for students from less privileged SES (with male students from the highest SES harmed by the intervention – but not females). However, the effect by SES is very different for males and for females, with under-privileged males benefiting from an outstanding (and statistically significant) increase in graduation from a general curriculum by 28% without any decrease in overall graduation. On their side, women from different SES do not benefit very differently from the intervention.

These findings are both encouraging (the effect is better for an arguably target population) and worrying (the intervention does not seem to be well-suited to female students, and especially to under-privileged female students).

The choice of leaving the boarding school: a case for endogeneity

Beside the heterogeneity we discussed above, we can suspect considerably endogeneity within the results we presented, as students who remain at least 2 years in BSE benefit far more from the intervention than students who remain only one year. To affirm this, I present results from the following regression:

$$Y_i = \beta_0 + \gamma \cdot \text{Boarder only one year}_i + \zeta \cdot \text{Boarder for more than 1 year}_i + \epsilon_i$$

As outlined in table 4.8, the effect for students who remain strictly more than one year is very good and contrasts strongly with the effect on students who remain a single year: those who remain one year are harmed by their stay in BSE and graduate less than they would have from any of the curricula had they not been in a BSE, while those who stay more than one year are not adversely impacted on overall graduation and graduate far more from the most prestigious general curriculum (+31%). Virtually all of these results are statistically significant at the 1% level. This underlines that the intervention might be more effective on the long-term, a finding which was already present in Behaghel et al. (2017).

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.83***	0.83***	0.50***	0.22***	0.11***	0.05***	0.01***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Effect boarding 1 year	−0.21***	−0.21***	−0.11***	−0.03	−0.08***	−0.03***	−0.01**
	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)	(0.00)
Effect boarding +1 year	0.00	0.01	0.31***	−0.19***	−0.10***	−0.05***	−0.01***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.00)
R^2	0.04	0.05	0.10	0.06	0.04	0.02	0.01
Adj. R^2	0.04	0.04	0.10	0.05	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.47	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.8: Effectiveness of the program on graduation rates given time in BSE

The question thus arises to know whether these differences are due to cumulative returns through time from BSE (which we would like), or to endogeneity in the choice to remain in BSE. Although we cannot provide any test with a determined significance level, we have insights indicating that endogeneity might be important

in our case. Table 3.4 indicates that students who leaver after 1 year differ meaningfully and significantly from those who remain, as discussed in section 3.3. However, there is no evidence that any subcategory of student does not benefit from staying in BSE more than a year (except privileged male students who benefit a lot from remaining one year but no more), as underlined by tables A.40-A.51. This is either evidence that BSE give boarders cumulative returns (i.e. Overall returns $= \sum_{i=1}^{\text{year the student leaves}}$ Returns at year i, with returns per year potentially differing – due to small numbers of students remaining more than 3 years, I am unable to provide estimates for the returns to each year in BSE) –, or that there is unobserved heterogeneity in the choice of leaving BSE.

Heterogeneous results: by schools

In the context of evaluating a public policy that was implemented in multiple schools, it seems important that policy makers can understand whether some schools are better than other at yielding positive effects. I thus run all regressions that were given above separately for all three schools. The general results are similar in all three schools (tables A.52-A.54). However, schools differ in their ability to have students from different SES succeed: in BSE de Beauvoir, privileged students, if anything, fare better than under-privileged ones, and girls perform similarly as boys. In contrast, at BSEs Hugo and Sand, girls consistently under-perform boys and the stay in the school is best for under-privileged students (tables A.61-A.63).

Another main layer of differences is that non-French students in BSE Sand benefit far more from the program than non-French students in BSEs de Beauvoir and Hugo, where only French students benefit from the program and non-French students are even considerably harmed (tables A.64-A.66).

4.2.2 An awesome program for middle-school students

Middle-school students benefit far more from the program than high-school students do. The program is very effective for them on both their grades at middle-school and their graduation rates when they reach high-school. Quantitatively, boarders score 11%σ higher at the middle-school exam (standard deviations in grades σ

are again in comparison to the national level), with the effect on grades in history (+14%σ) and in French being the highest (+9%σ). Again, we thus have that effects on math test scores are quantitatively smaller (table 4.9). They also graduate more from general curricula at high-school (+8%), underlining that effects of BSE are quite persistent. As their counterparts at high-school, they however graduate less from any curriculum, although point estimates are small and statistically not different from 0 (table 4.10).

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	-0.12^{***}	0.78^{***}	-0.05	-0.17^{***}	0.06^{*}	-0.11^{***}
	(0.03)	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)
Effect boarding	0.11^{***}	0.01	0.09^{***}	0.03	-0.06^{*}	0.14^{***}
	(0.04)	(0.02)	(0.04)	(0.04)	(0.04)	(0.04)
R^2	0.00	0.00	0.00	0.00	0.00	0.01
Adj. R^2	0.00	-0.00	0.00	-0.00	0.00	0.00
Num. obs.	2051	2065	1986	1981	1941	1981
RMSE	0.95	0.41	0.98	0.94	1.00	1.01
N Clusters	1189	1193	1177	1176	1170	1176

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.9: Effectiveness of the program on results at middle-school

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.72^{***}	0.70^{***}	0.33^{***}	0.19^{***}	0.17^{***}	0.08^{***}	0.02^{***}
	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Effect boarding	-0.04	-0.03	0.08^{***}	-0.04^{**}	-0.07^{***}	-0.02^{**}	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.00	0.01	0.00	0.01	0.00	-0.00
Num. obs.	1599	1599	1599	1599	1599	1599	1599
RMSE	0.46	0.47	0.48	0.37	0.34	0.25	0.13
N Clusters	932	932	932	932	932	932	932

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table 4.10: Effectiveness of the program on graduation rates at high-school for middle-school students

As for high-school students, we can run more specific regressions to distinguish the effects of BSEs for males and for females. And, contrary to previous results, the stay at BSE is slightly better for girls than for boys (although not statistically significantly) when one considers mean grade and admission at middle-school exam (table A.67). However, if we focus on graduation rates at high-school, we can still observe that the effects of the program is smaller for girls than for boys (table A.68),

which can be explained by both self-censorship of girls and also by the fact that girls currently drop out less than boys and perform better academically, meaning there is less room for improvements for them.

We can also study results taking into account the socio-economic status of students. These results give similar insights as the analysis for high-school students, namely that under-privileged students are the ones who benefit the most from the intervention (tables A.69 and A.70), but this time it applies both to boys and girls (although very privileged girls are not as harmed as very privileged boys).

The last result similar to the one for high-school students is the importance of staying at least 2 years in the BSE, whether it is for long-term consequences on graduation rates at high-school (table A.80), or for the short term outcomes on grades at middle-school exam (table A.79). As with high-school students, effects for staying only one year in BSEs are at best weakly negative (except for French grades at middle-school exam that are positively affected). On the contrary, effects for students who stay at least 2 years are strong and positive.

Heterogeneous results: the importance of nationality

Another main difference between the effects of BSEs at high-school and at middle-school is that, contrary to the effects for high-schools which are evenly shared between French and non-French students (table A.71), the effects of BSE on middle-school students is far stronger for non-French students than for French ones. Non-French boarders at middle-school score 42%σ (vs 8% for French students) higher at middle-school exam, graduate 10% (vs 1%) more often from this exam, score 30%σ (vs 0%) higher on their mathematics score at middle-school exam and 44%σ (vs 11%) on their history grade. All of these results are economically large and statistically significant, at least at the 5% level. Moreover, these effects persist during high-school, although none is significant due to imprecise estimation (A.72).

The heterogeneous quality of schools

One of the very important results for policy makers is that results are very heterogeneous across schools at middle-school level. While the mean effect of attending

a BSE is very good for middle-school students, it is very strong for students at BSE Sand, quite good at de Beauvoir, and absolutely terrible at BSE Hugo. At Sand, all outcomes rise consequently and significantly, with test scores rising by 37%σ in French, 39%σ in mathematics and 47%σ in history (table A.75). This is equivalent to taking students in the 43 percentile of the grade distribution at the national level and taking them to the 57 percentile. In stark contrast, students at BSE Hugo see their mean grade decrease by 15%σ, with decreases by 19%σ and 34%σ respectively in French and in mathematics (table A.74). In between, students at de Beauvoir benefit from their stay in BSE, but only their grade in history increases significantly by 52%σ (table A.73).

These results can be traced up to high-school graduation rates, where students who studied at BSE Hugo fare considerably worse than students in both other schools. Students entered in the latter do not benefit from any positive effects on their graduation rates (table A.77), while students in both other schools benefit from an increase in graduation from a general curriculum by around 15% with only marginal effects on overall graduation (tables A.76 and A.78).

These results might be considered carefully by policy makers to learn about the issues faced by BSE Hugo.

4.3 Robustness checks

To strengthen the findings about the effects of BSE, I provide robustness checks to the effects previously estimated in this section. First, I discuss estimates obtained with different matching techniques. Then, I check whether students who were selected as control units are more (less) likely to study in a school with (non-dedicated) seats of excellence than other peers.

4.3.1 Propensity score matching

Propensity score matching (NNPSM – which is discussed above) provides effects that are qualitatively similar to the ones we obtain from the simpler matching technique described above (as shown in tables A.85-A.124 in appendix), albeit

quantitatively different (sometimes by meaningful amount, but this is often in regressions for SES and levels of honors when there are few observations by strata and thus in the setting when PSM is the least reliable). This is a good thing given that the balance of characteristics obtained with my method is quite poor, while the one with PSM is perfect (tables A.81 for high-school students and A.82 for middle-school students). Moreover, we have evidence that unobserved heterogeneity is contained through PSM: if we forget variables that should not directly condition the entry in BSE from PSM (e.g. being a grade skipper or a grade-repeater), we still obtain balance on these characteristics with PSM, as indicated in tables A.83 and A.84. This finding means that we can expect PSM to rightly account for heterogeneity unobserved but not directly relevant to the admission into BSE. By contrast, and in accordance with this explanation, the balance with PSM is quite bad when we forget variables that should be highly relevant for the recruitment as a boarder (e.g. holding a means-tested grant). Again, this is evidence that our matching technique models as close as possible the recruitment process into BSE.

4.3.2 Matching on social position index

As discussed above, I use the grades of students at middle-school exam to estimate the effects of BSE for high-school students, but the social position index to match students at middle-school. I tested whether matching on social position index for high-school students is as good as matching on grades. The conclusion is simple and intuitive: one should prefer to match on grades. Why? Matching based on social position index arguably over-states the effects of BSE (see estimates in appendix F.7), which is completely normal: social position index is a statistical construct that indicates how strongly SES and school success are related. It is thus an imperfect indicator for academic achievement. On the contrary, grades at middle-school are a tangible indicator of actual academic achievement. Moreover, the choice of an academic curriculum (general, technical or vocational) is of course related to SES, but it is also strongly related to academic achievement at middle-school. Imagine two students, both live in farmer families, so both have the same score on the index, but one received an outstanding 19/20 at middle-school exam while the second scored a (below national average) 12/20. Would you say the second one

is a relevant counterfactual to the first one? Probably not. However, this is what happens with matching based on the social position index.

Now, is this matching terrible? Not at all! To see this, we need to assess how likely it is that two students from similar families and who studied in the same school and took the exam the same year score differently on this exam. While I do not have evidence about this, it should arguably be quite low, which also explains why estimates based on social position index are not very different from the ones with matching based on grades. Furthermore, matching on social position index rather than grades is important if we think socio-economic variables are more important than grades, as this matching provides a better match on variables relating to SES (but a worse match based on school related outcomes such as being a grade skipper – see tables 4.1 and A.125)

To wrap-up, matching based on social position index provides an interesting and quite reliable alternative to matching on test scores. However, when the outcome of interest is considerably influenced by grades, one should prefer to match on grades whenever possible. In the present case, the choice of a curriculum is one such variable, so grades should be preferred. A second reason why grades should be preferred in this context is also that, under uncertainty, one might prefer to be conservative about the estimated effects, which is what matching on grades propose (since it makes us compare students who had the same grade, but boarders are under-privileged by construction, the control we choose with this method is arguably scoring higher than the counterfactual on outcomes of interest). By contrast, we can think that matching on social position index is not that bad for boarders at middle-school. Indeed, all students must attend middle-school and virtually all take middle-school exam, erasing the choice of a curriculum from the perimeter, and thus decreasing a bit the uncertainty around outcomes.

4.3.3 Matching with social position index and grades obtained at middle-school exam

We discussed matching based on social position index vs middle-school grades above. But why not using both? In my setting, this constraint seems to be too

much to reproduce, even loosely, the estimates by Behaghel et al. (2017) (and even for control units), as it imposes to choose a peer that scores kind of similar both at middle-school exam and on the social position index. The estimates that result are better than the ones using social position index alone, but worse than those using matching based on grades (see tables in appendix F.8). Again, this might be due to the fact that grades are better predictors of the choice of a curriculum than social position index. Interestingly though, the balance is better than the one with any technique other than PSM (see table A.156).

Overall, an advise would thus be to use both social position index and test scores whenever sample size is small relative to the whole population, when both are available and when the outcome of interest is not strongly related to grades. When the sample is large enough, this should not be a concern anymore as test scores and social position index are almost perfectly related (Rocher, 2016b).

4.3.4 Are control units more likely to benefit from a seat of excellence than other peers?

A final robustness check I perform is to observe whether students selected as control units study more often than other peers in a school that benefits from a seat of excellence. To do so, I estimate the following regression

$$\mathbb{1}\left(\text{Study in a school with seat of excellence}\right) = \beta \cdot \mathbb{1}\left(\text{Control unit}\right) + \gamma^{\top} \cdot \text{controls}$$

where controls are the same as the ones appearing in the balance checks.

The main limitation with this check is that I must rely on the list of schools described as potential BSE over the period I study. This list was found online, but it covers nearly a third of all French secondary schools so that it is unsure whether all schools in the list actually benefited from the program and hosted any boarder of excellence. As a comparison, one can see that the current program, which is under generalization, features less BSE than the list for 2011.

Notwithstanding this difficult, I provide results for this little check, as control

units should anyway not study more in this list of schools than other former peers of boarders. Unfortunately, the result is that students selected as control units are 7.8% more likely to study in a school with seats of excellence than peers not selected as control units do (table 4.11). Moreover, and more importantly, control units are 3.9% more likely to *be boarders* in schools that benefit from seats of excellence 4.12. It implies that the effects I estimate are arguably a lower bound for the true effects of the BSE program (if one is ready to make the hypothesis that BSE do not hamper students' academic achievement), which is at least the kind of bound we prefer in the context of a costly policy evaluation.

	Dependent variable:			
	Has been boarder (=1)			
	(1)	(2)	(3)	(4)
Diff control- non-control	0.066***	0.059***	0.064***	0.078***
	(0.004)	(0.004)	(0.004)	(0.006)
Non-control	0.222***	0.000	0.0004	0.847***
	(0.001)	(0.049)	(0.020)	(0.065)
Class level	No	Yes	Yes	Yes
Characteristics of students	No	No	Yes	Yes
Collapsed	No	No	No	Yes
Observations	392,618	392,614	374,630	102,492
R^2	0.001	0.029	0.032	0.061
Adjusted R^2	0.001	0.028	0.032	0.060
Residual Std. Error	0.417 (df = 392616)	0.411 (df = 392479)	0.417 (df = 374539)	0.367 (df = 102459)
F Statistic	333.349*** (df = 1; 392616)	86.546*** (df = 134; 392479)	139.244*** (df = 90; 374539)	206.484*** (df = 32; 102459)

Stars indicate significance levels: *p<0.1; **p<0.05; ***p<0.01.
All regressions are on a dummy indicating whether a student was a boarder after her boarder of excellence peer reached the BSE. The first regression is simply on the dummy indicating whether the peer was selected as control, the second add a set of dummies for class levels to the regression (to control for students more likely to be boarders at some steps in their lives), the third regressions adds characteristics (gender, nationality, value of the social position index, dummies for being a scholarship holder, living in a single family and having no parents) of the students to the regressions as control units were not selected by mere chance. The last regression collapsed the dataset of former peers to one observation per peer (for those who were boarders at some point, we keep this observation).
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 4.11: Propensity of control units to study in schools with seats of excellence

	Dependent variable:			
	Could be boarder of excellence (=1)			
	(1)	(2)	(3)	(4)
Diff control- non-control	0.022***	0.023***	0.024***	0.039***
	(0.001)	(0.001)	(0.001)	(0.002)
Non-control	0.018***	−0.000	0.001	0.234***
	(0.0002)	(0.016)	(0.007)	(0.027)
Class level	No	Yes	Yes	Yes
Characteristics of students	No	No	Yes	Yes
Collapsed	No	No	No	Yes
Observations	392,618	392,614	374,630	102,492
R^2	0.001	0.008	0.010	0.029
Adjusted R^2	0.001	0.007	0.010	0.029
Residual Std. Error	0.136 (df = 392616)	0.136 (df = 392479)	0.139 (df = 374539)	0.150 (df = 102459)
F Statistic	346.798*** (df = 1; 392616)	22.198*** (df = 134; 392479)	41.124*** (df = 90; 374539)	95.725*** (df = 32; 102459)

Stars indicate significance levels: *p<0.1; **p<0.05; ***p<0.01.
All regressions are on a dummy indicating whether a student was a boarder in a school that might have benefitted from a seat of excellence after her boarder of excellence peer got admitted into the BSE. The first regression is simply on the dummy indicating whether the peer was selected as control, the second add a set of dummies for class levels to the regression (to control for students more likely to be boarders at some steps in their lives), the third regressions adds characteristics (gender, nationality, value of the social position index, dummies for being a scholarship holder, living in a single family and having no parents) of the students to the regressions as control units were not selected by mere chance. The last regression collapsed the dataset of former peers to one observation per peer (for those who were boarders at some point, we keep this observation).
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table 4.12: Propensity of control units to be boarders in schools with seats of excellence

Chapter 5

Discussion

From the estimated effects of the BSE program, we can reach the conclusion that the intervention is an effective one – at least for middle-school students. However, there are some limits to my analysis. A first one, which was already introduced, is that the current work does not take into account interferences (section 5.1) while they might matter considerably in an educational context. The second one is about the quality of the matching strategy (section 5.2). More positively, a third limit is that there might be further – positive – effects which I am unable to quantify with the data I have access to (section 5.3). And finally, to conclude the discussion, we wrap-up the presenter master thesis with implications for policy-makers (section 5.4.

5.1 The case of interferences

When they enter the boarding schools, students are furthered away from their parents, but also from their current friends and need to make new ones in the BSE. However, it is possible that the identity of students with whom they begin to study matter quite a lot for the effectiveness of the program. Indeed, in a network perspective, the identity of the nodes (the individuals) in the networks and their relationship to one another is a very important feature. In a school context, there are multiple reasons why such network effects might be worth considering.

First, we can think about behavioural cascades: it could be that a specific combination of personality traits enhances cooperation, support, and team work, while another exacerbates competition and creates distrust. Since students do not know each other before their entry in BSE, we cannot ensure they will reach the first kind of equilibrium rather than the second. Behaghel et al. (2017) provided evidence that, by the second year in BSE, there is no worsening of well-being, and in particular regarding friends, compared to control units in their case. However, remind the boarding school they study is the one for which I find the strongest effects; it might thus be that something is playing out at Sand that does not happen that well with other schools. Furthermore, Behaghel et al. (2017) provide evidence that students feel disliked by others[1]. This could also be an explanation for why a lot of students leave the BSE after one year. As a result, since well-being, cooperation and trust between students are arguably important parameters for success at school, there is evidence that some interferences[2] could be expected in the current context.

A second case of interferences would be about the academic achievement of students. Suppose we have three students A, B, and C with A scoring higher than B before boarding school and B scoring higher than C. Also assume that all A,B and C are the best students in their class before they go into the BSE. Now, note that with the ordering of grades I just described, A remains first in the BSE, B is exactly a middle-level student and C becomes the lowest performing student. Can we expect the same effect of BSE for all these students? It is likely that we cannot, as not only grades in absolute values matter for students but also their ordinal rank in the classroom (Murphy and Weinhardt, 2020). Hence, we can expect C to benefit less from the BSE in this particular aspect – the overall effect might be different as teachers could take more time to help C than A for instance. But now, let's imagine A is not recruited but D is, with D performing below C. Without interferences, this should not matter for C, as her own treatment is not changed. But, in the real world, her ordinal rank is actually changed, which arguably changes

[1] On the item "other students like me", they score near to 0.5 points lower on a standardized test than their control units.

[2] Remind that I use interferences as an econometric object, and that they mean in the context that the whole vector of treatment assignment matters for students, not only their own treatment status.

the effect the program for her. This is a second reason why the whole vector of treatment might matter, and not only the own boarding status of students.

Finally, a last room for interferences concerns the reaction of schools that do not benefit from a seat of excellence. Suppose the highest performing students go to BSE whenever they can. With the assignment of schools in the French system based on geography, some schools are losing students that would potentially have been the highest performers. They could thus try to improve the performance within their own schools to make it more attractive not to go to BSE, as is the case in the school vouchers literature by Epple et al. (2017)[3].

Overall, there are thus indicators that, whenever we are able to develop tools to handle interferences, we should carefully redo the current analysis to estimate the effect of BSE – as well as the analysis of most educational program, as the issues with interferences described here are rather general.

5.2 Methodological findings for matching

As described in tables 4.1 and 4.2, the balance of characteristics between control and treated students is not a panacea. In practice, the issue we faced for this paper is that the BSE program was implemented with a large degree of freedom at the local level, making it difficult to recover a well-balanced dataset through matching with national administrative data. This underlines that, beyond the usual efficiency-equity trade-off in economics, we might be facing a local freedom vs. efficiency in policy evaluation trade-off if more policies are to be discretionarily deployed at the local level. Indeed, instead of answering a question relevant to the expansion of knowledge and to the economics literature, like "can we substitute parents by professional educators through a boarding school program?", we might begin answering question relevant to policy-makers only, like "is the BSE program

[3]This room for interferences is the least convincing one, as Behaghel et al. (2017) provided evidence that non-BSE schools are not really impacted by the program given its small scale, since French schools do not receive subsidies based on their performance, and French students cannot completely choose their school due to geography-based school assignment (the only way for parents to choose the school of children is to choose their address, to go into the private sector or to ask for waivers.)

efficient in the average school?". And worse than that, we might not be able to estimate any true effect, even relevant to policy makers, if admissions are too opaque. To be clear, in this paper, I am answering the first question more than the second, as I can distinguish between schools, and thus I am not exactly estimating the effect for the average school. But what about the program currently being generalized, with some schools benefiting from less then 10 seats of excellence? We will definitely not be able to assess the effect for these schools and will need either to bunch them with other similar schools or to estimate the effect at the national level. But, then, we would not be answering the first question at all, but rather questioning the ability of a decentralized program to reach positive effects on average, which might not be relevant either to the expansion of knowledge nor to decision makers if effects in the mean school are close to 0 while some superstars schools lead the bulk of the results, and could have a biased conclusion – in the sense that we would argue for an effective program, while the median effect of the program would be far closer to 0, and we would not be able to get real insights for what really works.

Beyond this little critique, the matching strategy proposed by this paper interestingly highlights that matching on some variables of first importance (sex, former school and either social position index or grade at middle-school exam) can give results very close to those obtained by propensity score matching (PSM), which underlines that we might be able to save on precision of our estimates by using such strategy rather than PSM – although verifying this result would be worth it. Moreover, the fact that we obtain similar balance with grade at middle-school exam and social position index indicate that this variable could be used by practitioners to evaluate the effects of policies when standardized test scores are not available, opening the way to evaluating more policies in the French context and encouraging other governments to generate similar indicators.

5.3 Unobserved outcomes and the effect of boarding schools of excellence

Due to the national administrative nature of the data this paper uses, we can finely observe the effect of BSE on national test scores. However, there are many outcomes that are not captured by these data.

First, and while this was one of the strong features of the BSE program, we do not observe the exact nature and amount of cultural activities students follow in these schools. And thus we cannot estimate exactly the effects of these activities for children beyond their consequences on academic results. For instance, cultural activities might induce changes in the perception of leisure usually performed by upper-social classes, and generate more proximity between under-privileged children and elites. Interactions with professionals from different fields might also provide students with role models, and in turn help them find a career they want to pursue. Hence, our imperfect knowledge about these cultural activities prevents us from estimating effects on other related outcomes that would be of interest for policy-makers.

Furthermore, BSE could have positively impacted citizenry of students. Indeed, the very large positive impact of the program on grades in history, geography and civic education indicates that boarders might have invested consequent amount on their civic background. Beyond their grades, students might also be grateful for the opportunity BSE gave them and have a strong sense of "civic duty". An interesting outcome would thus be the voter turnout of students who frequented BSE, as well as their participation in associations.

5.4 Implications for policy makers

This master thesis provides a lot of insights to decision makers. The first is about the population hosted in boarding schools of excellence, which had not been quantitatively assessed until now. Fortunately, the socio-demographic profile of boarders is consistent with the goal of the policy, as they are under-privileged both compared to their former peers and compared to the French population. Moreover,

an interesting fact is that students who leave the BSE during their first year differ significantly from those who remain in these schools (table 3.4). This can help policy makers to target more explicitly students who would remain more than a year in BSE, as these students benefit more from the intervention than those who leave, as highlighted in section 4.2.

Another main insight for policy makers is that the intervention is far more successful for students who enter at middle-school than for students who enter it at high-school. Depending on what decision makers prefer, it calls for either a review of the admission and operating process at high-school or a focus on middle-school students with this policy. Furthermore, it has been shown that one of the boarding school has consistently higher effects than both other. A policy maker might thus want to have other schools look more alike the school for which the intervention works the best.

Conclusion

The boarding schools of excellence program is a broad intervention, aiming at substituting home environment by school environment for students in under-privileged families who face difficulties for studying at home. Benefiting from 10 years of data, we can estimate the effect of this initiative for the academic success of students. Surprisingly, boarding schools of excellence are more beneficial to middle-school students, although they hide considerable heterogeneity in their effects. The most important layer seems to be that these schools are mostly beneficial to the subset of the population who remains more than 2 years in the boarding schools. Moreover, since students who remain longer in the schools are plausibly academically stronger students before entering the schools, it gives insight for the future of the program by pointing a subset of the population for whom the intervention might need to be adapted – namely academically weaker students. Furthermore, boarding schools of excellence benefit more male than female students, and in particular does not seem to affect consequently the choice of a general track for female students, which might be worth studying in more depth as to see whether the program reduces/strengthens the gap in the choice of a scientific curriculum between boys and girls. The current intervention is indeed suited to reduce the achievement gap between different socio-economic strata; and, although there are evidence it is successful at reaching this aim, it might be less efficient at i) promoting the most economically and socially rewarded curricula for women and at ii) filling the achievement gap between males and females – as the former currently systematically under-perform the latter and given females benefit more from the intervention on their grades at middle-school. Furthermore, the intervention is most conclusive in some schools than in others. Although we cannot currently ensure that this is not

due to the differences between the population these schools host, this master thesis opens the way to thinking about the management of boarding schools and how we could promote good practices within these schools.

Finally, I would like to discuss briefly the external validity of the present results. I studied the case of dedicated boarding schools of excellence in France. The first question is thus whether my findings also apply more generally to other seats of excellence in France. Given the heterogeneity between schools, even among the small sample I consider, it seems unlikely that the causal effect estimated here can be expected in all schools. However, we can expect that boarding schools experiencing similar conditions perform similarly, and in this sense this paper has some external validity. The main limit of this thinking is that most current seats of excellence are located in schools that already had boarding seats, though not of excellence. This setting seems considerably different from the current one and asks for ethical questions. These questions are for instance: are educational advisers fine with the idea of giving more resources to some boarders than others, or are all boarders in schools with seats of excellence treated differently? Do boarders of excellence feel segregated in the schools they frequent? What kind of students frequent these schools?

Another question about external validity is whether there are evidence that the current findings have validity outside the French context. Most likely, insights could be similar. However, quantitative effects would likely differ, as different countries have different cultural norms, and thus different reactions against boarding. Political acceptance of this kind of project would also likely vary across countries, which would generate different mechanisms and possibly different kind of populations attending the schools. It would thus be presumptuous to claim that this study could even be enriching for other countries, and even so as cultural norms between France and the country of interest differ.

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Appendix A

Boarding schools of excellence in the French education system

Boarding schools of excellence, "Internats d'Excellence" in French, are a component of the broader initiative dedicated to disadvantaged suburbs, "Plan Espoir Banlieues". As indicated in the introduction, the aim of boarding schools of excellence is "to promote equal opportunities for pupils and students from modest backgrounds, in particular from urban policy districts and priority education areas, and to encourage social diversity within schools"[1], with the last part being nuanced by successive speeches by the main proponent of these policies, newly elected president Nicolas Sarkozy (he was elected on May, 16, 2007). At the time, the policy was a highly political one, and was considerably discussed in the media[2]. Since then, the program has had quite tumultuous time: it was partially abandoned by the successor of M. Sarkozy, François Hollande, before it was revitalized in recent years by the current president Emmanuel Macron, and his – then – Minister of Education Jean-Michel Blanquer, who had served as General Director of School Education when the boarding schools of excellence were in their expansion phase, as a regional director of school education in the first region that hosted a dedicated boarding

[1] Ministry of Education and Ministry of Cities, circulaire du 8 juillet 2010. My own translation.

[2] As Rayou and Glasman (2012) put it:

"Scarcely has a compensatory education program benefited from such media promotion and political support over such a concentrated area." (p.12, chapter 1 by Benjamin Moignard and Dominique Glasman, my own translation)

school of excellence and was one of the proponent of the program.

Over time, the program considerably changed with regards to the host structures, with mixed boarding schools (hosting both boarders of excellence and regular boarders) taking more importance, as well as with the creation of boarding seats of excellence in previously regular boarding schools, and with the creation of temporary seats of excellence, for students who only need a place in the boarding structure on a short term basis (Ministère de l'Education Nationale, de la Jeunesse, et des Sports, 2021, p.32). But the main motive remained the same, as illustrated by the explanation of the program by Jean-Michel Blanquer in 2021. Similarly, the admission procedure (described below) seems to remain unchanged compared to the work by Rayou and Glasman (2012) and Morel (2014), as illustrated by the admission file in the school district of Bordeaux.

In the following subsections, I briefly discuss the recruitment procedure and the main facts about life in a boarding school of excellence. If one wants to learn more details about these schools, I strongly advise to read the qualitative papers and reports on the matter (Boulin, 2013, 2018; Delahaye et al., 2011; Delouvrié, 2013; Morel, 2014; Rayou and Glasman, 2012).

Recruitment procedure

This part is based on chapters 1 (by Moignard and Glasman) and 2 (by Daverne, Kakpo and Fofana) in the report by Rayou and Glasman (2012).

As part of the strategy of the government to allow boarding schools to fill the local needs, the Ministry of Education did not give precise recruitment guidelines and let the school principals organize the recruitment process themselves. Ironically though, most of the time, the admission procedure did not involve the local authorities, making education professionals (paid by the central authority) the ultimate decider of the decision to recruit students (ibid. p.16 – the ultimate decider being the "rectorat", meaning the representatives of the Ministry of Education in a region).

In most boarding schools, the recruitment procedure involved all actors relevant to welfare, academic achievement and surveillance of students (nurses, school principals, school teachers and principal educational advisor) to form a board of

admission, which would examine all applications. There was considerable discussion among these actors, who often disagreed to some extent about the meaning of "excellence", and its implication for these boarding schools of "excellence": in particular, members of the board of admission disagreed about whether academic achievement should be the main recruitment criterion, and to which extent they should also consider other relevant criteria, such as behavior or family environment[3].

The procedure often also required parents to visit the boarding school and to discuss with members of the board of admission before a decision was taken; this part of the procedure had considerable impact on the opinion of the board about the application. These meetings allowed the board members to better understand the motivation of both parents and children for their application to the boarding school. For instance, sometimes, there was confusion for parents (as there was for the public in general, Duquesne, 2013) between boarding schools of excellence and the school rehabilitation facilities ("établissement de réinsertion scolaire" in French), which were boarding schools created nearly at the same time but were dedicated to students with inappropriate school behaviour (EducationFrance, 2011). Consequently, some of the parents sought after structures to straighten out their children, while the boarding schools of excellence were not fit to that purpose.

Although it is not directly part of the recruitment procedure, it is also worth noting that some of the schools considerably favored students from some neighborhoods (the "quartiers prioritaires des politiques de la ville") as the French agency for urban planning (Agence nationale de rénovation urbaine) funded the seats for students coming from these areas (Cour des comptes, 2014; Morel, 2014). Students outside these areas were thus less likely to be endowed with a seat on average (some boarding schools of excellence did not recruit any students coming from non-priority areas).

As the final part of the procedure, the board of admission indicated its opinion (favorable or unfavorable) about the application for each child. The rectorat used this opinion to decide on the admission of the student.

[3]Although these discussions are reported in the Rayou-Glasman report, it is likely that they are not required anymore, as the Ministry of Education clarified its stance: academic achievement should not be the main recruitment criterion, while living environment should play a major role (Ministère de l'Education Nationale, de la Jeunesse, et des Sports, 2021, p.32).

On the whole, due to the lack of uniform guidelines and to directed funding of the schools, admission decisions had a considerable arbitrary part.

Life in a boarding school

This part is based on chapters 2 (by Daverne, Kakpo and Fofana), 4 (by Pirone and Rayou) and 5 (by Boulin and Guigue) in the report by Rayou and Glasman (2012).

As expected, the study setting of the boarding schools of excellence is a rigorous one. Students face a highly regulated timetable. Education professionals also consider it is of their duty to wean children off their phones, and more generally off any screen. Both these points triggered resistance from students (as shown in the documentary by Delouvrié, 2013, students often have 2 phones or more to avoid it being taken).

After they were admitted, students could be considerably disappointed by the life in a boarding school, in particular when they discovered that the buildings of the boarding school were still under work when they entered the school (this happened in some of the dedicated boarding schools I study). Some of them were also disappointed by the timetables, which they found too rigorous (see for instance the first scenes of the documentary by Delouvrié, 2013 – a teenager explains to one of the teacher she expected to have class only in the morning and do sport in the afternoon, which is part of the school rehabilitation facilities program but not of the boarding schools of excellence program). Indeed, the typical timetable in a boarding school of excellence has students wake up around 7am, begin classes at 8am after breakfast and morning preparation, follow classes until 5:30pm with a 1:30h lunch break at 12am, snack between 5:30pm and 6pm, be in a study room between 6pm and 7:30pm, eat between 7:30pm and 8:30pm. From 8:30pm to 10pm, students have free time, except if they register for optional activities. And testimonies from students indicate that most of them felt compelled to engage in activities and thus had no free time.

The activities proposed by the boarding schools of excellence vary from one boarding school to another, depending on the local network of partnerships of the schools. This is part of the strategy of the plan as emphasized by Nathalie Elimas, Secretary

of State in charge of priority education (Ministère de l'Education Nationale, de la Jeunesse, et des Sports, 2021), who wants the plan to build on localities. Still, qualitative evaluations of the program indicate that most of these activities share a common idea about what boarders *should* do, as quite a lot of activities were directed towards emulating their general knowledge and could be considered regular activities of the upper-classes of society (e.g. opera). Note that this might be one of the reasons why students felt there were too much activities.

Overall, the workload students face and the intensity of cognitive content delivered to them is quite high. Often, this very busy schedule is considerably different from the timetable boarders had at home, and they need an adaptation to this setting (Rayou and Glasman, 2012).

Besides activities and schooling time, an important matter with boarding schools are relations between peers and between students and education professionnals. As for relations between peers, children felt a high sense of solidarity and reported they were "as links of a chain" (heard in Delouvrié, 2013), which is also confirmed by the quantitative evaluation of the program in one of the boarding schools (Behaghel et al., 2017, 2013). Moreover, students report they are followed with more care by their professors, and they feel they have a better relationship with them (Behaghel et al., 2013; Delouvrié, 2013, also illustrates this through the words of teachers). Students in boarding schools are also less likely to be in conflict with their parents. On the contrary, they report worse relationships with educational assistants (Behaghel et al., 2013; Rayou and Glasman, 2012).

Appendix B

Reminder about the propensity score matching approach

This section is mainly targeted to master students and early practitioners who would like to have a review of the most basic propensity score properties and use in the case of a binary treatment and who would happen to see my master thesis. Researchers familiar enough with propensity scores would arguably prefer more thorough discussion of propensity scores, such as the ones in the book by Guo and Fraser (2014). Other might also prefer a full review article dedicated to the topic, such as the one by Guo et al. (2020).

Assume the population comprises N individuals. Given a treatment following a binary variable D, $D = 1$ indicating belonging to the treatment group while $D = 0$ denotes belonging to the control group, and given a vector of characteristics X, the propensity score is defined as

$$\pi(X) := P(D = 1 \mid X) = \mathbb{E}[D \mid X]$$

I will also use the potential outcomes framework of Rubin (1974), meaning $Y(1)$ denotes the outcome a unit would experience if treated and $Y(0)$ is the outcome it would experience if left untreated.

The most useful result about propensity scores was derived by Rosenbaum and Rubin (1983), who showed that these scores satisfy the balancing score property:

Theorem 1. *Propensity scores are balancing scores*

$$X \perp\!\!\!\perp D \mid \pi(X)$$

The second very important result from the authors is that, under the assumptions I gave in the body of my thesis, propensity score matching estimator is unbiased for the average treatment effect:

Assumption 2. *A treatment D is strongly ignorable if*

1. $Y(1), Y(0) \perp\!\!\!\perp D \mid X$ *almost surely;*
2. $0 < \pi(X) < 1$ *almost surely.*

Assumption 3. *A setting satisfies Stable Unit Treatment Value assumption if*

$$\forall i \in \{1, \ldots, N\}, Y_i(\boldsymbol{D}) = Y_i(D_i)$$

where $\boldsymbol{D}$ is the whole vector of treatment and D_i denotes the treatment status of individual i.

Assumption 4. *Characteristics X are exogeneous to the treatment. This assumption holds in particular if their multivariate distribution are the same before and after the treatment.*

Theorem 5. *Let $\mathcal{M}(i) = \left\{ j : D_j = 1 - D_i \wedge \pi(X_j) = \arg\min_{k \in \{1,N\}} \{|\pi(X_i) - \pi(X_k)|\} \right\}$ be the matching set for any unit i, with a random choice of match if there is a tie. Then, under strong ignorability, SUTVA, and exogeneous characteristics, propensity score matching is a reliable technique to estimate unbiasedly the average treatment effect $\mathbb{E}[Y(1) - Y(0)]$.*

Note that I propose $\mathcal{M}(\cdot)$ to be nearest-neighbour matching here, but the result is more general, and applies more generally to $K-$neighbour matching. One should however be aware that the choice of a caliper C is recommended – and sometimes necessary – so that one has $\pi\left(X_{\mathcal{M}(i)}\right) \approx \pi(X_i)$[1]. If there is no match good enough

[1]The use of a caliper C is such that

$$\mathcal{M}(i) = \left\{ j : D_j = 1 - D_i \wedge \pi(X_j) = \underset{k \in \{1,N\}}{\arg\min} \{|\pi(X_i) - \pi(X_k)| : |\pi(X_i) - \pi(X_k)| \leq C\} \right\}$$

for some unit, the usual practice is to prune out this observation, but this should be clearly indicated in the paper one writes. To scientifically base a choice for a caliper, one can follow the approach laid out in Crump et al. (2009).

Also note that the theorems I reminded so far only apply to the true propensity scores. One often need to use estimated propensity scores instead, with:

$$\hat{\pi}(X) = \hat{P}(D = 1 \mid X)$$

In practice, researchers often use parametric models – and very often these are logit or probit models – to estimate the propensity scores, so that

$$\hat{\pi}(X) = F\left(X'\hat{\theta}\right)$$

for a parameter θ to be estimated. The approach above is also valid with these estimated propensity scores, although one should carefully consider the variables to be used on the estimation of the propensity scores, as they can cause moral dependence if poorly chosen (King and Zeng, 2006; King and Nielsen, 2019). Moreover, one should always consider qualitative insights indicating whether the use of propensity scores can be intoxicated by unobserved variables and whether some of the variables are more important than other.

After careful thinking, if the use of propensity score matching is justified, one still need to proceed with the estimation step. It has been shown that, even if the propensity score estimator is unbiased, practitioners need to account for the uncertainty involved in the estimation of propensity score to derive the precision of their estimated treatment effect, which is generally the parameter of interest to them. When dealing with uncertainty coming from a first estimation step, the most common procedure is using bootstrapping. However, it was shown to yield incorrect standard errors in most cases in the context of matching estimators (Abadie and Imbens, 2008). To compute confidence intervals with propensity scores matching

This implies that there can exist some unit i for which $\mathcal{M}(i) = \emptyset$. In this case, a treated unit can be discarded from the analysis. This is justified as, for a given C, we have that the pruned unit was an outlier in the propensity distribution – with outlier having a slightly different sense than usual, as the unit could have characteristics in the convex hull of "usual" characteristics, although no potential control unit would have close enough characteristics/propensity score.

estimators, practitioners can rely on the procedure developed by Abadie and Imbens (2016):

Theorem 6. *Let denote $\hat{\tau}$ the propensity score estimator of the average treatment effect and τ the true treatment effect. Let $\widehat{\sigma^2}$ be the variance of the matching estimator (as given in Imbens and Abadie, 2006). Let I_θ be the Fischer information matrix in the parametric model for the propensity score. Let c be a tedious formula depending on the covariance between covariates and outcomes conditional on propensity score and treatment. Under mild assumptions,*

$$\sqrt{N}\left(\hat{\tau}-\tau\right) \rightarrow^d \mathcal{N}\left(0, \widehat{\sigma^2} - c^\top I_\theta^{-1} c\right)$$

The formula for c is given on p.7 of the paper. I do not provide the assumptions for this theorem, as I don't deem it necessary for the sake of this review and these assumptions are mathematically involved. The most important thing to remember is that confidence intervals for propensity score estimation should use the Abadie-Imbens standard-errors, as implemented in packages such as *MatchIt* in *R* (Ho et al., 2011).

Another use of propensity score is weighting. I have reminded that propensity score matching is a useful method to estimate average treatment effects, it turns out that weighting can also be used in the exact same spirit (as shown by Hirano and Imbens, 2002):

Theorem 7. *Let τ denote the true average treatment effect. Assume strong ignorability, SUTVA, and exogeneous characteristics assumptions hold. Then:*

$$\mathbb{E}\left[\frac{Y \cdot D}{\hat{\pi}\left(X\right)} - \frac{Y \cdot (1-D)}{1-\hat{\pi}\left(X\right)}\right] = \tau$$

The advantage of this method is that it does not prune any observation, but only assigns each observation its inverse propensity weight – meaning one over the estimated probability that it happened to be in the group it empirically is. Its associated estimator also allows for a simpler form, and standard errors computed through bootstrap are accurate. Moreover, the estimator associated with this method is asymptotically efficient (Hirano et al., 2003).

As one can expect, inverse propensity score weighting (IPSW) also has drawbacks: one of the main issue with this method is that a few observations can have a disproportionate influence on the estimated effect with an empirical sample. Indeed, it suffices to have a few treated observations with $\hat{\pi}(X)$ close enough to 0 for the effect to be inappropriately high, or a few untreated observations with $\hat{\pi}(X)$ close enough to 1 for the effect to be inappropriately low. This is thus a case when the method in Crump et al. (2009) is really useful. Another issue with propensity score weighting is that we might sometimes *need* to reduce the number of observations. For instance, in the context of boarding schools of excellence, we want to match in first instance students with peers from the same initial school, as some schools have virtually 0 probability to have any student become a boarder (e.g. schools that were in a department far away from the dedicated boarding schools of excellence). Thus, whatever we use as a technique, we already need to have some level of matching. More generally, when we suspect some characteristics to be correlated with unobserved variables, as is the case here, matching exactly on these characteristics is of importance. Beyond this criticism, IPSW and PSM share common properties and are both good methods for the estimation of average causal effects. In some cases, it has been shown that PSM was superior to IPSW (e.g. Elze et al., 2017; Austin and Stuart, 2017), but there is no definitive answer to this question and the papers in question feature observations with quite extreme propensity scores values, which is the worst that can happen for IPSW. A careful reader would probably like to know that new methods, such as augmented inverse probability weighting, are also used to improve the accuracy of IPW (Kurz, 2022). This kind of estimator is called a double robust estimator, as it combines the reliability of the regression with the virtual randomization provided through propensity scores. Finally, a reader might be interested to know that propensity scores are also useful with novel techniques aiming at identifying heterogeneous treatment effects, such as causal forests (Athey and Wager, 2019).

Appendix C

An assessment framework

At first hand, the effects of boarding schools of excellence on academic achievement are not straightforward, as shown in figure A.5. In this appendix, I thus propose a framework predicting why these effects are ambivalent. To do so, I begin by defining the kind of school achievement I am dealing with, before I propose an approach similar to the one laid out in Fryer (2017) to the inputs to schooling. Only then, I go back to the case of boarding schools of excellence and discuss its effects on inputs.

C.1 Definition and inputs to school achievement

School achievement can be considered along multiple dimensions. These include the number of years of schooling, the grades in school, the aspirations of children, the quality of the university they attend in post-secondary education, the ability their education give children to find quickly and efficiently a job, and even the ability it gives them to interact socially. In this paper, I consider school achievement as propensity to graduates from different curricula, and grades students receive at national exams. So I shall mainly discuss the inputs of education in the context of receiving school grades.

There are two main frameworks to think about the effects of a policy on academic outcomes. For now, consider that we know all inputs X to school achievement, we have two main ways to think about the realization of school achievement given these characteristics: the first is to consider that academic outcomes deterministically depend on X, the second is to consider that X only induces a probability distribution for academic outcomes. The first case amounts to write

$$\text{academic outcomes} = f(X)$$

while the second is expressed by

$$P(\text{academic outcomes} \mid X) = g(X)$$

Which of these representations is the right one is a deep philosophical question at this point. Using one or the other of these two views depends mainly about whether one is viewing the world as a deterministic entity or a probabilistic one. However, adopting the second view would amount to say that all policies are only a particular kind of nudges, as they do not directly influence the sensory world, only the distribution of its future realizations. In such a world, evaluating policy effectiveness would not be only about estimating the mean effect of a policy but rather its distribution, and thus higher order moments and quantiles. At this point in time, this is something we can definitely not do – one of the main issue it would involve in the context of policy evaluation is to disentangle the variance of estimators of the effect of a policy with the natural variance in the distribution it induces. With the current state of knowledge, we shall restrict to estimating mean effect for such an intervention. But this amounts to consider the problem as if it was responding to the first view. Indeed, if we truly have academic outcomes $= f(X)$, we shall estimate the mean effect of a policy (which is also its unique response value). I will not argue about which view is the correct one here, and will only focus on the inputs for the mean effect of a policy

$$\mathbb{E}[\text{academic outcomes} \mid X] = f(X)$$

Moreover, determining the inputs to school achievement is not an easy task. The literature already pointed out multiple potential determinants for school grades. But we can arguably not identify all variables relevant to academic achievement. Thus, I will mainly discuss broad categories known to affect grades, in the spirit of Fryer (2017). In particular, I introduce a framework more detailed, although very close, to the one from Fryer:

$$X = \begin{bmatrix} H^\top & H^\top & C^\top & P^\top & T^\top & M^\top & R^\top \end{bmatrix}$$

which could be referred to as the 2HCPTMR framework, for Home, Health, Childhood, Parents, Teacher, Motivation and Resources[1]. As a point of comparison, the framework proposed by Fryer is:

$$\text{academic outcomes} = f\left(E, S, H, M, P\right)$$

"where E denotes student's early childhood experience, S captures various school inputs, H represents household and neighborhood inputs, M captures "social skills" such as grit, resilience, or what psychologists often refer to as "the Big 5." And P is a vector of relevant prices."

My decomposition is thus a finer grid than the one in Fryer (2017), but is no better in any academic sense. I discuss the framework I propose component by component in the following few paragraphs[2], but I do not aim to build a definitive nor complete review of the state of the literature. In particular, I describe far less programs than Fryer does, I do not provide a quantitative review of the results of the studies component by component, and I do not focus on studies with high validity (RCTs) as he does. My point is only to give *suggestive* evidence of what we can expect to have a role in determining academic outcomes, before explaining how the boarding schools of excellence program might change the education production function.

[1]Note that this framework does only include areas of policy interest and that I do not discuss external factors. For instance, I do not include nor discuss genetics because i) evidence on its importance are mixed, ii) it cannot be easily measured and is not well-understood and iii) it is not of interest in elaborating a public policy.

[2]My dissertation not being a JEL literature review, I only give as few evidence as needed to make my points.

A stable and supportive home environment is important for the success of children at school. A number of outcomes related to the home environment of children has been proven to affect their schooling. One of the most important factor regarding the success of schooling is the general framework neighborhoods provide to children. The effects of neighborhoods on children are considerable and range from early childhood behaviour (e.g. children go less out in neighborhoods with higher crime rates) to peer socialization (the theoretical framework laid out in Ellen and Turner, 1997, is useful regarding this). As suggested by Milam et al. (2010) and Burdick-Will (2018), crime rates in their neighborhood seem to be an important factor for children success. Similarly, the concentration of parents with the same socio-economic characteristics in some neighborhoods is consequential for children, as illustrated by the large sociological literature on social segregation at school (in the French context, one can read the papers by Felouzis, 2003; Oberti, 2005).

Another important factor for achieving high test scores is the crowding of homes. It has been showed that students in overcrowded houses experience worse educational outcomes than students in less crowded houses (Goux and Maurin, 2005). This is also related to the finding that more siblings is bad for academic achievement, as there is some competition between children for family resources (Karwath et al., 2014). Another intra-familial characteristic that is related to lower academic achievement, both in terms of grades and educational attainment, is parents' alcohol consumption (Berg et al., 2016; Mangiavacchi and Piccoli, 2018). Overall, the evidence for the role of home environment is thus extensive.

By supporting overall well-being, a good health is conducive to better academic achievement. Beyond home environment, students need to be in good health, both psychological and physical to success with their schooling. One of the first paper to model this was the one by Wolfe (1985), who showed through a structural approach that middle-to-severe health conditions hampered attendance and academic achievement of students. More recently, Suhrcke and Nieves (2011) summarized the evidence regarding the causal effect of health on academic performance on behalf of the WHO. They find that general child health

status is positively related to educational performance and attainment; that smoking and poor nutrition have worse effects on education than alcohol consumption and drug use; that physical activity has a significant positive impact on academic performance[3]; and that psychological factors, like anxiety and depression, also have considerable importance, as well as sleeping disorders.

Early childhood is one of the most decisive steps in the life of a human being, and is strongly associated with school outcomes. Very early, policy-makers understood that early childhood might be the most decisive period for further academic achievement and decided to implement programs dedicated to young children. In this context, Campbell and Ramey (1994) show how positive was the Abacedarian program at inducing long-term intellectual and academic gains. Similarly, when reviewing a wide range of these early programs, Barnett (1995) finds that all feature at least short-term gains in academic performance and that most have long-lasting effects. This is consistent with the meta-analysis of Duncan et al. (2007), who showed that early test scores are significant predictors of further academic achievement. In more recent years, Heckman et al. (2013) proposed a mechanism for this effect and provided evidence for the importance of early childhood through more recent causal econometrics methods, while at the same time Duncan and Magnuson (2013) reviewed the economics literature on the topic. The extent of evidence even had some economists build models where the most crucial period for human investment was early childhood (Cunha and Heckman, 2007).

Involvement of parents is of paramount importance for the academic achievement and aspirations of children. It has been documented that parents have an important influence for the schooling success of their child, and that they themselves think their role is an important one (Duru-Bellat et al., 2018). This explains the amount of time they spend with their children looking at homework (Kakpo, 2012). However, beyond the engagement of parents, the quality of this commitment matters – and parents with low socio-economic status

[3]This point is still under debate in the medical community, as illustrated by the review of Donnelly et al. (2016).

happen to be of low-quality at this game (for a paper about the French case, see for instance Périer, 2015). In particular, they form poor expectations for their children, while this is of considerable importance (Davis-Kean, 2005; Wilder, 2014; Boonk et al., 2018). Other forms of involvement which are known to be worthy are reading at home, having a good communication between parents and children about school, and encouraging learning with children, all of which must be adapted to the age of the child (Boonk et al., 2018).

Well-trained, knowledgeable, and dedicated teachers considerably help students in reaching high achievement. Since the Coleman (1966) report, there has been multiple attempts to distinguish the effects of teachers for students's achievement, and we now know that teachers's quality explain a fair share of the heterogeneity in academic performance (for instance Rivkin et al., 2005, suggest that increasing teacher quality would be more effective than the widely used increase in class size). Although it is hard to disentangle which characteristics of teachers help predict the achievement of students, we know that seniority bears importance (Rockoff, 2004; Harris and Sass, 2011). Another especially important component of the "teachers" input is stability of the teaching team, as high turnover hampers student achievements (Ronfeldt et al., 2013).

Motivation of students explain a crucial share of their success at school. With the rise of behavioral economics, and neuroscience more generally, we understand better the psychological factors related to academic performance of students. Among these factors, the perception of their school environment by children is one with the most documented effects: a better perception of the school environment improves school participation, self-regulation and school identification, which in turn raises academic achievement (Wang and Holcombe, 2010). More generally, school engagement is a strong factor for academic performance (Dotterer and Lowe, 2011). More recently, Claro et al. (2016) demonstrated that developing a growth mindset, meaning the "belief that intelligence is not fixed and can be developed", among students could be an effective policy in raising academic achievement of low social-status children.

Resources students dispose of to conduct their studies are also a clear determinant of their schooling. Resources, both in the narrow view of monetary resources and following a more general definition including social capital, are important for the schooling success of students. For instance, and despite discussion about the factors that should be accounted for when talking about socio-economic status, this status is overall positively correlated with academic achievement (Sirin, 2005). In a very related field, Dufur et al. (2013) used structural modeling to underline the importance of social capital at home for academic success. Finally, Hair et al. (2015) showed that poverty was associated with significantly lower levels of gray matter in regions of the brain associated with cognitive thinking, as well as with considerably lower academic performance.

As the inputs to academic achievement have been discusses, we can now turn to the form of its production function $f(\cdot)$.

The functional form of the academic achievement function cannot be readily assessed, but we can use policy evaluations to inform us about signs of its partial derivatives. Note that in this sense, I again borrow from Fryer by arguing that, what we would optimally like to do, is to know better the partial derivatives of our education production function.

Although the function $f(\cdot)$ is a priori unknown, and we might not be able to measure with precision all of its inputs, we can still use evidence about each component to know that they all have positive returns (for quantitative estimates of the partial derivatives, one can see Fryer (2017)), meaning $\frac{\partial f(X)}{\partial H} > 0, \frac{\partial f(X)}{\partial H} > 0, \frac{\partial f(X)}{\partial C} > 0, \frac{\partial f(X)}{\partial P} > 0, \frac{\partial f(X)}{\partial T} > 0, \frac{\partial f(X)}{\partial M} > 0,$ and $\frac{\partial f(X)}{\partial R} > 0$.

We can also hypothesize that the cross-derivatives for all components are positive, meaning that better components in one input at least weakly increase the returns in the components of any other input.

A further interesting question would be to understand the sign of the derivatives of the partial derivatives. We have however no strong evidence about these at this stage of research, as there are so much factors to take into account and so much remaining uncertainty around the effects of each variable that we cannot say anything very relevant. Moreover, the sign of these second derivatives might

not matter as much as the signs of the second cross-derivatives, as programs also often change more than one component, which I discuss with boarding schools of excellence.

C.2 The role of boarding schools of excellence

In the 2HCPTMR framework, boarding schools of excellence seem to be a very broad intervention. It changes the "home" environment of children by furthering them away from their original neighborhood; in particular, it makes them considerably change their timetables (home component). It arguably modifies their relationship to physical activities through extracurricular events (health component). It distances them away from their parents and modify their relationships with them (parents component). It provides children with new adults to support them with their homework and to live with on a regular basis (both parents and teacher components). With the intervention in dedicated boarding schools, students also face selected teachers compared to non-boarders (teachers component). And, finally, the intervention also directly increases the resources available to children, by providing them with school material and by offering a variety of activities (resources component). Hence, the quantitative evaluation of the boarding schools of excellence program proposed here only informs about the general effect of a change in multiple components at the same time, which encompasses direct effects from the partial derivatives but also combined effects from the cross derivatives. Moreover, there are arguably psychological effects from this program, which I cannot assess.

With the boarding schools of excellence program, there are reasons to believe that some of the components might be adversely impacted. Arguably, one of the most difficult part of the setting for the youth in boarding schools of excellence is the timetable: students often complained about too heavy workload and the absence of free-time in the first qualitative approaches to the boarding schools (Rayou and Glasman, 2012). While it seems likely that this part was adapted through time, it seems unlikely that students now face timetables

they find light, especially considering that their schedule at home was considerably less charged in academic work. The related underlying inputs are both the "home" environment and the available resources: although having more resources is arguably good for children[4], when they feel compelled to use all resources available (the home component), they might finally be worse-off, for instance because they would be too tired in the present case. What this means for the academic achievement of children is that while we can expect $\frac{\partial f(X)}{\partial H} > 0 \wedge \frac{\partial f(X)}{\partial R} > 0 \wedge \frac{\partial f(X)}{\partial H \partial R} > 0$; if dH is negative in some direction with the treatment, we could have a worsening in academic outcomes – which we shall not observe if other variables counteract this adverse impact.

In the present case, we might have that the pressure induced by the boarding school setting actually decreases the efficiency of the program. Although, on the one hand, it seems possible that this is not strong enough to counteract the other benefits of the intervention, as the elite post-secondary system in France ("Classes préparatoires aux grandes écoles" (CPGE) also strongly relies on this kind of high resources-high pressure environment; on the other hand, it might be that there is heterogeneous effects from this setting, and that the boarders (which are socially different from students in CPGE) are actually hit by high-pressure.

Another important parameter in the setting of dedicated boarding schools of excellence are the teachers: they are especially recruited for the students in these schools through discretionary choices by school principals. This could hint about an improvement in the teacher component of the inputs; however, we also know that teachers in boarding schools of excellence are on average younger than the average French teacher, and we also know that young teachers are often worse than experienced teachers. Hence, the impact of selected teachers for the success of students is not straightforward at first-hand, meaning that the teachers in boarding schools of excellence might not be better than the teachers in the schools children would have attended otherwise, and could actually be worse. This cannot be assessed and should not be a too strong concern for policy-makers, as we also know that poor neighborhoods in France have on average less experienced teachers, and children in boarding schools of excellence are likely to come from

[4]This could also be discussed though, as Thaler and Sunstein (2021) underlined how too much choice can be bad.

these neighborhoods.

Moreover, we can expect students to benefit from the boarding schools of excellence, as they feature strong positive inputs. Participants to the program benefit from large resources and can engage in a wide range of activities, whether these are sportive, cultural or professionalizing (see for instance Delouvrié, 2013). These components arguably increase their general knowledge, as well as their ability to make clear and sharp connections between situations and experiences. In this regards, the intervention had likely positive effects on the carriers of students.

Furthermore, the program improved relationships between children and their parents, which is also beneficial to them ("parents" input). In parallel, the admission to the schools gave prestige to the families and to children, which could also improve the success of students – this can be integrated into the "home" input – if it was not associated with a strong pressure to succeed in their studies.

The program also provided children with more teaching staff. This can be considered an increase in resources, as this staff could be as if students benefited from private instructors, and it is arguably very beneficial to their schooling. Still, the increase in teaching staff did not happen alone, and children had also more experience with education advisors. They reported considerably worse relationships with this staff than they did before the entry in boarding schools, and sometimes felt strongly monitored (Rayou and Glasman, 2012). Furthermore, this increase in staff was highly related to the need to monitor students out-of-class and to the provision of extra-curricular activities, which could both be considered inputs from the home environment of students.

As they had better relationships with their parents and teachers, and as they received the prestige from being selected in a boarding school of excellence, students could also benefit from higher extrinsic motivation for scoring high on school tests. However, their intrinsic motivation might have been lowered by the difficulty of the setting, the uncertainty of the returns and the importance of upper-class cultural activities in the non-scholar curriculum (for the distinction between intrinsic and extrinsic motivation, see Bénabou and Tirole, 2003). This might explain why motivation of students does not seem really impacted by the experience of boarding

schools of excellence in the analysis by Behaghel et al. (2017). Thus, boarding schools of excellence could well be neutral in what regards the motivation input.Z

Finally, the program also arguably improves physical health of students by having them do sport on a regular basis, both through sport classes (which does not differ from usual schools) and through extra-curricular activities, to which students felt compelled to attend.

Overall, the only input that is not affected by boarding schools of excellence is early childhood. The framework I propose is thus useful to see how extensive a program is, but it can also be useful in a matching context: optimally, we would like treatment and control students to be identical on all inputs I discuss before the treatment happens. Of course, this is not possible to assess, as some components within inputs are not observable (e.g. most health components, as well as motivation and the exact home environment). In a policy context, this can still guide ministries in their data collection strategy.

Appendix D

Variable selection

The databases from the French Ministry of Education contain extensive information about schools and students. The variables typically found in the database about students I had can be found online. However, some of these information were irrelevant to my master thesis and I decided to drop them as to reduce the size of the files I was working with. The variables I decided to keep from the "Base Scolarité" are:

- `an_sco`: the school year of an observation, I used it to match students and find boarders the year before they entered in BSE
- `ine_faere2`: the unique encrypted identifier for students (note that it changed in 2017, so that researchers need to use a correspondence table)
- `sexe`: administratively recorded gender of the student
- `date_nais`: birth date of students. I used it to compute whether a student skipped or repeated a grade.
- `natio`: indicate nationality of students
- `dept_resid`: French department the students comes from. I used it to see whether boarders are likely to move across departments.
- `PCS` and `PCS2`: indicate the SES of legal representants.

- `lien1r` and `lien2r`: indicate the relationship of the legal representants with the student (e.g. father or mother). If both father and mother are representants for the child, `lien1r` is normalized to be the father.
- `regime`: indicates whether the student is a day student, a half-board student or a boarder. It also indicates sub-categories of these.
- `exam_dipl`: indicate whether student is preparing an exam the current year
- `bourse`: indicate whether a student holds a means-tested grand
- `fortrams7`: indicate the curriculum followed by a student
- `etab` and `etabp`: respectively code of the school and former school of the student
- `secteur`: indicate whether the school is public or private.

The variables I used from the "Base OCEAN" are:

- `annee`: year the exam was taken
- `C1-C8`: dummy variables indicating whether a student was present at exam, passed it on the first/second time, or failed it.
- `dec`: gives the admission decision (including the decision to give honors)
- `exagt`: the kind of curriculum followed (general, technical or vocational)
- `ser1`: specific field within each curriculum
- `moy`: final grade of the student
- `mat_i` $i \in \{1, \ldots, 29\}$: academic discipline of test i
- `mod_i` $i \in \{1, \ldots, 29\}$: conditions of evaluation of test i
- `not_num_i` $i \in \{1, \ldots, 29\}$: grade obtained at test i

Similar variables are extracted from the databases containing results for students following short and very short vocational curricula (BEP – Brevet d'Etudes Professionnelles – and CAP – Certificat d'Atptitude Professionnelle). However, note that due to maintenance of databases, I was unable to access results at these two exams for sessions 2015, 2017 and 2019 for BEP and 2015, 2016 and 2017 for CAP.

And the variables I used from the "Base Cyclades" (for middle-school exam – DNB) are:

- `admis`: dummy variable indicating whether a student got admitted
- `dec1`: gives the admission decision (including the decision to give honors)
- `cod_spe`: indicate whether curriculum is general or not
- `present`: indicate whether the student was present at exam
- `moy1`: indicate mean grade at exam
- `cod_mat_i`: $i \in \{1, \ldots, 29\}$: academic discipline of test i
- `not_epr_i`: $i \in \{1, \ldots, 29\}$: grade at test i

As with CAP and BEP, I was unable to access results at DNB for year 2017.

Beside these variables, I also needed to understand the codes registered in each variable, which can be found online. If one needs help with this, feel free to contact me, I might be able to help.

Appendix E

Figure appendix

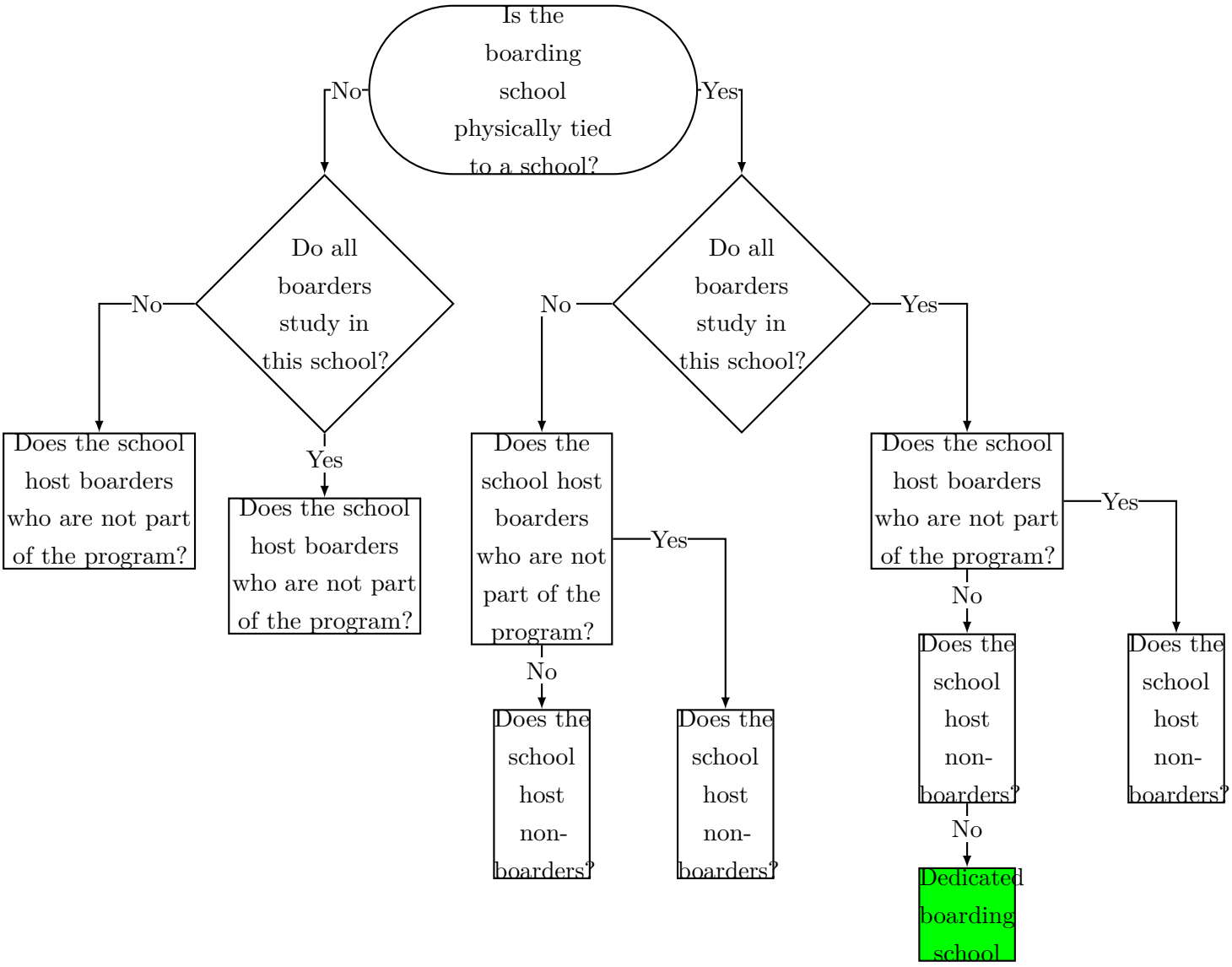

Figure A.1: Types of boarding schools

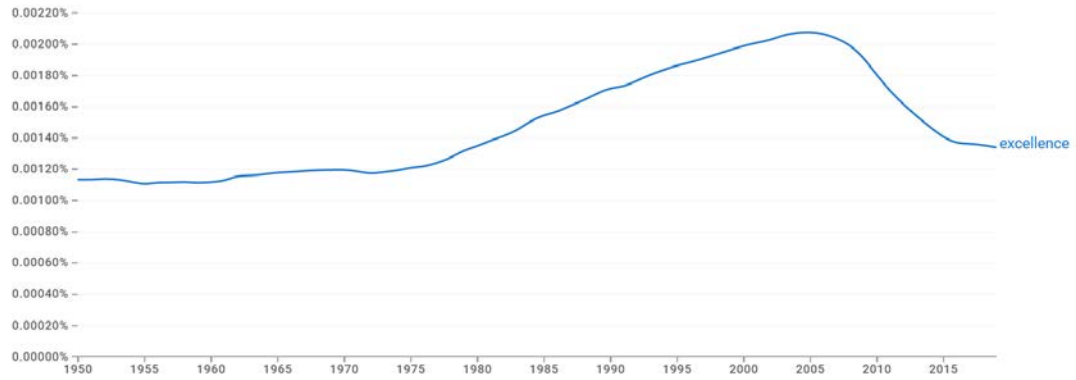

Figure A.2: The word “excellence”became trendy in France between 1977 and 2010

Figure is taken from Google Ngram Viewer, and indicates the appearance of the word "excellence" in a corpus of texts gathered by Google.

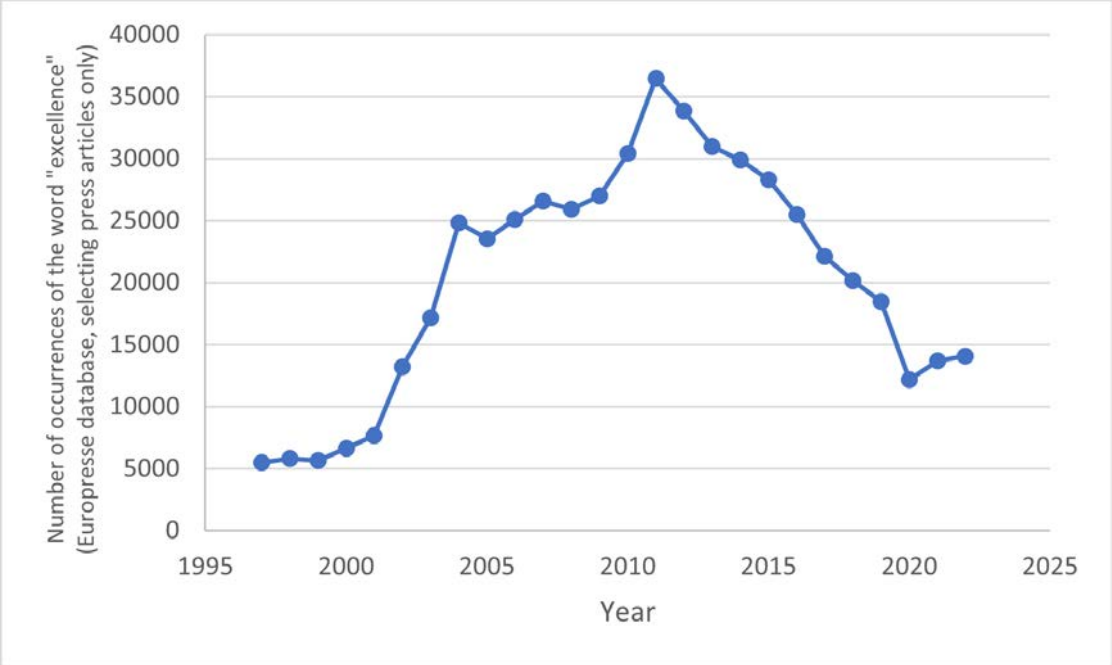

Figure A.3: The use of “excellence” increased strongly in the press between 2001 and 2011

Data come from my own retrieval from all press articles written in French and available on the platform Europresse.

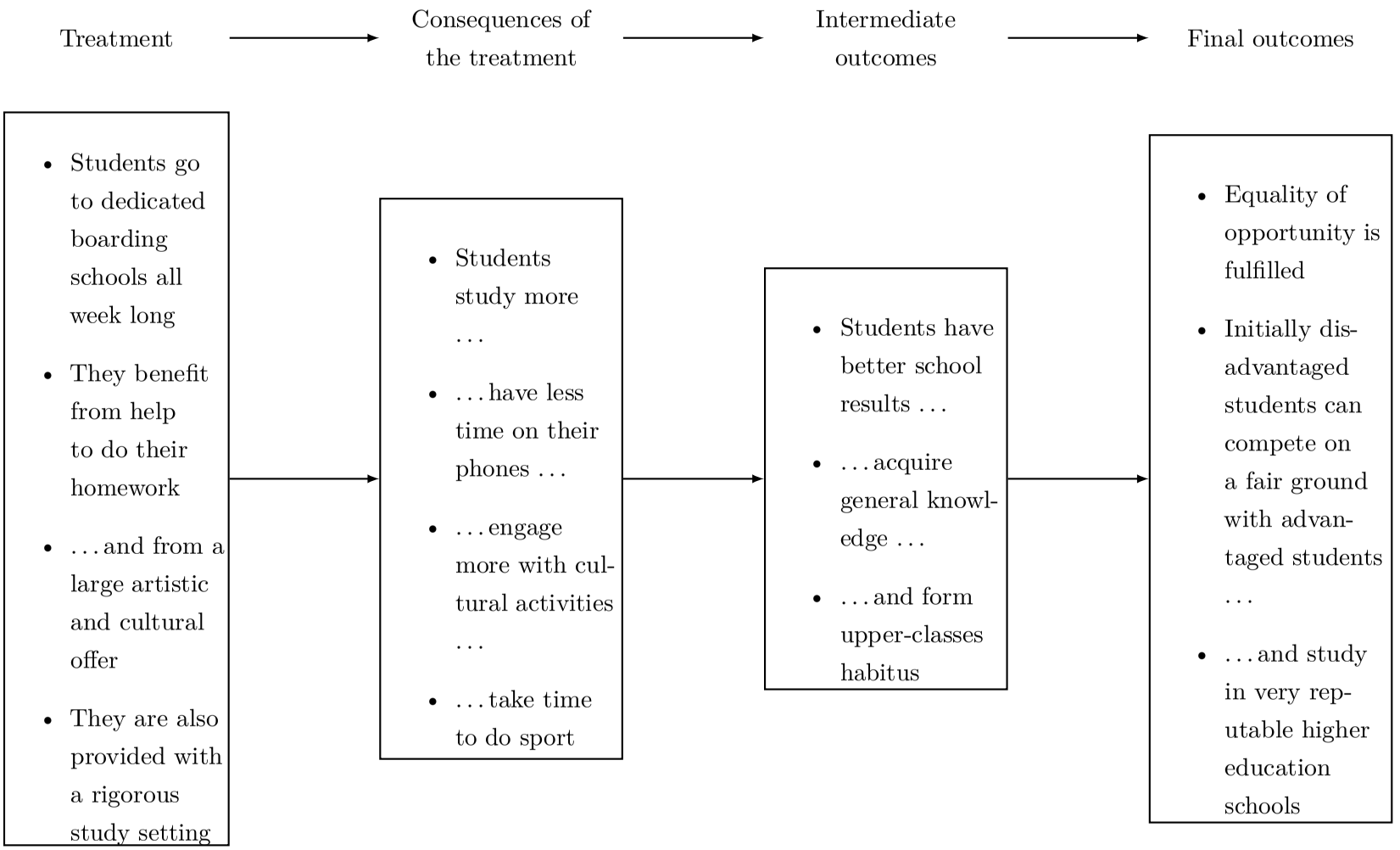

Figure A.4: Expected effect of the treatment

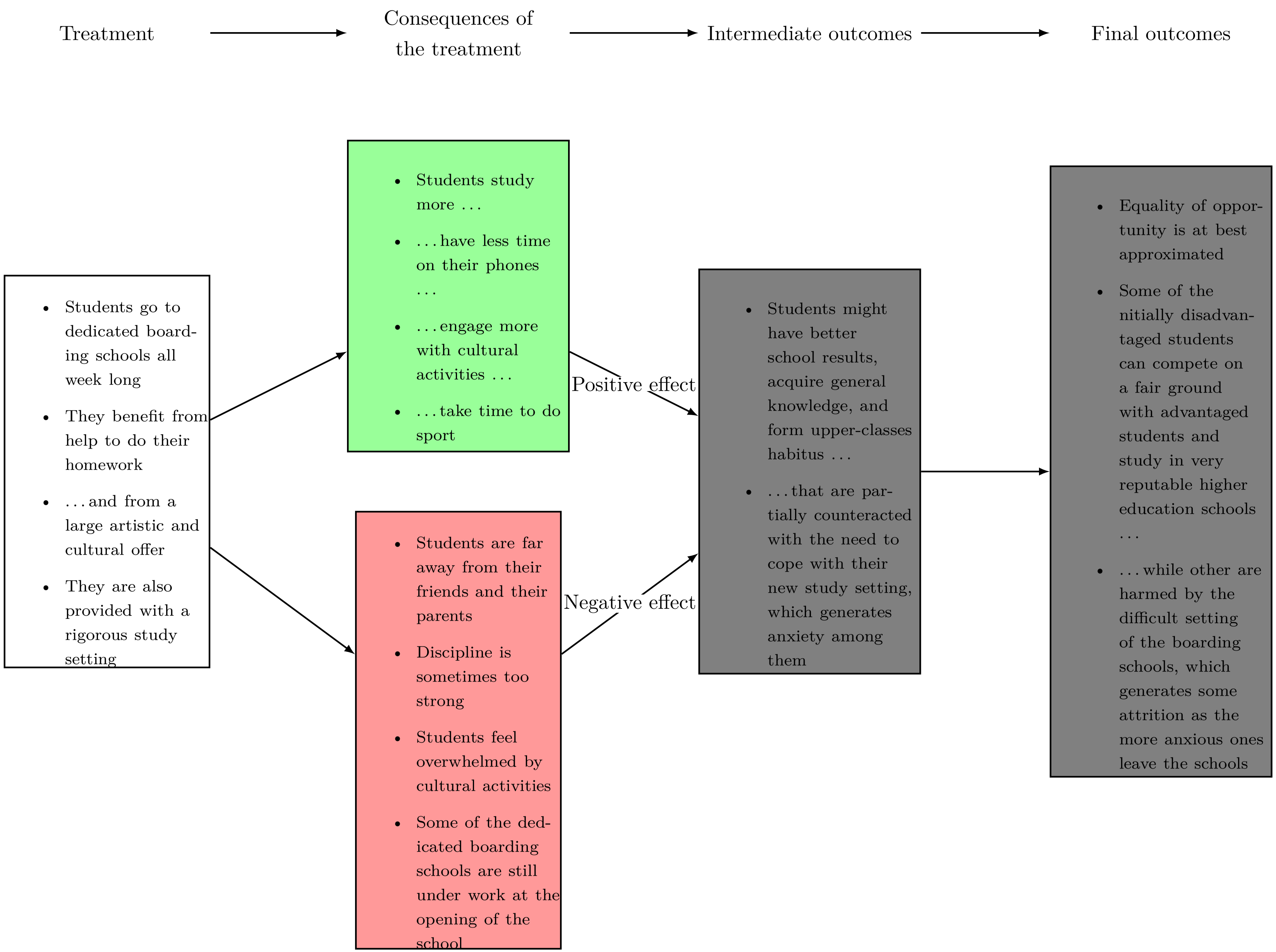

Figure A.5: Expected effect of the treatment

E.1 Characteristics of students

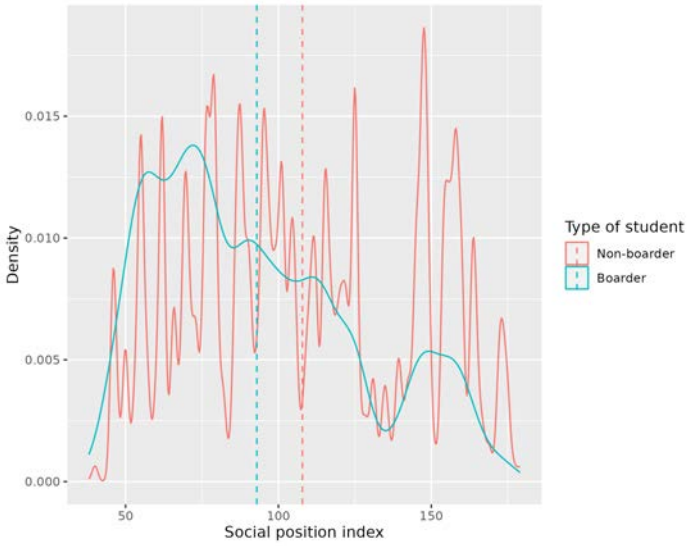

Figure A.6: Social position index of boarders compared to students at the national level

sources: MENJ-DEPP, databases FAERE, 2009-2019

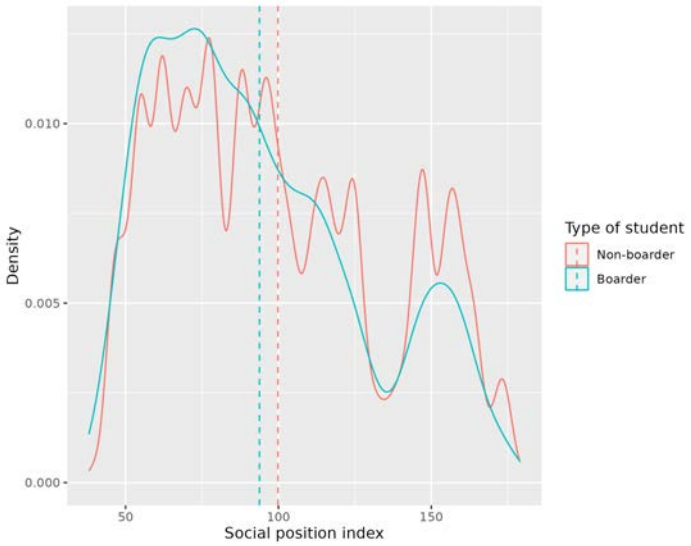

Figure A.7: Social position index of boarders compared to their former peers

sources: MENJ-DEPP, databases FAERE, 2009-2019

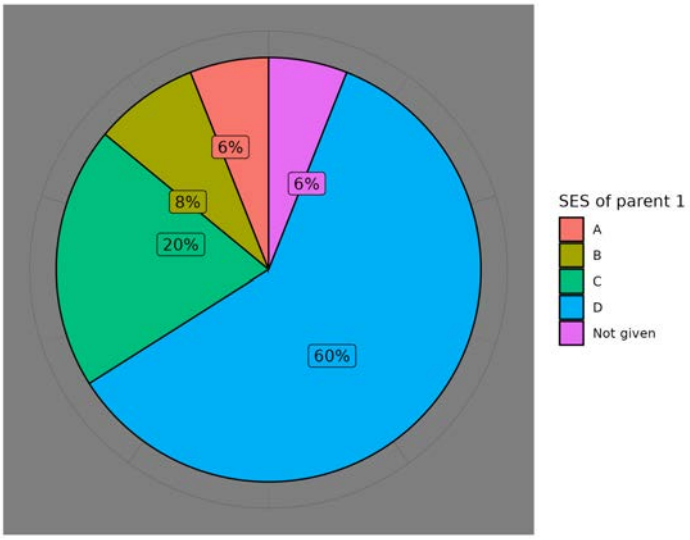

Figure A.8: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2010

sources: MENJ-DEPP, databases FAERE, 2010

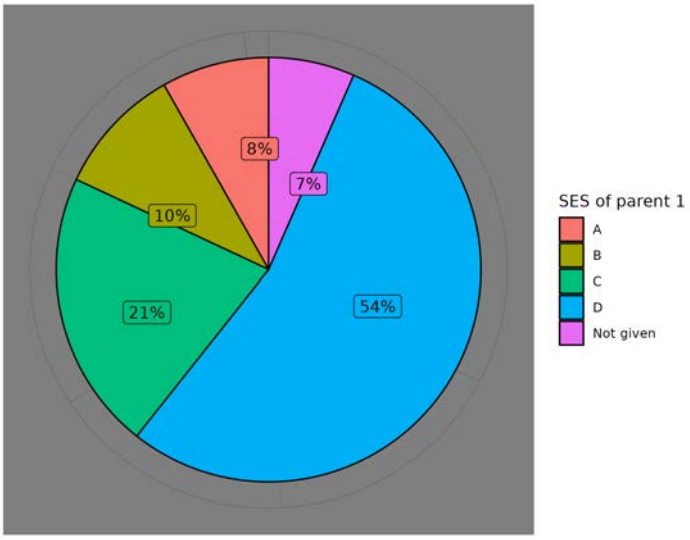

Figure A.9: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2011

sources: MENJ-DEPP, databases FAERE, 2011

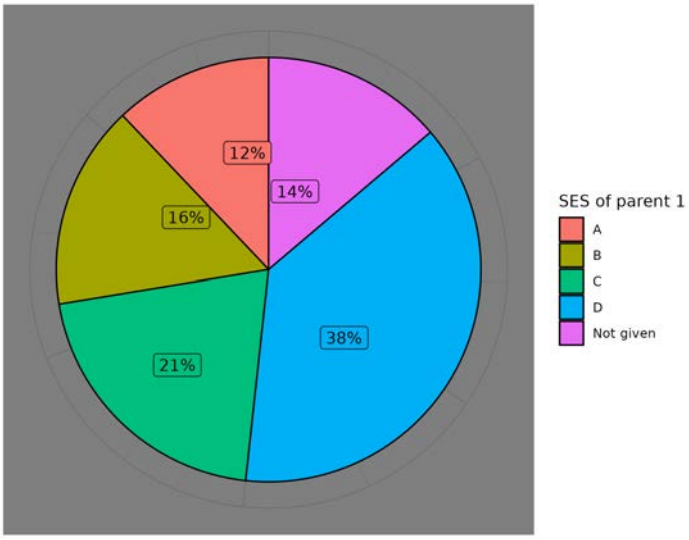

Figure A.10: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2012

sources: MENJ-DEPP, databases FAERE, 2012

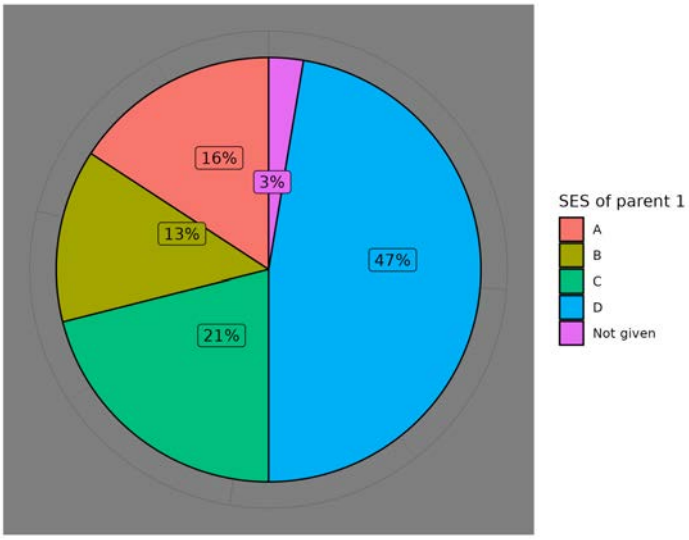

Figure A.11: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2013

sources: MENJ-DEPP, databases FAERE, 2013

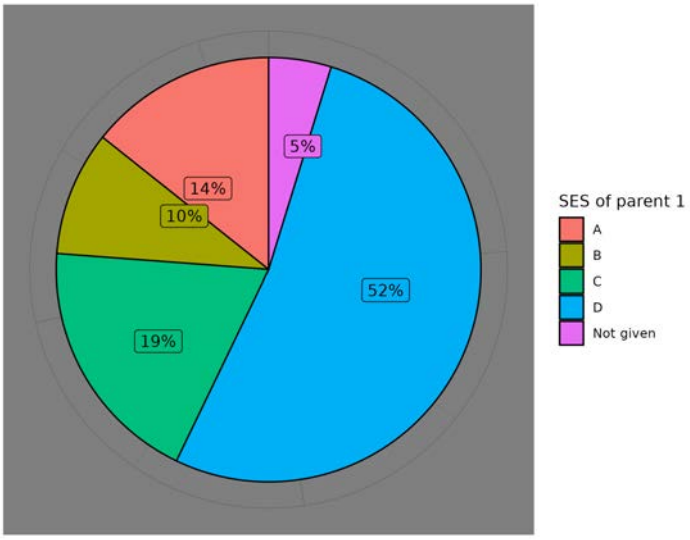

Figure A.12: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2014

sources: MENJ-DEPP, databases FAERE, 2014

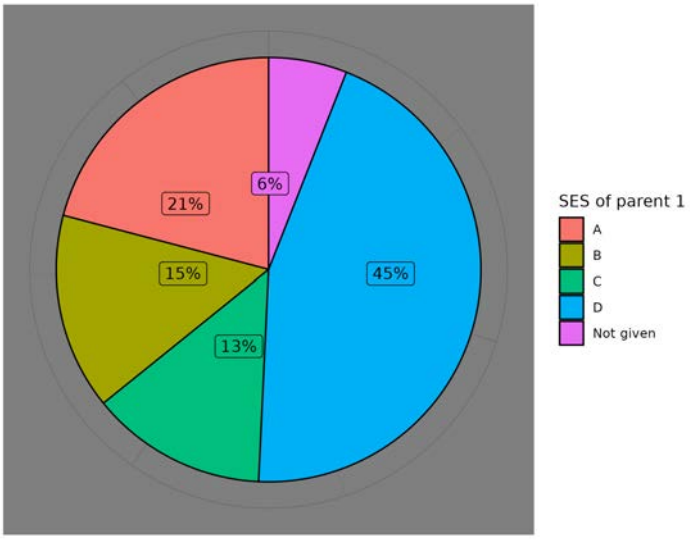

Figure A.13: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2015

sources: MENJ-DEPP, databases FAERE, 2015

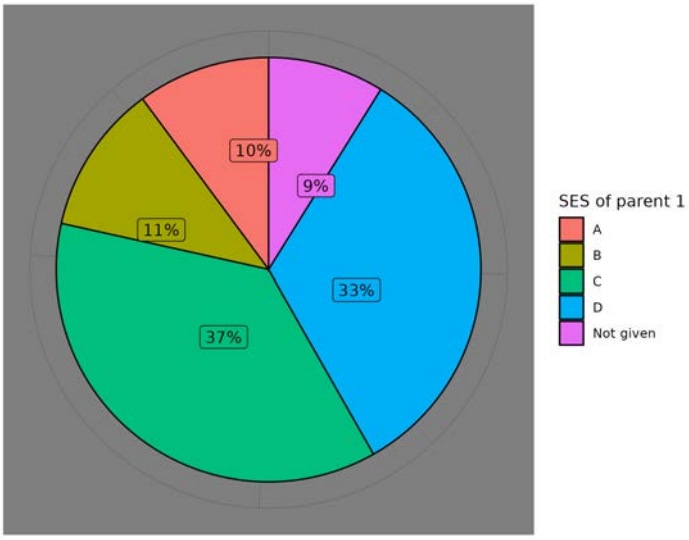

Figure A.14: Socio-economic status of first parent of new-entrants at BSE de Beauvoir in 2016

sources: MENJ-DEPP, databases FAERE, 2016

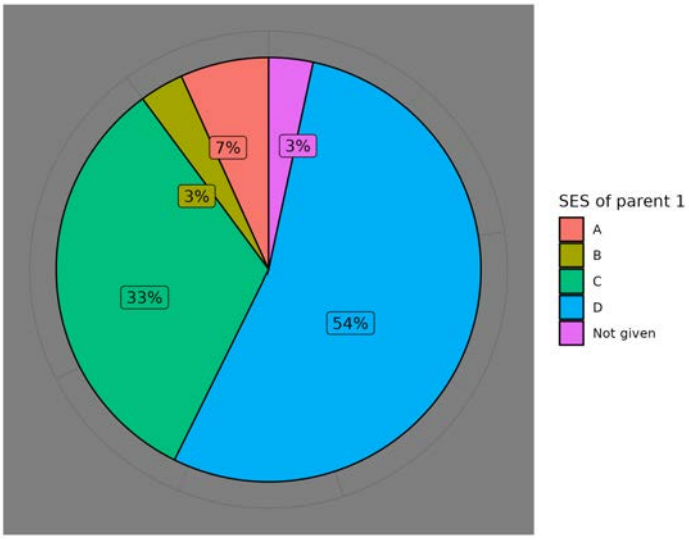

Figure A.15: Socio-economic status of first parent of new-entrants at BSE Hugo in 2010

sources: MENJ-DEPP, databases FAERE, 2010

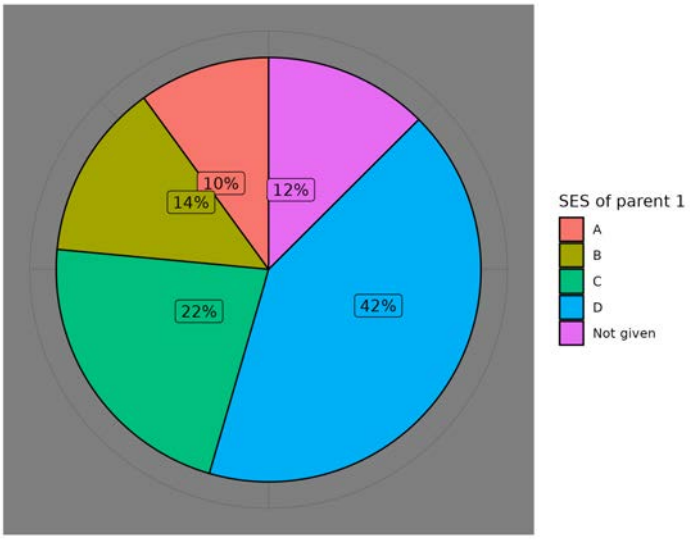

Figure A.16: Socio-economic status of first parent of new-entrants at BSE Hugo in 2011

sources: MENJ-DEPP, databases FAERE, 2011

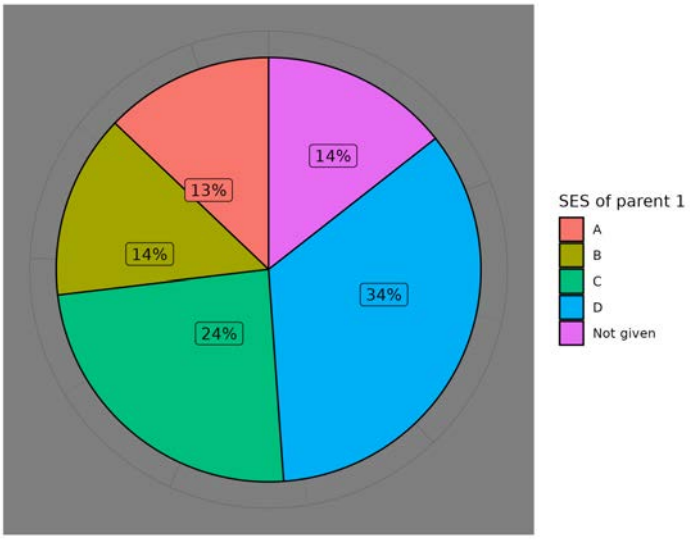

Figure A.17: Socio-economic status of first parent of new-entrants at BSE Hugo in 2012

sources: MENJ-DEPP, databases FAERE, 2012

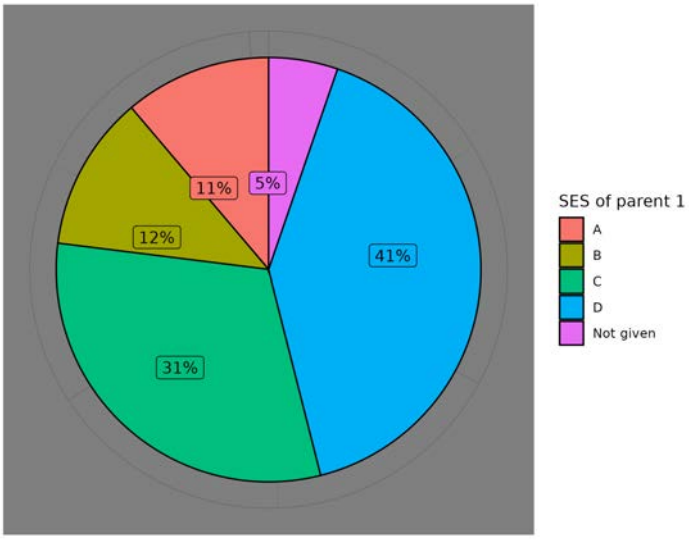

Figure A.18: Socio-economic status of first parent of new-entrants at BSE Hugo in 2013

sources: MENJ-DEPP, databases FAERE, 2013

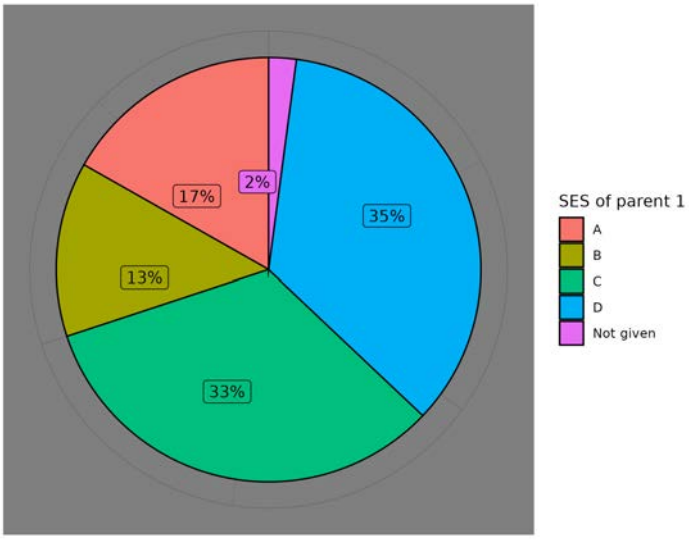

Figure A.19: Socio-economic status of first parent of new-entrants at BSE Hugo in 2014

sources: MENJ-DEPP, databases FAERE, 2014

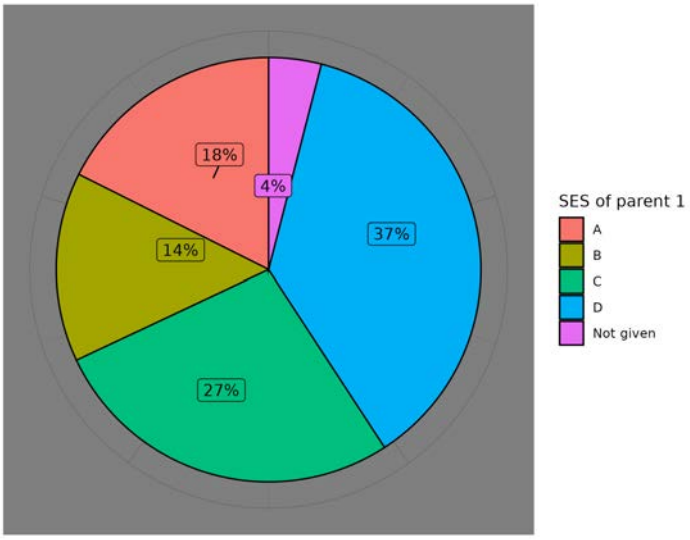

Figure A.20: Socio-economic status of first parent of new-entrants at BSE Hugo in 2015

sources: MENJ-DEPP, databases FAERE, 2015

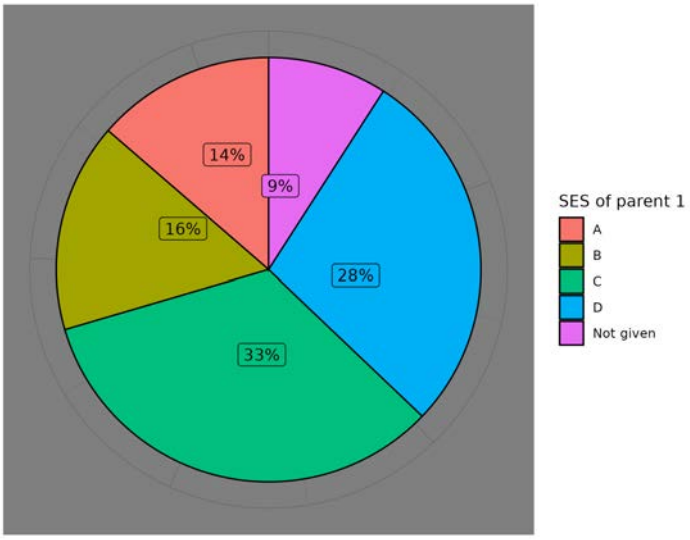

Figure A.21: Socio-economic status of first parent of new-entrants at BSE Hugo in 2016

sources: MENJ-DEPP, databases FAERE, 2016

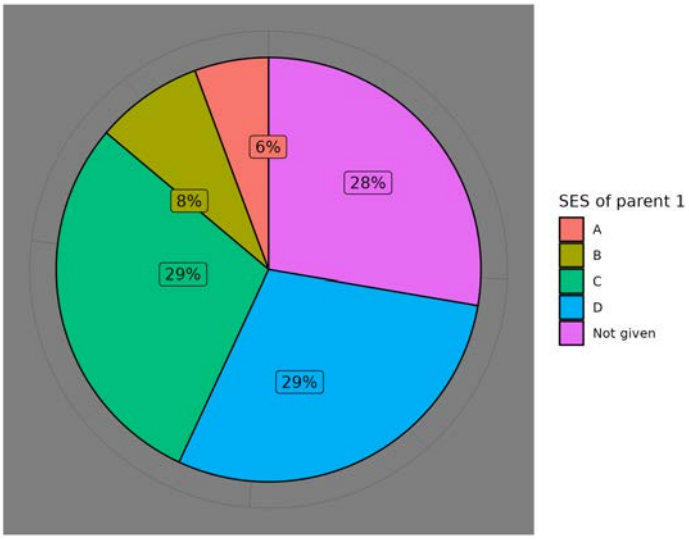

Figure A.22: Socio-economic status of first parent of new-entrants at BSE Sand in 2010

sources: MENJ-DEPP, databases FAERE, 2010

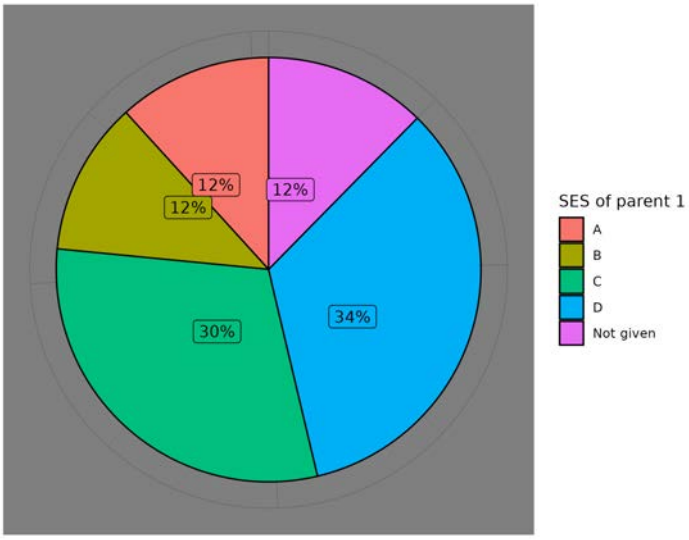

Figure A.23: Socio-economic status of first parent of new-entrants at BSE Sand in 2011

sources: MENJ-DEPP, databases FAERE, 2011

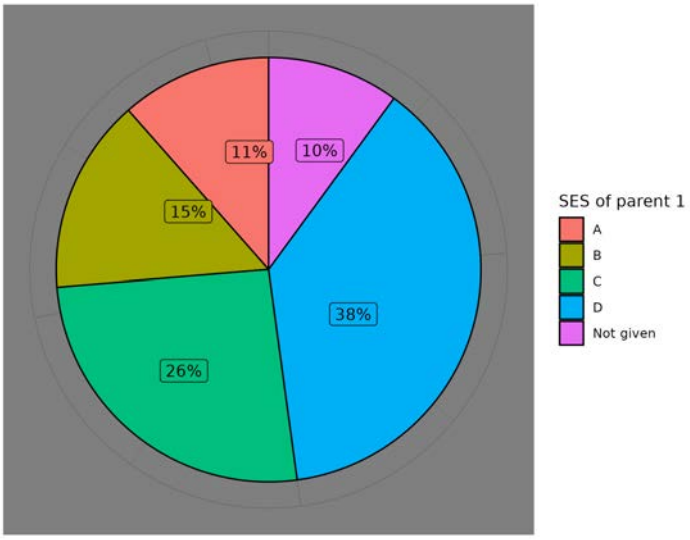

Figure A.24: Socio-economic status of first parent of new-entrants at BSE Sand in 2012

sources: MENJ-DEPP, databases FAERE, 2012

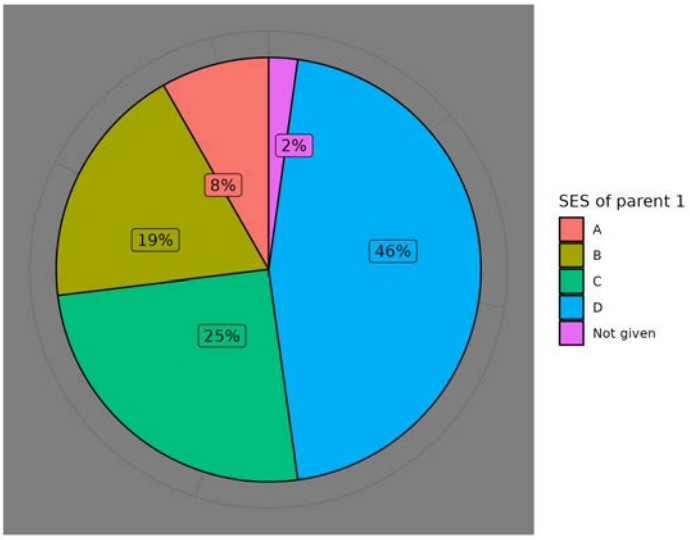

Figure A.25: Socio-economic status of first parent of new-entrants at BSE Sand in 2013

sources: MENJ-DEPP, databases FAERE, 2013

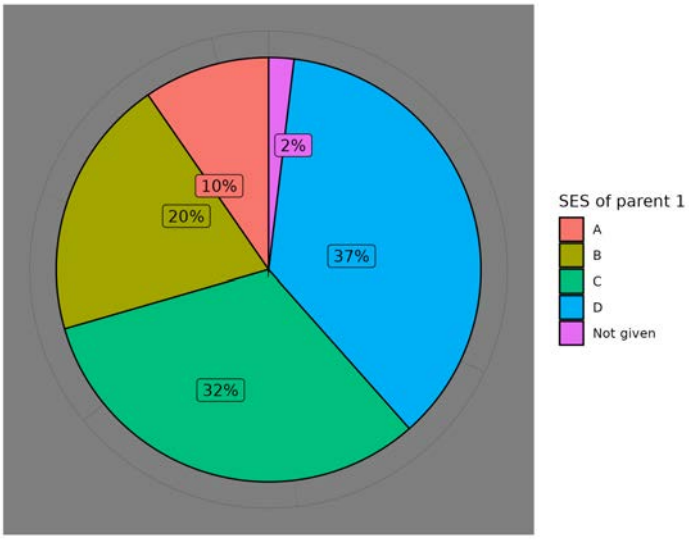

Figure A.26: Socio-economic status of first parent of new-entrants at BSE Sand in 2014

sources: MENJ-DEPP, databases FAERE, 2014

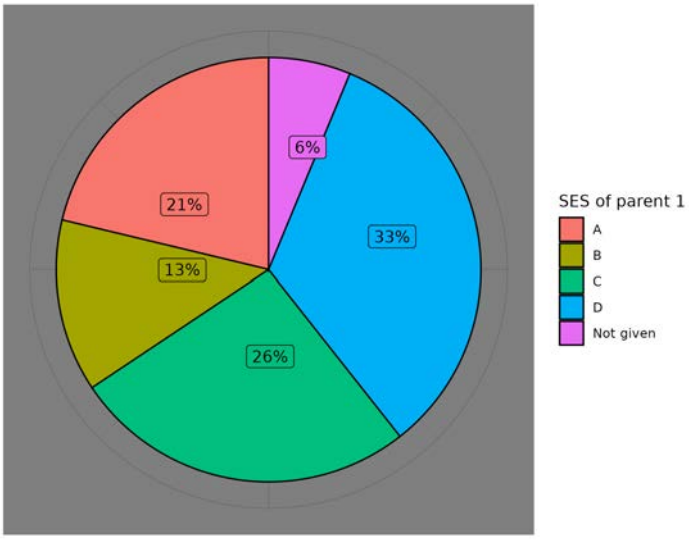

Figure A.27: Socio-economic status of first parent of new-entrants at BSE Sand in 2015

sources: MENJ-DEPP, databases FAERE, 2015

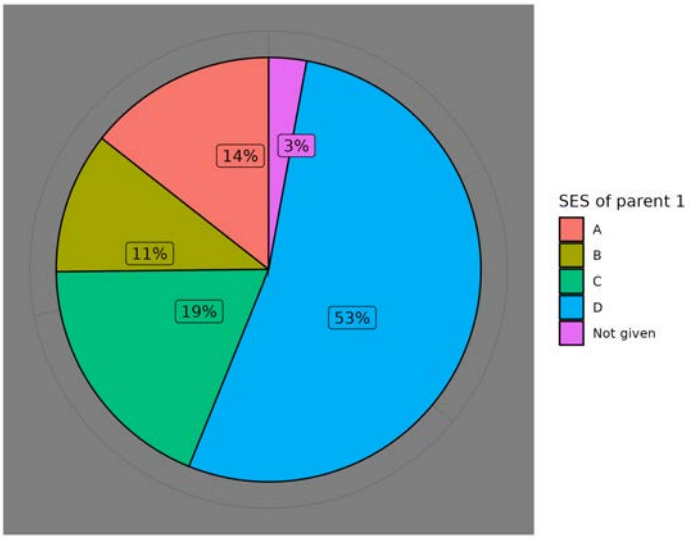

Figure A.28: Socio-economic status of first parent of new-entrants at BSE Sand in 2016

sources: MENJ-DEPP, databases FAERE, 2016

E.2 Quantitative results

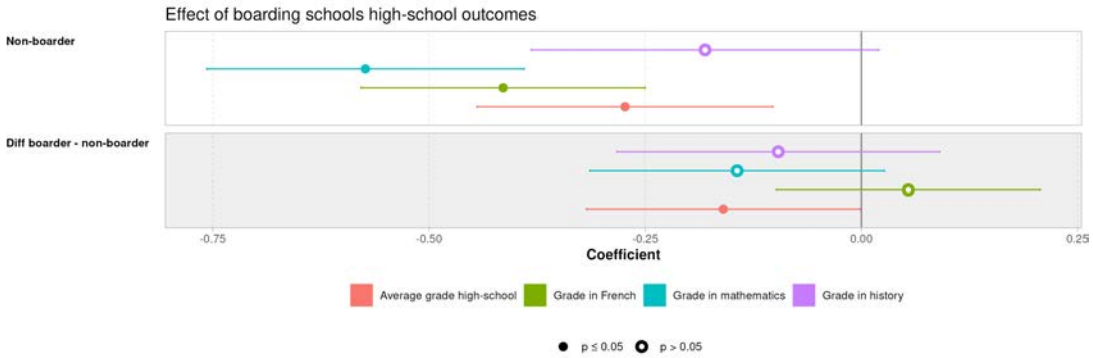

Figure A.29: Effect on high-school grades for male students

sources: MENJ-DEPP, databases FAERE, 2008-2019

Figure A.30: Effect on high-school grades for female students
sources: MENJ-DEPP, databases FAERE, 2008-2019

Appendix F

Table appendix

F.1 Characteristics of students

This part of the appendix contains all tables related to section 3.

	Dependent variable:				
	Female (=1)	Scholarship holder (=1)	Only one parent (=1)	No parents (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)
Diff boarder - non-boarder	0.030***	0.328***	0.087***	0.015***	−0.062***
	(0.005)	(0.004)	(0.004)	(0.001)	(0.002)
Non-boarders	0.496***	0.218***	0.218***	0.012***	0.955***
	(0.0001)	(0.0001)	(0.0001)	(0.00002)	(0.00003)
Observations	46,169,624	46,169,624	46,169,624	45,505,926	46,169,624

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.1: Boarders differ considerably from the national population

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
Diff boarder - non-boarder	-0.121^{***}	-0.006	-0.014^{***}	0.106^{***}	0.034^{***}
	(0.004)	(0.004)	(0.005)	(0.005)	(0.002)
Non-boarders	0.236^{***}	0.136^{***}	0.290^{***}	0.298^{***}	0.040^{***}
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.00003)
Observations	46,169,597	46,169,597	46,169,597	46,169,597	46,169,597

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.2: Boarders come from more disadvantaged SES than the average French non-boarder

	Dependent variable:				
	Female (=1)	Scholarship holder (=1)	Only one parent (=1)	No parents (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)
Diff boarder - non-boarder	0.032^{***}	0.299^{***}	0.088^{***}	0.010^{***}	-0.040^{***}
	(0.005)	(0.005)	(0.004)	(0.001)	(0.003)
Non-boarders	0.493^{***}	0.247^{***}	0.216^{***}	0.017^{***}	0.934^{***}
	(0.0001)	(0.0001)	(0.0001)	(0.00004)	(0.0001)
Observations	13,886,938	13,886,938	13,886,938	13,646,770	13,886,938

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.3: Boarders differ considerably from students who frequented the same school

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
Diff boarder - non-boarder	-0.106^{***}	0.003	-0.009^{*}	0.088^{***}	0.022^{***}
	(0.004)	(0.004)	(0.005)	(0.005)	(0.002)
Non-boarders	0.221^{***}	0.127^{***}	0.285^{***}	0.315^{***}	0.052^{***}
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Observations	13,886,937	13,886,937	13,886,937	13,886,937	13,886,937

Note: *p<0.1; **p<0.05; ***p<0.01

sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.4: Boarders are under-privileged compared to students who frequented the same schools

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.480	0.200	0.280	0.080	0.360	0.980
	(0.071)	(0.070)	(0.066)	(0.028)	(0.060)	(0.023)
Year 2011	0.525	0.541	0.164	0.115	0.246	0.967
	(0.064)	(0.063)	(0.060)	(0.026)	(0.054)	(0.021)
Year 2012	0.500	0.483	0.310	0.017	0.328	1.000
	(0.066)	(0.065)	(0.061)	(0.026)	(0.055)	(0.021)
Year 2013	0.579	0.474	0.316	0.079	0.289	1.000
	(0.081)	(0.080)	(0.076)	(0.033)	(0.068)	(0.027)
Year 2014	0.429	0.524	0.429	0.024	0.190	1.000
	(0.078)	(0.076)	(0.072)	(0.031)	(0.065)	(0.025)
Year 2015	0.552	0.418	0.373	0.030	0.194	0.970
	(0.061)	(0.060)	(0.057)	(0.025)	(0.052)	(0.020)
Year 2016	0.481	0.519	0.329	0.051	0.329	0.962
	(0.057)	(0.055)	(0.052)	(0.023)	(0.047)	(0.018)
F-statistic	0.366	2.408**	1.329	1.899*	2.397**	1.007

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.5: Characteristics status of students at BSE de Beauvoir across time

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.506	0.753	0.258	0.090	0.449	0.989
	(0.053)	(0.052)	(0.049)	(0.019)	(0.049)	(0.026)
Year 2011	0.495	0.660	0.345	0.050	0.355	0.920
	(0.035)	(0.034)	(0.033)	(0.013)	(0.033)	(0.017)
Year 2012	0.519	0.595	0.299	0.023	0.311	0.939
	(0.031)	(0.030)	(0.028)	(0.011)	(0.029)	(0.015)
Year 2013	0.526	0.572	0.217	0.020	0.316	0.934
	(0.041)	(0.039)	(0.037)	(0.015)	(0.038)	(0.020)
Year 2014	0.476	0.580	0.329	0.042	0.238	0.944
	(0.042)	(0.041)	(0.038)	(0.015)	(0.039)	(0.021)
Year 2015	0.424	0.608	0.288	0.016	0.280	0.904
	(0.045)	(0.043)	(0.041)	(0.016)	(0.042)	(0.022)
Year 2016	0.409	0.538	0.402	0.023	0.341	0.932
	(0.043)	(0.042)	(0.040)	(0.016)	(0.041)	(0.021)
F-statistic	1.242	2.398**	2.39**	2.322**	2.296**	1.206

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.6: Characteristics of students at BSE Hugo across time

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.559	0.518	0.231	0.041	0.492	0.954
	(0.036)	(0.036)	(0.026)	(0.015)	(0.031)	(0.025)
Year 2011	0.593	0.537	0.191	0.068	0.377	0.858
	(0.039)	(0.039)	(0.029)	(0.017)	(0.034)	(0.028)
Year 2012	0.574	0.507	0.167	0.086	0.397	0.856
	(0.034)	(0.034)	(0.025)	(0.015)	(0.030)	(0.024)
Year 2013	0.566	0.489	0.165	0.016	0.335	0.835
	(0.037)	(0.037)	(0.027)	(0.016)	(0.032)	(0.026)
Year 2014	0.558	0.596	0.141	0.071	0.212	0.853
	(0.040)	(0.040)	(0.029)	(0.017)	(0.035)	(0.028)
Year 2015	0.544	0.469	0.106	0.050	0.250	0.869
	(0.039)	(0.039)	(0.029)	(0.017)	(0.035)	(0.028)
Year 2016	0.540	0.633	0.108	0.043	0.266	0.813
	(0.042)	(0.042)	(0.031)	(0.018)	(0.037)	(0.030)
F-statistic	0.153	1.738*	5.584***	1.751*	12.938***	2.765***

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.7: Characteristics of students at BSE Sand across time

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES is not given
	(1)	(2)	(3)	(4)	(5)
Year 2010	0.082	0.098	0.213	0.541	0.066
	(0.043)	(0.043)	(0.054)	(0.063)	(0.037)
Year 2011	0.121	0.155	0.207	0.379	0.138
	(0.044)	(0.044)	(0.055)	(0.065)	(0.038)
Year 2012	0.158	0.132	0.211	0.474	0.026
	(0.054)	(0.054)	(0.068)	(0.080)	(0.047)
Year 2013	0.143	0.095	0.190	0.524	0.048
	(0.051)	(0.051)	(0.065)	(0.076)	(0.044)
Year 2014	0.209	0.149	0.134	0.448	0.060
	(0.041)	(0.041)	(0.051)	(0.060)	(0.035)
Year 2015	0.101	0.114	0.367	0.329	0.089
	(0.037)	(0.037)	(0.047)	(0.055)	(0.032)
Year 2016	0.140	0.128	0.235	0.380	0.117
	(0.025)	(0.025)	(0.031)	(0.037)	(0.021)
F-statistic	1.065	0.381	1.622	2.174**	1.034

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.8: Socio-economic status of students at BSE de Beauvoir across time

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
Year 2010	0.067	0.034	0.326	0.539	0.034
	(0.035)	(0.036)	(0.047)	(0.051)	(0.029)
Year 2011	0.100	0.135	0.220	0.420	0.125
	(0.024)	(0.024)	(0.032)	(0.034)	(0.020)
Year 2012	0.129	0.140	0.242	0.345	0.144
	(0.021)	(0.021)	(0.028)	(0.030)	(0.017)
Year 2013	0.112	0.118	0.309	0.408	0.053
	(0.027)	(0.027)	(0.036)	(0.039)	(0.022)
Year 2014	0.168	0.133	0.329	0.350	0.021
	(0.028)	(0.028)	(0.037)	(0.040)	(0.023)
Year 2015	0.176	0.144	0.272	0.368	0.040
	(0.030)	(0.030)	(0.040)	(0.043)	(0.025)
Year 2016	0.136	0.159	0.333	0.280	0.091
	(0.029)	(0.029)	(0.039)	(0.042)	(0.024)
F-statistic	1.571	1.504	1.769	3.214***	5.421***

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.9: Socio-economic status of students at BSE Hugo across time

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
Year 2010	0.056	0.082	0.292	0.292	0.277
	(0.023)	(0.025)	(0.031)	(0.035)	(0.018)
Year 2011	0.117	0.117	0.302	0.340	0.123
	(0.026)	(0.028)	(0.034)	(0.038)	(0.019)
Year 2012	0.115	0.148	0.258	0.378	0.100
	(0.023)	(0.024)	(0.030)	(0.034)	(0.017)
Year 2013	0.082	0.187	0.253	0.456	0.022
	(0.024)	(0.026)	(0.032)	(0.036)	(0.018)
Year 2014	0.096	0.199	0.321	0.365	0.019
	(0.026)	(0.028)	(0.035)	(0.039)	(0.020)
Year 2015	0.212	0.131	0.262	0.331	0.062
	(0.026)	(0.028)	(0.034)	(0.039)	(0.019)
Year 2016	0.144	0.108	0.187	0.532	0.029
	(0.028)	(0.030)	(0.037)	(0.041)	(0.021)
F-statistic	3.537***	1.888**	1.832*	4.125***	20.71***

Note: F-test is for the equality of means for all years. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2009-2019

Table A.10: Socio-economic status of students at BSE Sand across time

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.480	0.200	0.100	0.580	0.360	0.980
	(0.071)	(0.067)	(0.045)	(0.070)	(0.071)	(0.025)
Hugo	0.506	0.753	0.135	0.562	0.449	0.989
	(0.053)	(0.050)	(0.033)	(0.053)	(0.053)	(0.019)
Sand	0.559	0.518	0.103	0.569	0.492	0.954
	(0.036)	(0.034)	(0.023)	(0.036)	(0.036)	(0.013)
F-statistic	0.677	22.343***	0.355	0.022	1.434	1.323
School year	2010-2011	2010-2011	2010-2011	2010-2011	2010-2011	2010-2011
Observations	334	334	334	334	334	334

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2010

Table A.11: Characteristics of students across BSE in 2010

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.525	0.541	0.115	0.508	0.246	0.967
	(0.064)	(0.063)	(0.041)	(0.062)	(0.061)	(0.038)
Hugo	0.495	0.660	0.110	0.595	0.355	0.920
	(0.035)	(0.035)	(0.023)	(0.034)	(0.034)	(0.021)
Sand	0.593	0.537	0.117	0.667	0.377	0.858
	(0.039)	(0.038)	(0.025)	(0.038)	(0.037)	(0.023)
F-statistic	1.737	3.281**	0.024	2.529*	1.716	3.676**
School year	2011-2012	2011-2012	2011-2012	2011-2012	2011-2012	2011-2012
Observations	423	423	423	423	423	423

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2011

Table A.12: Characteristics of students across BSE in 2011

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.500	0.483	0.259	0.328	0.328	1.000
	(0.066)	(0.065)	(0.043)	(0.063)	(0.062)	(0.036)
Hugo	0.519	0.595	0.144	0.557	0.311	0.939
	(0.031)	(0.031)	(0.020)	(0.030)	(0.029)	(0.017)
Sand	0.574	0.507	0.062	0.703	0.397	0.856
	(0.035)	(0.034)	(0.022)	(0.033)	(0.033)	(0.019)
F-statistic	0.909	2.371*	9.239***	15.14***	1.983	8.369***
School year	2012-2013	2012-2013	2012-2013	2012-2013	2012-2013	2012-2013
Observations	531	531	531	531	531	531

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2012

Table A.13: Characteristics of students across BSE in 2012

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.579	0.474	0.395	0.211	0.289	1.000
	(0.081)	(0.081)	(0.050)	(0.077)	(0.076)	(0.050)
Hugo	0.526	0.572	0.079	0.664	0.316	0.934
	(0.040)	(0.041)	(0.025)	(0.039)	(0.038)	(0.025)
Sand	0.566	0.489	0.088	0.610	0.335	0.835
	(0.037)	(0.037)	(0.023)	(0.035)	(0.035)	(0.023)
F-statistic	0.327	1.346	17.558***	14.11***	0.176	6.983***
School year	2013-2014	2013-2014	2013-2014	2013-2014	2013-2014	2013-2014
Observations	372	372	372	372	372	372

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2013

Table A.14: Characteristics of students across BSE in 2013

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.429	0.524	0.500	0.000	0.190	1.000
	(0.077)	(0.076)	(0.056)	(0.070)	(0.064)	(0.044)
Hugo	0.476	0.580	0.175	0.643	0.238	0.944
	(0.042)	(0.041)	(0.030)	(0.038)	(0.035)	(0.024)
Sand	0.558	0.596	0.096	0.590	0.212	0.853
	(0.040)	(0.040)	(0.029)	(0.037)	(0.033)	(0.023)
F-statistic	1.603	0.353	20.425***	33.919***	0.269	6.349***
School year	2014-2015	2014-2015	2014-2015	2014-2015	2014-2015	2014-2015
Observations	341	341	341	341	341	341

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2014

Table A.15: Characteristics of students across BSE in 2014

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.552	0.418	0.403	0.030	0.194	0.970
	(0.061)	(0.061)	(0.044)	(0.055)	(0.053)	(0.036)
Hugo	0.424	0.608	0.144	0.624	0.280	0.904
	(0.045)	(0.044)	(0.032)	(0.040)	(0.039)	(0.027)
Sand	0.544	0.469	0.100	0.531	0.250	0.869
	(0.039)	(0.039)	(0.029)	(0.036)	(0.034)	(0.024)
F-statistic	2.429*	4.143**	17.104***	40.597***	0.857	2.743*
School year	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016
Observations	352	352	352	352	352	352

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2015

Table A.16: Characteristics of students across BSE in 2015

	Dependent variable:					
	Female (=1)	Scholarship holder (=1)	Grade repeater (=1)	Grade skipper (=1)	Only one parent (=1)	Born in France (=1)
	(1)	(2)	(3)	(4)	(5)	(6)
de Beauvoir	0.481	0.519	0.354	0.063	0.329	0.962
	(0.056)	(0.056)	(0.045)	(0.051)	(0.052)	(0.034)
Hugo	0.409	0.538	0.303	0.477	0.341	0.932
	(0.043)	(0.043)	(0.035)	(0.039)	(0.040)	(0.027)
Sand	0.540	0.633	0.079	0.597	0.266	0.813
	(0.042)	(0.042)	(0.034)	(0.038)	(0.039)	(0.026)
F-statistic	2.324*	1.829	15.729***	36.139***	0.984	7.844***
School year	2016-2017	2016-2017	2016-2017	2016-2017	2016-2017	2016-2017
Observations	350	350	350	350	350	350

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2016

Table A.17: Characteristics of students across BSE in 2016

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.060	0.080	0.200	0.600	0.060
	(0.034)	(0.036)	(0.064)	(0.067)	(0.052)
Hugo	0.067	0.034	0.326	0.539	0.034
	(0.025)	(0.027)	(0.048)	(0.050)	(0.039)
Sand	0.056	0.082	0.292	0.292	0.277
	(0.017)	(0.018)	(0.032)	(0.034)	(0.026)
F-statistic	0.065	1.168	1.263	13.301***	16.476***
School year	2010-2011	2010-2011	2010-2011	2010-2011	2010-2011
Observations	334	334	334	334	334

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2010

Table A.18: Socio-economic status of students across BSE in 2010

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.082	0.098	0.213	0.541	0.066
	(0.039)	(0.042)	(0.055)	(0.063)	(0.041)
Hugo	0.100	0.135	0.220	0.420	0.125
	(0.022)	(0.023)	(0.031)	(0.035)	(0.023)
Sand	0.117	0.117	0.302	0.340	0.123
	(0.024)	(0.026)	(0.034)	(0.038)	(0.025)
F-statistic	0.328	0.328	1.891	3.913**	0.878
School year	2011-2012	2011-2012	2011-2012	2011-2012	2011-2012
Observations	423	423	423	423	423

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2011

Table A.19: Socio-economic status of students across BSE in 2011

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.121	0.155	0.207	0.379	0.138
	(0.043)	(0.046)	(0.057)	(0.063)	(0.044)
Hugo	0.129	0.140	0.242	0.345	0.144
	(0.020)	(0.022)	(0.027)	(0.030)	(0.020)
Sand	0.115	0.148	0.258	0.378	0.100
	(0.023)	(0.024)	(0.030)	(0.033)	(0.023)
F-statistic	0.106	0.058	0.332	0.323	1.038
School year	2012-2013	2012-2013	2012-2013	2012-2013	2012-2013
Observations	531	531	531	531	531

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2012

Table A.20: Socio-economic status of students across BSE in 2012

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.158	0.132	0.211	0.474	0.026
	(0.049)	(0.058)	(0.072)	(0.081)	(0.030)
Hugo	0.112	0.118	0.309	0.408	0.053
	(0.025)	(0.029)	(0.036)	(0.040)	(0.015)
Sand	0.082	0.187	0.253	0.456	0.022
	(0.022)	(0.027)	(0.033)	(0.037)	(0.014)
F-statistic	1.106	1.57	1.063	0.496	1.199
School year	2013-2014	2013-2014	2013-2014	2013-2014	2013-2014
Observations	372	372	372	372	372

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2013

Table A.21: Socio-economic status of students across BSE in 2013

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.143	0.095	0.190	0.524	0.048
	(0.052)	(0.056)	(0.071)	(0.075)	(0.023)
Hugo	0.168	0.133	0.329	0.350	0.021
	(0.028)	(0.030)	(0.039)	(0.040)	(0.013)
Sand	0.096	0.199	0.321	0.365	0.019
	(0.027)	(0.029)	(0.037)	(0.039)	(0.012)
F-statistic	1.7	1.935	1.562	2.204	0.612
School year	2014-2015	2014-2015	2014-2015	2014-2015	2014-2015
Observations	341	341	341	341	341

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2014

Table A.22: Socio-economic status of students across BSE in 2014

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.209	0.149	0.134	0.448	0.060
	(0.049)	(0.042)	(0.052)	(0.059)	(0.028)
Hugo	0.176	0.144	0.272	0.368	0.040
	(0.036)	(0.031)	(0.038)	(0.043)	(0.020)
Sand	0.212	0.131	0.262	0.331	0.062
	(0.032)	(0.027)	(0.034)	(0.038)	(0.018)
F-statistic	0.318	0.082	2.627*	1.381	0.372
School year	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016
Observations	352	352	352	352	352

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2015

Table A.23: Socio-economic status of students across BSE in 2015

	Dependent variable:				
	SES = A	SES = B	SES = C	SES = D	SES not filled
	(1)	(2)	(3)	(4)	(5)
de Beauvoir	0.101	0.114	0.367	0.329	0.089
	(0.038)	(0.038)	(0.050)	(0.054)	(0.028)
Hugo	0.136	0.159	0.333	0.280	0.091
	(0.029)	(0.029)	(0.039)	(0.041)	(0.022)
Sand	0.144	0.108	0.187	0.532	0.029
	(0.029)	(0.028)	(0.038)	(0.040)	(0.021)
F-statistic	0.421	0.886	5.477***	10.361***	2.58*
School year	2016-2017	2016-2017	2016-2017	2016-2017	2016-2017
Observations	350	350	350	350	350

Note: F-test is for the equality of means across schools. Stars indicate p-values associated with this test: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2016

Table A.24: Socio-economic status of students across BSE in 2016

F.2 Effectiveness of the program: high-school students and matching based on grades at middle-school exam

This part of the appendix contains tables related to section 4.

This section provides results from the regressions for high-school students.

F.2.1 General results

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.83***	0.83***	0.50***	0.22***	0.11***	0.05***	0.01***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Effect boarding	−0.08***	−0.08***	0.14***	−0.13***	−0.09***	−0.04***	−0.01***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.00)
R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.01
Adj. R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.49	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.25: General effectiveness of the program

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder	0.04***	0.13***	0.27***	0.36***	0.00	0.02***	0.01**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	(0.00)
Effect boarding	0.02	0.01	−0.07***	−0.02	−0.00	0.04***	0.01**
	(0.01)	(0.02)	(0.02)	(0.02)	(0.00)	(0.01)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Adj. R^2	0.00	−0.00	0.01	−0.00	−0.00	0.01	0.00
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.26: Effectiveness of the program on honors and presence of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder	-0.07^{**}	0.01	-0.22^{***}	-0.07
	(0.04)	(0.04)	(0.05)	(0.05)
Effect boarding	-0.03	0.11^{**}	-0.09	0.01
	(0.05)	(0.05)	(0.06)	(0.06)
R^2	0.00	0.00	0.00	0.00
Adj. R^2	-0.00	0.00	0.00	-0.00
Num. obs.	1068	1062	910	1054
RMSE	0.91	0.95	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.27: Effectiveness of the program on test scores of students

F.2.2 Results by gender

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: male (baseline)	-0.17^{***}	-0.20^{***}	-0.25^{***}	-0.05
	(0.06)	(0.06)	(0.07)	(0.07)
Non-boarder: female	0.16^{**}	0.34^{***}	0.05	-0.04
	(0.07)	(0.08)	(0.10)	(0.09)
Effect boarding (baseline = male)	-0.10	0.06	-0.12	-0.06
	(0.08)	(0.08)	(0.09)	(0.11)
Effect boarding (female != male?)	0.12	0.09	0.05	0.12
	(0.11)	(0.10)	(0.12)	(0.13)
R^2	0.02	0.04	0.00	0.00
Adj. R^2	0.01	0.04	0.00	-0.00
Num. obs.	1068	1062	910	1054
RMSE	0.91	0.94	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.28: Effectiveness of the program on test scores of students by gender

F.2.3 Results by honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.09**	−0.09**	0.18***	−0.15***	−0.12***	−0.05***	−0.01
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding: weak females	−0.05	−0.04	0.00	−0.04	−0.01	−0.02	−0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding: very weak males	0.13	0.13	0.06	0.18	−0.11	−0.09	0.01
	(0.16)	(0.16)	(0.11)	(0.12)	(0.11)	(0.10)	(0.01)
Effect boarding: very weak females	0.11	0.13	0.01	0.05	0.07	0.23**	−0.16
	(0.25)	(0.23)	(0.16)	(0.17)	(0.16)	(0.11)	(0.11)
Effect boarding: very good males	0.07	0.07	−0.12**	0.09*	0.11***	0.05***	0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: very good females	0.03	0.02	−0.03	0.05	−0.00	0.02	0.00
	(0.07)	(0.07)	(0.08)	(0.06)	(0.04)	(0.02)	(0.01)
R^2	0.09	0.10	0.21	0.08	0.07	0.04	0.03
Adj. R^2	0.08	0.09	0.20	0.07	0.06	0.03	0.03
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.39	0.39	0.44	0.35	0.23	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.29: Effectiveness of the program on graduation rates of students by honors at middle-school exam

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = weak males)	0.01	−0.05**	−0.04	−0.02	−0.00	0.04*	0.02*
	(0.01)	(0.02)	(0.04)	(0.05)	(0.00)	(0.02)	(0.01)
Effect boarding: weak females	−0.01	0.06	−0.05	0.02	−0.00	0.01	−0.01
	(0.02)	(0.03)	(0.05)	(0.06)	(0.00)	(0.03)	(0.02)
Effect boarding: very weak males	−0.01	0.15	0.04	−0.26	0.00	0.16	−0.17
	(0.01)	(0.10)	(0.04)	(0.24)	(0.00)	(0.13)	(0.13)
Effect boarding: very weak females	0.01	0.09	0.18	0.50*	0.00	0.04	0.15
	(0.02)	(0.18)	(0.13)	(0.29)	(0.00)	(0.20)	(0.13)
Effect boarding: very good males	0.05	0.06	−0.02	−0.07	−0.00	−0.02	−0.02*
	(0.05)	(0.06)	(0.07)	(0.08)	(0.00)	(0.03)	(0.01)
Effect boarding: very good females	−0.02	0.02	−0.00	0.06	0.00	−0.03	0.02
	(0.06)	(0.08)	(0.10)	(0.11)	(0.00)	(0.03)	(0.02)
R^2	0.05	0.06	0.02	0.03	0.00	0.04	0.01
Adj. R^2	0.05	0.05	0.02	0.02	−0.00	0.03	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.21	0.33	0.42	0.47	0.03	0.19	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.30: Effectiveness of the program on honors received at high-school given honors at middle-school exam

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = weak males)	-0.17^{*}	0.01	-0.10	-0.02
	(0.09)	(0.09)	(0.10)	(0.12)
Effect boarding: weak females	0.10	0.02	-0.05	-0.03
	(0.12)	(0.13)	(0.15)	(0.16)
Effect boarding: very weak males	1.38	0.77	0.47^{*}	-1.93^{***}
	(1.31)	(0.53)	(0.27)	(0.26)
Effect boarding: very weak females	-1.73	-0.65	-0.80	2.07^{***}
	(1.34)	(0.91)	(0.77)	(0.44)
Effect boarding: very good males	0.23	0.21	-0.04	-0.09
	(0.18)	(0.18)	(0.21)	(0.25)
Effect boarding: very good females	-0.04	0.06	0.26	0.33
	(0.22)	(0.22)	(0.27)	(0.30)
R^2	0.19	0.17	0.06	0.09
Adj. R^2	0.18	0.16	0.05	0.08
Num. obs.	1068	1062	910	1054
RMSE	0.82	0.88	1.00	1.07
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.31: Effectiveness of the program on test scores of students by honors at middle-school exam

F.2.4 Results by socio-economic status

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.15**	−0.15**	−0.01	−0.12**	−0.02	−0.01	−0.00
	(0.06)	(0.06)	(0.07)	(0.05)	(0.03)	(0.02)	
Effect boarding: very privileged females	0.07	0.08	0.02	0.07	−0.01	−0.00	−0.02
	(0.10)	(0.10)	(0.11)	(0.07)	(0.04)	(0.03)	(0.02)
Effect boarding: privileged males	−0.01	−0.01	0.06	−0.03	−0.04	0.01	0.00
	(0.10)	(0.10)	(0.12)	(0.09)	(0.06)	(0.03)	
Effect boarding: privileged females	−0.08	−0.09	0.02	−0.09	−0.02	−0.03	−0.02
	(0.14)	(0.14)	(0.16)	(0.12)	(0.07)	(0.04)	(0.03)
Effect boarding: under-privileged males	0.09	0.10	0.18*	0.02	−0.11**	−0.05	−0.03*
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	(0.02)
Effect boarding: under-privileged females	−0.07	−0.09	−0.11	−0.05	0.06	0.02	0.02
	(0.12)	(0.12)	(0.14)	(0.10)	(0.06)	(0.04)	(0.03)
Effect boarding: very under-privileged males	0.15*	0.15*	0.28***	−0.03	−0.10**	−0.05	−0.01
	(0.08)	(0.08)	(0.10)	(0.08)	(0.05)	(0.03)	(0.01)
Effect boarding: very under-privileged females	−0.18	−0.19	−0.08	−0.12	0.00	0.01	0.02
	(0.12)	(0.12)	(0.13)	(0.10)	(0.06)	(0.04)	(0.02)
Effect boarding: likely under-privileged males	0.33	0.33	0.30	0.13	−0.10	0.01	0.00
	(0.21)	(0.21)	(0.20)	(0.15)	(0.12)	(0.02)	
Effect boarding: likely under-privileged females	−0.26	−0.27	−0.27	−0.11	0.12	−0.04	0.02
	(0.25)	(0.25)	(0.25)	(0.17)	(0.14)	(0.05)	(0.02)
R^2	0.02	0.02	0.05	0.05	0.05	0.03	0.01
Adj. R^2	0.01	0.01	0.04	0.04	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.48	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.32: Effectiveness of the program on graduation rates given SES of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = very privileged males)	0.00	−0.02	−0.10	0.01	0.00	0.05	0.03
	(0.03)	(0.04)	(0.06)	(0.08)	(0.00)	(0.04)	(0.03)
Effect boarding: very privileged females	−0.02	0.20**	−0.05	−0.02	−0.00	−0.00	−0.03
	(0.04)	(0.10)	(0.11)	(0.12)	(0.00)	(0.06)	(0.03)
Effect boarding: privileged males	−0.00	−0.03	0.04	−0.07	−0.00	0.02	0.03
	(0.04)	(0.08)	(0.10)	(0.12)	(0.00)	(0.06)	(0.05)
Effect boarding: privileged females	0.09	−0.08	0.05	−0.09	−0.00	0.01	−0.03
	(0.06)	(0.14)	(0.15)	(0.17)	(0.00)	(0.08)	(0.05)
Effect boarding: under-privileged males	0.05	−0.05	0.05	−0.01	−0.00	−0.03	−0.03
	(0.04)	(0.06)	(0.09)	(0.11)	(0.00)	(0.05)	(0.03)
Effect boarding: under-privileged females	−0.06	−0.12	0.04	0.10	−0.00	−0.00	0.02
	(0.06)	(0.11)	(0.13)	(0.15)	(0.00)	(0.07)	(0.03)
Effect boarding: very under-privileged males	0.03	−0.01	0.14*	−0.11	−0.00	−0.00	−0.04
	(0.05)	(0.06)	(0.08)	(0.10)	(0.00)	(0.05)	(0.03)
Effect boarding: very under-privileged females	0.01	−0.18	−0.08	0.10	−0.01	−0.02	0.08**
	(0.06)	(0.11)	(0.13)	(0.14)	(0.01)	(0.07)	(0.04)
Effect boarding: likely under-privileged males	−0.00	0.22*	−0.34	−0.18	0.00	−0.05	−0.03
	(0.03)	(0.11)	(0.27)	(0.29)	(0.00)	(0.04)	(0.03)
Effect boarding: likely under-privileged females	−0.04	−0.36**	0.29	0.33	−0.00	0.08	0.03
	(0.11)	(0.17)	(0.32)	(0.33)	(0.00)	(0.08)	(0.03)
R^2	0.01	0.03	0.02	0.02	0.01	0.02	0.02
Adj. R^2	0.00	0.02	0.01	0.00	−0.01	0.00	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.33	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.33: Effectiveness of the program on honors received at high-school given SES of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = very privileged males)	-0.38^{**}	-0.12	-0.25	-0.21
	(0.18)	(0.16)	(0.21)	(0.21)
Effect boarding: very privileged females	0.37	0.16	0.13	0.46
	(0.26)	(0.23)	(0.31)	(0.34)
Effect boarding: privileged males	0.19	0.44	0.23	0.14
	(0.30)	(0.29)	(0.36)	(0.34)
Effect boarding: privileged females	0.14	-0.12	0.11	-0.21
	(0.41)	(0.38)	(0.49)	(0.50)
Effect boarding: under-privileged males	0.38	0.09	-0.03	0.16
	(0.23)	(0.24)	(0.28)	(0.29)
Effect boarding: under-privileged females	-0.50	-0.06	-0.12	-0.53
	(0.32)	(0.33)	(0.40)	(0.44)
Effect boarding: very under-privileged males	0.47^{**}	0.30	0.33	0.25
	(0.24)	(0.23)	(0.28)	(0.28)
Effect boarding: very under-privileged females	-0.43	-0.10	-0.23	-0.44
	(0.32)	(0.31)	(0.39)	(0.41)
Effect boarding: likely under-privileged males	0.38	0.58	-0.19	0.21
	(0.52)	(0.65)	(0.77)	(0.82)
Effect boarding: likely under-privileged females	-0.03	-0.84	0.59	-0.58
	(0.80)	(0.91)	(0.98)	(1.14)
R^2	0.05	0.07	0.02	0.02
Adj. R^2	0.03	0.05	-0.00	0.00
Num. obs.	1068	1062	910	1054
RMSE	0.90	0.93	1.03	1.11
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.34: Effectiveness of the program on test scores given SES of students

F.2.5 Results by nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.87^{***}	0.87^{***}	0.46^{***}	0.29^{***}	0.12^{***}	0.06^{*}	0.02
	(0.05)	(0.05)	(0.07)	(0.06)	(0.04)	(0.03)	(0.02)
Non-boarder: French	-0.03	-0.04	0.04	-0.07	-0.01	-0.01	-0.01
	(0.05)	(0.05)	(0.07)	(0.06)	(0.05)	(0.03)	(0.02)
Effect boarding (baseline = Non-French)	-0.09	-0.09	0.17^{*}	-0.14^{*}	-0.12^{***}	-0.06^{*}	-0.02
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.02)
Effect boarding (Non-French != French?)	0.01	0.01	-0.03	0.02	0.02	0.02	0.01
	(0.07)	(0.07)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.01
Adj. R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.49	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.35: Effectiveness of the program on graduation rates given nationality of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: Non-French (baseline)	0.04	0.15***	0.21***	0.36***	−0.00	0.04	−0.00
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Non-boarder: French	−0.00	−0.02	0.06	−0.00	0.00	−0.02	0.01**
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Effect boarding (baseline = Non-French)	0.02	0.04	−0.00	−0.03	0.00	0.03	−0.00
	(0.04)	(0.08)	(0.08)	(0.10)	(0.00)	(0.05)	(0.00)
Effect boarding (Non-French != French?)	0.00	−0.04	−0.07	0.02	−0.00	0.00	0.01**
	(0.04)	(0.08)	(0.09)	(0.10)	(0.00)	(0.05)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Adj. R^2	−0.00	−0.00	0.00	−0.00	−0.00	0.01	0.00
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.36: Effectiveness of the program on honors received at high-school given nationality of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: Non-French (baseline)	−0.23*	−0.47***	−0.12	−0.27
	(0.13)	(0.14)	(0.19)	(0.21)
Non-boarder: French	0.16	0.49***	−0.10	0.21
	(0.14)	(0.15)	(0.20)	(0.22)
Effect boarding (baseline = Non-French)	0.38**	0.76***	0.06	0.34
	(0.19)	(0.20)	(0.26)	(0.28)
Effect boarding (French != Non-French?)	−0.45**	−0.68***	−0.17	−0.35
	(0.19)	(0.21)	(0.27)	(0.29)
R^2	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.01	0.00	−0.00
Num. obs.	1068	1062	910	1054
RMSE	0.91	0.95	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.37: Effectiveness of the program on test scores given nationality of students

F.2.6 Results by time spent in BSE

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder	0.04***	0.13***	0.27***	0.36***	0.00	0.02***	0.01**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	(0.00)
Effect boarding 1 year	0.00	−0.04*	−0.09***	0.00	−0.00	0.06***	0.03**
	(0.01)	(0.02)	(0.03)	(0.03)	(0.00)	(0.02)	(0.01)
Effect boarding +1 year	0.03**	0.03	−0.06**	−0.03	−0.00	0.03**	0.00
	(0.01)	(0.02)	(0.02)	(0.03)	(0.00)	(0.01)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.00	0.01	0.01
Adj. R^2	0.00	0.00	0.01	−0.00	−0.00	0.01	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.38: Effectiveness of the program on honors received at high-school given nationality of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder	−0.07	0.05	−0.19***	−0.06
	(0.05)	(0.05)	(0.06)	(0.06)
Effect boarding +1 year	0.08	0.18***	−0.03	0.02
	(0.06)	(0.07)	(0.08)	(0.08)
R^2	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.01	−0.00	−0.00
Num. obs.	668	665	573	660
RMSE	0.90	0.95	1.03	1.13
N Clusters	335	335	290	335

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.39: Effectiveness of the program on test scores given nationality of students

By gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding 1 year (male)	−0.17***	−0.17***	−0.08**	−0.02	−0.08***	−0.03*	−0.01
	(0.04)	(0.04)	(0.04)	(0.04)	(0.02)	(0.02)	(0.01)
Effect boarding +1 years (male)	0.02	0.02	0.33***	−0.20***	−0.11***	−0.05***	−0.01**
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Effect boarding 1 year (female vs male)	−0.07	−0.07	−0.05	−0.02	−0.00	−0.01	−0.01
	(0.06)	(0.06)	(0.05)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding +1 years (female vs male)	−0.02	−0.02	−0.05	0.01	0.01	0.00	−0.00
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)	(0.01)
R^2	0.05	0.05	0.11	0.06	0.04	0.02	0.01
Adj. R^2	0.05	0.05	0.11	0.05	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.47	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.40: Effectiveness of the program on graduation rates given gender of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding 1 year (male)	0.02	−0.06**	−0.07*	−0.02	−0.00	0.06**	0.01
	(0.02)	(0.03)	(0.04)	(0.05)	(0.00)	(0.03)	(0.01)
Effect boarding +1 years (male)	0.03*	−0.01	−0.02	−0.06	−0.00	0.02	0.01
	(0.02)	(0.03)	(0.04)	(0.04)	(0.00)	(0.02)	(0.01)
Effect boarding 1 year (female vs male)	−0.03	0.05	−0.04	0.04	−0.00	−0.02	0.02
	(0.03)	(0.04)	(0.06)	(0.07)	(0.00)	(0.04)	(0.02)
Effect boarding +1 years (female vs male)	−0.01	0.08*	−0.06	0.04	−0.00	0.01	−0.01
	(0.03)	(0.04)	(0.05)	(0.06)	(0.00)	(0.02)	(0.01)
R^2	0.00	0.01	0.01	0.01	0.00	0.01	0.01
Adj. R^2	0.00	0.01	0.01	0.00	−0.00	0.01	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.33	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.41: Effectiveness of the program on honors received at high-school given gender of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding +1 years (male)	0.03	0.11	−0.07	−0.03
	(0.11)	(0.11)	(0.12)	(0.14)
Effect boarding +1 years (female vs male)	0.08	0.11	0.07	0.08
	(0.13)	(0.14)	(0.16)	(0.17)
R^2	0.02	0.04	0.00	0.00
Adj. R^2	0.02	0.04	−0.00	−0.00
Num. obs.	668	665	573	660
RMSE	0.89	0.93	1.03	1.13
N Clusters	335	335	290	335

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.42: Effectiveness of the program on test scores given gender of students

By SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding: very privileged males staying 1 y	−0.30***	−0.30***	−0.22**	−0.07	−0.01	0.00	−0.00
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	
Effect boarding: privileged males staying 1 y	0.05	0.05	0.02	0.06	−0.03	0.02	−0.00
	(0.14)	(0.14)	(0.15)	(0.13)	(0.08)	(0.05)	
Effect boarding: under-privileged males staying 1 y	0.13	0.14	0.23*	0.04	−0.12**	−0.06	−0.03*
	(0.13)	(0.13)	(0.14)	(0.09)	(0.06)	(0.04)	(0.02)
Effect boarding: very under-privileged males staying 1 y	0.24**	0.23*	0.24*	0.08	−0.09	−0.05	0.00
	(0.12)	(0.12)	(0.12)	(0.11)	(0.07)	(0.05)	(0.02)
Effect boarding: likely under-privileged males staying 1 y	0.30	0.30	0.17	0.25	−0.12	−0.00	0.00
	(0.24)	(0.24)	(0.22)	(0.20)	(0.13)	(0.03)	
Effect boarding: very privileged males staying +1 y	−0.01	−0.01	0.18**	−0.16***	−0.04	−0.02	0.00
	(0.07)	(0.07)	(0.08)	(0.05)	(0.04)	(0.02)	
Effect boarding: privileged males staying +1 y	−0.09	−0.09	0.04	−0.08	−0.05	0.01	−0.00
	(0.11)	(0.11)	(0.13)	(0.08)	(0.06)	(0.02)	
Effect boarding: under-privileged males staying +1 y	0.04	0.05	0.13	0.02	−0.09*	−0.04	−0.03*
	(0.09)	(0.09)	(0.11)	(0.07)	(0.05)	(0.03)	(0.02)
Effect boarding: very under-privileged males staying +1 y	0.07	0.07	0.29***	−0.11	−0.11**	−0.06*	−0.01
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	(0.01)
Effect boarding: likely under-privileged males staying +1 y	0.34	0.34	0.40*	0.03	−0.09	0.02	−0.00
	(0.22)	(0.22)	(0.21)	(0.13)	(0.12)	(0.02)	
Effect boarding: very privileged females staying 1 y (vs males)	0.18	0.19	0.12	0.10	−0.02	−0.02	−0.02
	(0.13)	(0.14)	(0.15)	(0.11)	(0.05)	(0.04)	(0.02)
Effect boarding: privileged females staying 1 y (vs males)	−0.26	−0.27	−0.08	−0.16	−0.04	−0.04	−0.02
	(0.20)	(0.20)	(0.22)	(0.18)	(0.10)	(0.06)	(0.03)
Effect boarding: under-privileged females staying 1 y (vs males)	−0.23	−0.28	−0.33*	−0.05	0.10	0.07	0.02
	(0.18)	(0.18)	(0.20)	(0.14)	(0.07)	(0.06)	(0.03)
Effect boarding: very under-privileged females staying 1 y (vs males)	−0.40**	−0.40**	−0.20	−0.20	−0.00	0.00	0.01
	(0.17)	(0.17)	(0.18)	(0.14)	(0.07)	(0.05)	(0.03)
Effect boarding: likely under-privileged females staying 1 y (vs males)	−0.36	−0.38	−0.31	−0.23	0.17	−0.03	0.02
	(0.31)	(0.31)	(0.29)	(0.24)	(0.15)	(0.06)	(0.02)
Effect boarding: very privileged females staying +1 y (vs males)	−0.03	−0.01	−0.05	0.03	0.01	0.01	−0.02
	(0.11)	(0.11)	(0.12)	(0.06)	(0.04)	(0.02)	(0.02)
Effect boarding: privileged females staying +1 y (vs males)	0.03	0.02	0.05	−0.02	−0.01	−0.02	−0.02
	(0.15)	(0.15)	(0.18)	(0.11)	(0.07)	(0.04)	(0.03)
Effect boarding: under-privileged females staying +1 y (vs males)	0.02	0.01	−0.01	−0.02	0.04	−0.00	0.02
	(0.13)	(0.14)	(0.15)	(0.09)	(0.06)	(0.04)	(0.03)
Effect boarding: very under-privileged females staying +1 y (vs males)	−0.03	−0.05	−0.03	−0.03	0.01	0.01	0.02
	(0.13)	(0.13)	(0.14)	(0.09)	(0.06)	(0.04)	(0.02)
Effect boarding: likely under-privileged females staying +1 y (vs males)	−0.18	−0.19	−0.26	−0.00	0.07	−0.06	0.02
	(0.27)	(0.27)	(0.26)	(0.15)	(0.13)	(0.05)	(0.02)
R^2	0.06	0.06	0.14	0.08	0.05	0.03	0.01
Adj. R^2	0.05	0.05	0.13	0.06	0.04	0.01	−0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.46	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^{\top} \cdot \text{SES} + \beta_3^{\top} \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^{\top} \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^{\top} \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.43: Effectiveness of the program on graduation rates given SES of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding: very privileged males staying 1 y	−0.04*	−0.04	−0.17**	0.00	−0.00	0.13*	0.05
	(0.02)	(0.06)	(0.08)	(0.10)	(0.00)	(0.07)	(0.05)
Effect boarding: privileged males staying 1 y	0.02	−0.09	0.12	0.07	−0.00	−0.09	0.01
	(0.03)	(0.10)	(0.14)	(0.17)	(0.00)	(0.10)	(0.07)
Effect boarding: under-privileged males staying 1 y	0.13**	−0.01	0.06	−0.04	−0.00	−0.07	−0.05
	(0.06)	(0.08)	(0.11)	(0.14)	(0.00)	(0.09)	(0.05)
Effect boarding: very under-privileged males staying 1 y	0.06	−0.01	0.20*	−0.07	0.00***	−0.08	−0.07
	(0.05)	(0.07)	(0.11)	(0.14)	(0.00)	(0.09)	(0.05)
Effect boarding: likely under-privileged males staying 1 y	0.04*	0.04	−0.13	−0.10	0.00	−0.13*	−0.05
	(0.02)	(0.06)	(0.32)	(0.35)	(0.00)	(0.07)	(0.05)
Effect boarding: very privileged males staying +1 y	0.04	−0.00	−0.04	0.01	0.00	−0.01	0.01
	(0.04)	(0.05)	(0.07)	(0.09)	(0.00)	(0.03)	(0.03)
Effect boarding: privileged males staying +1 y	−0.03	0.00	−0.03	−0.15	−0.00	0.09	0.05
	(0.06)	(0.10)	(0.11)	(0.14)	(0.00)	(0.07)	(0.05)
Effect boarding: under-privileged males staying +1 y	−0.01	−0.07	0.03	0.01	−0.00	0.01	−0.01
	(0.05)	(0.07)	(0.11)	(0.13)	(0.00)	(0.05)	(0.03)
Effect boarding: very under-privileged males staying +1 y	0.00	−0.02	0.09	−0.13	−0.00	0.06	−0.02
	(0.06)	(0.07)	(0.10)	(0.12)	(0.00)	(0.05)	(0.04)
Effect boarding: likely under-privileged males staying +1 y	−0.04	0.30*	−0.46*	−0.21	0.00	0.01	−0.01
	(0.04)	(0.16)	(0.26)	(0.31)	(0.00)	(0.03)	(0.03)
Effect boarding: very privileged females staying 1 y (vs males)	0.05	0.13	0.02	0.08	0.00	−0.15*	−0.05
	(0.06)	(0.12)	(0.13)	(0.16)	(0.00)	(0.08)	(0.05)
Effect boarding: privileged females staying 1 y (vs males)	0.04	0.10	−0.02	−0.41*	0.00	0.25**	−0.01
	(0.09)	(0.18)	(0.21)	(0.24)	(0.00)	(0.12)	(0.07)
Effect boarding: under-privileged females staying 1 y (vs males)	−0.19**	−0.13	0.04	0.05	0.00	0.16	0.05
	(0.09)	(0.15)	(0.17)	(0.21)	(0.00)	(0.11)	(0.05)
Effect boarding: very under-privileged females staying 1 y (vs males)	−0.09	−0.16	−0.16	0.02	−0.01	0.11	0.18***
	(0.08)	(0.14)	(0.17)	(0.20)	(0.01)	(0.09)	(0.07)
Effect boarding: likely under-privileged females staying 1 y (vs males)	−0.19*	−0.08	−0.07	0.27	−0.00	0.26**	0.05
	(0.11)	(0.18)	(0.38)	(0.42)	(0.00)	(0.13)	(0.05)
Effect boarding: very privileged females staying +1 y (vs males)	−0.08	0.26**	−0.11	−0.09	0.00	0.11	−0.01
	(0.05)	(0.12)	(0.12)	(0.13)	(0.00)	(0.07)	(0.03)
Effect boarding: privileged females staying +1 y (vs males)	0.13*	−0.19	0.10	0.09	0.00	−0.15	−0.05
	(0.08)	(0.17)	(0.17)	(0.19)	(0.00)	(0.10)	(0.05)
Effect boarding: under-privileged females staying +1 y (vs males)	0.02	−0.15	0.05	0.14	0.00	−0.12	0.01
	(0.07)	(0.14)	(0.16)	(0.17)	(0.00)	(0.09)	(0.03)
Effect boarding: very under-privileged females staying +1 y (vs males)	0.08	−0.21	−0.02	0.17	−0.01	−0.12	0.02
	(0.07)	(0.13)	(0.15)	(0.16)	(0.01)	(0.09)	(0.04)
Effect boarding: likely under-privileged females staying +1 y (vs males)	0.06	−0.51**	0.50	0.38	−0.00	−0.05	0.01
	(0.13)	(0.22)	(0.33)	(0.36)	(0.00)	(0.09)	(0.03)
R^2	0.02	0.04	0.02	0.02	0.01	0.03	0.04
Adj. R^2	0.00	0.02	0.00	−0.00	−0.01	0.01	0.02
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.33	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.44: Effectiveness of the program on honors received at high-school given SES of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding: very privileged males staying 1 y	-0.75^{***}	-0.41^{**}	-0.52^{**}	-0.43
	(0.27)	(0.21)	(0.26)	(0.29)
Effect boarding: privileged males staying 1 y	0.34	0.73^{*}	0.19	0.68
	(0.45)	(0.38)	(0.46)	(0.43)
Effect boarding: under-privileged males staying 1 y	0.77^{**}	0.39	0.42	0.36
	(0.34)	(0.32)	(0.37)	(0.38)
Effect boarding: very under-privileged males staying 1 y	0.84^{**}	0.55^{*}	0.58	0.65
	(0.33)	(0.29)	(0.35)	(0.40)
Effect boarding: likely under-privileged males staying 1 y	0.67	0.41	-0.17	0.60
	(0.52)	(0.67)	(0.84)	(0.89)
Effect boarding: very privileged males staying +1 y	-0.07	0.13	0.01	-0.02
	(0.17)	(0.19)	(0.24)	(0.24)
Effect boarding: privileged males staying +1 y	0.03	0.19	0.18	-0.27
	(0.35)	(0.33)	(0.43)	(0.40)
Effect boarding: under-privileged males staying +1 y	0.05	-0.16	-0.42	-0.02
	(0.25)	(0.28)	(0.31)	(0.35)
Effect boarding: very under-privileged males staying +1 y	0.16	0.08	0.10	-0.07
	(0.26)	(0.27)	(0.32)	(0.32)
Effect boarding: likely under-privileged males staying +1 y	0.14	0.79	-0.11	-0.15
	(0.64)	(0.66)	(0.88)	(0.94)
Effect boarding: very privileged females staying 1 y (vs males)	0.72^{**}	0.27	0.28	1.12^{***}
	(0.35)	(0.34)	(0.36)	(0.42)
Effect boarding: privileged females staying 1 y (vs males)	-0.03	-0.32	0.03	-1.38^{**}
	(0.59)	(0.54)	(0.63)	(0.65)
Effect boarding: under-privileged females staying 1 y (vs males)	-0.99^{**}	-0.19	-0.43	-1.28^{**}
	(0.46)	(0.49)	(0.52)	(0.56)
Effect boarding: very under-privileged females staying 1 y (vs males)	-1.27^{***}	-0.46	-0.80^{*}	-1.50^{***}
	(0.43)	(0.44)	(0.46)	(0.54)
Effect boarding: likely under-privileged females staying 1 y (vs males)	-0.46	-0.71	0.48	-1.70
	(0.85)	(0.97)	(1.10)	(1.22)
Effect boarding: very privileged females staying +1 y (vs males)	0.06	0.04	-0.04	-0.05
	(0.30)	(0.26)	(0.40)	(0.43)
Effect boarding: privileged females staying +1 y (vs males)	0.30	0.04	0.20	0.63
	(0.48)	(0.44)	(0.59)	(0.60)
Effect boarding: under-privileged females staying +1 y (vs males)	-0.14	0.07	0.17	0.01
	(0.37)	(0.37)	(0.48)	(0.54)
Effect boarding: very under-privileged females staying +1 y (vs males)	0.10	0.12	0.10	0.30
	(0.38)	(0.35)	(0.48)	(0.50)
Effect boarding: likely under-privileged females staying +1 y (vs males)	0.30	-1.04	0.52	0.30
	(0.91)	(0.95)	(1.10)	(1.28)
R^2	0.08	0.08	0.04	0.03
Adj. R^2	0.05	0.05	0.01	0.01
Num. obs.	1068	1062	910	1054
RMSE	0.89	0.93	1.02	1.11
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.45: Effectiveness of the program on test scores given SES of students

By honors

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding: medium-performing males staying 1 y	−0.20***	−0.20***	−0.06	−0.03	−0.10***	−0.03	−0.01
	(0.05)	(0.05)	(0.04)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: low-performing males staying 1 y	0.22	0.22	0.25**	0.07	−0.09	−0.11	0.01
	(0.21)	(0.21)	(0.12)	(0.12)	(0.12)	(0.10)	(0.01)
Effect boarding: high-performing males staying 1 y	0.12	0.12	−0.02	0.03	0.11***	0.03	0.01
	(0.08)	(0.08)	(0.09)	(0.07)	(0.04)	(0.02)	(0.01)
Effect boarding: medium-performing males staying +1 y	−0.00	0.01	0.39***	−0.25***	−0.13***	−0.07***	−0.02**
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)	(0.01)
Effect boarding: low-performing males staying +1 y	0.07	0.07	−0.05	0.27	−0.15	−0.08	0.02**
	(0.19)	(0.19)	(0.20)	(0.19)	(0.12)	(0.10)	(0.01)
Effect boarding: low-performing males staying +1 y	0.07	0.07	−0.05	0.27	−0.15	−0.08	0.02**
	(0.19)	(0.19)	(0.20)	(0.19)	(0.12)	(0.10)	(0.01)
Effect boarding: high-performing males staying +1 y	0.02	0.01	−0.25***	0.15***	0.11***	0.07***	0.02**
	(0.06)	(0.06)	(0.07)	(0.05)	(0.03)	(0.01)	(0.01)
Effect boarding: medium-performing females staying 1 y (vs males)	−0.06	−0.06	−0.00	−0.05	−0.01	−0.04	−0.01
	(0.07)	(0.07)	(0.06)	(0.06)	(0.04)	(0.03)	(0.01)
Effect boarding: low-performing females staying 1 y	0.25	0.24	0.10	0.11	0.04	0.27**	−0.16
	(0.29)	(0.28)	(0.19)	(0.20)	(0.16)	(0.13)	(0.11)
Effect boarding: high-performing females staying 1 y (vs males)	−0.03	−0.03	−0.02	0.01	−0.02	0.03	0.01
	(0.11)	(0.11)	(0.12)	(0.09)	(0.05)	(0.03)	(0.01)
Effect boarding: medium-performing females staying +1 y (vs males)	−0.04	−0.04	−0.01	−0.02	−0.01	−0.01	0.00
	(0.06)	(0.06)	(0.06)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding: high-performing females staying +1 y (vs males)	0.03	0.03	−0.04	0.07	0.00	0.01	−0.00
	(0.07)	(0.07)	(0.09)	(0.06)	(0.04)	(0.02)	(0.01)
R^2	0.12	0.12	0.28	0.10	0.07	0.04	0.03
Adj. R^2	0.11	0.11	0.27	0.09	0.06	0.03	0.02
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.38	0.38	0.42	0.35	0.23	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.46: Effectiveness of the program on graduation rates given honors of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding: medium-performing males staying 1 y	0.00	−0.07***	−0.06	−0.00	0.00**	0.08**	0.03
	(0.01)	(0.03)	(0.05)	(0.06)	(0.00)	(0.04)	(0.02)
Effect boarding: low-performing males staying 1 y	−0.00	0.07***	0.06	0.03	0.00	−0.08**	−0.17
	(0.01)	(0.03)	(0.05)	(0.27)	(0.00)	(0.04)	(0.13)
Effect boarding: high-performing males staying 1 y	0.07	0.04	−0.00	−0.10	−0.00	−0.05	−0.03
	(0.07)	(0.08)	(0.10)	(0.11)	(0.00)	(0.05)	(0.02)
Effect boarding: medium-performing males staying +1 y	0.01	−0.04	−0.02	−0.02	0.00	0.02	0.02
	(0.01)	(0.03)	(0.04)	(0.05)	(0.00)	(0.02)	(0.02)
Effect boarding: low-performing males staying +1 y	−0.01	0.24	0.02	−0.55***	0.00	0.38*	−0.17
	(0.01)	(0.18)	(0.04)	(0.20)	(0.00)	(0.22)	(0.13)
Effect boarding: low-performing males staying +1 y	−0.01	0.24	0.02	−0.55***	0.00	0.38*	−0.17
	(0.01)	(0.18)	(0.04)	(0.20)	(0.00)	(0.22)	(0.13)
Effect boarding: high-performing males staying +1 y	0.04	0.07	−0.03	−0.05	−0.00	0.00	−0.02
	(0.06)	(0.07)	(0.08)	(0.09)	(0.00)	(0.03)	(0.02)
Effect boarding: medium-performing females staying 1 y (vs males)	−0.01	0.02	−0.03	0.06	−0.00	−0.02	0.01
	(0.02)	(0.04)	(0.07)	(0.09)	(0.00)	(0.05)	(0.03)
Effect boarding: low-performing females staying 1 y	0.01	0.14	0.19	0.25	0.00	0.19	0.13
	(0.02)	(0.16)	(0.17)	(0.34)	(0.00)	(0.16)	(0.14)
Effect boarding: high-performing females staying 1 y (vs males)	−0.06	0.10	−0.02	−0.06	0.00	−0.01	0.04
	(0.09)	(0.12)	(0.13)	(0.14)	(0.00)	(0.06)	(0.05)
Effect boarding: medium-performing females staying +1 y (vs males)	−0.02	0.07*	−0.07	−0.01	−0.00	0.03	−0.02
	(0.02)	(0.04)	(0.06)	(0.07)	(0.00)	(0.03)	(0.02)
Effect boarding: high-performing females staying +1 y (vs males)	−0.01	−0.02	0.01	0.11	0.00	−0.04	0.02
	(0.07)	(0.09)	(0.11)	(0.12)	(0.00)	(0.04)	(0.02)
R^2	0.05	0.06	0.02	0.03	0.00	0.05	0.02
Adj. R^2	0.04	0.05	0.01	0.02	−0.01	0.04	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.21	0.33	0.42	0.47	0.03	0.19	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.47: Effectiveness of the program on honors received at high-school given honors of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding: low-performing males staying 1 y	−0.32**	−0.13	−0.23*	0.16
	(0.14)	(0.12)	(0.14)	(0.16)
Effect boarding: high-performing males staying 1 y	0.19	0.30	0.01	−0.59*
	(0.25)	(0.24)	(0.29)	(0.34)
Effect boarding: weak males staying +1 y	−0.07	0.11	−0.00	−0.15
	(0.10)	(0.12)	(0.13)	(0.14)
Effect boarding: high-performing males staying +1 y	0.29	0.16	−0.06	0.31
	(0.21)	(0.21)	(0.25)	(0.28)
Effect boarding: low-performing females staying 1 y (vs males)	0.09	0.10	−0.07	−0.25
	(0.18)	(0.17)	(0.19)	(0.21)
Effect boarding: high-performing females staying 1 y (vs males)	0.13	−0.04	0.33	0.90**
	(0.33)	(0.32)	(0.38)	(0.44)
Effect boarding: low-performing females staying +1 y (vs males)	0.09	−0.04	−0.05	0.12
	(0.14)	(0.16)	(0.18)	(0.19)
Effect boarding: high-performing females staying +1 y (vs males)	−0.19	0.09	0.19	−0.11
	(0.25)	(0.26)	(0.31)	(0.34)
R^2	0.20	0.17	0.07	0.09
Adj. R^2	0.19	0.16	0.05	0.08
Num. obs.	1068	1062	910	1054
RMSE	0.82	0.87	1.00	1.07
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.48: Effectiveness of the program on test scores given honors of students

By nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding 1 year (Non-French)	−0.23*	−0.23*	−0.15	0.03	−0.12***	−0.06*	−0.02
	(0.12)	(0.12)	(0.12)	(0.12)	(0.04)	(0.03)	(0.02)
Effect boarding +1 years (Non-French)	−0.03	−0.03	0.31***	−0.22***	−0.12***	−0.06*	−0.02
	(0.07)	(0.07)	(0.10)	(0.07)	(0.04)	(0.03)	(0.02)
Effect boarding 1 year (French vs non-French)	0.02	0.02	0.04	−0.06	0.04	0.03	0.01
	(0.12)	(0.12)	(0.13)	(0.13)	(0.05)	(0.03)	(0.02)
Effect boarding +1 years (French vs non-French)	0.03	0.04	0.00	0.02	0.01	0.01	0.01
	(0.08)	(0.08)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
R^2	0.05	0.05	0.11	0.06	0.04	0.02	0.01
Adj. R^2	0.04	0.04	0.10	0.05	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.47	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.49: Effectiveness of the program on graduation rates given nationality of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding 1 year (Non-French)	0.02	−0.02	−0.01	−0.03	0.00	0.16	0.00
	(0.07)	(0.10)	(0.12)	(0.14)	(0.00)	(0.11)	(0.00)
Effect boarding +1 years (Non-French)	0.01	0.07	0.00	−0.04	0.00	−0.02	0.00
	(0.05)	(0.09)	(0.09)	(0.11)	(0.00)	(0.04)	(0.00)
Effect boarding 1 year (French vs non-French)	−0.02	−0.02	−0.08	0.03	−0.00	−0.11	0.03**
	(0.07)	(0.10)	(0.12)	(0.15)	(0.00)	(0.11)	(0.01)
Effect boarding +1 years (French vs non-French)	0.01	−0.04	−0.06	0.00	−0.00	0.05	0.01
	(0.05)	(0.09)	(0.09)	(0.11)	(0.00)	(0.04)	(0.01)
R^2	0.00	0.01	0.01	0.00	0.00	0.02	0.01
Adj. R^2	−0.00	0.00	0.00	−0.00	−0.00	0.01	0.01
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.50: Effectiveness of the program on honors received at high-school given NonFrench of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding +1 years (Non-French)	0.51**	0.93***	0.20	0.50
	(0.20)	(0.23)	(0.29)	(0.31)
Effect boarding +1 years (French vs non-French)	−0.46**	−0.81***	−0.25	−0.52
	(0.21)	(0.25)	(0.30)	(0.33)
R^2	0.01	0.02	0.00	0.00
Adj. R^2	0.00	0.01	−0.00	−0.00
Num. obs.	668	665	573	660
RMSE	0.90	0.94	1.03	1.13
N Clusters	335	335	290	335

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.51: Effectiveness of the program on test scores given nationality of students

F.2.7 Results by schools

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.80***	0.79***	0.43***	0.23***	0.13***	0.06***	0.01*
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Effect boarding	−0.09***	−0.09***	0.17***	−0.14***	−0.12***	−0.05***	−0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
R^2	0.01	0.01	0.03	0.04	0.05	0.02	0.00
Adj. R^2	0.01	0.01	0.03	0.03	0.05	0.02	0.00
RMSE	0.43	0.43	0.49	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.52: Effectiveness of the program graduation rates at BSE de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.78***	0.77***	0.35***	0.26***	0.15***	0.09***	0.03**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding	−0.10**	−0.10**	0.16***	−0.13***	−0.13***	−0.07***	−0.03**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)
R^2	0.01	0.01	0.03	0.03	0.05	0.03	0.01
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.03	0.01
RMSE	0.44	0.45	0.49	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.53: Effectiveness of the program graduation rates at BSE Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.90***	0.90***	0.65***	0.20***	0.06***	0.02**	0.01*
	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)
Effect boarding	−0.06***	−0.06***	0.10***	−0.12***	−0.05***	−0.01*	−0.01*
	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)
R^2	0.01	0.01	0.01	0.03	0.02	0.01	0.00
Adj. R^2	0.01	0.01	0.01	0.03	0.02	0.00	0.00
RMSE	0.34	0.34	0.46	0.34	0.17	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.54: Effectiveness of the program graduation rates at BSE Sand

By gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.76***	0.76***	0.39***	0.22***	0.15***	0.05***	0.01
	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.01)
Non-boarder: female	0.08*	0.07	0.07	0.02	−0.03	0.02	0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.04)	(0.03)	(0.01)
Effect boarding (baseline = male)	−0.09**	−0.09**	0.15***	−0.12***	−0.13***	−0.04**	0.00
	(0.04)	(0.04)	(0.05)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding (female != male?)	−0.00	0.01	0.03	−0.05	0.02	−0.02	−0.01
	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.03)	(0.01)
R^2	0.02	0.02	0.04	0.04	0.05	0.02	0.00
Adj. R^2	0.02	0.01	0.03	0.03	0.05	0.02	−0.00
RMSE	0.43	0.43	0.49	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.55: Effectiveness of the program graduation rates at BSE de Beauvoir given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.78***	0.77***	0.35***	0.25***	0.16***	0.10***	0.03*
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)
Non-boarder: female	−0.00	−0.00	−0.00	0.01	−0.01	−0.02	−0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.02)
Effect boarding (baseline = male)	−0.06	−0.05	0.16**	−0.09*	−0.12***	−0.08**	−0.03*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.03)	(0.02)
Effect boarding (female != male?)	−0.07	−0.08	0.00	−0.07	−0.01	0.01	0.01
	(0.08)	(0.08)	(0.08)	(0.07)	(0.05)	(0.04)	(0.02)
R^2	0.02	0.02	0.03	0.03	0.05	0.03	0.01
Adj. R^2	0.01	0.01	0.02	0.02	0.04	0.02	0.01
RMSE	0.44	0.45	0.49	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.56: Effectiveness of the program graduation rates at BSE Hugo given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.86***	0.86***	0.56***	0.25***	0.05***	0.01	0.01
	(0.03)	(0.03)	(0.04)	(0.04)	(0.02)	(0.01)	(0.01)
Non-boarder: female	0.07**	0.07**	0.15***	−0.08*	0.00	0.00	0.00
	(0.04)	(0.04)	(0.05)	(0.05)	(0.03)	(0.01)	(0.01)
Effect boarding (baseline = male)	−0.04	−0.04	0.15***	−0.16***	−0.04*	−0.01	−0.01
	(0.04)	(0.04)	(0.05)	(0.04)	(0.02)	(0.01)	(0.01)
Effect boarding (female != male?)	−0.03	−0.03	−0.08	0.06	−0.01	−0.01	−0.00
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
R^2	0.02	0.02	0.03	0.04	0.02	0.01	0.00
Adj. R^2	0.01	0.01	0.02	0.03	0.01	0.00	0.00
RMSE	0.34	0.34	0.45	0.34	0.17	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.57: Effectiveness of the program graduation rates at BSE Sand given gender

By honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.10*	−0.10*	0.19***	−0.13***	−0.16***	−0.06**	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.04)	(0.02)	(0.01)
Effect boarding: weak females	−0.01	0.01	0.01	−0.05	0.04	−0.02	−0.02
	(0.08)	(0.08)	(0.08)	(0.06)	(0.05)	(0.04)	(0.02)
Effect boarding: very weak males	0.43**	0.43**	0.14	0.13***	0.16***	0.06**	−0.00
	(0.20)	(0.20)	(0.20)	(0.05)	(0.04)	(0.02)	(0.01)
Effect boarding: very weak females	−0.42	−0.44	0.06	0.05	−0.54	0.02	0.02
	(0.42)	(0.42)	(0.31)	(0.06)	(0.36)	(0.04)	(0.02)
Effect boarding: very good males	0.01	0.01	−0.22**	0.06	0.16***	0.06**	−0.00
	(0.09)	(0.09)	(0.11)	(0.06)	(0.06)	(0.02)	(0.01)
Effect boarding: very good females	0.08	0.06	0.17	−0.01	−0.09	−0.01	0.02
	(0.12)	(0.12)	(0.14)	(0.10)	(0.07)	(0.05)	(0.02)
R^2	0.09	0.09	0.15	0.06	0.08	0.03	0.01
Adj. R^2	0.07	0.07	0.14	0.04	0.06	0.02	−0.01
RMSE	0.41	0.42	0.46	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.58: Effectiveness of the program graduation rates at BSE de Beauvoir given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.08	−0.07	0.17**	−0.13**	−0.10**	−0.07*	−0.04*
	(0.07)	(0.07)	(0.08)	(0.06)	(0.05)	(0.04)	(0.02)
Effect boarding: weak females	−0.07	−0.08	0.05	−0.07	−0.06	−0.03	0.03
	(0.09)	(0.09)	(0.10)	(0.08)	(0.06)	(0.05)	(0.02)
Effect boarding: very weak males	0.02	0.01	−0.07	0.32**	−0.25	−0.15	0.04*
	(0.23)	(0.23)	(0.12)	(0.15)	(0.16)	(0.15)	(0.02)
Effect boarding: very weak females	0.30	0.32	−0.05	0.08	0.30	0.35*	−0.25*
	(0.34)	(0.31)	(0.17)	(0.20)	(0.20)	(0.18)	(0.14)
Effect boarding: very good males	0.19	0.18	0.06	0.13**	−0.01	0.07*	0.04*
	(0.13)	(0.13)	(0.16)	(0.06)	(0.12)	(0.04)	(0.02)
Effect boarding: very good females	−0.24	−0.23	−0.32	−0.08	0.17	0.03	−0.03
	(0.17)	(0.17)	(0.22)	(0.14)	(0.12)	(0.05)	(0.02)
R^2	0.09	0.11	0.16	0.06	0.09	0.06	0.08
Adj. R^2	0.07	0.08	0.14	0.04	0.07	0.03	0.06
RMSE	0.43	0.43	0.46	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.59: Effectiveness of the program graduation rates at BSE Hugo given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.09	−0.09	0.18**	−0.21***	−0.07	−0.01	−0.01
	(0.07)	(0.07)	(0.07)	(0.06)	(0.04)	(0.02)	(0.01)
Effect boarding: weak females	−0.07	−0.07	−0.06	0.02	−0.03	−0.03	−0.01
	(0.09)	(0.09)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
Effect boarding: very weak males	0.09	0.09	0.82***	−0.79***	0.07	0.01	0.01
	(0.07)	(0.07)	(0.07)	(0.06)	(0.04)	(0.02)	(0.01)
Effect boarding: very weak females	0.07	0.07	0.06	−0.02	0.03	0.03	0.01
	(0.09)	(0.09)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
Effect boarding: very good males	0.10	0.10	−0.11	0.14*	0.07	0.01	0.01
	(0.09)	(0.09)	(0.10)	(0.08)	(0.04)	(0.02)	(0.01)
Effect boarding: very good females	0.05	0.05	−0.01	0.05	0.01	0.03	0.01
	(0.11)	(0.11)	(0.12)	(0.10)	(0.05)	(0.03)	(0.02)
R^2	0.07	0.07	0.22	0.15	0.05	0.02	0.01
Adj. R^2	0.05	0.05	0.20	0.14	0.04	0.01	−0.00
RMSE	0.33	0.33	0.41	0.32	0.17	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.60: Effectiveness of the program graduation rates at BSE Sand given honors at middle-school exam

By SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.04	−0.04	0.07	−0.07	−0.04	−0.00	0.00
	(0.11)	(0.11)	(0.13)	(0.07)	(0.04)	(0.00)	
Effect boarding: very privileged females	0.09	0.16	0.11	0.01	0.04	0.00	−0.07
	(0.18)	(0.19)	(0.21)	(0.13)	(0.04)		(0.07)
Effect boarding: privileged males	−0.02	−0.02	0.15	−0.12	−0.05	−0.03	−0.00
	(0.16)	(0.16)	(0.18)	(0.12)	(0.09)	(0.03)	
Effect boarding: privileged females	−0.32	−0.38	−0.31	−0.08	0.01	0.03	0.07
	(0.26)	(0.26)	(0.30)	(0.19)	(0.10)	(0.03)	(0.07)
Effect boarding: under-privileged males	−0.03	0.01	0.10	0.06	−0.16*	−0.06	−0.03
	(0.17)	(0.17)	(0.17)	(0.10)	(0.08)	(0.04)	(0.03)
Effect boarding: very good females	−0.19	−0.26	−0.22	−0.10	0.06	−0.01	0.07
	(0.25)	(0.25)	(0.28)	(0.18)	(0.09)	(0.07)	(0.08)
Effect boarding: very under-privileged males	−0.08	−0.10	0.11	−0.10	−0.11*	−0.06*	0.01
	(0.14)	(0.14)	(0.16)	(0.11)	(0.06)	(0.04)	(0.01)
Effect boarding: very under-privileged females	−0.04	−0.09	−0.01	−0.02	−0.05	−0.01	0.05
	(0.21)	(0.21)	(0.25)	(0.17)	(0.08)	(0.05)	(0.07)
Effect boarding: likely under-privileged males	−0.20	−0.20	−0.10	0.07	−0.16	−0.00	0.00
	(0.27)	(0.27)	(0.26)	(0.07)	(0.19)	(0.00)	
Effect boarding: likely under-privileged females	0.47	0.41	0.59*	−0.18	−0.00	−0.25	0.07
	(0.42)	(0.42)	(0.34)	(0.28)	(0.30)	(0.22)	(0.07)
R^2	0.06	0.06	0.09	0.07	0.08	0.05	0.03
Adj. R^2	0.03	0.02	0.06	0.04	0.05	0.02	−0.00
RMSE	0.42	0.43	0.48	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.61: Effectiveness of the program graduation rates at BSE de Beauvoir given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.29**	−0.29**	−0.12	−0.14	−0.04	−0.06	0.00
	(0.13)	(0.13)	(0.14)	(0.12)	(0.10)	(0.08)	
Effect boarding: very privileged females	−0.02	−0.02	−0.02	0.02	−0.02	0.01	−0.00
	(0.19)	(0.19)	(0.21)	(0.17)	(0.12)	(0.10)	
Effect boarding: privileged males	0.05	0.05	0.04	0.08	−0.07	0.13	−0.00
	(0.21)	(0.21)	(0.24)	(0.22)	(0.17)	(0.11)	
Effect boarding: privileged females	0.07	0.07	0.21	0.03	−0.18	−0.23	−0.08
	(0.30)	(0.30)	(0.32)	(0.28)	(0.22)	(0.16)	(0.08)
Effect boarding: under-privileged males	0.29*	0.29*	0.35*	0.01	−0.06	−0.01	−0.03
	(0.17)	(0.17)	(0.18)	(0.15)	(0.11)	(0.09)	(0.03)
Effect boarding: very good females	0.05	0.02	0.00	0.05	−0.03	0.01	−0.00
	(0.25)	(0.25)	(0.27)	(0.21)	(0.15)	(0.12)	(0.04)
Effect boarding: very under-privileged males	0.43**	0.47***	0.60***	0.08	−0.21	−0.12	−0.07
	(0.18)	(0.18)	(0.19)	(0.17)	(0.14)	(0.11)	(0.05)
Effect boarding: very under-privileged females	−0.29	−0.31	−0.18	−0.26	0.14	0.10	0.05
	(0.25)	(0.25)	(0.26)	(0.23)	(0.16)	(0.13)	(0.05)
Effect boarding: likely under-privileged males	0.29**	0.29**	0.72***	−0.46*	0.04	0.06	0.00
	(0.13)	(0.13)	(0.26)	(0.25)	(0.10)	(0.08)	
Effect boarding: likely under-privileged females	−0.20	−0.20	−0.67*	0.45	0.02	−0.01	−0.00
	(0.31)	(0.31)	(0.40)	(0.31)	(0.12)	(0.10)	
R^2	0.07	0.07	0.09	0.07	0.09	0.06	0.04
Adj. R^2	0.03	0.03	0.05	0.03	0.05	0.01	−0.01
RMSE	0.44	0.44	0.48	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.62: Effectiveness of the program graduation rates at BSE Hugo given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.08	−0.08	0.11	−0.16*	−0.03	0.00	−0.00
	(0.09)	(0.09)	(0.11)	(0.08)	(0.03)		(0.00)
Effect boarding: very privileged females	0.12	0.12	−0.02	0.14	−0.00	0.00	−0.00
	(0.13)	(0.13)	(0.15)	(0.10)	(0.04)	(0.00)	(0.00)
Effect boarding: privileged males	−0.16	−0.16	−0.16	−0.02	0.02	−0.00	−0.00
	(0.14)	(0.14)	(0.18)	(0.16)	(0.07)	(0.00)	(0.00)
Effect boarding: privileged females	0.01	0.01	0.20	−0.16	−0.03	0.00	−0.04
	(0.18)	(0.18)	(0.24)	(0.19)	(0.09)	(0.00)	(0.04)
Effect boarding: under-privileged males	−0.03	−0.03	0.03	−0.00	−0.07	−0.03	−0.03
	(0.11)	(0.11)	(0.16)	(0.13)	(0.06)	(0.03)	(0.03)
Effect boarding: very good females	−0.03	−0.03	−0.04	−0.05	0.07	0.02	0.02
	(0.15)	(0.15)	(0.21)	(0.15)	(0.07)	(0.03)	(0.03)
Effect boarding: very under-privileged males	0.20	0.20	0.20	−0.01	0.01	0.00	0.00
	(0.13)	(0.13)	(0.15)	(0.13)	(0.05)	(0.03)	(0.00)
Effect boarding: very under-privileged females	−0.36**	−0.36**	−0.19	−0.09	−0.08	−0.04	0.00
	(0.16)	(0.16)	(0.19)	(0.15)	(0.07)	(0.04)	(0.00)
Effect boarding: likely under-privileged males	0.40	0.40	0.12	0.25**	0.03	0.00	0.00
	(0.40)	(0.40)	(0.42)	(0.12)	(0.03)	(0.00)	(0.00)
Effect boarding: likely under-privileged females	−0.63	−0.63	−0.47	−0.17	0.00	−0.00	−0.00
	(0.42)	(0.42)	(0.45)	(0.15)	(0.04)	(0.00)	(0.00)
R^2	0.05	0.05	0.06	0.05	0.03	0.02	0.02
Adj. R^2	0.02	0.02	0.03	0.03	0.01	−0.01	−0.00
RMSE	0.33	0.33	0.45	0.34	0.18	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.63: Effectiveness of the program graduation rates at BSE Sand given SES

By nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	1.00***	1.00	0.50**	0.25	0.25	0.00	0.00
	(0.00)		(0.25)	(0.22)	(0.22)		(0.00)
Non-boarder: French	−0.20***	−0.21***	−0.07	−0.02	−0.12	0.06***	0.01*
	(0.02)	(0.02)	(0.25)	(0.22)	(0.22)	(0.01)	(0.01)
Effect boarding (baseline = Non-French)	−0.50**	−0.50**	0.00	−0.25	−0.25	−0.00	−0.00
	(0.20)	(0.20)	(0.32)	(0.22)	(0.22)		(0.00)
Effect boarding (Non-French != French?)	0.42**	0.42**	0.17	0.11	0.13	−0.05***	−0.01
	(0.21)	(0.21)	(0.33)	(0.22)	(0.22)	(0.01)	(0.01)
R^2	0.02	0.01	0.03	0.04	0.05	0.02	0.00
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.02	−0.00
RMSE	0.43	0.43	0.49	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.64: Effectiveness of the program graduation rates at BSE de Beauvoir given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.92***	0.92***	0.31**	0.38***	0.23*	0.15	0.08
	(0.07)	(0.07)	(0.13)	(0.14)	(0.12)	(0.10)	(0.07)
Non-boarder: French	−0.16*	−0.17**	0.05	−0.13	−0.08	−0.07	−0.05
	(0.08)	(0.08)	(0.13)	(0.14)	(0.12)	(0.10)	(0.08)
Effect boarding (baseline = Non-French)	−0.26	−0.26	0.11	−0.13	−0.23*	−0.15	−0.08
	(0.16)	(0.16)	(0.19)	(0.18)	(0.12)	(0.10)	(0.07)
Effect boarding (Non-French != French?)	0.16	0.17	0.06	0.00	0.11	0.08	0.05
	(0.16)	(0.16)	(0.19)	(0.19)	(0.12)	(0.10)	(0.08)
R^2	0.02	0.02	0.03	0.03	0.05	0.03	0.02
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.03	0.01
RMSE	0.45	0.45	0.49	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.65: Effectiveness of the program graduation rates at BSE Hugo given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.83***	0.83***	0.51***	0.26***	0.06	0.03	0.00
	(0.06)	(0.06)	(0.08)	(0.07)	(0.04)	(0.03)	(0.00)
Non-boarder: French	0.08	0.08	0.15*	−0.07	−0.00	−0.01	0.01*
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.01)
Effect boarding (baseline = Non-French)	0.01	0.01	0.19*	−0.12	−0.06	−0.03	−0.00
	(0.09)	(0.09)	(0.11)	(0.09)	(0.04)	(0.03)	(0.00)
Effect boarding (Non-French != French?)	−0.08	−0.08	−0.10	0.00	0.01	0.02	−0.01*
	(0.09)	(0.09)	(0.12)	(0.10)	(0.04)	(0.03)	(0.01)
R^2	0.01	0.01	0.02	0.03	0.02	0.01	0.01
Adj. R^2	0.01	0.01	0.01	0.03	0.01	0.00	0.00
RMSE	0.34	0.34	0.46	0.34	0.17	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.66: Effectiveness of the program graduation rates at BSE Sand given nationality

F.3 Effectiveness of the program: middle-school students

This part of the appendix contains tables related to section 4.

This section provides results from the regressions for middle-school students.

F.3.1 Per gender

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder: male (baseline)	−0.22***	0.77***	−0.13***	−0.11**	0.04	−0.10**
	(0.05)	(0.02)	(0.04)	(0.05)	(0.05)	(0.05)
Non-boarder: female	0.18***	0.02	0.15**	−0.11*	0.03	−0.01
	(0.06)	(0.03)	(0.06)	(0.06)	(0.07)	(0.07)
Effect boarding (baseline = male)	0.10*	−0.01	0.08	0.05	−0.03	0.18***
	(0.06)	(0.03)	(0.05)	(0.06)	(0.06)	(0.06)
Effect boarding (female != male?)	0.01	0.05	0.02	−0.03	−0.06	−0.06
	(0.08)	(0.03)	(0.07)	(0.07)	(0.07)	(0.09)
R^2	0.01	0.00	0.01	0.01	0.00	0.01
Adj. R^2	0.01	0.00	0.01	0.00	−0.00	0.00
Num. obs.	2051	2065	1986	1981	1941	1981
RMSE	0.94	0.41	0.98	0.94	1.00	1.01
N Clusters	1189	1193	1177	1176	1170	1176

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.67: Effectiveness of the program on results at middle-school given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.70***	0.68***	0.29***	0.21***	0.18***	0.09***	0.03***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
Non-boarder: female	0.04	0.04	0.09***	−0.04	−0.00	−0.02	−0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)
Effect boarding (baseline = male)	−0.05	−0.05	0.10***	−0.08***	−0.07***	−0.03*	−0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding (female != male?)	0.03	0.03	−0.04	0.07**	−0.00	0.01	0.01
	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)
R^2	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Adj. R^2	0.00	0.00	0.01	0.00	0.01	0.00	−0.00
Num. obs.	1599	1599	1599	1599	1599	1599	1599
RMSE	0.46	0.47	0.48	0.37	0.34	0.25	0.13
N Clusters	932	932	932	932	932	932	932

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.68: Effectiveness of the program on graduation rates at high-school for middle-school students given gender

F.3.2 Per SES

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Effect boarding (baseline = very privileged males)	−0.22	−0.12*	−0.20	−0.13	−0.13	−0.12
	(0.16)	(0.06)	(0.15)	(0.19)	(0.16)	(0.17)
Effect boarding: very privileged females	−0.11	0.19**	0.15	−0.50**	−0.15	−0.44*
	(0.24)	(0.09)	(0.23)	(0.26)	(0.22)	(0.26)
Effect boarding: privileged males	0.02	0.11	0.48*	0.02	0.26	0.17
	(0.25)	(0.11)	(0.24)	(0.28)	(0.26)	(0.29)
Effect boarding: privileged females	0.42	−0.23*	−0.44	0.94**	0.05	0.55
	(0.34)	(0.14)	(0.35)	(0.37)	(0.34)	(0.40)
Effect boarding: under-privileged males	0.31	0.11	0.19	0.24	0.05	0.26
	(0.19)	(0.08)	(0.18)	(0.21)	(0.20)	(0.20)
Effect boarding: very good females	0.09	−0.12	−0.07	0.44	0.14	0.45
	(0.27)	(0.11)	(0.27)	(0.29)	(0.27)	(0.30)
Effect boarding: very under-privileged males	0.55***	0.13*	0.38**	0.27	0.14	0.47**
	(0.19)	(0.08)	(0.17)	(0.21)	(0.19)	(0.20)
Effect boarding: very under-privileged females	0.08	−0.16	−0.11	0.45	0.14	0.39
	(0.27)	(0.11)	(0.26)	(0.28)	(0.25)	(0.29)
Effect boarding: likely under-privileged males	0.07	0.09	0.18	−0.21	0.01	0.12
	(0.31)	(0.13)	(0.28)	(0.34)	(0.33)	(0.30)
Effect boarding: likely under-privileged females	0.25	−0.14	−0.18	0.68	−0.12	0.31
	(0.42)	(0.16)	(0.37)	(0.42)	(0.42)	(0.42)
R^2	0.04	0.01	0.03	0.03	0.01	0.03
Adj. R^2	0.03	0.00	0.02	0.02	0.00	0.02
Num. obs.	2051	2065	1986	1981	1941	1981
RMSE	0.93	0.41	0.97	0.93	1.00	1.00
N Clusters	1189	1193	1177	1176	1170	1176

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.69: Effectiveness of the program on results at middle-school given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.38***	−0.38***	0.00	−0.29**	−0.10	−0.10	−0.00
	(0.12)	(0.13)	(0.11)	(0.11)	(0.06)	(0.06)	(0.07)
Effect boarding: very privileged females	0.26	0.26	−0.08	0.36**	−0.02	0.04	0.00
	(0.16)	(0.17)	(0.19)	(0.16)	(0.10)	(0.11)	(0.07)
Effect boarding: privileged males	0.21	0.30	0.08	0.32**	−0.10	−0.10	−0.08
	(0.21)	(0.22)	(0.22)	(0.16)	(0.17)	(0.17)	(0.11)
Effect boarding: privileged females	−0.25	−0.33	−0.02	−0.57**	0.27	0.27	0.08
	(0.27)	(0.28)	(0.31)	(0.24)	(0.22)	(0.22)	(0.11)
Effect boarding: under-privileged males	0.21	0.23	−0.11	0.27**	0.06	0.08	−0.04
	(0.15)	(0.16)	(0.14)	(0.13)	(0.09)	(0.08)	(0.08)
Effect boarding: very good females	−0.15	−0.20	0.04	−0.31*	0.07	0.03	0.07
	(0.20)	(0.21)	(0.22)	(0.19)	(0.14)	(0.13)	(0.08)
Effect boarding: very under-privileged males	0.31**	0.30*	0.19	0.06	0.04	0.10	−0.00
	(0.15)	(0.16)	(0.13)	(0.13)	(0.08)	(0.08)	(0.07)
Effect boarding: very under-privileged females	−0.18	−0.18	−0.04	−0.13	−0.02	−0.03	−0.01
	(0.20)	(0.20)	(0.22)	(0.19)	(0.12)	(0.12)	(0.07)
Effect boarding: likely under-privileged males	0.10	0.01	−0.18	0.07	0.12	0.18*	0.08
	(0.22)	(0.23)	(0.20)	(0.16)	(0.16)	(0.10)	(0.11)
Effect boarding: likely under-privileged females	0.13	0.28	0.46	−0.09	−0.09	−0.25	−0.08
	(0.30)	(0.30)	(0.30)	(0.21)	(0.21)	(0.16)	(0.11)
R^2	0.04	0.04	0.03	0.04	0.02	0.03	0.04
Adj. R^2	0.01	0.02	0.01	0.01	−0.01	0.00	0.01
Num. obs.	689	689	689	689	689	689	689
RMSE	0.46	0.47	0.47	0.37	0.36	0.28	0.15
N Clusters	429	429	429	429	429	429	429

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.70: Effectiveness of the program on graduation rates at high-school for middle-school students given SES

F.3.3 Per nationality

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder: Non-French (baseline)	−0.23**	0.79***	−0.13	−0.32***	0.00	−0.29***
	(0.09)	(0.04)	(0.09)	(0.08)	(0.09)	(0.10)
Non-boarder: French	0.12	−0.01	0.09	0.16*	0.06	0.20**
	(0.10)	(0.04)	(0.10)	(0.09)	(0.10)	(0.10)
Effect boarding (baseline = Non-French)	0.42***	0.10*	0.18	0.30**	0.02	0.44***
	(0.13)	(0.05)	(0.15)	(0.13)	(0.14)	(0.14)
Effect boarding (French != Non-French?)	−0.34**	−0.09	−0.10	−0.30**	−0.10	−0.33**
	(0.14)	(0.06)	(0.16)	(0.14)	(0.15)	(0.15)
R^2	0.01	0.00	0.00	0.00	0.00	0.01
Adj. R^2	0.00	0.00	0.00	0.00	−0.00	0.01
Num. obs.	2051	2065	1986	1981	1941	1981
RMSE	0.95	0.41	0.98	0.94	1.00	1.01
N Clusters	1189	1193	1177	1176	1170	1176

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.71: Effectiveness of the program on results at middle-school given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.75***	0.73***	0.40***	0.16***	0.17***	0.05**	0.01
	(0.05)	(0.05)	(0.06)	(0.04)	(0.04)	(0.03)	(0.01)
Non-boarder: French	−0.03	−0.03	−0.08	0.04	0.01	0.03	0.01
	(0.05)	(0.05)	(0.06)	(0.04)	(0.05)	(0.03)	(0.01)
Effect boarding (baseline = Non-French)	0.06	0.07	0.13	0.04	−0.10*	−0.00	−0.01
	(0.07)	(0.07)	(0.09)	(0.07)	(0.05)	(0.04)	(0.01)
Effect boarding (French != Non-French?)	−0.11	−0.11	−0.05	−0.09	0.03	−0.02	0.01
	(0.07)	(0.07)	(0.09)	(0.07)	(0.06)	(0.04)	(0.01)
R^2	0.01	0.01	0.01	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.00	0.01	0.00	0.01	0.00	−0.00
Num. obs.	1599	1599	1599	1599	1599	1599	1599
RMSE	0.46	0.47	0.48	0.37	0.34	0.25	0.13
N Clusters	932	932	932	932	932	932	932

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.72: Effectiveness of the program on graduation rates at high-school for middle-school students given nationality

F.3.4 Per schools

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	−0.22	0.64***	−0.44***	−0.42***	−0.34***	−0.50***
	(0.14)	(0.06)	(0.06)	(0.07)	(0.05)	(0.12)
Effect boarding	0.23	0.08	0.07	0.03	0.11	0.52***
	(0.20)	(0.07)	(0.08)	(0.09)	(0.07)	(0.18)
R^2	0.01	0.01	0.01	0.00	0.02	0.07
Adj. R^2	0.00	−0.00	−0.00	−0.01	0.01	0.07
RMSE	1.14	0.47	0.43	0.50	0.37	0.92

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.73: Effectiveness of the program on results at middle-school de Beauvoir

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	−0.07	0.81***	0.07	−0.01	0.21***	0.01
	(0.04)	(0.02)	(0.05)	(0.05)	(0.05)	(0.05)
Effect boarding	−0.15***	−0.09***	−0.19***	−0.34***	−0.24***	−0.25***
	(0.06)	(0.03)	(0.06)	(0.06)	(0.06)	(0.06)
R^2	0.01	0.01	0.01	0.03	0.01	0.02
Adj. R^2	0.01	0.01	0.01	0.03	0.01	0.02
RMSE	0.92	0.42	0.97	0.95	1.02	0.95

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.74: Effectiveness of the program on results at middle-school Hugo

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	-0.17^{***}	0.77^{***}	-0.11^{**}	-0.31^{***}	-0.04	-0.17^{***}
	(0.05)	(0.02)	(0.05)	(0.04)	(0.05)	(0.05)
Effect boarding	0.35^{***}	0.10^{***}	0.37^{***}	0.39^{***}	0.08^{*}	0.47^{***}
	(0.06)	(0.02)	(0.05)	(0.05)	(0.04)	(0.06)
R^2	0.03	0.02	0.03	0.04	0.00	0.05
Adj. R^2	0.03	0.02	0.03	0.04	0.00	0.05
RMSE	0.92	0.38	1.01	0.93	1.02	1.03

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.75: Effectiveness of the program on results at middle-school Sand

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.70^{***}	0.64^{***}	0.27^{***}	0.17^{***}	0.20^{***}	0.11^{***}	0.05^{*}
	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.03)
Effect boarding	-0.04	-0.01	0.22^{**}	-0.11^{*}	-0.11^{*}	-0.08^{*}	-0.02
	(0.09)	(0.09)	(0.09)	(0.06)	(0.06)	(0.05)	(0.03)
R^2	0.00	0.00	0.05	0.03	0.03	0.03	0.00
Adj. R^2	-0.01	-0.01	0.04	0.02	0.02	0.02	-0.01
RMSE	0.47	0.48	0.48	0.31	0.35	0.25	0.19

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.76: Effectiveness of the program on results at high-school after stay at de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.74^{***}	0.71^{***}	0.34^{***}	0.20^{***}	0.17^{***}	0.09^{***}	0.02^{***}
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Effect boarding	-0.10^{***}	-0.10^{***}	0.01	-0.07^{**}	-0.05^{**}	-0.00	-0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.01	0.00	0.01	0.00	0.00	0.00
Adj. R^2	0.01	0.01	-0.00	0.01	0.00	-0.00	-0.00
RMSE	0.46	0.47	0.48	0.37	0.36	0.28	0.15

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.77: Effectiveness of the program on results at high-school after stay at Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.71^{***}	0.70^{***}	0.34^{***}	0.18^{***}	0.17^{***}	0.06^{***}	0.01^{**}
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
Effect boarding	0.02	0.02	0.12^{***}	-0.01	-0.09^{***}	-0.03^{**}	-0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.02	0.01	0.00
Adj. R^2	-0.00	-0.00	0.01	-0.00	0.02	0.01	-0.00
RMSE	0.45	0.46	0.49	0.39	0.33	0.21	0.09

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.78: Effectiveness of the program on results at high-school after stay at Sand

F.3.5 Results by time in BSE

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	-0.12^{***}	0.78^{***}	-0.05	-0.17^{***}	0.06^{*}	-0.11^{***}
	(0.03)	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)
Effect boarding 1 year	-0.27^{***}	-0.12^{***}	0.13^{**}	-0.05	-0.10^{*}	-0.09
	(0.06)	(0.03)	(0.06)	(0.06)	(0.06)	(0.06)
Effect boarding +1 year	0.30^{***}	0.08^{***}	0.08^{*}	0.06	-0.05	0.25^{***}
	(0.04)	(0.02)	(0.04)	(0.04)	(0.04)	(0.05)
R^2	0.04	0.03	0.00	0.00	0.00	0.02
Adj. R^2	0.04	0.03	0.00	0.00	0.00	0.02
Num. obs.	2051	2065	1986	1981	1941	1981
RMSE	0.93	0.40	0.98	0.94	1.00	1.00
N Clusters	1189	1193	1177	1176	1170	1176

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.79: Effectiveness of the program on results at middle-school given time spent in BSE

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.72^{***}	0.70^{***}	0.33^{***}	0.19^{***}	0.17^{***}	0.08^{***}	0.02^{***}
	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Effect boarding 1 year	-0.15^{***}	-0.18^{***}	-0.12^{***}	-0.05^{*}	-0.01	0.02	0.02
	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)
Effect boarding +1 year	0.01	0.03	0.16^{***}	-0.04^{*}	-0.10^{***}	-0.04^{***}	-0.02^{***}
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
R^2	0.01	0.02	0.04	0.00	0.02	0.01	0.01
Adj. R^2	0.01	0.02	0.04	0.00	0.02	0.01	0.01
Num. obs.	1599	1599	1599	1599	1599	1599	1599
RMSE	0.45	0.46	0.47	0.37	0.34	0.25	0.13
N Clusters	932	932	932	932	932	932	932

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.80: Effectiveness of the program on graduation rates at high-school for middle-school students given time spent in BSE

F.4 Balance of characteristics: PSM

F.4.1 Balance of characteristics

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	−0.000	−0.003	0.008	−0.019	−0.014	−0.003	0.002	3.660**
	(0.024)	(0.024)	(0.011)	(0.021)	(0.012)	(0.021)	(0.008)	(1.674)
Non-boarders	0.556***	0.463***	0.048***	0.260***	0.943***	0.275***	0.026***	94.980***
	(0.017)	(0.017)	(0.007)	(0.015)	(0.008)	(0.015)	(0.005)	(1.184)
Observations	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760
R^2	0.000	0.00001	0.0003	0.0005	0.001	0.00001	0.00005	0.003
Adjusted R^2	−0.001	−0.001	−0.0002	−0.0001	0.0002	−0.001	−0.001	0.002
Residual Std. Error (df = 1758)	0.497	0.499	0.222	0.433	0.244	0.446	0.163	35.116
F Statistic (df = 1; 1758)	0.000	0.021	0.567	0.874	1.373	0.026	0.086	4.780**

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.81: Balance of characteristics with PSM for high-school students

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	−0.000	0.015	0.000	−0.031*	0.002	0.018	0.001	0.405
	(0.019)	(0.019)	(0.007)	(0.018)	(0.010)	(0.018)	(0.006)	(1.284)
Non-boarders	0.512***	0.520***	0.034***	0.309***	0.926***	0.292***	0.022***	91.634***
	(0.014)	(0.014)	(0.005)	(0.012)	(0.007)	(0.013)	(0.004)	(0.908)
Observations	2,676	2,676	2,676	2,676	2,676	2,676	2,676	2,676
R^2	0.000	0.0002	0.000	0.001	0.00002	0.0004	0.00002	0.00004
Adjusted R^2	−0.0004	−0.0001	−0.0004	0.001	−0.0004	0.00001	−0.0003	−0.0003
Residual Std. Error (df = 2674)	0.500	0.499	0.182	0.456	0.260	0.459	0.150	33.211
F Statistic (df = 1; 2674)	0.000	0.599	0.000	3.027*	0.050	1.022	0.066	0.100

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.82: Balance of characteristics with PSM for middle-school students

F.4.2 Balance of characteristics forgetting available covariates

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	−0.000	−0.015	0.023**	−0.001	−0.002	0.007	−0.001	3.231*
	(0.024)	(0.024)	(0.010)	(0.020)	(0.012)	(0.021)	(0.008)	(1.682)
Non-boarders	0.556***	0.474***	0.033***	0.242***	0.932***	0.265***	0.030***	95.409***
	(0.017)	(0.017)	(0.007)	(0.014)	(0.009)	(0.015)	(0.006)	(1.189)
Observations	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760
R^2	0.000	0.0002	0.003	0.00000	0.00002	0.0001	0.00001	0.002
Adjusted R^2	−0.001	−0.0003	0.002	−0.001	−0.001	−0.001	−0.001	0.002
Residual Std. Error (df = 1758)	0.497	0.499	0.206	0.428	0.254	0.443	0.168	35.284
F Statistic (df = 1; 1758)	0.000	0.385	5.376**	0.003	0.035	0.104	0.020	3.689*

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.83: Balance of characteristics with PSM forgetting purposely covariates for high-school students

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	0.000	0.011	0.002	−0.014	0.006	0.019	0.006	0.902
	(0.019)	(0.019)	(0.007)	(0.017)	(0.010)	(0.018)	(0.006)	(1.288)
Non-boarders	0.512***	0.524***	0.032***	0.293***	0.922***	0.291***	0.018***	91.137***
	(0.014)	(0.014)	(0.005)	(0.012)	(0.007)	(0.013)	(0.004)	(0.910)
Observations	2,676	2,676	2,676	2,676	2,676	2,676	2,676	2,676
R^2	0.000	0.0001	0.00004	0.0002	0.0001	0.0004	0.0004	0.0002
Adjusted R^2	−0.0004	−0.0002	−0.0003	−0.0001	−0.0002	0.00004	0.0001	−0.0002
Residual Std. Error (df = 2674)	0.500	0.499	0.179	0.452	0.263	0.459	0.143	33.302
F Statistic (df = 1; 2674)	0.000	0.337	0.105	0.660	0.346	1.110	1.167	0.491

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.84: Balance of characteristics with PSM forgetting purposely covariates for middle-school students

F.5 Effectiveness of the program: high-school students and propensity score matching

This part of the appendix contains tables related to section 4.3.

This section provides results from the regressions for high-school students.

F.5.1 General results

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.82***	0.78***	0.26***	0.30***	0.21***	0.11***	0.04***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding	−0.03*	−0.01	0.19***	−0.10***	−0.10***	−0.05***	−0.02***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.00)
R^2	0.00	0.00	0.03	0.02	0.04	0.02	0.01
Adj. R^2	0.00	−0.00	0.03	0.02	0.04	0.02	0.01
Num. obs.	1760	1760	1760	1760	1760	1760	1760
RMSE	0.42	0.43	0.49	0.35	0.24	0.18	0.10
N Clusters	880	880	880	880	880	880	880

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.85: General effectiveness of the program

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder	0.07***	0.14***	0.33***	0.28***	0.03***	0.00	0.01
	(0.02)	(0.03)	(0.04)	(0.04)	(0.01)	(0.01)	(0.01)
Effect boarding	−0.01	−0.00	−0.07***	0.03	−0.01***	0.03***	0.00
	(0.01)	(0.02)	(0.02)	(0.02)	(0.00)	(0.01)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Adj. R^2	−0.00	−0.00	0.01	0.00	0.01	0.00	−0.00
Num. obs.	1462	1462	1462	1462	1462	1462	1462
RMSE	0.24	0.34	0.42	0.47	0.08	0.21	0.13
N Clusters	846	846	846	846	846	846	846

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.86: Effectiveness of the program on honors and presence of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder	0.18**	−0.10	0.05	0.15
	(0.08)	(0.08)	(0.09)	(0.09)
Effect boarding	−0.16***	0.10*	−0.18***	−0.13**
	(0.05)	(0.05)	(0.06)	(0.06)
R^2	0.01	0.00	0.01	0.00
Adj. R^2	0.01	0.00	0.01	0.00
Num. obs.	1266	1259	1084	1247
RMSE	0.95	1.00	1.02	1.13
N Clusters	635	635	552	635

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.87: Effectiveness of the program on test scores of students

F.5.2 Results by gender

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: male (baseline)	0.11	−0.25**	0.05	0.13
	(0.12)	(0.12)	(0.14)	(0.15)
Non-boarder: female	0.11	0.26	0.00	0.03
	(0.16)	(0.17)	(0.18)	(0.19)
Effect boarding (baseline = male)	−0.19**	0.06	−0.20**	−0.15
	(0.08)	(0.08)	(0.09)	(0.09)
Effect boarding (female != male?)	0.07	0.06	0.03	0.04
	(0.10)	(0.11)	(0.11)	(0.12)
R^2	0.02	0.03	0.01	0.00
Adj. R^2	0.02	0.03	0.01	0.00
Num. obs.	1266	1259	1084	1247
RMSE	0.94	0.98	1.02	1.13
N Clusters	635	635	552	635

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.88: Effectiveness of the program on test scores of students by gender

F.5.3 Results by honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.05	−0.03	0.25***	−0.15***	−0.14***	−0.08***	−0.02**
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding: weak females	−0.04	−0.04	−0.02	−0.03	0.00	0.02	0.00
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: very weak males	0.23	0.33**	−0.01	0.32***	0.02	−0.03	−0.04
	(0.14)	(0.14)	(0.11)	(0.10)	(0.07)	(0.06)	(0.04)
Effect boarding: very weak females	−0.03	−0.18	0.02	−0.06	−0.14	0.07	0.03
	(0.21)	(0.20)	(0.16)	(0.14)	(0.11)	(0.10)	(0.05)
Effect boarding: very good males	0.02	0.01	−0.27***	0.13***	0.15***	0.07***	0.02**
	(0.06)	(0.06)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: very good females	0.06	0.04	0.05	0.01	−0.01	−0.01	−0.00
	(0.07)	(0.07)	(0.08)	(0.06)	(0.04)	(0.03)	(0.01)
R^2	0.12	0.13	0.28	0.08	0.09	0.05	0.02
Adj. R^2	0.11	0.13	0.27	0.08	0.08	0.04	0.01
Num. obs.	1760	1760	1760	1760	1760	1760	1760
RMSE	0.40	0.40	0.42	0.34	0.24	0.18	0.10
N Clusters	880	880	880	880	880	880	880

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.89: Effectiveness of the program on graduation rates of students by honors at middle-school exam

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = weak males)	0.01	−0.03	−0.10**	−0.00	−0.01	0.05**	−0.00
	(0.01)	(0.02)	(0.04)	(0.05)	(0.01)	(0.02)	(0.02)
Effect boarding: weak females	−0.01	0.04	0.01	0.03	−0.00	0.00	0.02
	(0.02)	(0.03)	(0.06)	(0.06)	(0.01)	(0.03)	(0.02)
Effect boarding: very weak males	−0.01	0.13	−0.35**	0.30**	−0.17	0.06	−0.09
	(0.01)	(0.10)	(0.16)	(0.15)	(0.12)	(0.16)	(0.09)
Effect boarding: very weak females	0.01	0.09	0.36	−0.37	−0.02	0.16	0.07
	(0.02)	(0.17)	(0.22)	(0.24)	(0.16)	(0.23)	(0.09)
Effect boarding: very good males	−0.09	−0.08	0.16**	0.06	0.01	−0.05	0.00
	(0.05)	(0.07)	(0.07)	(0.08)	(0.01)	(0.03)	(0.02)
Effect boarding: very good females	0.09	0.11	−0.10	−0.06	0.00	−0.02	−0.01
	(0.07)	(0.09)	(0.09)	(0.10)	(0.01)	(0.04)	(0.02)
R^2	0.08	0.08	0.02	0.04	0.10	0.03	0.01
Adj. R^2	0.07	0.08	0.01	0.03	0.09	0.03	0.00
Num. obs.	1462	1462	1462	1462	1462	1462	1462
RMSE	0.23	0.33	0.42	0.46	0.08	0.20	0.13
N Clusters	846	846	846	846	846	846	846

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.90: Effectiveness of the program on honors received at high-school given honors at middle-school exam

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = weak males)	−0.16*	0.17*	−0.10	−0.04
	(0.09)	(0.09)	(0.10)	(0.11)
Effect boarding: weak females	0.10	0.05	−0.03	−0.11
	(0.12)	(0.12)	(0.15)	(0.15)
Effect boarding: very weak males	0.57	0.04	0.50	−0.13
	(0.57)	(0.30)	(0.38)	(0.50)
Effect boarding: very weak females	−0.34	0.51	−0.55	0.67
	(0.81)	(0.61)	(0.75)	(0.68)
Effect boarding: very good males	0.03	−0.18	−0.18	−0.20
	(0.16)	(0.17)	(0.19)	(0.21)
Effect boarding: very good females	−0.18	−0.02	0.17	0.33
	(0.20)	(0.21)	(0.25)	(0.26)
R^2	0.23	0.21	0.10	0.09
Adj. R^2	0.22	0.20	0.09	0.09
Num. obs.	1266	1259	1084	1247
RMSE	0.84	0.89	0.98	1.08
N Clusters	635	635	552	635

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.91: Effectiveness of the program on test scores of students by honors at middle-school exam

F.5.4 Results by socio-economic status

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.06	−0.06	0.04	−0.08	−0.02	−0.01	−0.00
	(0.07)	(0.07)	(0.09)	(0.06)	(0.04)	(0.02)	
Effect boarding: very privileged females	−0.02	−0.01	−0.02	0.00	0.02	0.01	−0.02
	(0.10)	(0.10)	(0.12)	(0.08)	(0.04)	(0.02)	(0.02)
Effect boarding: privileged males	−0.03	−0.03	−0.02	0.04	−0.04	0.00	−0.00
	(0.11)	(0.11)	(0.13)	(0.09)	(0.06)	(0.03)	
Effect boarding: privileged females	−0.02	−0.03	0.10	−0.11	−0.03	−0.00	0.02
	(0.15)	(0.15)	(0.18)	(0.12)	(0.07)	(0.03)	(0.02)
Effect boarding: under-privileged males	0.01	0.03	0.22*	−0.04	−0.15***	−0.10***	−0.02
	(0.09)	(0.09)	(0.11)	(0.07)	(0.05)	(0.04)	(0.01)
Effect boarding: very good females	0.08	0.03	−0.06	0.02	0.08	0.07	0.04*
	(0.13)	(0.13)	(0.15)	(0.10)	(0.06)	(0.04)	(0.02)
Effect boarding: very under-privileged males	0.11	0.16*	0.23**	0.01	−0.09*	−0.08**	−0.03*
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	(0.02)
Effect boarding: very under-privileged females	−0.09	−0.12	0.00	−0.05	−0.07	0.00	0.02
	(0.12)	(0.12)	(0.14)	(0.10)	(0.05)	(0.04)	(0.03)
Effect boarding: likely under-privileged males	−0.08	0.01	0.05	0.04	−0.07	−0.09	−0.09
	(0.17)	(0.18)	(0.20)	(0.15)	(0.10)	(0.09)	(0.09)
Effect boarding: likely under-privileged females	0.26	0.19	0.16	−0.04	0.07	0.05	0.07
	(0.22)	(0.23)	(0.25)	(0.18)	(0.11)	(0.10)	(0.10)
R^2	0.01	0.02	0.06	0.03	0.06	0.04	0.02
Adj. R^2	0.00	0.01	0.05	0.02	0.05	0.03	0.01
Num. obs.	1760	1760	1760	1760	1760	1760	1760
RMSE	0.42	0.43	0.48	0.35	0.24	0.18	0.10
N Clusters	880	880	880	880	880	880	880

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.92: Effectiveness of the program on graduation rates given SES of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = very privileged males)	−0.13**	−0.04	−0.01	0.02	−0.02	0.02	0.04*
	(0.06)	(0.06)	(0.08)	(0.09)	(0.02)	(0.04)	(0.03)
Effect boarding: very privileged females	0.05	0.14	−0.09	0.07	0.02	0.02	−0.04*
	(0.08)	(0.11)	(0.11)	(0.12)	(0.02)	(0.06)	(0.03)
Effect boarding: privileged males	0.08	0.07	−0.05	−0.09	0.02	0.04	−0.01
	(0.07)	(0.09)	(0.11)	(0.14)	(0.02)	(0.06)	(0.05)
Effect boarding: privileged females	0.00	−0.09	0.13	−0.16	−0.02	−0.01	−0.02
	(0.10)	(0.14)	(0.16)	(0.18)	(0.02)	(0.08)	(0.05)
Effect boarding: under-privileged males	0.10	0.00	−0.13	0.10	0.01	0.03	−0.08**
	(0.08)	(0.07)	(0.10)	(0.12)	(0.02)	(0.05)	(0.03)
Effect boarding: very good females	−0.05	−0.09	0.15	−0.03	−0.02	−0.09	0.07**
	(0.10)	(0.13)	(0.14)	(0.15)	(0.03)	(0.07)	(0.03)
Effect boarding: very under-privileged males	0.16**	−0.09	−0.02	0.02	0.01	0.01	−0.07**
	(0.07)	(0.07)	(0.09)	(0.11)	(0.02)	(0.05)	(0.03)
Effect boarding: very under-privileged females	−0.06	−0.00	0.02	−0.12	−0.04	−0.03	0.11***
	(0.09)	(0.13)	(0.13)	(0.14)	(0.03)	(0.07)	(0.04)
Effect boarding: likely under-privileged males	0.13**	0.24**	−0.13	−0.19	−0.08	−0.12	−0.04*
	(0.06)	(0.12)	(0.16)	(0.22)	(0.10)	(0.11)	(0.03)
Effect boarding: likely under-privileged females	0.02	−0.34*	0.32	−0.00	0.08	0.15	−0.01
	(0.09)	(0.18)	(0.22)	(0.28)	(0.10)	(0.12)	(0.06)
R^2	0.02	0.03	0.01	0.02	0.02	0.01	0.02
Adj. R^2	0.01	0.02	−0.00	0.01	0.01	0.00	0.01
Num. obs.	1462	1462	1462	1462	1462	1462	1462
RMSE	0.24	0.34	0.42	0.47	0.08	0.21	0.13
N Clusters	846	846	846	846	846	846	846

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.93: Effectiveness of the program on honors received at high-school given SES of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = very privileged males)	−0.61***	−0.14	−0.60***	−0.42*
	(0.19)	(0.19)	(0.23)	(0.23)
Effect boarding: very privileged females	0.39	0.06	0.30	0.17
	(0.26)	(0.27)	(0.31)	(0.34)
Effect boarding: privileged males	0.44	0.23	0.43	0.41
	(0.33)	(0.30)	(0.33)	(0.34)
Effect boarding: privileged females	−0.33	−0.14	−0.31	−0.23
	(0.43)	(0.42)	(0.46)	(0.48)
Effect boarding: under-privileged males	0.58**	0.11	0.50*	0.28
	(0.24)	(0.25)	(0.29)	(0.30)
Effect boarding: very good females	−0.43	0.24	−0.49	−0.01
	(0.33)	(0.35)	(0.41)	(0.42)
Effect boarding: very under-privileged males	0.50**	0.43*	0.62**	0.35
	(0.23)	(0.24)	(0.27)	(0.28)
Effect boarding: very under-privileged females	−0.42	−0.17	−0.32	−0.27
	(0.32)	(0.33)	(0.37)	(0.40)
Effect boarding: likely under-privileged males	0.71	−0.13	−0.05	0.31
	(0.51)	(0.47)	(0.54)	(0.50)
Effect boarding: likely under-privileged females	−0.54	0.14	0.02	−0.05
	(0.74)	(0.72)	(0.78)	(0.82)
R^2	0.05	0.06	0.03	0.02
Adj. R^2	0.04	0.05	0.01	0.00
Num. obs.	1266	1259	1084	1247
RMSE	0.93	0.97	1.02	1.13
N Clusters	635	635	552	635

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.94: Effectiveness of the program on test scores given SES of students

F.5.5 Results by nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.87***	0.83***	0.33**	0.41***	0.08	0.04	0.00
	(0.12)	(0.12)	(0.15)	(0.13)	(0.06)	(0.04)	(0.00)
Non-boarder: French	−0.05	−0.05	−0.07	−0.12	0.14**	0.08*	0.04***
	(0.12)	(0.13)	(0.16)	(0.14)	(0.06)	(0.04)	(0.01)
Effect boarding (baseline = Non-French)	−0.05	−0.03	0.15	−0.13*	−0.04	−0.02	−0.00
	(0.07)	(0.08)	(0.09)	(0.08)	(0.03)	(0.02)	(0.00)
Effect boarding (French != Non-French?)	0.01	0.01	0.04	0.04	−0.06**	−0.04	−0.02***
	(0.08)	(0.08)	(0.10)	(0.08)	(0.03)	(0.02)	(0.00)
R^2	0.00	0.00	0.03	0.02	0.04	0.02	0.01
Adj. R^2	0.00	−0.00	0.03	0.02	0.04	0.02	0.01
Num. obs.	1760	1760	1760	1760	1760	1760	1760
RMSE	0.42	0.43	0.49	0.35	0.24	0.18	0.10
N Clusters	880	880	880	880	880	880	880

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.95: Effectiveness of the program on graduation rates given nationality of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: Non-French (baseline)	−0.01	0.11	0.09	0.28*	0.04	0.01	0.09
	(0.05)	(0.12)	(0.11)	(0.15)	(0.04)	(0.07)	(0.06)
Non-boarder: French	0.09	0.03	0.25**	0.00	−0.02	−0.01	−0.08
	(0.06)	(0.12)	(0.11)	(0.16)	(0.04)	(0.07)	(0.06)
Effect boarding (baseline = Non-French)	0.04	0.04	0.06	0.02	−0.02	0.03	−0.04
	(0.04)	(0.08)	(0.07)	(0.09)	(0.02)	(0.05)	(0.03)
Effect boarding (French != Non-French?)	−0.04	−0.05	−0.13*	0.00	0.01	−0.00	0.05
	(0.04)	(0.08)	(0.07)	(0.10)	(0.02)	(0.05)	(0.03)
R^2	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Adj. R^2	−0.00	−0.00	0.01	−0.00	0.01	0.00	0.00
Num. obs.	1462	1462	1462	1462	1462	1462	1462
RMSE	0.24	0.34	0.42	0.47	0.08	0.21	0.13
N Clusters	846	846	846	846	846	846	846

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.

. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.96: Effectiveness of the program on honors received at high-school given nationality of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: Non-French (baseline)	0.28	−0.73**	0.03	0.75*
	(0.27)	(0.31)	(0.36)	(0.41)
Non-boarder: French	−0.11	0.67**	0.03	−0.63
	(0.28)	(0.33)	(0.38)	(0.42)
Effect boarding (baseline = Non-French)	−0.08	0.50**	−0.10	−0.37
	(0.17)	(0.20)	(0.22)	(0.24)
Effect boarding (French != Non-French?)	−0.08	−0.43**	−0.09	0.25
	(0.18)	(0.21)	(0.23)	(0.25)
R^2	0.01	0.01	0.01	0.01
Adj. R^2	0.01	0.00	0.01	0.00
Num. obs.	1266	1259	1084	1247
RMSE	0.95	1.00	1.02	1.13
N Clusters	635	635	552	635

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.

. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.97: Effectiveness of the program on test scores given nationality of students

F.5.6 Results by schools

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.75***	0.72***	0.21***	0.21***	0.30***	0.19***	0.02
	(0.05)	(0.05)	(0.06)	(0.04)	(0.04)	(0.03)	(0.01)
Effect boarding	−0.02	−0.01	0.19***	−0.06**	−0.14***	−0.09***	−0.01
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
R^2	0.00	0.00	0.04	0.01	0.06	0.04	0.00
Adj. R^2	−0.00	−0.00	0.03	0.01	0.06	0.04	0.00
RMSE	0.45	0.46	0.49	0.33	0.27	0.22	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.98: Effectiveness of the program graduation rates at BSE de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.84***	0.78***	0.27***	0.33***	0.18***	0.11***	0.08***
	(0.06)	(0.07)	(0.07)	(0.06)	(0.04)	(0.03)	(0.03)
Effect boarding	−0.08**	−0.05	0.12***	−0.10***	−0.08***	−0.05***	−0.04***
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.00	0.02	0.02	0.03	0.02	0.02
Adj. R^2	0.01	0.00	0.01	0.01	0.02	0.01	0.02
RMSE	0.45	0.46	0.49	0.38	0.24	0.19	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.99: Effectiveness of the program graduation rates at BSE Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.86***	0.83***	0.30***	0.37***	0.16***	0.05***	0.02**
	(0.04)	(0.04)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding	−0.01	0.00	0.22***	−0.14***	−0.08***	−0.02**	−0.01**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
R^2	0.00	0.00	0.05	0.04	0.03	0.01	0.01
Adj. R^2	−0.00	−0.00	0.05	0.04	0.03	0.01	0.00
RMSE	0.36	0.37	0.47	0.35	0.21	0.12	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.100: Effectiveness of the program graduation rates at BSE Sand

By gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.75***	0.69***	0.21**	0.17***	0.31***	0.22***	0.03
	(0.08)	(0.08)	(0.08)	(0.05)	(0.06)	(0.05)	(0.02)
Non-boarder: female	−0.00	0.05	0.01	0.07	−0.03	−0.07	−0.03
	(0.11)	(0.11)	(0.11)	(0.08)	(0.08)	(0.07)	(0.02)
Effect boarding (baseline = male)	−0.04	−0.01	0.17***	−0.03	−0.15***	−0.11***	−0.01
	(0.05)	(0.05)	(0.05)	(0.03)	(0.03)	(0.02)	(0.01)
Effect boarding (female != male?)	0.04	0.01	0.05	−0.05	0.01	0.03	0.01
	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.03)	(0.01)
R^2	0.00	0.01	0.04	0.01	0.06	0.05	0.01
Adj. R^2	−0.00	0.00	0.04	0.00	0.06	0.04	0.00
RMSE	0.45	0.46	0.49	0.33	0.27	0.22	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.101: Effectiveness of the program graduation rates at BSE de Beauvoir given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.76***	0.72***	0.19*	0.34***	0.20***	0.16***	0.06*
	(0.09)	(0.10)	(0.10)	(0.09)	(0.07)	(0.06)	(0.03)
Non-boarder: female	0.14	0.10	0.14	−0.02	−0.03	−0.09	0.03
	(0.13)	(0.13)	(0.14)	(0.12)	(0.08)	(0.07)	(0.05)
Effect boarding (baseline = male)	−0.02	−0.00	0.16**	−0.08	−0.08**	−0.07**	−0.03*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.03)	(0.02)
Effect boarding (female != male?)	−0.11	−0.09	−0.06	−0.03	0.00	0.04	−0.02
	(0.08)	(0.08)	(0.09)	(0.07)	(0.04)	(0.04)	(0.03)
R^2	0.01	0.01	0.02	0.02	0.03	0.03	0.02
Adj. R^2	0.01	0.00	0.01	0.02	0.02	0.02	0.02
RMSE	0.45	0.46	0.50	0.38	0.25	0.19	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.102: Effectiveness of the program graduation rates at BSE Hugo given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.81***	0.75***	0.22**	0.40***	0.13***	0.04	0.04*
	(0.08)	(0.08)	(0.09)	(0.07)	(0.05)	(0.03)	(0.03)
Non-boarder: female	0.08	0.13	0.14	−0.06	0.04	0.02	−0.04
	(0.09)	(0.09)	(0.11)	(0.09)	(0.06)	(0.04)	(0.03)
Effect boarding (baseline = male)	−0.00	0.03	0.25***	−0.16***	−0.06**	−0.01	−0.02*
	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.01)	(0.01)
Effect boarding (female != male?)	−0.02	−0.04	−0.04	0.02	−0.03	−0.01	0.02
	(0.06)	(0.06)	(0.07)	(0.05)	(0.03)	(0.02)	(0.01)
R^2	0.00	0.01	0.06	0.04	0.03	0.01	0.01
Adj. R^2	0.00	0.00	0.06	0.04	0.03	0.01	0.01
RMSE	0.36	0.37	0.47	0.35	0.21	0.12	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.103: Effectiveness of the program graduation rates at BSE Sand given gender

By honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.02	0.01	0.26***	−0.05	−0.21***	−0.14***	−0.02
	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.03)	(0.02)
Effect boarding: weak females	0.02	−0.00	0.03	−0.07	0.03	0.04	0.02
	(0.09)	(0.09)	(0.09)	(0.06)	(0.06)	(0.05)	(0.02)
Effect boarding: very weak males	0.10	0.20	0.07	0.05	0.08	0.02	0.02
	(0.25)	(0.23)	(0.21)	(0.04)	(0.12)	(0.12)	(0.02)
Effect boarding: very weak females	−0.11	−0.21	−0.03	0.07	−0.24	−0.03	−0.02
	(0.36)	(0.35)	(0.29)	(0.06)	(0.21)	(0.17)	(0.02)
Effect boarding: very good males	−0.08	−0.11	−0.38***	0.02	0.24***	0.14***	0.02
	(0.10)	(0.10)	(0.11)	(0.05)	(0.05)	(0.03)	(0.02)
Effect boarding: very good females	0.07	0.10	0.11	0.05	−0.06	−0.04	−0.02
	(0.14)	(0.14)	(0.14)	(0.08)	(0.07)	(0.05)	(0.02)
R^2	0.10	0.11	0.26	0.04	0.12	0.08	0.02
Adj. R^2	0.08	0.09	0.24	0.02	0.11	0.06	−0.00
RMSE	0.43	0.43	0.44	0.32	0.27	0.22	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.104: Effectiveness of the program graduation rates at BSE de Beauvoir given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.08	−0.07	0.20***	−0.17**	−0.10**	−0.07*	−0.04*
	(0.07)	(0.07)	(0.08)	(0.07)	(0.05)	(0.04)	(0.02)
Effect boarding: weak females	−0.06	−0.02	−0.02	−0.02	0.03	0.03	−0.02
	(0.10)	(0.10)	(0.11)	(0.09)	(0.06)	(0.05)	(0.04)
Effect boarding: very weak males	0.43**	0.42**	−0.10	0.47***	0.05	−0.00	0.04*
	(0.18)	(0.18)	(0.13)	(0.16)	(0.10)	(0.09)	(0.02)
Effect boarding: very weak females	−0.26	−0.34	0.02	−0.14	−0.22	0.09	−0.04
	(0.28)	(0.26)	(0.18)	(0.23)	(0.15)	(0.15)	(0.07)
Effect boarding: very good males	0.14	0.19*	−0.03	0.11	0.10**	0.02	0.04*
	(0.09)	(0.11)	(0.12)	(0.10)	(0.05)	(0.07)	(0.02)
Effect boarding: very good females	−0.16	−0.27*	−0.30	0.06	−0.03	0.03	0.02
	(0.15)	(0.16)	(0.19)	(0.13)	(0.06)	(0.07)	(0.04)
R^2	0.14	0.14	0.22	0.08	0.06	0.04	0.04
Adj. R^2	0.11	0.11	0.20	0.06	0.04	0.01	0.01
RMSE	0.42	0.43	0.45	0.38	0.24	0.19	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.105: Effectiveness of the program graduation rates at BSE Hugo given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.08	−0.06	0.29***	−0.28***	−0.07*	0.00	−0.01
	(0.07)	(0.07)	(0.07)	(0.07)	(0.04)	(0.02)	(0.01)
Effect boarding: weak females	−0.06	−0.07	−0.08	0.08	−0.07	−0.04	0.00
	(0.09)	(0.09)	(0.10)	(0.09)	(0.05)	(0.03)	(0.02)
Effect boarding: very weak males	0.61***	0.83***	0.71***	0.28***	−0.16	−0.15	−0.14
	(0.16)	(0.14)	(0.07)	(0.07)	(0.12)	(0.10)	(0.10)
Effect boarding: very weak females	0.32	0.10	0.08	−0.08	0.10	0.10	0.15
	(0.20)	(0.20)	(0.10)	(0.09)	(0.18)	(0.14)	(0.10)
Effect boarding: very good males	0.06	0.04	−0.28***	0.26***	0.07*	−0.00	0.01
	(0.09)	(0.09)	(0.10)	(0.09)	(0.04)	(0.02)	(0.01)
Effect boarding: very good females	0.07	0.07	0.10	−0.10	0.07	0.04	−0.00
	(0.11)	(0.11)	(0.13)	(0.11)	(0.05)	(0.03)	(0.02)
R^2	0.13	0.15	0.31	0.16	0.09	0.05	0.08
Adj. R^2	0.11	0.14	0.30	0.14	0.08	0.04	0.06
RMSE	0.34	0.34	0.40	0.33	0.20	0.12	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.106: Effectiveness of the program graduation rates at BSE Sand given honors at middle-school exam

By SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.16	−0.16	0.01	−0.07	−0.11	−0.05	0.00
	(0.10)	(0.10)	(0.14)	(0.08)	(0.07)	(0.05)	
Effect boarding: very privileged females	0.24	0.24	0.16	−0.03	0.11	0.05	−0.00
	(0.17)	(0.17)	(0.21)	(0.14)	(0.07)	(0.05)	
Effect boarding: privileged males	0.21	0.21	0.21	−0.02	0.02	0.05	−0.00
	(0.16)	(0.16)	(0.19)	(0.12)	(0.11)	(0.05)	
Effect boarding: privileged females	−0.53**	−0.53**	−0.38	−0.07	−0.08	−0.05	0.00
	(0.26)	(0.26)	(0.30)	(0.19)	(0.13)	(0.05)	
Effect boarding: under-privileged males	0.09	0.12	0.12	0.05	−0.06	−0.08	−0.03
	(0.14)	(0.15)	(0.18)	(0.11)	(0.09)	(0.08)	(0.03)
Effect boarding: very good females	−0.15	−0.20	−0.15	0.01	−0.05	0.05	0.03
	(0.23)	(0.23)	(0.27)	(0.17)	(0.11)	(0.09)	(0.03)
Effect boarding: very under-privileged males	0.19	0.23*	0.21	0.07	−0.05	−0.09	−0.01
	(0.12)	(0.12)	(0.16)	(0.10)	(0.08)	(0.07)	(0.03)
Effect boarding: very under-privileged females	−0.27	−0.30	−0.08	−0.06	−0.16	−0.04	0.01
	(0.20)	(0.20)	(0.24)	(0.17)	(0.10)	(0.08)	(0.03)
Effect boarding: likely under-privileged males	−0.67***	−0.67***	−0.51	0.07	−0.23	−0.28	0.00
	(0.18)	(0.18)	(0.35)	(0.08)	(0.29)	(0.28)	
Effect boarding: likely under-privileged females	1.00***	1.00***	0.58	0.11	0.31	0.28	−0.00
	(0.32)	(0.32)	(0.45)	(0.16)	(0.30)	(0.28)	
R^2	0.05	0.05	0.10	0.02	0.10	0.09	0.02
Adj. R^2	0.02	0.02	0.07	−0.01	0.07	0.06	−0.01
RMSE	0.45	0.45	0.48	0.33	0.27	0.22	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.107: Effectiveness of the program graduation rates at BSE de Beauvoir given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.04	−0.04	−0.07	−0.09	0.11*	0.04	0.00
	(0.14)	(0.14)	(0.14)	(0.11)	(0.06)	(0.04)	(0.00)
Effect boarding: very privileged females	−0.19	−0.14	−0.08	0.05	−0.11*	−0.04	−0.05
	(0.20)	(0.20)	(0.21)	(0.15)	(0.06)	(0.04)	(0.05)
Effect boarding: privileged males	−0.26	−0.26	−0.30	0.08	−0.04	0.03	−0.00
	(0.21)	(0.21)	(0.23)	(0.22)	(0.09)	(0.08)	(0.00)
Effect boarding: privileged females	0.22	0.17	0.23	−0.04	−0.03	−0.03	0.05
	(0.29)	(0.29)	(0.34)	(0.28)	(0.11)	(0.08)	(0.05)
Effect boarding: under-privileged males	0.05	0.05	0.43**	−0.07	−0.31***	−0.17**	−0.03
	(0.18)	(0.18)	(0.20)	(0.14)	(0.09)	(0.07)	(0.03)
Effect boarding: very good females	0.14	0.10	−0.12	−0.03	0.25**	0.11	0.08
	(0.25)	(0.25)	(0.28)	(0.21)	(0.11)	(0.09)	(0.06)
Effect boarding: very under-privileged males	0.18	0.23	0.48***	0.03	−0.28***	−0.18**	−0.06
	(0.18)	(0.18)	(0.18)	(0.15)	(0.10)	(0.07)	(0.04)
Effect boarding: very under-privileged females	−0.07	−0.10	−0.12	−0.13	0.15	0.14*	0.01
	(0.25)	(0.25)	(0.27)	(0.19)	(0.11)	(0.07)	(0.07)
Effect boarding: likely under-privileged males	0.04	0.04	−0.08	0.24	−0.11*	−0.04	−0.00
	(0.14)	(0.14)	(0.35)	(0.33)	(0.06)	(0.04)	(0.00)
Effect boarding: likely under-privileged females	0.07	0.02	0.51	−0.60	0.11*	0.04	0.05
	(0.34)	(0.34)	(0.43)	(0.41)	(0.06)	(0.04)	(0.05)
R^2	0.08	0.07	0.10	0.05	0.08	0.07	0.05
Adj. R^2	0.04	0.03	0.06	0.01	0.04	0.03	0.01
RMSE	0.44	0.45	0.48	0.39	0.24	0.19	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.108: Effectiveness of the program graduation rates at BSE Hugo given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	0.02	0.02	0.17	−0.08	−0.06	−0.00	−0.00
	(0.13)	(0.13)	(0.15)	(0.09)	(0.06)	(0.00)	(0.00)
Effect boarding: very privileged females	−0.11	−0.11	−0.15	−0.02	0.06	−0.00	0.00
	(0.14)	(0.14)	(0.19)	(0.13)	(0.06)	(0.00)	(0.00)
Effect boarding: privileged males	−0.19	−0.19	−0.19	0.02	−0.02	−0.06	0.00
	(0.18)	(0.18)	(0.22)	(0.15)	(0.11)	(0.06)	(0.00)
Effect boarding: privileged females	0.29	0.29	0.48*	−0.13	−0.06	0.06	−0.00
	(0.21)	(0.21)	(0.28)	(0.20)	(0.12)	(0.06)	(0.00)
Effect boarding: under-privileged males	−0.09	−0.06	0.13	−0.12	−0.07	−0.05	−0.00
	(0.14)	(0.15)	(0.18)	(0.13)	(0.08)	(0.04)	(0.00)
Effect boarding: very good females	0.21	0.18	0.05	0.10	0.04	0.04	−0.00
	(0.17)	(0.17)	(0.23)	(0.17)	(0.09)	(0.04)	
Effect boarding: very under-privileged males	0.06	0.09	0.12	−0.08	0.05	0.02	−0.03
	(0.15)	(0.15)	(0.18)	(0.12)	(0.07)	(0.02)	(0.02)
Effect boarding: very under-privileged females	−0.02	−0.06	0.09	0.05	−0.20**	−0.07**	0.03
	(0.17)	(0.17)	(0.23)	(0.16)	(0.08)	(0.03)	(0.02)
Effect boarding: likely under-privileged males	0.30	0.55**	0.56***	−0.08	0.06	0.00	−0.25
	(0.30)	(0.27)	(0.20)	(0.26)	(0.06)	(0.00)	(0.22)
Effect boarding: likely under-privileged females	−0.16	−0.34	−0.34	0.12	−0.12	−0.06	0.19
	(0.34)	(0.32)	(0.28)	(0.29)	(0.09)	(0.06)	(0.23)
R^2	0.03	0.04	0.09	0.05	0.06	0.03	0.09
Adj. R^2	0.00	0.02	0.07	0.03	0.03	0.00	0.06
RMSE	0.36	0.37	0.46	0.35	0.21	0.12	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^T \cdot \text{SES} + \beta_3^T \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^T \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^T \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.109: Effectiveness of the program graduation rates at BSE Sand given SES

By nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	1.50***	1.50***	0.50	−0.00	1.00	0.00	−0.00
	(0.20)	(0.20)	(0.74)	(0.00)	(0.71)		(0.00)
Non-boarder: French	−0.76***	−0.79***	−0.29	0.21***	−0.71	0.19***	0.02
	(0.21)	(0.21)	(0.74)	(0.04)	(0.71)	(0.03)	(0.01)
Effect boarding (baseline = Non-French)	−0.50**	−0.50**	0.00	0.00	−0.50	−0.00	0.00
	(0.20)	(0.20)	(0.41)	(0.00)	(0.36)	(0.00)	(0.00)
Effect boarding (French != Non-French?)	0.49**	0.50**	0.19	−0.05**	0.36	−0.09***	−0.01
	(0.21)	(0.21)	(0.41)	(0.02)	(0.36)	(0.02)	(0.01)
R^2	0.00	0.00	0.04	0.01	0.07	0.04	0.00
Adj. R^2	−0.00	−0.00	0.03	0.00	0.06	0.04	−0.00
RMSE	0.45	0.46	0.49	0.33	0.27	0.22	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.110: Effectiveness of the program graduation rates at BSE de Beauvoir given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.83***	0.83***	0.75**	0.08	0.00	0.00	0.00
	(0.28)	(0.28)	(0.35)	(0.27)			
Non-boarder: French	0.01	−0.06	−0.51	0.26	0.19***	0.12***	0.08***
	(0.29)	(0.29)	(0.36)	(0.28)	(0.04)	(0.03)	(0.03)
Effect boarding (baseline = Non-French)	−0.08	−0.08	−0.17	0.08	−0.00	−0.00	−0.00
	(0.18)	(0.18)	(0.22)	(0.18)			
Effect boarding (French != Non-French?)	0.00	0.03	0.30	−0.19	−0.08***	−0.05***	−0.04***
	(0.19)	(0.19)	(0.23)	(0.19)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.00	0.02	0.02	0.03	0.02	0.02
Adj. R^2	0.00	−0.00	0.01	0.01	0.02	0.01	0.02
RMSE	0.45	0.46	0.49	0.39	0.24	0.19	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.111: Effectiveness of the program graduation rates at BSE Hugo given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.83***	0.77***	0.18	0.53***	0.06	0.06	−0.00
	(0.13)	(0.14)	(0.17)	(0.16)	(0.05)	(0.05)	(0.00)
Non-boarder: French	0.04	0.07	0.13	−0.18	0.12*	−0.01	0.03**
	(0.14)	(0.15)	(0.19)	(0.17)	(0.06)	(0.06)	(0.01)
Effect boarding (baseline = Non-French)	0.01	0.04	0.26**	−0.20**	−0.03	−0.03	0.00
	(0.08)	(0.08)	(0.10)	(0.09)	(0.03)	(0.03)	(0.00)
Effect boarding (French != Non-French?)	−0.02	−0.04	−0.04	0.06	−0.05	0.01	−0.01**
	(0.08)	(0.09)	(0.11)	(0.10)	(0.03)	(0.03)	(0.01)
R^2	0.00	0.00	0.06	0.05	0.04	0.01	0.01
Adj. R^2	−0.00	−0.00	0.05	0.04	0.03	0.01	0.00
RMSE	0.36	0.37	0.47	0.35	0.21	0.12	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.112: Effectiveness of the program graduation rates at BSE Sand given nationality

F.6 Effectiveness of the program: middle-school students

This part of the appendix contains tables related to section 4.

This section provides results from the regressions for middle-school students.

F.6.1 Per gender

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder: male (baseline)	−0.35***	0.69***	−0.31***	−0.28***	0.07	−0.42***
	(0.09)	(0.04)	(0.09)	(0.09)	(0.10)	(0.10)
Non-boarder: female	0.14	0.08	0.23*	0.01	−0.09	0.10
	(0.13)	(0.06)	(0.12)	(0.12)	(0.12)	(0.14)
Effect boarding (baseline = male)	0.12**	0.03	0.13**	0.11*	−0.03	0.25***
	(0.06)	(0.03)	(0.05)	(0.06)	(0.06)	(0.06)
Effect boarding (female != male?)	0.03	−0.01	−0.03	−0.08	0.03	−0.08
	(0.08)	(0.04)	(0.07)	(0.07)	(0.07)	(0.09)
R^2	0.01	0.01	0.01	0.01	0.00	0.01
Adj. R^2	0.01	0.01	0.01	0.00	−0.00	0.01
Num. obs.	2042	2051	1973	1970	1944	1968
RMSE	0.94	0.41	0.99	0.93	1.00	0.99
N Clusters	1185	1190	1169	1171	1168	1166

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.113: Effectiveness of the program on results at middle-school given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.78***	0.76***	0.20***	0.25***	0.31***	0.09***	0.02
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)
Non-boarder: female	−0.09	−0.09	−0.00	−0.01	−0.08	0.01	−0.01
	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)	(0.04)	(0.02)
Effect boarding (baseline = male)	−0.07**	−0.07**	0.09***	−0.06**	−0.10***	−0.02	−0.00
	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.02)	(0.01)
Effect boarding (female != male?)	0.08*	0.08*	0.03	0.02	0.04	−0.01	0.00
	(0.04)	(0.05)	(0.05)	(0.03)	(0.03)	(0.02)	(0.01)
R^2	0.00	0.00	0.01	0.01	0.02	0.00	0.00
Adj. R^2	0.00	0.00	0.01	0.00	0.01	0.00	−0.00
Num. obs.	1619	1619	1619	1619	1619	1619	1619
RMSE	0.46	0.47	0.48	0.38	0.35	0.25	0.12
N Clusters	973	973	973	973	973	973	973

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.114: Effectiveness of the program on graduation rates at high-school for middle-school students given gender

F.6.2 Per SES

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Effect boarding (baseline = very privileged males)	−0.18	−0.02	−0.14	−0.10	−0.18	−0.10
	(0.17)	(0.08)	(0.17)	(0.20)	(0.20)	(0.18)
Effect boarding: very privileged females	−0.32	−0.05	0.09	−0.54**	−0.04	−0.38
	(0.22)	(0.09)	(0.24)	(0.27)	(0.27)	(0.24)
Effect boarding: privileged males	0.01	−0.06	0.21	−0.16	−0.15	−0.08
	(0.26)	(0.11)	(0.27)	(0.29)	(0.32)	(0.26)
Effect boarding: privileged females	0.39	0.08	−0.26	0.87**	0.29	0.67*
	(0.34)	(0.14)	(0.38)	(0.40)	(0.42)	(0.37)
Effect boarding: under-privileged males	0.36*	0.07	0.36*	0.36	0.25	0.40*
	(0.20)	(0.09)	(0.20)	(0.23)	(0.23)	(0.22)
Effect boarding: very good females	0.18	0.02	−0.32	0.28	−0.12	0.17
	(0.26)	(0.11)	(0.29)	(0.31)	(0.31)	(0.29)
Effect boarding: very under-privileged males	0.46**	0.09	0.32*	0.27	0.19	0.59***
	(0.20)	(0.09)	(0.19)	(0.22)	(0.22)	(0.21)
Effect boarding: very under-privileged females	0.46*	0.06	0.03	0.59**	0.19	0.32
	(0.25)	(0.11)	(0.27)	(0.29)	(0.30)	(0.28)
Effect boarding: likely under-privileged males	0.26	0.12	0.38	0.29	0.37	0.18
	(0.30)	(0.14)	(0.31)	(0.33)	(0.34)	(0.31)
Effect boarding: likely under-privileged females	0.44	−0.04	−0.22	0.44	−0.11	0.32
	(0.42)	(0.17)	(0.40)	(0.40)	(0.44)	(0.40)
R^2	0.06	0.02	0.04	0.04	0.02	0.05
Adj. R^2	0.05	0.02	0.03	0.03	0.01	0.04
Num. obs.	2041	2050	1972	1968	1942	1967
RMSE	0.92	0.41	0.98	0.91	0.99	0.98
N Clusters	1185	1190	1169	1171	1168	1166

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.115: Effectiveness of the program on results at middle-school given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum
Effect boarding (baseline = very privileged males)	−0.11*	−0.13*	0.12	−0.16	−0.09
	(0.07)	(0.07)	(0.13)	(0.10)	(0.08)
Effect boarding: very privileged females	0.05	0.07	−0.07	0.14	0.11
	(0.10)	(0.10)	(0.16)	(0.14)	(0.10)
Effect boarding: privileged males	0.09	0.10	−0.24	0.07	0.18
	(0.11)	(0.10)	(0.18)	(0.14)	(0.13)
Effect boarding: privileged females	0.01	0.05	0.33	−0.12	−0.21
	(0.16)	(0.15)	(0.23)	(0.20)	(0.16)
Effect boarding: under-privileged males	0.08	0.11	−0.07	0.13	0.04
	(0.08)	(0.08)	(0.15)	(0.12)	(0.10)
Effect boarding: very good females	0.04	0.00	0.07	−0.18	−0.05
	(0.12)	(0.12)	(0.19)	(0.16)	(0.12)
Effect boarding: very under-privileged males	0.10	0.10	0.13	0.10	−0.12
	(0.08)	(0.08)	(0.14)	(0.11)	(0.09)
Effect boarding: very under-privileged females	−0.04	−0.04	0.07	−0.10	−0.08
	(0.12)	(0.12)	(0.18)	(0.15)	(0.12)
Effect boarding: likely under-privileged males	0.13	0.10	0.10	0.24	−0.21
	(0.13)	(0.12)	(0.20)	(0.17)	(0.18)
Effect boarding: likely under-privileged females	0.10	0.12	−0.09	−0.24	0.14
	(0.18)	(0.18)	(0.27)	(0.21)	(0.23)
R^2	0.01	0.01	0.04	0.01	0.05
Adj. R^2	0.00	0.01	0.02	−0.00	0.04
Num. obs.	2676	2676	1311	1311	1311
RMSE	0.50	0.49	0.49	0.42	0.38
N Clusters	1338	1338	855	855	855

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.116: Effectiveness of the program on graduation rates at high-school for middle-school students given SES

F.6.3 Per nationality

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder: non-French (baseline)	−0.55**	0.54***	−0.36	−0.79***	−0.20	−0.93***
	(0.21)	(0.12)	(0.25)	(0.18)	(0.19)	(0.28)
Non-boarder: French	0.29	0.21*	0.19	0.54***	0.23	0.60**
	(0.22)	(0.13)	(0.26)	(0.19)	(0.20)	(0.29)
Effect boarding (baseline = non-French)	0.36***	0.17**	0.20	0.39***	0.11	0.54***
	(0.13)	(0.07)	(0.16)	(0.12)	(0.12)	(0.17)
Effect boarding (French != non-French?)	−0.25*	−0.15**	−0.10	−0.34***	−0.13	−0.37**
	(0.14)	(0.07)	(0.17)	(0.13)	(0.13)	(0.18)
R^2	0.01	0.00	0.00	0.00	0.00	0.01
Adj. R^2	0.01	0.00	0.00	0.00	−0.00	0.01
Num. obs.	2042	2051	1973	1970	1944	1968
RMSE	0.94	0.41	0.99	0.93	1.00	0.99
N Clusters	1185	1190	1169	1171	1168	1166

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.117: Effectiveness of the program on results at middle-school given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: non-French (baseline)	0.76***	0.65***	0.19	0.14	0.32***	0.16*	0.09
	(0.13)	(0.14)	(0.15)	(0.12)	(0.12)	(0.09)	(0.06)
Non-boarder: French	−0.03	0.07	0.01	0.11	−0.06	−0.07	−0.07
	(0.13)	(0.14)	(0.15)	(0.12)	(0.12)	(0.10)	(0.06)
Effect boarding (baseline = non-French)	0.03	0.08	0.17*	0.03	−0.12*	−0.06	−0.04
	(0.08)	(0.08)	(0.09)	(0.07)	(0.07)	(0.05)	(0.03)
Effect boarding (French != non-French?)	−0.06	−0.11	−0.07	−0.08	0.05	0.04	0.04
	(0.08)	(0.08)	(0.09)	(0.07)	(0.07)	(0.05)	(0.03)
R^2	0.00	0.00	0.02	0.01	0.01	0.00	0.00
Adj. R^2	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Num. obs.	1619	1619	1619	1619	1619	1619	1619
RMSE	0.46	0.47	0.48	0.38	0.35	0.25	0.12
N Clusters	973	973	973	973	973	973	973

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{French} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{French} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for non-French students, ζ is the effect studying in a boarding school for French students relative to non-French students, β_0 is an intercept (giving the average value of the outcome for non-French control units), β_1 is the mean value of the outcome for French control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.118: Effectiveness of the program on graduation rates at high-school for middle-school students given nationality

F.6.4 Per schools

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	−0.16	0.68***	−0.18	−0.24	−0.23	−0.49
	(0.30)	(0.12)	(0.20)	(0.18)	(0.20)	(0.30)
Effect boarding	0.09	0.02	−0.10	−0.07	−0.00	0.25
	(0.20)	(0.07)	(0.11)	(0.11)	(0.11)	(0.18)
R^2	0.00	0.00	0.01	0.00	0.00	0.02
Adj. R^2	−0.01	−0.01	−0.00	−0.00	−0.01	0.01
RMSE	1.05	0.46	0.60	0.60	0.58	0.97

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.119: Effectiveness of the program on results at middle-school de Beauvoir

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	−0.06	0.76***	0.12	0.09	0.28***	0.01
	(0.10)	(0.04)	(0.09)	(0.10)	(0.10)	(0.10)
Effect boarding	−0.08	−0.02	−0.12**	−0.22***	−0.15***	−0.12**
	(0.06)	(0.03)	(0.05)	(0.06)	(0.06)	(0.06)
R^2	0.00	0.00	0.00	0.01	0.01	0.00
Adj. R^2	0.00	−0.00	0.00	0.01	0.00	0.00
RMSE	0.96	0.44	0.99	0.93	1.03	0.96

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.120: Effectiveness of the program on results at middle-school Hugo

	Grade midschool exam	Admission midschool exam	Grade French	Grade math	Grade sciences	Grade history
Non-boarder	-0.49^{***}	0.71^{***}	-0.47^{***}	-0.63^{***}	-0.20^{**}	-0.71^{***}
	(0.09)	(0.04)	(0.08)	(0.08)	(0.08)	(0.10)
Effect boarding	0.34^{***}	0.08^{***}	0.36^{***}	0.36^{***}	0.12^{**}	0.50^{***}
	(0.05)	(0.02)	(0.05)	(0.05)	(0.05)	(0.06)
R^2	0.03	0.01	0.03	0.03	0.00	0.06
Adj. R^2	0.03	0.01	0.03	0.03	0.00	0.06
RMSE	0.89	0.38	1.01	0.94	1.01	0.99

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.121: Effectiveness of the program on results at middle-school Sand

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.84^{***}	0.70^{***}	0.28^{*}	0.17^{*}	0.25^{**}	0.24^{**}	0.07
	(0.13)	(0.14)	(0.15)	(0.09)	(0.10)	(0.09)	(0.05)
Effect boarding	-0.09	-0.03	0.10	-0.06	-0.08	-0.10^{**}	-0.02
	(0.08)	(0.09)	(0.09)	(0.05)	(0.06)	(0.05)	(0.03)
R^2	0.01	0.00	0.01	0.01	0.01	0.04	0.00
Adj. R^2	0.00	-0.01	0.00	0.00	0.01	0.03	-0.01
RMSE	0.46	0.48	0.50	0.28	0.33	0.27	0.20

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.122: Effectiveness of the program on results at high-school after stay at de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.77^{***}	0.74^{***}	0.22^{***}	0.30^{***}	0.22^{***}	0.09^{***}	0.03^{*}
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.03)	(0.02)
Effect boarding	-0.06^{*}	-0.07^{*}	0.07^{*}	-0.08^{***}	-0.05^{*}	-0.01	-0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)
R^2	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Adj. R^2	0.00	0.00	0.00	0.01	0.00	-0.00	-0.00
RMSE	0.47	0.48	0.47	0.38	0.36	0.28	0.15

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.123: Effectiveness of the program on results at high-school after stay at Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.68^{***}	0.68^{***}	0.16^{***}	0.21^{***}	0.31^{***}	0.09^{***}	-0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.02)	(0.01)
Effect boarding	0.02	0.02	0.15^{***}	-0.02	-0.11^{***}	-0.03^{**}	0.00
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)	(0.00)
R^2	0.00	0.00	0.02	0.00	0.03	0.00	0.00
Adj. R^2	-0.00	-0.00	0.02	-0.00	0.03	0.00	-0.00
RMSE	0.45	0.46	0.48	0.39	0.34	0.20	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.124: Effectiveness of the program on results at high-school after stay at Sand

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	0.000	0.104***	0.027***	−0.046**	−0.021*	0.049**	0.013*	0.446
	(0.024)	(0.023)	(0.010)	(0.021)	(0.011)	(0.021)	(0.007)	(1.697)
Non-boarders	0.557***	0.355***	0.029***	0.284***	0.950***	0.223***	0.016***	98.261***
	(0.017)	(0.017)	(0.007)	(0.015)	(0.008)	(0.015)	(0.005)	(1.200)
Observations	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752
R^2	0.000	0.011	0.005	0.003	0.002	0.003	0.002	0.00004
Adjusted R^2	−0.001	0.011	0.004	0.002	0.001	0.003	0.001	−0.001
Residual Std. Error (df = 1750)	0.497	0.489	0.201	0.439	0.238	0.431	0.147	35.523
F Statistic (df = 1; 1750)	0.000	19.783***	8.156***	4.737**	3.256*	5.684**	3.175*	0.069

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.125: Balance of characteristics for matching at high-school

F.7 Effectiveness of the program: high-school students and propensity score matching

This part of the appendix contains tables related to section 4.3.
This section provides results from the regressions for high-school students.

F.7.1 Balance table

F.7.2 General results

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.76***	0.74***	0.39***	0.19***	0.16***	0.09***	0.02***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Effect boarding	−0.01	0.01	0.25***	−0.10***	−0.14***	−0.09***	−0.02***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)
R^2	0.00	0.00	0.06	0.02	0.06	0.04	0.01
Adj. R^2	−0.00	−0.00	0.06	0.02	0.06	0.04	0.01
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.43	0.44	0.48	0.35	0.27	0.21	0.11
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.126: General effectiveness of the program

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder	0.05***	0.14***	0.21***	0.38***	0.02***	0.03***	0.01***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.00)
Effect boarding	0.01	−0.01	−0.01	−0.05*	−0.02***	0.03***	0.01
	(0.01)	(0.02)	(0.02)	(0.03)	(0.01)	(0.01)	(0.01)
R^2	0.00	0.00	0.00	0.00	0.01	0.01	0.00
Adj. R^2	0.00	−0.00	−0.00	0.00	0.01	0.00	−0.00
Num. obs.	1435	1435	1435	1435	1435	1435	1435
RMSE	0.22	0.35	0.40	0.48	0.10	0.20	0.13
N Clusters	844	844	844	844	844	844	844

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.127: Effectiveness of the program on honors and presence of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder	0.01	0.04	−0.19***	0.03
	(0.04)	(0.04)	(0.05)	(0.05)
Effect boarding	−0.12**	0.08	−0.12*	−0.09
	(0.06)	(0.06)	(0.06)	(0.07)
R^2	0.00	0.00	0.00	0.00
Adj. R^2	0.00	0.00	0.00	0.00
Num. obs.	1068	1062	908	1053
RMSE	0.95	0.97	1.02	1.13
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.128: Effectiveness of the program on test scores of students

F.7.3 Results by gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.73***	0.72***	0.35***	0.21***	0.16***	0.09***	0.02***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
Non-boarder: female	0.05*	0.04	0.06**	−0.02	−0.01	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding (baseline = male)	0.00	0.01	0.24***	−0.09***	−0.14***	−0.08***	−0.02**
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Effect boarding (female != male?)	−0.02	−0.00	0.01	−0.01	−0.01	−0.01	−0.01
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.02)	(0.01)
R^2	0.00	0.00	0.07	0.02	0.06	0.04	0.01
Adj. R^2	0.00	−0.00	0.06	0.02	0.06	0.04	0.01
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.43	0.44	0.48	0.35	0.27	0.21	0.11
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.129: General effectiveness of the program given gender

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: male (baseline)	0.04***	0.14***	0.21***	0.39***	0.03***	0.04***	0.01*
	(0.01)	(0.02)	(0.02)	(0.03)	(0.01)	(0.01)	(0.01)
Non-boarder: female	0.01	0.01	0.01	−0.02	−0.01	−0.02*	0.01
	(0.02)	(0.03)	(0.03)	(0.04)	(0.01)	(0.01)	(0.01)
Effect boarding (baseline = male)	0.02	−0.05**	−0.02	−0.03	−0.03***	0.03	0.01
	(0.02)	(0.02)	(0.03)	(0.04)	(0.01)	(0.02)	(0.01)
Effect boarding (female != male?)	−0.01	0.08**	0.01	−0.02	0.01	0.00	−0.01
	(0.02)	(0.04)	(0.04)	(0.05)	(0.01)	(0.02)	(0.01)
R^2	0.00	0.01	0.00	0.00	0.01	0.01	0.00
Adj. R^2	−0.00	0.01	−0.00	0.00	0.01	0.01	−0.00
Num. obs.	1435	1435	1435	1435	1435	1435	1435
RMSE	0.22	0.34	0.41	0.48	0.10	0.20	0.13
N Clusters	844	844	844	844	844	844	844

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.130: Effectiveness of the program on honors and presence of students given gender

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: male (baseline)	−0.07	−0.08	−0.20***	0.05
	(0.07)	(0.06)	(0.07)	(0.07)
Non-boarder: female	0.14*	0.20**	0.03	−0.02
	(0.08)	(0.08)	(0.10)	(0.09)
Effect boarding (baseline = male)	−0.20**	−0.05	−0.16	−0.15
	(0.10)	(0.09)	(0.10)	(0.11)
Effect boarding (female != male?)	0.14	0.23*	0.07	0.10
	(0.12)	(0.12)	(0.13)	(0.14)
R^2	0.02	0.03	0.00	0.00
Adj. R^2	0.01	0.03	0.00	−0.00
Num. obs.	1068	1062	908	1053
RMSE	0.95	0.96	1.02	1.13
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.131: Effectiveness of the program on test scores of students by gender

F.7.4 Results by honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.10***	−0.10**	0.22***	−0.17***	−0.15***	−0.10***	−0.01
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.02)	(0.01)
Effect boarding: weak females	0.01	0.02	0.01	0.02	−0.00	−0.00	−0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.03)	(0.03)	(0.01)
Effect boarding: very weak males	0.30**	0.34**	0.01	0.35***	−0.02	−0.01	−0.02
	(0.14)	(0.14)	(0.11)	(0.10)	(0.08)	(0.04)	(0.02)
Effect boarding: very weak females	−0.24	−0.23	0.01	−0.09	−0.15	−0.03	−0.03
	(0.20)	(0.20)	(0.16)	(0.14)	(0.10)	(0.09)	(0.04)
Effect boarding: very good males	0.06	0.05	−0.20***	0.14***	0.11***	0.09***	−0.00
	(0.06)	(0.06)	(0.07)	(0.05)	(0.04)	(0.03)	(0.02)
Effect boarding: very good females	−0.00	−0.01	−0.01	−0.03	0.03	0.01	0.02
	(0.07)	(0.07)	(0.09)	(0.06)	(0.05)	(0.03)	(0.02)
R^2	0.13	0.15	0.28	0.09	0.10	0.07	0.02
Adj. R^2	0.12	0.15	0.28	0.08	0.10	0.06	0.02
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.43	0.34	0.27	0.21	0.11
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.132: Effectiveness of the program on graduation rates of students by honors at middle-school exam

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = weak males)	0.01	−0.05**	−0.05	−0.03	−0.01*	0.04	0.02
	(0.01)	(0.02)	(0.04)	(0.05)	(0.01)	(0.02)	(0.01)
Effect boarding: weak females	0.00	0.01	0.03	−0.05	0.01	0.02	−0.01
	(0.01)	(0.04)	(0.05)	(0.07)	(0.01)	(0.03)	(0.02)
Effect boarding: very weak males	−0.01	0.15	−0.03	0.05	−0.23***	0.04	−0.06
	(0.01)	(0.10)	(0.07)	(0.18)	(0.09)	(0.15)	(0.04)
Effect boarding: very weak females	−0.00	0.11	0.06	−0.07	0.08	0.06	−0.01
	(0.01)	(0.19)	(0.15)	(0.25)	(0.11)	(0.22)	(0.06)
Effect boarding: very good males	0.01	−0.10	0.09	−0.01	0.01*	−0.02	−0.02
	(0.06)	(0.07)	(0.08)	(0.08)	(0.01)	(0.03)	(0.01)
Effect boarding: very good females	−0.05	0.18*	−0.11	0.14	−0.01	−0.03	0.02
	(0.07)	(0.10)	(0.10)	(0.11)	(0.01)	(0.04)	(0.02)
R^2	0.08	0.08	0.02	0.04	0.14	0.04	0.01
Adj. R^2	0.07	0.07	0.01	0.03	0.13	0.03	0.00
Num. obs.	1435	1435	1435	1435	1435	1435	1435
RMSE	0.21	0.33	0.40	0.47	0.09	0.20	0.13
N Clusters	844	844	844	844	844	844	844

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.133: Effectiveness of the program on honors received at high-school given honors at middle-school exam

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = weak males)	-0.22^{**}	-0.02	-0.22^{*}	-0.08
	(0.10)	(0.10)	(0.12)	(0.12)
Effect boarding: weak females	0.20	0.24^{*}	0.14	-0.02
	(0.13)	(0.14)	(0.16)	(0.16)
Effect boarding: very weak males	2.88^{***}	1.05^{***}	1.69^{***}	1.38^{***}
	(0.33)	(0.37)	(0.27)	(0.27)
Effect boarding: very weak females	-2.67^{***}	-0.79	-2.17^{***}	-1.01^{**}
	(0.57)	(0.81)	(0.64)	(0.48)
Effect boarding: very good males	0.22	0.06	0.28	-0.08
	(0.19)	(0.18)	(0.23)	(0.23)
Effect boarding: very good females	-0.22	-0.07	-0.22	0.25
	(0.24)	(0.23)	(0.29)	(0.29)
R^2	0.23	0.20	0.07	0.09
Adj. R^2	0.22	0.19	0.06	0.08
Num. obs.	1068	1062	908	1053
RMSE	0.84	0.88	0.99	1.08
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.134: Effectiveness of the program on test scores of students by honors at middle-school exam

F.7.5 Results by socio-economic status

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.13**	−0.13**	0.04	−0.12**	−0.04	−0.03	0.00
	(0.06)	(0.06)	(0.07)	(0.05)	(0.03)	(0.03)	
Effect boarding: very privileged females	0.01	0.01	−0.01	0.03	−0.02	−0.01	−0.00
	(0.09)	(0.09)	(0.11)	(0.07)	(0.05)	(0.04)	
Effect boarding: privileged males	0.02	0.04	0.09	−0.06	0.01	−0.01	−0.00
	(0.11)	(0.12)	(0.13)	(0.10)	(0.06)	(0.05)	
Effect boarding: privileged females	0.03	0.01	−0.06	0.10	−0.04	0.01	0.00
	(0.15)	(0.15)	(0.17)	(0.12)	(0.07)	(0.06)	
Effect boarding: under-privileged males	0.13	0.14	0.24**	0.02	−0.12**	−0.04	−0.01
	(0.09)	(0.09)	(0.11)	(0.07)	(0.05)	(0.04)	(0.01)
Effect boarding: very good females	0.03	0.04	0.06	−0.05	0.03	−0.03	−0.01
	(0.12)	(0.13)	(0.14)	(0.10)	(0.07)	(0.06)	(0.02)
Effect boarding: very under-privileged males	0.21***	0.23***	0.32***	0.07	−0.17***	−0.09**	−0.03*
	(0.08)	(0.08)	(0.09)	(0.06)	(0.05)	(0.04)	(0.02)
Effect boarding: very under-privileged females	−0.07	−0.04	−0.00	−0.08	0.04	0.04	−0.02
	(0.12)	(0.12)	(0.13)	(0.09)	(0.06)	(0.05)	(0.02)
Effect boarding: likely under-privileged males	0.34**	0.34**	0.24	0.13	−0.02	−0.03	−0.00
	(0.17)	(0.17)	(0.17)	(0.12)	(0.07)	(0.07)	
Effect boarding: likely under-privileged females	−0.38*	−0.35*	−0.15	−0.21	0.02	0.01	−0.07
	(0.21)	(0.21)	(0.22)	(0.16)	(0.10)	(0.09)	(0.05)
R^2	0.02	0.02	0.11	0.03	0.09	0.05	0.03
Adj. R^2	0.01	0.01	0.10	0.02	0.08	0.04	0.02
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.43	0.43	0.47	0.35	0.27	0.21	0.11
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.135: Effectiveness of the program on graduation rates given SES of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = very privileged males)	-0.08^{*}	-0.10^{**}	0.07	-0.04	0.00	0.09^{**}	0.03
	(0.04)	(0.05)	(0.06)	(0.08)	(0.00)	(0.03)	(0.03)
Effect boarding: very privileged females	-0.04	0.33^{***}	-0.15	-0.03	-0.00	-0.04	-0.03
	(0.07)	(0.10)	(0.10)	(0.12)	(0.00)	(0.05)	(0.03)
Effect boarding: privileged males	0.07	0.11	-0.21^{*}	-0.04	-0.03	-0.00	0.03
	(0.06)	(0.09)	(0.11)	(0.13)	(0.03)	(0.05)	(0.05)
Effect boarding: privileged females	0.10	-0.40^{***}	0.27^{*}	0.01	0.03	0.03	-0.03
	(0.09)	(0.15)	(0.15)	(0.18)	(0.03)	(0.07)	(0.05)
Effect boarding: under-privileged males	0.11^{**}	0.00	-0.05	0.08	-0.02	-0.08	-0.05
	(0.06)	(0.07)	(0.09)	(0.11)	(0.02)	(0.05)	(0.03)
Effect boarding: very good females	0.02	-0.26^{**}	0.11	0.02	0.01	0.06	0.02
	(0.08)	(0.12)	(0.13)	(0.16)	(0.02)	(0.07)	(0.04)
Effect boarding: very under-privileged males	0.16^{***}	0.07	-0.13	-0.01	-0.04^{**}	-0.09^{*}	-0.03
	(0.05)	(0.06)	(0.09)	(0.10)	(0.02)	(0.05)	(0.03)
Effect boarding: very under-privileged females	-0.00	-0.24^{**}	0.18	0.01	0.01	0.05	0.05
	(0.08)	(0.11)	(0.12)	(0.15)	(0.02)	(0.07)	(0.04)
Effect boarding: likely under-privileged males	0.08^{*}	0.08	-0.12	-0.07	-0.22	-0.09^{**}	-0.03
	(0.04)	(0.18)	(0.14)	(0.22)	(0.14)	(0.03)	(0.03)
Effect boarding: likely under-privileged females	-0.00	-0.43^{*}	0.38^{**}	0.01	0.22	0.12	0.03
	(0.11)	(0.23)	(0.19)	(0.27)	(0.14)	(0.08)	(0.03)
R^2	0.03	0.04	0.01	0.01	0.05	0.02	0.02
Adj. R^2	0.01	0.03	-0.00	-0.00	0.03	0.01	0.01
Num. obs.	1435	1435	1435	1435	1435	1435	1435
RMSE	0.22	0.34	0.41	0.48	0.10	0.20	0.13
N Clusters	844	844	844	844	844	844	844

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.136: Effectiveness of the program on honors received at high-school given SES of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = very privileged males)	−0.45**	−0.16	−0.38*	−0.37
	(0.19)	(0.18)	(0.22)	(0.23)
Effect boarding: very privileged females	0.08	0.06	0.06	0.13
	(0.28)	(0.24)	(0.32)	(0.36)
Effect boarding: privileged males	−0.01	0.05	0.17	0.20
	(0.33)	(0.30)	(0.35)	(0.37)
Effect boarding: privileged females	0.38	0.27	−0.15	−0.00
	(0.43)	(0.40)	(0.50)	(0.54)
Effect boarding: under-privileged males	0.32	−0.04	0.00	0.13
	(0.25)	(0.25)	(0.28)	(0.30)
Effect boarding: very good females	0.04	0.37	0.32	0.14
	(0.34)	(0.34)	(0.40)	(0.44)
Effect boarding: very under-privileged males	0.49*	0.37	0.57**	0.42
	(0.26)	(0.23)	(0.28)	(0.30)
Effect boarding: very under-privileged females	−0.13	−0.01	−0.20	−0.19
	(0.34)	(0.31)	(0.39)	(0.43)
Effect boarding: likely under-privileged males	0.68	0.41	0.35	1.48**
	(0.85)	(1.18)	(1.29)	(0.61)
Effect boarding: likely under-privileged females	−0.43	−0.55	−0.81	−2.12**
	(1.06)	(1.27)	(1.37)	(0.85)
R^2	0.07	0.06	0.04	0.03
Adj. R^2	0.05	0.05	0.02	0.01
Num. obs.	1068	1062	908	1053
RMSE	0.93	0.95	1.01	1.13
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.137: Effectiveness of the program on test scores given SES of students

F.7.6 Results by nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.87***	0.87***	0.46***	0.29***	0.12***	0.06*	0.02
	(0.05)	(0.05)	(0.07)	(0.06)	(0.04)	(0.03)	(0.02)
Non-boarder: French	−0.03	−0.04	0.04	−0.07	−0.01	−0.01	−0.01
	(0.05)	(0.05)	(0.07)	(0.06)	(0.05)	(0.03)	(0.02)
Effect boarding (baseline = Non-French)	−0.09	−0.09	0.17*	−0.14*	−0.12***	−0.06*	−0.02
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.02)
Effect boarding (Non-French != French?)	0.01	0.01	−0.03	0.02	0.02	0.02	0.01
	(0.07)	(0.07)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.01
Adj. R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.49	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.138: Effectiveness of the program on graduation rates given nationality of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: Non-French (baseline)	0.04	0.15***	0.21***	0.36***	−0.00	0.04	−0.00
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Non-boarder: French	−0.00	−0.02	0.06	−0.00	0.00	−0.02	0.01**
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Effect boarding (baseline = Non-French)	0.02	0.04	−0.00	−0.03	0.00	0.03	−0.00
	(0.04)	(0.08)	(0.08)	(0.10)	(0.00)	(0.05)	(0.00)
Effect boarding (Non-French != French?)	0.00	−0.04	−0.07	0.02	−0.00	0.00	0.01**
	(0.04)	(0.08)	(0.09)	(0.10)	(0.00)	(0.05)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Adj. R^2	−0.00	−0.00	0.00	−0.00	−0.00	0.01	0.00
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.139: Effectiveness of the program on honors received at high-school given nationality of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: Non-French (baseline)	−0.23*	−0.47***	−0.12	−0.27
	(0.13)	(0.14)	(0.19)	(0.21)
Non-boarder: French	0.16	0.49***	−0.10	0.21
	(0.14)	(0.15)	(0.20)	(0.22)
Effect boarding (baseline = Non-French)	0.38**	0.76***	0.06	0.34
	(0.19)	(0.20)	(0.26)	(0.28)
Effect boarding (French != Non-French?)	−0.45**	−0.68***	−0.17	−0.35
	(0.19)	(0.21)	(0.27)	(0.29)
R^2	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.01	0.00	−0.00
Num. obs.	1068	1062	910	1054
RMSE	0.91	0.95	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.140: Effectiveness of the program on test scores given nationality of students

F.7.7 Results by schools

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.73***	0.70***	0.40***	0.15***	0.15***	0.11***	0.03***
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Effect boarding	−0.02	0.00	0.19***	−0.06**	−0.13***	−0.10***	−0.02**
	(0.04)	(0.04)	(0.04)	(0.02)	(0.02)	(0.02)	(0.01)
R^2	0.00	0.00	0.04	0.01	0.06	0.05	0.01
Adj. R^2	−0.00	−0.00	0.04	0.01	0.06	0.05	0.01
RMSE	0.45	0.46	0.49	0.32	0.27	0.23	0.12

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.141: Effectiveness of the program graduation rates at BSE de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.76***	0.74***	0.37***	0.22***	0.15***	0.07***	0.04***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding	−0.08*	−0.07	0.15***	−0.09***	−0.12***	−0.06***	−0.04***
	(0.04)	(0.04)	(0.05)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.01	0.02	0.01	0.05	0.02	0.02
Adj. R^2	0.01	0.00	0.02	0.01	0.04	0.02	0.02
RMSE	0.45	0.46	0.49	0.38	0.27	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.142: Effectiveness of the program graduation rates at BSE Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.79***	0.77***	0.39***	0.22***	0.17***	0.09***	0.01**
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Effect boarding	0.05*	0.06**	0.36***	−0.14***	−0.16***	−0.09***	−0.01**
	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
R^2	0.00	0.01	0.13	0.04	0.08	0.04	0.01
Adj. R^2	0.00	0.01	0.13	0.04	0.08	0.04	0.00
RMSE	0.39	0.39	0.46	0.35	0.27	0.21	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.143: Effectiveness of the program graduation rates at BSE Sand

By gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.72***	0.69***	0.38***	0.13***	0.18***	0.12***	0.04**
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)	(0.02)
Non-boarder: female	0.03	0.02	0.05	0.03	−0.06	−0.01	−0.03
	(0.05)	(0.05)	(0.06)	(0.04)	(0.04)	(0.04)	(0.02)
Effect boarding (baseline = male)	−0.04	−0.03	0.17***	−0.03	−0.16***	−0.11***	−0.03*
	(0.05)	(0.05)	(0.05)	(0.03)	(0.03)	(0.03)	(0.02)
Effect boarding (female != male?)	0.05	0.06	0.05	−0.05	0.05	0.02	0.02
	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.04)	(0.02)
R^2	0.00	0.00	0.04	0.01	0.06	0.05	0.01
Adj. R^2	−0.00	−0.00	0.04	0.00	0.06	0.04	0.01
RMSE	0.45	0.46	0.49	0.32	0.27	0.23	0.12

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.144: Effectiveness of the program graduation rates at BSE de Beauvoir given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.78***	0.77***	0.39***	0.23***	0.14***	0.06**	0.01
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.02)	(0.01)
Non-boarder: female	−0.04	−0.06	−0.04	−0.02	0.01	0.03	0.05**
	(0.06)	(0.06)	(0.07)	(0.06)	(0.05)	(0.03)	(0.02)
Effect boarding (baseline = male)	−0.06	−0.05	0.12*	−0.07	−0.10***	−0.04	−0.01
	(0.06)	(0.06)	(0.07)	(0.05)	(0.04)	(0.03)	(0.01)
Effect boarding (female != male?)	−0.04	−0.03	0.04	−0.04	−0.03	−0.04	−0.05**
	(0.09)	(0.09)	(0.09)	(0.07)	(0.05)	(0.04)	(0.02)
R^2	0.01	0.01	0.02	0.02	0.05	0.02	0.04
Adj. R^2	0.01	0.00	0.02	0.01	0.04	0.02	0.03
RMSE	0.45	0.46	0.49	0.38	0.27	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.145: Effectiveness of the program graduation rates at BSE Hugo given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.71***	0.71***	0.29***	0.27***	0.15***	0.09***	−0.00***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.00)
Non-boarder: female	0.13***	0.11**	0.16***	−0.08*	0.03	0.01	0.02**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.01)
Effect boarding (baseline = male)	0.10*	0.10*	0.42***	−0.18***	−0.13***	−0.08***	−0.00**
	(0.06)	(0.06)	(0.05)	(0.04)	(0.03)	(0.03)	(0.00)
Effect boarding (female != male?)	−0.09	−0.07	−0.09	0.07	−0.04	−0.01	−0.02**
	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.03)	(0.01)
R^2	0.02	0.02	0.15	0.05	0.08	0.04	0.01
Adj. R^2	0.01	0.01	0.14	0.04	0.08	0.04	0.01
RMSE	0.39	0.39	0.46	0.35	0.27	0.21	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.146: Effectiveness of the program graduation rates at BSE Sand given gender

By honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.09	−0.08	0.16***	−0.05	−0.19***	−0.12***	−0.03
	(0.06)	(0.07)	(0.06)	(0.05)	(0.04)	(0.04)	(0.02)
Effect boarding: weak females	0.08	0.09	0.09	−0.05	0.05	0.01	0.02
	(0.09)	(0.09)	(0.09)	(0.07)	(0.06)	(0.05)	(0.02)
Effect boarding: very weak males	0.09	0.21	0.17	0.05	−0.02	−0.09	−0.01
	(0.24)	(0.23)	(0.21)	(0.05)	(0.10)	(0.09)	(0.05)
Effect boarding: very weak females	−0.08	−0.02	−0.02	0.05	−0.04	0.00	−0.05
	(0.36)	(0.35)	(0.31)	(0.07)	(0.15)	(0.15)	(0.08)
Effect boarding: very good males	−0.04	−0.04	−0.19*	−0.01	0.16**	0.12***	0.00
	(0.10)	(0.10)	(0.12)	(0.07)	(0.07)	(0.04)	(0.04)
Effect boarding: very good females	0.03	0.02	0.06	0.00	−0.04	−0.03	0.01
	(0.13)	(0.14)	(0.16)	(0.10)	(0.08)	(0.06)	(0.04)
R^2	0.11	0.15	0.21	0.04	0.09	0.08	0.02
Adj. R^2	0.09	0.13	0.20	0.02	0.07	0.07	0.00
RMSE	0.43	0.43	0.45	0.32	0.27	0.22	0.12

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.147: Effectiveness of the program graduation rates at BSE de Beauvoir given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.12*	−0.10	0.21***	−0.21***	−0.10**	−0.06	−0.00
	(0.07)	(0.07)	(0.08)	(0.07)	(0.05)	(0.04)	
Effect boarding: weak females	0.03	0.04	0.08	0.02	−0.07	−0.06	−0.05**
	(0.10)	(0.10)	(0.10)	(0.09)	(0.07)	(0.05)	(0.02)
Effect boarding: very weak males	0.37*	0.35*	−0.11	0.51***	−0.05	0.06	−0.06
	(0.21)	(0.21)	(0.12)	(0.16)	(0.15)	(0.04)	(0.06)
Effect boarding: very weak females	−0.26	−0.22	−0.08	−0.20	0.06	0.08	−0.12
	(0.30)	(0.30)	(0.17)	(0.24)	(0.19)	(0.13)	(0.14)
Effect boarding: very good males	0.12*	0.10	−0.08	0.17**	0.01	0.02	−0.00
	(0.07)	(0.07)	(0.10)	(0.08)	(0.07)	(0.06)	
Effect boarding: very good females	−0.20	−0.20	−0.35**	0.04	0.12	0.10	0.01
	(0.13)	(0.14)	(0.17)	(0.12)	(0.09)	(0.07)	(0.04)
R^2	0.13	0.15	0.26	0.10	0.07	0.05	0.09
Adj. R^2	0.11	0.13	0.24	0.08	0.05	0.03	0.07
RMSE	0.43	0.43	0.43	0.37	0.27	0.20	0.13

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.148: Effectiveness of the program graduation rates at BSE Hugo given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.10	−0.10	0.32***	−0.29***	−0.14***	−0.10***	0.00
	(0.07)	(0.07)	(0.07)	(0.06)	(0.05)	(0.04)	(0.00)
Effect boarding: weak females	−0.04	−0.03	−0.15	0.14*	−0.02	0.02	−0.02*
	(0.09)	(0.09)	(0.10)	(0.08)	(0.06)	(0.05)	(0.01)
Effect boarding: very weak males	0.88***	0.88***	0.68***	0.29***	−0.09	0.03	0.00
	(0.10)	(0.10)	(0.07)	(0.06)	(0.09)	(0.06)	(0.00)
Effect boarding: very weak females	−0.27*	−0.19	0.15	−0.14*	−0.20	−0.19*	−0.00
	(0.14)	(0.14)	(0.10)	(0.08)	(0.13)	(0.10)	(0.03)
Effect boarding: very good males	0.16	0.16	−0.24*	0.26***	0.14***	0.10***	0.00
	(0.11)	(0.11)	(0.13)	(0.09)	(0.05)	(0.04)	(0.00)
Effect boarding: very good females	−0.06	−0.06	0.02	−0.11	0.02	−0.02	0.02*
	(0.13)	(0.13)	(0.15)	(0.11)	(0.06)	(0.05)	(0.01)
R^2	0.17	0.18	0.37	0.16	0.17	0.09	0.02
Adj. R^2	0.16	0.17	0.36	0.15	0.15	0.08	0.00
RMSE	0.36	0.36	0.40	0.33	0.26	0.20	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.149: Effectiveness of the program graduation rates at BSE Sand given honors at middle-school exam

By SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.19**	−0.19**	0.03	−0.13**	−0.08*	−0.06	0.00
	(0.07)	(0.07)	(0.09)	(0.06)	(0.05)	(0.04)	
Effect boarding: very privileged females	0.17	0.17	0.01	0.08	0.08*	0.06	−0.00
	(0.16)	(0.16)	(0.15)	(0.09)	(0.05)	(0.04)	
Effect boarding: privileged males	0.15	0.22	0.11	−0.02	0.13**	−0.01	−0.00
	(0.19)	(0.19)	(0.20)	(0.13)	(0.07)	(0.08)	
Effect boarding: privileged females	−0.25	−0.32	−0.13	0.01	−0.20**	0.01	0.00
	(0.27)	(0.28)	(0.28)	(0.16)	(0.09)	(0.08)	(0.00)
Effect boarding: under-privileged males	0.13	0.17	0.09	0.17*	−0.10	−0.06	−0.04
	(0.14)	(0.14)	(0.15)	(0.09)	(0.09)	(0.07)	(0.04)
Effect boarding: very good females	−0.12	−0.13	0.13	−0.24*	−0.01	−0.06	0.01
	(0.22)	(0.23)	(0.22)	(0.14)	(0.10)	(0.10)	(0.05)
Effect boarding: very under-privileged males	0.23**	0.24**	0.25**	0.14*	−0.16**	−0.09	−0.05
	(0.11)	(0.11)	(0.11)	(0.08)	(0.07)	(0.06)	(0.03)
Effect boarding: very under-privileged females	−0.14	−0.11	0.02	−0.14	0.00	−0.04	0.04
	(0.19)	(0.19)	(0.18)	(0.11)	(0.09)	(0.07)	(0.04)
Effect boarding: likely under-privileged males	0.35**	0.35**	0.14	0.13**	0.08*	0.06	−0.00
	(0.17)	(0.17)	(0.18)	(0.06)	(0.05)	(0.04)	
Effect boarding: likely under-privileged females	−0.50**	−0.50**	−0.17	−0.33*	−0.00	−0.06	0.00
	(0.25)	(0.25)	(0.31)	(0.18)	(0.09)	(0.04)	(0.00)
R^2	0.07	0.08	0.13	0.03	0.11	0.08	0.03
Adj. R^2	0.04	0.05	0.10	−0.00	0.08	0.05	0.00
RMSE	0.44	0.45	0.47	0.33	0.27	0.23	0.12

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.150: Effectiveness of the program graduation rates at BSE de Beauvoir given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.27**	−0.27**	−0.19	−0.06	−0.02	−0.01	−0.00
	(0.13)	(0.13)	(0.16)	(0.11)	(0.08)	(0.06)	
Effect boarding: very privileged females	−0.10	−0.10	0.14	−0.15	−0.09	−0.10	−0.00
	(0.19)	(0.19)	(0.21)	(0.16)	(0.11)	(0.09)	
Effect boarding: privileged males	−0.02	−0.02	0.07	0.08	−0.18	−0.06	−0.00
	(0.21)	(0.21)	(0.25)	(0.18)	(0.14)	(0.14)	
Effect boarding: privileged females	0.16	0.16	−0.17	0.22	0.10	0.04	0.00
	(0.29)	(0.29)	(0.35)	(0.24)	(0.18)	(0.17)	
Effect boarding: under-privileged males	0.18	0.18	0.43*	−0.18	−0.07	0.01	−0.00
	(0.18)	(0.18)	(0.23)	(0.16)	(0.11)	(0.06)	
Effect boarding: very good females	0.28	0.28	−0.07	0.25	0.10	0.08	−0.05
	(0.25)	(0.25)	(0.30)	(0.22)	(0.15)	(0.10)	(0.04)
Effect boarding: very under-privileged males	0.48***	0.50***	0.58***	0.05	−0.13	−0.08	−0.03
	(0.17)	(0.17)	(0.19)	(0.15)	(0.10)	(0.08)	(0.03)
Effect boarding: very under-privileged females	−0.19	−0.15	−0.23	0.03	0.06	0.08	−0.08
	(0.24)	(0.24)	(0.25)	(0.20)	(0.14)	(0.12)	(0.06)
Effect boarding: likely under-privileged males	0.47**	0.47**	0.19	0.26	0.02	0.01	0.00
	(0.22)	(0.22)	(0.34)	(0.27)	(0.08)	(0.06)	
Effect boarding: likely under-privileged females	−0.32	−0.32	−0.23	−0.05	−0.04	0.10	−0.12
	(0.38)	(0.38)	(0.46)	(0.30)	(0.16)	(0.09)	(0.12)
R^2	0.08	0.08	0.09	0.05	0.07	0.05	0.07
Adj. R^2	0.04	0.04	0.05	0.01	0.03	0.01	0.03
RMSE	0.44	0.45	0.48	0.38	0.28	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.151: Effectiveness of the program graduation rates at BSE Hugo given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	0.13	0.13	0.35***	−0.18**	−0.04	−0.04	−0.00
	(0.11)	(0.11)	(0.13)	(0.09)	(0.04)	(0.04)	(0.00)
Effect boarding: very privileged females	−0.11	−0.11	−0.22	0.15	−0.04	−0.00	0.00
	(0.14)	(0.14)	(0.18)	(0.12)	(0.06)	(0.05)	
Effect boarding: privileged males	−0.17	−0.17	−0.06	−0.19	0.08	0.04	0.00
	(0.19)	(0.19)	(0.21)	(0.19)	(0.06)	(0.04)	(0.00)
Effect boarding: privileged females	0.17	0.17	0.14	0.11	−0.07	−0.03	−0.00
	(0.24)	(0.24)	(0.27)	(0.21)	(0.09)	(0.06)	(0.00)
Effect boarding: under-privileged males	0.00	0.00	0.10	0.05	−0.15*	−0.06	0.00
	(0.15)	(0.15)	(0.17)	(0.12)	(0.08)	(0.06)	(0.00)
Effect boarding: very good females	0.02	0.05	0.16	−0.12	0.01	−0.09	−0.00
	(0.19)	(0.19)	(0.23)	(0.15)	(0.11)	(0.09)	
Effect boarding: very under-privileged males	−0.02	−0.02	0.13	0.02	−0.16**	−0.07	0.00
	(0.15)	(0.15)	(0.16)	(0.12)	(0.07)	(0.07)	(0.00)
Effect boarding: very under-privileged females	0.05	0.06	0.16	−0.12	0.01	0.04	−0.04*
	(0.18)	(0.18)	(0.21)	(0.15)	(0.10)	(0.08)	(0.02)
Effect boarding: likely under-privileged males	0.19	0.19	0.21	0.10	−0.13	−0.13	0.00
	(0.30)	(0.30)	(0.25)	(0.20)	(0.16)	(0.16)	(0.00)
Effect boarding: likely under-privileged females	−0.41	−0.35	−0.10	−0.32	0.08	0.04	−0.06
	(0.33)	(0.32)	(0.32)	(0.25)	(0.19)	(0.18)	(0.06)
R^2	0.03	0.03	0.19	0.07	0.12	0.08	0.04
Adj. R^2	0.00	0.00	0.17	0.04	0.09	0.05	0.01
RMSE	0.39	0.40	0.45	0.35	0.27	0.21	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^T \cdot \text{SES} + \beta_3^T \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^T \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^T \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.152: Effectiveness of the program graduation rates at BSE Sand given SES

By nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	1.00***	1.00	0.50**	0.25	0.25	0.00	0.00
	(0.00)		(0.25)	(0.22)	(0.22)		(0.00)
Non-boarder: French	−0.20***	−0.21***	−0.07	−0.02	−0.12	0.06***	0.01*
	(0.02)	(0.02)	(0.25)	(0.22)	(0.22)	(0.01)	(0.01)
Effect boarding (baseline = Non-French)	−0.50**	−0.50**	0.00	−0.25	−0.25	−0.00	−0.00
	(0.20)	(0.20)	(0.32)	(0.22)	(0.22)		(0.00)
Effect boarding (Non-French != French?)	0.42**	0.42**	0.17	0.11	0.13	−0.05***	−0.01
	(0.21)	(0.21)	(0.33)	(0.22)	(0.22)	(0.01)	(0.01)
R^2	0.02	0.01	0.03	0.04	0.05	0.02	0.00
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.02	−0.00
RMSE	0.43	0.43	0.49	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.153: Effectiveness of the program graduation rates at BSE de Beauvoir given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.92***	0.92***	0.31**	0.38***	0.23*	0.15	0.08
	(0.07)	(0.07)	(0.13)	(0.14)	(0.12)	(0.10)	(0.07)
Non-boarder: French	−0.16*	−0.17**	0.05	−0.13	−0.08	−0.07	−0.05
	(0.08)	(0.08)	(0.13)	(0.14)	(0.12)	(0.10)	(0.08)
Effect boarding (baseline = Non-French)	−0.26	−0.26	0.11	−0.13	−0.23*	−0.15	−0.08
	(0.16)	(0.16)	(0.19)	(0.18)	(0.12)	(0.10)	(0.07)
Effect boarding (Non-French != French?)	0.16	0.17	0.06	0.00	0.11	0.08	0.05
	(0.16)	(0.16)	(0.19)	(0.19)	(0.12)	(0.10)	(0.08)
R^2	0.02	0.02	0.03	0.03	0.05	0.03	0.02
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.03	0.01
RMSE	0.45	0.45	0.49	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.154: Effectiveness of the program graduation rates at BSE Hugo given nationality

	Dependent variable:							
	Female	Scholarship holder	Skipped a grade	Repeated a grade	Is French	Only one parent	No parents	Social position index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff boarder - non-boarder	0.000	0.115***	0.027***	−0.002	−0.023**	0.090***	0.016**	0.600
	(0.024)	(0.023)	(0.010)	(0.020)	(0.011)	(0.020)	(0.007)	(1.686)
Non-boarders	0.557***	0.344***	0.029***	0.241***	0.952***	0.182***	0.013***	98.107***
	(0.017)	(0.016)	(0.007)	(0.014)	(0.008)	(0.014)	(0.005)	(1.192)
Observations	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752
R^2	0.000	0.014	0.005	0.00001	0.002	0.012	0.003	0.0001
Adjusted R^2	−0.001	0.013	0.004	−0.001	0.002	0.011	0.003	−0.0005
Residual Std. Error (df = 1750)	0.497	0.487	0.201	0.427	0.236	0.416	0.142	35.291
F Statistic (df = 1; 1750)	0.000	24.547***	8.156***	0.013	4.094**	20.541***	5.570**	0.127

Note: *p<0.1; **p<0.05; ***p<0.01
sources: MENJ-DEPP, databases FAERE, 2008-2019

Table A.156: Balance of characteristics for matching at high-school

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.83***	0.83***	0.51***	0.26***	0.06	0.03	0.00
	(0.06)	(0.06)	(0.08)	(0.07)	(0.04)	(0.03)	(0.00)
Non-boarder: French	0.08	0.08	0.15*	−0.07	−0.00	−0.01	0.01*
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.01)
Effect boarding (baseline = Non-French)	0.01	0.01	0.19*	−0.12	−0.06	−0.03	−0.00
	(0.09)	(0.09)	(0.11)	(0.09)	(0.04)	(0.03)	(0.00)
Effect boarding (Non-French != French?)	−0.08	−0.08	−0.10	0.00	0.01	0.02	−0.01*
	(0.09)	(0.09)	(0.12)	(0.10)	(0.04)	(0.03)	(0.01)
R^2	0.01	0.01	0.02	0.03	0.02	0.01	0.01
Adj. R^2	0.01	0.01	0.01	0.03	0.01	0.00	0.00
RMSE	0.34	0.34	0.46	0.34	0.17	0.10	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.155: Effectiveness of the program graduation rates at BSE Sand given nationality

F.8 Effectiveness of the program: high-school students and propensity score matching

This part of the appendix contains tables related to section 4.3.

This section provides results from the regressions for high-school students.

F.8.1 Balance table

F.8.2 General results

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.81***	0.80***	0.49***	0.22***	0.09***	0.04***	0.01***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Effect boarding	−0.06***	−0.06***	0.15***	−0.13***	−0.08***	−0.04***	−0.01***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.00)
R^2	0.01	0.00	0.02	0.03	0.03	0.01	0.00
Adj. R^2	0.00	0.00	0.02	0.03	0.03	0.01	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.41	0.42	0.49	0.36	0.22	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.157: General effectiveness of the program

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder	0.04***	0.12***	0.26***	0.39***	0.00	0.03***	0.01***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	(0.00)
Effect boarding	0.02*	0.02	−0.06**	−0.05**	−0.00	0.02**	0.01*
	(0.01)	(0.02)	(0.02)	(0.02)	(0.00)	(0.01)	(0.01)
R^2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. R^2	0.00	0.00	0.00	0.00	−0.00	0.00	0.00
Num. obs.	1485	1485	1485	1485	1485	1485	1485
RMSE	0.21	0.33	0.42	0.48	0.03	0.21	0.12
N Clusters	845	845	845	845	845	845	845

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.158: Effectiveness of the program on honors and presence of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder	−0.06	0.01	−0.22***	−0.02
	(0.04)	(0.04)	(0.05)	(0.05)
Effect boarding	−0.05	0.11**	−0.09	−0.04
	(0.05)	(0.05)	(0.06)	(0.07)
R^2	0.00	0.00	0.00	0.00
Adj. R^2	−0.00	0.00	0.00	−0.00
Num. obs.	1068	1062	910	1053
RMSE	0.94	0.97	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.159: Effectiveness of the program on test scores of students

F.8.3 Results by gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.79***	0.79***	0.42***	0.27***	0.10***	0.04***	0.01**
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Non-boarder: female	0.03	0.03	0.12***	−0.07***	−0.01	0.01	−0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
Effect boarding (baseline = male)	−0.06**	−0.06**	0.17***	−0.15***	−0.08***	−0.03**	−0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
Effect boarding (female != male?)	−0.00	0.01	−0.04	0.04	0.00	−0.01	−0.00
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
R^2	0.01	0.01	0.03	0.04	0.03	0.01	0.00
Adj. R^2	0.01	0.00	0.03	0.03	0.03	0.01	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.41	0.42	0.49	0.36	0.22	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.160: General effectiveness of the program given gender

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: male (baseline)	0.03***	0.11***	0.25***	0.41***	0.00	0.05***	0.01
	(0.01)	(0.02)	(0.02)	(0.03)	(0.00)	(0.01)	(0.00)
Non-boarder: female	0.02*	0.01	0.01	−0.03	−0.00	−0.03**	0.01
	(0.01)	(0.02)	(0.03)	(0.04)	(0.00)	(0.01)	(0.01)
Effect boarding (baseline = male)	0.03**	−0.03	−0.06**	−0.04	−0.00	0.02	0.02*
	(0.01)	(0.02)	(0.03)	(0.04)	(0.00)	(0.02)	(0.01)
Effect boarding (female != male?)	−0.02	0.08**	0.01	−0.02	0.00	0.01	−0.01
	(0.02)	(0.03)	(0.04)	(0.05)	(0.00)	(0.02)	(0.01)
R^2	0.00	0.01	0.00	0.00	0.00	0.01	0.00
Adj. R^2	0.00	0.01	0.00	0.00	0.00	0.01	0.00
Num. obs.	1485	1485	1485	1485	1485	1485	1485
RMSE	0.21	0.33	0.42	0.48	0.03	0.21	0.12
N Clusters	845	845	845	845	845	845	845

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.161: Effectiveness of the program on honors and presence of students given gender

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: male (baseline)	−0.19***	−0.21***	−0.30***	−0.03
	(0.07)	(0.07)	(0.07)	(0.07)
Non-boarder: female	0.22***	0.37***	0.14	0.01
	(0.08)	(0.08)	(0.10)	(0.09)
Effect boarding (baseline = male)	−0.08	0.08	−0.07	−0.08
	(0.09)	(0.09)	(0.10)	(0.10)
Effect boarding (female != male?)	0.06	0.05	−0.04	0.06
	(0.11)	(0.11)	(0.13)	(0.14)
R^2	0.02	0.04	0.01	0.00
Adj. R^2	0.02	0.04	0.00	−0.00
Num. obs.	1068	1062	910	1053
RMSE	0.93	0.95	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.162: Effectiveness of the program on test scores of students by gender

F.8.4 Results by honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.08**	−0.08**	0.19***	−0.17***	−0.10***	−0.04**	−0.01
	(0.04)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding: weak females	−0.00	0.01	−0.03	0.03	0.01	−0.02	−0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding: very weak males	0.15	0.15	0.05	0.15	−0.04	0.04**	0.01
	(0.16)	(0.16)	(0.11)	(0.12)	(0.13)	(0.02)	(0.01)
Effect boarding: very weak females	−0.30	−0.29	0.04	−0.05	−0.28	−0.08	−0.08
	(0.25)	(0.24)	(0.16)	(0.19)	(0.19)	(0.13)	(0.08)
Effect boarding: very good males	0.05	0.05	−0.13**	0.08	0.11***	0.04**	0.01
	(0.06)	(0.06)	(0.06)	(0.05)	(0.02)	(0.02)	(0.01)
Effect boarding: very good females	0.01	0.00	−0.01	0.04	−0.03	0.02	0.00
	(0.07)	(0.07)	(0.08)	(0.06)	(0.03)	(0.02)	(0.01)
R^2	0.07	0.08	0.20	0.07	0.07	0.03	0.01
Adj. R^2	0.07	0.07	0.20	0.07	0.06	0.03	0.01
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.40	0.44	0.35	0.22	0.15	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.163: Effectiveness of the program on graduation rates of students by honors at middle-school exam

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = weak males)	0.02**	−0.01	−0.06	−0.06	0.00	0.02	0.03**
	(0.01)	(0.02)	(0.04)	(0.05)	(0.00)	(0.03)	(0.01)
Effect boarding: weak females	−0.02*	0.03	0.01	0.02	0.00	0.03	−0.02
	(0.01)	(0.03)	(0.05)	(0.06)	(0.00)	(0.03)	(0.02)
Effect boarding: very weak males	−0.02**	0.11	0.06	−0.19	−0.11	0.07	−0.14
	(0.01)	(0.10)	(0.04)	(0.21)	(0.11)	(0.16)	(0.11)
Effect boarding: very weak females	0.02*	0.12	0.00	0.05	0.11	0.02	0.13
	(0.01)	(0.18)	(0.17)	(0.31)	(0.11)	(0.20)	(0.11)
Effect boarding: very good males	0.02	−0.11	−0.02	0.12	0.00	−0.01	−0.03**
	(0.05)	(0.07)	(0.07)	(0.08)	(0.00)	(0.03)	(0.01)
Effect boarding: very good females	−0.00	0.16*	0.01	−0.12	−0.00	−0.04	0.03
	(0.06)	(0.09)	(0.10)	(0.10)	(0.00)	(0.04)	(0.02)
R^2	0.06	0.09	0.02	0.04	0.11	0.03	0.01
Adj. R^2	0.05	0.08	0.01	0.03	0.10	0.03	0.01
Num. obs.	1485	1485	1485	1485	1485	1485	1485
RMSE	0.21	0.32	0.42	0.47	0.02	0.21	0.12
N Clusters	845	845	845	845	845	845	845

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.164: Effectiveness of the program on honors received at high-school given honors at middle-school exam

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = weak males)	−0.09	0.14	−0.08	0.01
	(0.10)	(0.10)	(0.11)	(0.12)
Effect boarding: weak females	0.02	−0.04	−0.11	−0.14
	(0.13)	(0.13)	(0.16)	(0.16)
Effect boarding: very weak males	1.67*	0.56	1.00**	−0.33
	(0.94)	(0.37)	(0.47)	(1.07)
Effect boarding: very weak females	−1.97**	−1.08**	−1.96***	0.52
	(0.99)	(0.55)	(0.57)	(1.15)
Effect boarding: very good males	0.09	−0.09	0.08	−0.17
	(0.18)	(0.18)	(0.22)	(0.22)
Effect boarding: very good females	0.07	0.24	0.16	0.48*
	(0.22)	(0.22)	(0.28)	(0.28)
R^2	0.21	0.19	0.06	0.08
Adj. R^2	0.20	0.19	0.05	0.07
Num. obs.	1068	1062	910	1053
RMSE	0.84	0.88	1.00	1.08
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.165: Effectiveness of the program on test scores of students by honors at middle-school exam

F.8.5 Results by socio-economic status

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.12*	−0.12*	0.08	−0.18***	−0.03	−0.00	0.00
	(0.07)	(0.07)	(0.08)	(0.05)	(0.04)	(0.02)	
Effect boarding: very privileged females	0.04	0.04	−0.04	0.09	−0.00	0.00	−0.00
	(0.09)	(0.09)	(0.10)	(0.07)	(0.04)	(0.02)	
Effect boarding: privileged males	−0.04	−0.04	0.04	−0.09	0.02	−0.00	−0.00
	(0.10)	(0.10)	(0.12)	(0.10)	(0.05)	(0.03)	
Effect boarding: privileged females	0.01	0.01	0.05	0.02	−0.06	−0.03	0.00
	(0.14)	(0.14)	(0.16)	(0.13)	(0.07)	(0.04)	
Effect boarding: under-privileged males	0.05	0.05	0.10	0.03	−0.08*	−0.01	−0.04**
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.02)	(0.02)
Effect boarding: very good females	−0.02	−0.02	−0.03	−0.02	0.03	−0.04	0.03
	(0.12)	(0.12)	(0.14)	(0.10)	(0.06)	(0.03)	(0.02)
Effect boarding: very under-privileged males	0.15*	0.15*	0.16*	0.07	−0.08*	−0.06**	0.00
	(0.08)	(0.08)	(0.09)	(0.07)	(0.05)	(0.03)	(0.01)
Effect boarding: very under-privileged females	−0.11	−0.10	−0.01	−0.11	0.02	0.01	−0.03*
	(0.11)	(0.11)	(0.12)	(0.09)	(0.06)	(0.03)	(0.01)
Effect boarding: likely under-privileged males	0.14	0.14	−0.09	0.21	0.03	0.00	−0.00
	(0.20)	(0.20)	(0.20)	(0.14)	(0.04)	(0.02)	
Effect boarding: likely under-privileged females	−0.02	−0.02	0.12	−0.06	−0.08	−0.04	0.00
	(0.24)	(0.24)	(0.24)	(0.15)	(0.08)	(0.04)	
R^2	0.02	0.02	0.05	0.05	0.04	0.03	0.02
Adj. R^2	0.01	0.00	0.04	0.04	0.03	0.02	0.01
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.41	0.42	0.49	0.36	0.22	0.16	0.08
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramírez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.166: Effectiveness of the program on graduation rates given SES of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Effect boarding (baseline = very privileged males)	0.03	−0.02	−0.04	−0.06	−0.00	0.03	0.03
	(0.02)	(0.04)	(0.07)	(0.08)	(0.00)	(0.05)	(0.03)
Effect boarding: very privileged females	−0.07*	0.24**	−0.09	−0.01	0.00	−0.02	−0.03
	(0.04)	(0.09)	(0.11)	(0.12)	(0.00)	(0.07)	(0.03)
Effect boarding: privileged males	−0.01	0.10	−0.13	−0.08	0.00	0.05	0.03
	(0.03)	(0.08)	(0.11)	(0.12)	(0.00)	(0.06)	(0.05)
Effect boarding: privileged females	0.06	−0.21	0.17	−0.01	−0.00	0.01	−0.05
	(0.07)	(0.13)	(0.16)	(0.17)	(0.00)	(0.08)	(0.05)
Effect boarding: under-privileged males	−0.02	−0.04	−0.07	0.13	0.00	−0.01	−0.03
	(0.04)	(0.06)	(0.09)	(0.11)	(0.00)	(0.06)	(0.03)
Effect boarding: very good females	0.06	−0.17	0.17	−0.06	−0.00	0.03	0.02
	(0.07)	(0.11)	(0.14)	(0.15)	(0.00)	(0.08)	(0.03)
Effect boarding: very under-privileged males	0.03	−0.04	0.05	−0.01	−0.01	−0.04	−0.03
	(0.03)	(0.06)	(0.09)	(0.10)	(0.01)	(0.06)	(0.03)
Effect boarding: very under-privileged females	0.05	−0.14	0.04	−0.00	0.01	0.04	0.06*
	(0.06)	(0.11)	(0.13)	(0.15)	(0.01)	(0.08)	(0.04)
Effect boarding: likely under-privileged males	−0.03	0.22*	−0.06	−0.11	0.00	−0.03	−0.03
	(0.02)	(0.11)	(0.18)	(0.27)	(0.00)	(0.05)	(0.03)
Effect boarding: likely under-privileged females	0.05	−0.42**	0.16	0.27	−0.00	0.09	0.03
	(0.10)	(0.17)	(0.24)	(0.31)	(0.00)	(0.08)	(0.03)
R^2	0.01	0.03	0.01	0.01	0.01	0.02	0.02
Adj. R^2	0.00	0.02	−0.00	0.00	−0.01	0.00	0.01
Num. obs.	1485	1485	1485	1485	1485	1485	1485
RMSE	0.21	0.33	0.42	0.48	0.03	0.21	0.12
N Clusters	845	845	845	845	845	845	845

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.

The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.

Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.

sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.167: Effectiveness of the program on honors received at high-school given SES of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Effect boarding (baseline = very privileged males)	-0.43^{**}	-0.19	-0.32	-0.33
	(0.20)	(0.18)	(0.22)	(0.21)
Effect boarding: very privileged females	0.26	0.08	0.12	0.21
	(0.29)	(0.24)	(0.34)	(0.36)
Effect boarding: privileged males	0.27	0.38	0.30	0.18
	(0.38)	(0.31)	(0.38)	(0.37)
Effect boarding: privileged females	0.06	-0.08	-0.05	0.18
	(0.48)	(0.41)	(0.54)	(0.55)
Effect boarding: under-privileged males	0.45^{*}	0.23	0.05	0.28
	(0.25)	(0.26)	(0.28)	(0.29)
Effect boarding: very good females	-0.31	0.04	0.03	-0.19
	(0.34)	(0.34)	(0.41)	(0.44)
Effect boarding: very under-privileged males	0.61^{**}	0.52^{**}	0.65^{**}	0.44
	(0.27)	(0.25)	(0.29)	(0.29)
Effect boarding: very under-privileged females	-0.48	-0.21	-0.55	-0.36
	(0.35)	(0.32)	(0.41)	(0.44)
Effect boarding: likely under-privileged males	0.68	0.53	0.09	0.98
	(0.61)	(0.82)	(0.93)	(0.64)
Effect boarding: likely under-privileged females	-0.47	-0.77	-0.44	-1.46^{*}
	(0.88)	(0.96)	(1.05)	(0.88)
R^2	0.05	0.07	0.03	0.02
Adj. R^2	0.04	0.06	0.00	0.01
Num. obs.	1068	1062	910	1053
RMSE	0.92	0.95	1.03	1.11
N Clusters	536	536	463	536

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.168: Effectiveness of the program on test scores given SES of students

F.8.6 Results by nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.87^{***}	0.87^{***}	0.46^{***}	0.29^{***}	0.12^{***}	0.06^{*}	0.02
	(0.05)	(0.05)	(0.07)	(0.06)	(0.04)	(0.03)	(0.02)
Non-boarder: French	-0.03	-0.04	0.04	-0.07	-0.01	-0.01	-0.01
	(0.05)	(0.05)	(0.07)	(0.06)	(0.05)	(0.03)	(0.02)
Effect boarding (baseline = Non-French)	-0.09	-0.09	0.17^{*}	-0.14^{*}	-0.12^{***}	-0.06^{*}	-0.02
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.02)
Effect boarding (Non-French != French?)	0.01	0.01	-0.03	0.02	0.02	0.02	0.01
	(0.07)	(0.07)	(0.10)	(0.08)	(0.05)	(0.03)	(0.02)
R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.01
Adj. R^2	0.01	0.01	0.02	0.03	0.04	0.02	0.00
Num. obs.	1752	1752	1752	1752	1752	1752	1752
RMSE	0.40	0.41	0.49	0.36	0.24	0.17	0.09
N Clusters	876	876	876	876	876	876	876

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.169: Effectiveness of the program on graduation rates given nationality of students

	Highest honors	Honors	Good work	Admitted	Refused	Eliminated	Absent
Non-boarder: Non-French (baseline)	0.04	0.15***	0.21***	0.36***	−0.00	0.04	−0.00
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Non-boarder: French	−0.00	−0.02	0.06	−0.00	0.00	−0.02	0.01**
	(0.03)	(0.05)	(0.06)	(0.07)	(0.00)	(0.03)	(0.00)
Effect boarding (baseline = Non-French)	0.02	0.04	−0.00	−0.03	0.00	0.03	−0.00
	(0.04)	(0.08)	(0.08)	(0.10)	(0.00)	(0.05)	(0.00)
Effect boarding (Non-French != French?)	0.00	−0.04	−0.07	0.02	−0.00	0.00	0.01**
	(0.04)	(0.08)	(0.09)	(0.10)	(0.00)	(0.05)	(0.01)
R^2	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Adj. R^2	−0.00	−0.00	0.00	−0.00	−0.00	0.01	0.00
Num. obs.	1494	1494	1494	1494	1494	1494	1494
RMSE	0.22	0.34	0.42	0.48	0.03	0.20	0.12
N Clusters	839	839	839	839	839	839	839

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.170: Effectiveness of the program on honors received at high-school given nationality of students

	Average grade high-school	Grade in French	Grade in mathematics	Grade in history
Non-boarder: Non-French (baseline)	−0.23*	−0.47***	−0.12	−0.27
	(0.13)	(0.14)	(0.19)	(0.21)
Non-boarder: French	0.16	0.49***	−0.10	0.21
	(0.14)	(0.15)	(0.20)	(0.22)
Effect boarding (baseline = Non-French)	0.38**	0.76***	0.06	0.34
	(0.19)	(0.20)	(0.26)	(0.28)
Effect boarding (French != Non-French?)	−0.45**	−0.68***	−0.17	−0.35
	(0.19)	(0.21)	(0.27)	(0.29)
R^2	0.00	0.01	0.00	0.00
Adj. R^2	0.00	0.01	0.00	−0.00
Num. obs.	1068	1062	910	1054
RMSE	0.91	0.95	1.03	1.12
N Clusters	536	536	463	536

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.171: Effectiveness of the program on test scores given nationality of students

F.8.7 Results by schools

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.75***	0.75***	0.43***	0.22***	0.10***	0.04***	0.01
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.00)
Effect boarding	−0.04	−0.04	0.17***	−0.13***	−0.08***	−0.04***	−0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)
R^2	0.00	0.00	0.03	0.03	0.03	0.01	0.00
Adj. R^2	0.00	0.00	0.03	0.03	0.03	0.01	−0.00
RMSE	0.44	0.45	0.49	0.36	0.23	0.15	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.172: Effectiveness of the program graduation rates at BSE de Beauvoir

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.77***	0.75***	0.33***	0.28***	0.15***	0.07***	0.04***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Effect boarding	−0.10**	−0.08**	0.19***	−0.15***	−0.12***	−0.06***	−0.04***
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.02)	(0.01)
R^2	0.01	0.01	0.04	0.03	0.05	0.02	0.02
Adj. R^2	0.01	0.01	0.03	0.03	0.04	0.02	0.02
RMSE	0.45	0.45	0.49	0.40	0.27	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.173: Effectiveness of the program graduation rates at BSE Hugo

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder	0.89***	0.88***	0.64***	0.19***	0.06***	0.03***	0.00
	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)	(0.01)	(0.00)
Effect boarding	−0.05*	−0.05*	0.11***	−0.11***	−0.05***	−0.02**	0.00
	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)	(0.00)
R^2	0.01	0.00	0.01	0.03	0.02	0.01	
Adj. R^2	0.00	0.00	0.01	0.02	0.02	0.01	
RMSE	0.34	0.35	0.46	0.34	0.17	0.12	0.00

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta + \gamma \cdot \text{Boarder}_i + \epsilon_i$ where i indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school, β is an intercept (giving the average value of the outcome for control units), and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.174: Effectiveness of the program graduation rates at BSE Sand

By gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.75***	0.74***	0.39***	0.24***	0.11***	0.05***	0.01
	(0.03)	(0.04)	(0.04)	(0.03)	(0.03)	(0.02)	(0.01)
Non-boarder: female	0.00	0.01	0.08	−0.04	−0.03	−0.02	−0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding (baseline = male)	−0.08	−0.08	0.15***	−0.14***	−0.09***	−0.04**	−0.01
	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)	(0.01)
Effect boarding (female != male?)	0.08	0.07	0.03	0.02	0.02	0.02	0.01
	(0.07)	(0.07)	(0.06)	(0.06)	(0.04)	(0.03)	(0.01)
R^2	0.01	0.01	0.04	0.03	0.03	0.02	0.01
Adj. R^2	0.00	0.00	0.03	0.03	0.03	0.01	0.00
RMSE	0.44	0.45	0.49	0.36	0.23	0.15	0.07

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.175: Effectiveness of the program graduation rates at BSE de Beauvoir given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.80***	0.80***	0.31***	0.33***	0.15***	0.04**	0.03*
	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.02)	(0.02)
Non-boarder: female	−0.05	−0.08	0.03	−0.10	−0.01	0.05	0.02
	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.03)	(0.03)
Effect boarding (baseline = male)	−0.08	−0.08	0.20***	−0.17***	−0.11***	−0.02	−0.03*
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.02)	(0.02)
Effect boarding (female != male?)	−0.03	−0.01	−0.03	0.04	−0.01	−0.07*	−0.02
	(0.08)	(0.08)	(0.08)	(0.07)	(0.05)	(0.04)	(0.03)
R^2	0.02	0.02	0.04	0.04	0.05	0.03	0.02
Adj. R^2	0.01	0.01	0.03	0.04	0.04	0.02	0.02
RMSE	0.45	0.45	0.49	0.39	0.27	0.20	0.14

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.176: Effectiveness of the program graduation rates at BSE Hugo given gender

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: male (baseline)	0.83***	0.83***	0.54***	0.24***	0.05***	0.02*	0.00
	(0.03)	(0.03)	(0.04)	(0.04)	(0.02)	(0.01)	(0.00)
Non-boarder: female	0.10**	0.09**	0.17***	−0.08*	0.00	0.01	0.00
	(0.04)	(0.04)	(0.05)	(0.04)	(0.03)	(0.02)	(0.00)
Effect boarding (baseline = male)	−0.01	−0.01	0.17***	−0.15***	−0.04*	−0.01	0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.02)	(0.01)	(0.00)
Effect boarding (female != male?)	−0.06	−0.05	−0.10*	0.06	−0.01	−0.01	0.00
	(0.06)	(0.06)	(0.06)	(0.05)	(0.03)	(0.02)	(0.00)
R^2	0.02	0.01	0.03	0.03	0.02	0.01	
Adj. R^2	0.01	0.01	0.03	0.03	0.01	0.01	
RMSE	0.34	0.34	0.45	0.34	0.17	0.12	0.00

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \gamma \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students, ζ is the effect studying in a boarding school for female compared to male, β_0 is an intercept (giving the average value of the outcome for male control units), β_1 is the mean value of the outcome for female control units, and ϵ is the usual error term.
. Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.177: Effectiveness of the program graduation rates at BSE Sand given gender

By honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.09	−0.09	0.18***	−0.15***	−0.12***	−0.06**	−0.01
	(0.06)	(0.06)	(0.05)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: weak females	0.07	0.06	0.01	−0.00	0.06	0.03	0.01
	(0.08)	(0.08)	(0.08)	(0.07)	(0.05)	(0.03)	(0.01)
Effect boarding: very weak males	0.42**	0.42**	0.16	0.15***	0.12***	0.06**	0.01
	(0.20)	(0.20)	(0.20)	(0.05)	(0.03)	(0.02)	(0.01)
Effect boarding: very weak females	−0.76**	−0.75**	0.06	0.00	−0.81***	−0.28	−0.01
	(0.33)	(0.33)	(0.30)	(0.07)	(0.23)	(0.22)	(0.01)
Effect boarding: very good males	−0.03	−0.03	−0.21**	0.03	0.15***	0.06**	0.01
	(0.09)	(0.09)	(0.11)	(0.08)	(0.05)	(0.02)	(0.01)
Effect boarding: very good females	0.11	0.12	0.13	0.09	−0.09	−0.03	−0.01
	(0.14)	(0.14)	(0.14)	(0.10)	(0.05)	(0.03)	(0.01)
R^2	0.08	0.08	0.15	0.06	0.11	0.04	0.01
Adj. R^2	0.06	0.06	0.14	0.05	0.09	0.02	−0.01
RMSE	0.43	0.43	0.46	0.36	0.22	0.15	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.178: Effectiveness of the program graduation rates at BSE de Beauvoir given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.09	−0.09	0.24***	−0.22***	−0.11**	−0.02	−0.04*
	(0.07)	(0.07)	(0.08)	(0.07)	(0.04)	(0.03)	(0.02)
Effect boarding: weak females	−0.01	0.02	−0.01	0.05	−0.02	−0.08*	−0.01
	(0.09)	(0.09)	(0.10)	(0.08)	(0.06)	(0.04)	(0.03)
Effect boarding: very weak males	0.03	0.03	−0.14	0.30*	−0.12	0.02	0.04*
	(0.24)	(0.24)	(0.12)	(0.17)	(0.21)	(0.03)	(0.02)
Effect boarding: very weak females	−0.11	−0.09	0.01	−0.07	−0.03	0.04	−0.13
	(0.38)	(0.34)	(0.17)	(0.26)	(0.28)	(0.18)	(0.14)
Effect boarding: very good males	0.09	0.09	−0.24***	0.22***	0.11**	0.02	0.04*
	(0.07)	(0.07)	(0.08)	(0.07)	(0.04)	(0.03)	(0.02)
Effect boarding: very good females	−0.13	−0.16	−0.12	−0.06	0.02	0.08*	0.01
	(0.14)	(0.14)	(0.16)	(0.11)	(0.06)	(0.04)	(0.03)
R^2	0.06	0.07	0.20	0.08	0.08	0.05	0.04
Adj. R^2	0.04	0.05	0.18	0.06	0.05	0.02	0.01
RMSE	0.44	0.44	0.45	0.39	0.27	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.179: Effectiveness of the program graduation rates at BSE Hugo given honors at middle-school exam

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = weak males)	−0.05	−0.05	0.17**	−0.16***	−0.06	−0.02	0.00
	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.03)	(0.00)
Effect boarding: weak females	−0.09	−0.08	−0.10	0.05	−0.03	−0.02	0.00
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	(0.00)
Effect boarding: very weak males	0.05	0.05	0.83***	−0.84***	0.06	0.02	0.00
	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.03)	(0.00)
Effect boarding: very weak females	0.09	0.08	0.10	−0.05	0.03	0.02	0.00
	(0.09)	(0.09)	(0.10)	(0.07)	(0.05)	(0.03)	(0.00)
Effect boarding: very good males	0.07	0.07	−0.05	0.06	0.06	0.02	0.00
	(0.09)	(0.09)	(0.11)	(0.08)	(0.04)	(0.03)	(0.00)
Effect boarding: very good females	0.05	0.04	0.01	0.03	0.01	0.02	0.00
	(0.11)	(0.11)	(0.13)	(0.10)	(0.05)	(0.03)	(0.00)
R^2	0.07	0.07	0.19	0.11	0.05	0.02	
Adj. R^2	0.06	0.06	0.18	0.09	0.03	0.01	
RMSE	0.33	0.34	0.42	0.32	0.17	0.12	0.00

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{Level of honors at MS} + \beta_3^\top \cdot \text{Level of honors at MS} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{Level of honors at MS} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{Level of honors at MS} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students who barely passed middle-school exam, ζ is the effect of studying in a boarding school for female relative to male who barely passed middle-school exam, ξ is a vector containing the effect of boarding for male students who received other levels of honors (either who failed the exam or who succeeded it very well), ϕ has the same interpretation as ξ but for women relative to men, β_0 is an intercept (giving the average value of the outcome for male control units who barely passed middle-school exam), β_1 is the mean value of the outcome for female control units who barely passed middle-school exam, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.180: Effectiveness of the program graduation rates at BSE Sand given honors at middle-school exam

By SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.05	−0.05	0.22*	−0.16**	−0.10*	−0.03	0.00
	(0.10)	(0.10)	(0.12)	(0.07)	(0.06)	(0.03)	
Effect boarding: very privileged females	0.00	0.00	−0.13	0.04	0.10*	0.03	−0.00
	(0.16)	(0.16)	(0.17)	(0.11)	(0.06)	(0.03)	
Effect boarding: privileged males	−0.02	−0.02	−0.09	−0.08	0.15**	0.03	−0.00
	(0.18)	(0.18)	(0.20)	(0.15)	(0.07)	(0.03)	
Effect boarding: privileged females	−0.13	−0.13	0.16	−0.03	−0.27**	−0.09	0.00
	(0.26)	(0.26)	(0.28)	(0.20)	(0.11)	(0.07)	
Effect boarding: under-privileged males	−0.09	−0.09	−0.22	0.09	0.04	0.03	−0.03
	(0.15)	(0.15)	(0.17)	(0.11)	(0.07)	(0.03)	(0.03)
Effect boarding: very good females	0.11	0.09	0.35	−0.14	−0.12	−0.06	0.03
	(0.22)	(0.22)	(0.23)	(0.16)	(0.08)	(0.06)	(0.03)
Effect boarding: very under-privileged males	0.01	0.01	0.01	0.03	−0.03	−0.05	0.00
	(0.12)	(0.12)	(0.14)	(0.09)	(0.07)	(0.05)	(0.02)
Effect boarding: very under-privileged females	0.07	0.08	0.11	0.02	−0.05	0.02	−0.00
	(0.19)	(0.19)	(0.20)	(0.14)	(0.09)	(0.05)	(0.02)
Effect boarding: likely under-privileged males	−0.12	−0.12	−0.38*	0.16**	0.10*	0.03	−0.00
	(0.22)	(0.22)	(0.22)	(0.07)	(0.06)	(0.03)	
Effect boarding: likely under-privileged females	0.57*	0.57*	0.54*	0.05	−0.02	−0.03	0.00
	(0.33)	(0.33)	(0.32)	(0.14)	(0.10)	(0.03)	
R^2	0.04	0.05	0.08	0.05	0.06	0.04	0.01
Adj. R^2	0.01	0.02	0.05	0.02	0.03	0.01	−0.02
RMSE	0.44	0.44	0.49	0.36	0.23	0.15	0.07

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.181: Effectiveness of the program graduation rates at BSE de Beauvoir given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.24*	−0.24*	−0.07	−0.29**	0.11*	0.04	0.00
	(0.15)	(0.15)	(0.15)	(0.13)	(0.06)	(0.04)	(0.00)
Effect boarding: very privileged females	0.03	0.03	0.17	0.03	−0.16**	−0.04	0.00
	(0.20)	(0.20)	(0.21)	(0.19)	(0.08)	(0.04)	(0.00)
Effect boarding: privileged males	0.02	0.02	0.09	0.17	−0.24**	−0.03	0.00
	(0.20)	(0.20)	(0.24)	(0.22)	(0.11)	(0.11)	(0.00)
Effect boarding: privileged females	0.06	0.06	−0.19	0.03	0.22	0.03	0.00
	(0.30)	(0.30)	(0.32)	(0.29)	(0.14)	(0.11)	(0.00)
Effect boarding: under-privileged males	0.19	0.19	0.44**	0.05	−0.31***	−0.04	−0.09*
	(0.17)	(0.17)	(0.20)	(0.17)	(0.09)	(0.04)	(0.05)
Effect boarding: very good females	−0.05	−0.05	−0.38	0.08	0.25*	−0.03	0.06
	(0.24)	(0.24)	(0.27)	(0.23)	(0.13)	(0.07)	(0.05)
Effect boarding: very under-privileged males	0.36*	0.36*	0.47**	0.18	−0.30***	−0.15**	−0.00
	(0.18)	(0.18)	(0.19)	(0.17)	(0.10)	(0.07)	(0.00)
Effect boarding: very under-privileged females	−0.18	−0.12	−0.27	−0.04	0.18	0.00	−0.10**
	(0.25)	(0.25)	(0.26)	(0.23)	(0.12)	(0.09)	(0.05)
Effect boarding: likely under-privileged males	0.24*	0.24*	−0.33	0.69***	−0.11*	−0.04	0.00
	(0.15)	(0.15)	(0.27)	(0.26)	(0.06)	(0.04)	(0.00)
Effect boarding: likely under-privileged females	−0.41	−0.41	0.01	−0.43	−0.00	−0.13	−0.00
	(0.32)	(0.32)	(0.40)	(0.29)	(0.18)	(0.16)	(0.00)
R^2	0.07	0.07	0.09	0.07	0.08	0.07	0.07
Adj. R^2	0.03	0.03	0.05	0.03	0.04	0.03	0.03
RMSE	0.44	0.45	0.48	0.40	0.27	0.20	0.14

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.182: Effectiveness of the program graduation rates at BSE Hugo given SES

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Effect boarding (baseline = very privileged males)	−0.06	−0.06	0.15	−0.14	−0.07	−0.00	0.00
	(0.10)	(0.10)	(0.13)	(0.08)	(0.05)		(0.00)
Effect boarding: very privileged females	0.08	0.08	−0.14	0.18*	0.04	0.00	0.00
	(0.12)	(0.12)	(0.15)	(0.10)	(0.06)		(0.00)
Effect boarding: privileged males	−0.17	−0.17	0.02	−0.30*	0.11*	0.00	0.00
	(0.16)	(0.16)	(0.20)	(0.17)	(0.06)		(0.00)
Effect boarding: privileged females	0.09	0.09	0.13	0.07	−0.12	−0.04	0.00
	(0.19)	(0.19)	(0.25)	(0.20)	(0.08)	(0.04)	(0.00)
Effect boarding: under-privileged males	0.03	0.03	0.03	−0.01	0.01	−0.03	0.00
	(0.13)	(0.13)	(0.16)	(0.11)	(0.06)	(0.03)	(0.00)
Effect boarding: very good females	−0.10	−0.09	−0.03	−0.03	−0.03	−0.02	0.00
	(0.16)	(0.16)	(0.20)	(0.13)	(0.08)	(0.04)	(0.00)
Effect boarding: very under-privileged males	0.16	0.16	0.05	0.07	0.04	−0.01	0.00
	(0.13)	(0.13)	(0.15)	(0.11)	(0.06)	(0.04)	(0.00)
Effect boarding: very under-privileged females	−0.29*	−0.29*	0.05	−0.29**	−0.05	−0.01	0.00
	(0.16)	(0.16)	(0.18)	(0.13)	(0.08)	(0.04)	(0.00)
Effect boarding: likely under-privileged males	0.13	0.13	0.08	−0.02	0.07	0.00	0.00
	(0.28)	(0.28)	(0.31)	(0.25)	(0.05)		(0.00)
Effect boarding: likely under-privileged females	−0.13	−0.13	0.01	0.04	−0.18	−0.00	0.00
	(0.33)	(0.33)	(0.36)	(0.26)	(0.11)		(0.00)
R^2	0.04	0.04	0.06	0.09	0.03	0.02	
Adj. R^2	0.01	0.01	0.03	0.06	0.00	−0.00	
RMSE	0.34	0.34	0.45	0.33	0.18	0.12	0.00

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from regressions of the outcome (given as a dependent variable in each column) on variables indicated in section 4.1. As a reminder, this regression is $Y_i = \beta_0 + \beta_1 \cdot \text{Female} + \beta_2^\top \cdot \text{SES} + \beta_3^\top \cdot \text{SES} \cdot \text{Female} + \gamma \cdot \text{Boarder} + \xi^\top \cdot \text{SES} \cdot \text{Boarder} + \zeta \cdot \text{Female} \cdot \text{Boarder} + \phi^\top \cdot \text{SES} \cdot \text{Female} \cdot \text{Boarder} + \epsilon_i$ where i again indexes individuals, Y is the outcome of interest, γ is the effect of studying in a boarding school for male students from the most privileged SES , ζ is the effect of studying in a boarding school for female from the most privileged SES compared to male, ξ is a vector containing the effect of boarding for male students from other SES, ϕ has the same interpretation as ξ but for women compared to men, β_0 is an intercept (giving the average value of the outcome for male control units from the most privileged SES), β_1 is the mean value of the outcome for female control units from the most privileged SES, β_2 gives effects similar to ξ but for male control units, β_3 is again similar to ϕ but for female control units, and ϵ is the usual error term.
Rows indicate the coefficients for covariates of interest. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.183: Effectiveness of the program graduation rates at BSE Sand given SES

By nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	1.00***	1.00	0.50**	0.25	0.25	0.00	0.00
	(0.00)		(0.25)	(0.22)	(0.22)		(0.00)
Non-boarder: French	−0.20***	−0.21***	−0.07	−0.02	−0.12	0.06***	0.01*
	(0.02)	(0.02)	(0.25)	(0.22)	(0.22)	(0.01)	(0.01)
Effect boarding (baseline = Non-French)	−0.50**	−0.50**	0.00	−0.25	−0.25	−0.00	−0.00
	(0.20)	(0.20)	(0.32)	(0.22)	(0.22)		(0.00)
Effect boarding (Non-French != French?)	0.42**	0.42**	0.17	0.11	0.13	−0.05***	−0.01
	(0.21)	(0.21)	(0.33)	(0.22)	(0.22)	(0.01)	(0.01)
R^2	0.02	0.01	0.03	0.04	0.05	0.02	0.00
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.02	−0.00
RMSE	0.43	0.43	0.49	0.36	0.26	0.18	0.08

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.184: Effectiveness of the program graduation rates at BSE de Beauvoir given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.92***	0.92***	0.31**	0.38***	0.23*	0.15	0.08
	(0.07)	(0.07)	(0.13)	(0.14)	(0.12)	(0.10)	(0.07)
Non-boarder: French	−0.16*	−0.17**	0.05	−0.13	−0.08	−0.07	−0.05
	(0.08)	(0.08)	(0.13)	(0.14)	(0.12)	(0.10)	(0.08)
Effect boarding (baseline = Non-French)	−0.26	−0.26	0.11	−0.13	−0.23*	−0.15	−0.08
	(0.16)	(0.16)	(0.19)	(0.18)	(0.12)	(0.10)	(0.07)
Effect boarding (Non-French != French?)	0.16	0.17	0.06	0.00	0.11	0.08	0.05
	(0.16)	(0.16)	(0.19)	(0.19)	(0.12)	(0.10)	(0.08)
R^2	0.02	0.02	0.03	0.03	0.05	0.03	0.02
Adj. R^2	0.01	0.01	0.02	0.03	0.05	0.03	0.01
RMSE	0.45	0.45	0.49	0.39	0.28	0.22	0.11

Significance levels are indicated by stars: $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERE, 2008-2019.

Table A.185: Effectiveness of the program graduation rates at BSE Hugo given nationality

	Has high-school diploma	Has BAC	General curriculum	Technological curriculum	Vocational curriculum	Short vocational curriculum	Very short vocational curriculum
Non-boarder: Non-French (baseline)	0.83***	0.83***	0.51***	0.26***	0.06	0.03	0.00
	(0.06)	(0.06)	(0.08)	(0.07)	(0.04)	(0.03)	(0.00)
Non-boarder: French	0.08	0.08	0.15*	−0.07	−0.00	−0.01	0.01*
	(0.07)	(0.07)	(0.09)	(0.08)	(0.04)	(0.03)	(0.01)
Effect boarding (baseline = Non-French)	0.01	0.01	0.19*	−0.12	−0.06	−0.03	−0.00
	(0.09)	(0.09)	(0.11)	(0.09)	(0.04)	(0.03)	(0.00)
Effect boarding (Non-French != French?)	−0.08	−0.08	−0.10	0.00	0.01	0.02	−0.01*
	(0.09)	(0.09)	(0.12)	(0.10)	(0.04)	(0.03)	(0.01)
R^2	0.01	0.01	0.02	0.03	0.02	0.01	0.01
Adj. R^2	0.01	0.01	0.01	0.03	0.01	0.00	0.00
RMSE	0.34	0.34	0.46	0.34	0.17	0.10	0.07

Significance levels are indicated by stars: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.
The table reports coefficients from a regression of the outcome (given as a dependent variable in each column) on dummy variables indicating i) whether the student is a boarder or not, ii) whether the student is French or not, and iii) whether the student is a foreign boarder. Rows indicate the coefficients for each covariate. Standard errors are clustered at the pair level, as recommended by de Chaisemartin and Ramirez-Cuellar (2022), and are given between parentheses under the reported coefficients.
sources: MENJ-DEPP, databases FAERÉ, 2008-2019.

Table A.186: Effectiveness of the program graduation rates at BSE Sand given nationality

Titre : Les internats d'excellence, d'excellents internats ?

Mots clés : Internats d'excellence, appariement statistique, économie de l'éducation, mémoire

Résumé : Les internats d'excellence, mis en place à la suite de l'impulsion initiée par le Plan Espoir Banlieue en 2009, sont aujourd'hui en phase de généralisation, avec pour objectif de réduire les écarts de réussite entre élèves, et tout particulièrement de proposer à des élèves jugés méritants, mais ne disposant pas d'un contexte familial propice au travail, un cadre d'étude catalyseur d'une performance et d'un bien-être scolaire accru. J'évalue cette politique publique à travers l'étude des internats d'excellence de plein exercice. Les résultats de cette étude masquent une grande hétérogènéité. Tout d'abord, entre collégiens et lycéens. Les premiers bénéficient de leur scolarité en internat, tant dans leur réussite à l'examen du brevet des collèges, et notamment sur leurs notes en français et en historie-géographie-EMC, que dans leur orientation en filière générale au lycée et leur obtention du baccalauréat général. Les effets sur les lycéens sont plus ambigus: les internats leur permettent d'obtenir bien plus souvent le baccalauréat général, mais l'effet général sur l'obtention d'un quelconque diplôme est bien négatif, ce qui peut notamment être le signe d'une orientation mal cadrée. Néanmoins, ces effets négatifs sont concentrés sur le sous-échantillon des élèves qui ne restent qu'une unique année en internat, les élèves restant au moins deux bénéficiant largement de la politique publique. Par ailleurs, les élèves quittant les internats se différencient socio-économiquement des élèves y restant, ce qui pourrait permettre d'affiner le recrutement des élèves pour l'avenir.

Title: The merits of boarding schools

Keywords: Boarding schools of excellence, statistical matching, education economics, master thesis

Abstract: Boarding schools of excellence are one of the tools the French Ministry of education promoted over the last decades to reduce the achievement gap between socially privileged and underprivileged students. I evaluate the policy on the subset of 3 schools in which there are only boarders of excellence, and no half-board nor day students. Overall, I find consequent heterogeneity in the effects of these schools. They have large, positive, and significant effects on the grades (+11% of a standard deviation at middle-school national exam) and graduation propensity (+8% graduation from general track when they reach high-school) of middle-school students, while their effect is ambiguous at first-hand for high-school students (+14% graduation from general track, but -8% graduation overall). However, when one looks only at those students who decide to remain at least two years in the boarding schools, effects are always positive. These effects are not equally split between schools, there is indeed large variation in the efficiency of the program across boarding schools of excellence. Moreover, a large fraction of students leaves during the first year, and these students differ socio-economically from the students who remain (the latter are more likely to be male and to be academically weaker).

Sciences Po Paris

27, rue Saint-Guillaume / 75007 Paris, France