Universidad de los Andes | HUMAN DEVELOPMENT LAB

WORKING PAPER N°2024008

ELITE UNIVERSITIES AND THE INTERGENERATIONAL TRANSMISSION OF HUMAN AND SOCIAL CAPITAL

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Published by
Human Development Lab.
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Last update: June 15, 2023.

This working paper was produced as part of the Development in Higher Education Initiative of the Human Development Lab and was first published on June 15, 2023. The Human Development Lab is funded by Universidad de los Andes, Chile.

Elite Universities and the Intergenerational Transmission of Human and Social Capital†

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June 15, 2023

Latest Version

Abstract

Do elite colleges help talented students from modest backgrounds join the social elite, or help incumbent elites retain their positions? We combine five decades of data on parents and children in Chile with a regression discontinuity design to show that, in the long run, elite colleges in fact do both. When lower-status individuals gain admission to elite college degree programs, they transform their children's social environment. Children become 21% more likely to attend high-status private schools and 8% more likely to attend an elite college. They live near and are more likely to befriend high-status peers. In contrast, parent elite admission does not improve children's academic performance in high school or on college admissions exams. Parents' social and marriage-market exposure to high-status peers, rather than high-achieving peers, are key mediators of effects for children. Simulations combining descriptive and quasi-experimental results highlight how elite colleges simultaneously tighten the link between social capital and human capital and increase the persistence of elite social capital across generations. Plausible shifts in admission policies can produce substantial movement along this mobility-meritocracy frontier.

JEL Codes: I24, D64, J62

Keywords: Elite universities, intergenerational mobility, human capital, social capital.

† We thank David Autor, Raj Chetty, John Friedman, Peter Ganong, Stephen Machin, Steve Pischke, Hannes Spinnewijn, Christian Wolf, and numerous seminar participants for helpful comments. For granting us access to the administrative data we use in this project, we thank the Chilean Ministry of Education and DEMRE. Supplemental materials are available in the Online Appendix.

1 Introduction

Do elite universities integrate or reproduce the elite? This question is fundamental to the academic and popular debate over the social role of elite higher education, but the evidence is ambiguous. On the one hand, students from low- and middle-income families who enroll in elite colleges go on to earn more than similar students who enroll in less selective colleges. On the other hand, most students at elite colleges come from high-income families (Chetty et al., 2020), and within elite universities, students from the highest-status families are much more likely to go on to top incomes and top jobs (Zimmerman, 2019; Michelman et al., 2022).

A central challenge in adjudicating this debate is that it is multi-generational and multi-dimensional. Both academic and social preparation are important mediators of access to and success within elite universities (Arcidiacono and Lovenheim, 2016; Rivera, 2016; Jack, 2019). Further, elite education may shape the way both human and social capital evolve across generations. Quantifying these effects is difficult because, in addition to the standard challenges associated with causal inference, it requires measuring outcomes across multiple generations.

This paper combines five decades of data on educational outcomes for parents and children in Chile with a regression discontinuity design to study how elite colleges shape the transmission of social and human capital across generations. We find that when lower-status individuals gain admission to elite college degree programs they transform their children's social environment. Children become more likely to attend high-status private schools, to live near and to befriend high-status peers, and to attend an elite college themselves. In contrast, parents' elite admission does not improve children's academic performance in high school or on college admissions exams. Parents' social and marriage-market exposure to high-status peers, rather than high-achieving peers, are key mediators of effects for children. To place our quasi-experimental results in broader context, we combine them with descriptive evidence on intergenerational human and social capital mobility and conduct a series of policy simulations. Our findings show that elite colleges simultaneously tighten the link between social capital and human capital and increase the persistence of elite social capital across generations, and that plausible shifts in admission policies can produce substantial movement along this mobility-meritocracy frontier.

Chile is perhaps the only setting in which it is feasible to conduct this type of analysis at present. Three features of Chilean institutions are critical. The first feature is the availability of administrative educational records spanning more than five decades and containing family identifiers that allow us to link parents with their children.

The second feature is that Chilean universities have used an exam-based centralized admission system since the late 1960s. The centralized admission system generates sharp admission cutoffs in all oversubscribed college-by-major combinations (henceforth, "programs"). We exploit discontinuities in admissions outcomes generated by the cutoff rules to estimate the causal effects of admission to elite degree programs using a regression discontinuity design. This approach compares outcomes for children whose parents were just above the cutoff to those whose parents were just below, isolating the effect of elite admission from the effects of other potential confounders that could influence children's trajectories.

The third feature is the presence of well-studied universities and exclusive private schools that allow for clear definitions of elite college programs and proxies for social capital. On the university side, we identify eight elite degree programs at the top two Chilean universities. These programs, focused on either business or medicine, are among the most selective programs at the national level. They are associated with the highest levels of earnings, and according to Zimmerman (2019), their students account for roughly 40% of top 0.1% incomes and corporate leadership positions despite making up roughly 2% of college-eligible high school graduates.

On the high school side, we identify a set of exclusive private K-12 schools that serve as our measures of elite social capital. These schools, which have high tuition fees and admission processes that advantage the children of alumni, play a central role in descriptive accounts of the Chilean social and economic elite. One way to think of them is as the Chilean equivalents of schools like Eton College in the UK or Phillips Exeter in the US. They send disproportionate shares of their graduates to elite college programs, and, conditional on enrolling in an elite program, these students are much more likely than others to attain top incomes and corporate roles (Zimmerman, 2019). Social capital is a notoriously challenging concept to pin down (Dasgupta and Serageldin, 1999; Guiso et al., 2011). However, our conception of elite private schools as loci of social capital formation lies at the intersection of several leading definitions, including Coleman (1988)'s description of social capital as "a stock of productive matter ... [that] is part of a community, [or] a network" and Bourdieu (1986)'s definition of the term as resources linked to membership of a group. Both Coleman and Bourdieu (1998) take exclusive educational institutions as leading examples of sites of the production of social capital.

We begin our empirical analysis by establishing three facts about the way that social capital mediates the evolution of human capital across generations, and the extent to which the joint evolution of social and human capital depends on elite university attendance. First, we show that the relationship between parent and child test scores is approximately linear in rank, with the intercept and slope of the rank-rank relationship depending on social capital. At the bottom of the parent score distribution, children whose mothers attended an elite private K-12 school score 17 percentiles higher on average than children whose mothers attended a subsidized school. The children of the lowest-scoring elite school mothers perform similarly to children of subsidized-school mothers with scores near the median. This gap closes as mothers' scores rise, falling to 7.1 percentiles for top-scoring mothers. Social capital also predicts outcomes in higher education: children whose mothers attended elite private schools are more likely to enroll in elite college programs.

Second, we show that social capital itself is both highly persistent and increasing in mother's human capital. 65% of children whose mothers scored at the top of the test score distribution and attended an elite private school go on to attend an elite private school themselves, compared to 30% of children whose mothers scored at the 25th percentile of the distribution. In contrast, only 15% of children whose mothers obtained top exam scores and attended a subsidized school go on to attend elite private schools. Children of high scoring, low social capital mothers are considerably less likely to reach the top of the social capital distribution than the children of low scoring, high social capital mothers.

Third, we show that elite higher education predicts children's social and human capital even after controlling for parents' pre-college social and human capital. Focusing on top-scoring mothers—those within the top 1% of the test score distribution, for whom elite college attendance is a realistic option—we show that low social capital mothers admitted to elite college programs are 33% more likely to have children with top 1% test scores, 60% more likely to send their children to elite private schools, and 23% more likely to have a child who enrolls in an elite college program. These findings suggest that elite colleges may play a role in expanding access to the tops of the human and social capital distributions across generations. However, these differences may also be driven by selection into elite colleges on the basis of attributes that we do not observe.

The second part of our empirical analysis uses a regression discontinuity design to provide causal evidence on how admission to elite college programs shapes social and human capital for one's children. Using data on applications submitted to Chile's centralized assignment mechanism between 1977 and 2003, we compare children's outcomes for parents just above and below the admissions cutoffs at elite degree programs. We find no evidence of fertility effects at the cutoff, limiting concerns about differential censoring of children's outcomes.

Parents' admission to an elite degree program raises children's social capital. In the full sample, parents' admission to an elite university raises the chances their children attend an elite private school by 4.5 percentage points, 21% of the below-threshold mean of 21.6%. For parents who did not attend elite private schools, the gain is 3.3 percentage points, a 21% gain over a below-threshold mean of 15.8%.

Elite admission does not increase children's human capital. When parents cross the elite admissions cutoff, their children's test scores and grades are unaffected. Despite null effects on human capital, children whose parents are admitted to elite college programs enroll in more selective colleges themselves, driven by changes in application behavior.

We next unpack the mechanisms underlying the effects of elite college on social capital mobility. We first show that the increase in elite high school attendance does not result from generic increases in educational expenditures. Parents admitted to elite college programs spend a little more on their children's education, but they do not send their children to just any expensive school. Admission to an elite college program does not change the likelihood that one's children attend expensive but non-elite private schools. It only affects the probability that children attend elite private schools. A mechanism with more support in the data is changes in marriage market matching. Low social capital students admitted to an elite degree program become more likely to marry other elite college students, including those who graduated from elite private schools. Spouse test scores do not increase, consistent with the absence of human capital effects for children. Finally, we show that parents' elite admission shapes children's residential environments similarly to how it shapes their school environments—i.e. by shifting them towards higher status peers but not more expensive areas.

To shed more light on the relative importance of different college inputs in determining intergenerational social capital mobility, we expand our focus to the full set of higher education programs in Chile and bring in data on applicants' full lists of preferences over programs. Though not available for the full set of years that we use in our main analysis, the expanded dataset lets us separate the effects of different elements of the bundle of attributes available at elite colleges. We focus on exposure to high human capital peers, exposure to high social capital peers, and the marriage market exposure of low social capital students to high social capital students. Our results show that social capital and marriage market exposure are key drivers of upward social capital mobility for one's children. High human capital peers have zero or negative effects on both human and social capital conditional on other peer attributes.

Two additional types of evidence support support the idea that key inputs and outputs of elite colleges are social in nature. First we show that the group identities of parents' college peers shape the specific elite high schools their children attend. Many elite private high schools in Chile are affiliated with conservative Catholic groups. When threshold-crossing shifts parents into degree programs with higher exposure to peers from these high schools, the chances their children attend conservative Catholic high schools increase, but the chances they attend other elite high schools do not. Second, we use survey data to provide direct evidence that parent admission to degree programs with high status peers raises the status of their children's self-reported friend groups.

To conclude, we assess the magnitude of elite universities' effects on intergenerational mobility using two complementary approaches. The first is a stylized vector autoregression (VAR) model of college attendance, spouse selection, and capital transmission. Similar in spirit to Kremer (1997)'s study of assortative matching or Chetty et al. (2019)'s forward projection of racial income gaps in the US, the goal of this exercise is to ask whether reasonable estimates of mobility parameters are consistent with a large or small role for elite universities as a causal determinant of mobility. In the model, human and social capital shift college "eliteness," and then all three factors shape spouse human capital, social capital, and college quality, which combine with one's own attributes to determine child human and social capital. We calibrate the effects of college eliteness on child and spouse attributes using regression discontinuity estimates, with other model parameters determined using OLS regressions.

Comparing variance and autocovariance matrices from the estimated parameters to counterfactual estimates with the causal effects of elite college set to zero suggests that elite universities decrease intergenerational social capital mobility but also allocate social capital more meritocratically in the sense that they tighten the social capital-human capital link.[1] Compared to the no-effect counterfactual, the observed elite university effects raise the correlation between parent and child social capital by 50%, while increasing the within-

[1] We use the term "meritocracy" to refer to the allocation of rewards on the basis of academic achievement. While this definition is commonly employed (see, e.g., Markovits, 2019) others are possible: as Sen (2000) notes, meritocracy is "underdefined" because the concept of merit depends on what one considers a good society.

generation correlation between human and social capital by 40%.

The second exercise asks how changes in admissions policy that give a score bonus to lower SES students shape the inter- and intra-generational allocation of social capital. We use our knowledge of the assignment mechanism and students' full application lists to simulate counterfactual assignments under different bonus regimes, and compute counterfactual children's outcomes under each regime using regression discontinuity estimates of the effects of exposure to elite college peers.

We find that plausible changes in admissions policy yield substantial tradeoffs between mobility and meritocratic objectives. For example, a ten point score bonus for low-SES students—similar in size to cutoff shifts induced by recent affirmative action policies in the Chilean admissions system—reduces the intergenerational correlation of social capital by 10%, thus raising mobility. However, it also reduces the intragenerational correlation between social and human capital by 7.5%.

The bottom line is that elite universities play a quantitatively important but double-edged role in the intergenerational transmission of social capital, simultaneously shifting social capital towards high achievers and increasing its persistence across generations. Admissions policy changes move society *along* a mobility-meritocracy frontier, but do not provide a path to allocations that are both more mobile and more meritocratic.

This paper contributes to several strands of literature. First, we demonstrate that multi-generational effects are crucial to understanding the way elite universities shape upward mobility to the very top. Several recent papers show that, over a single generation, elite universities expand inequality in access to top jobs and incomes by baseline social status and that social interactions between high-status individuals at elite universities are an important reason why (Zimmerman, 2019; Michelman et al., 2022). Our findings support the idea that elite universities increase intergenerational persistence and that social mechanisms are important, but also show that, over multiple generations, elite universities provide a path for talented lower-status families to join the elite group.

Second, we advance the literature on the distribution of economic returns across colleges. Our finding that exposure to academically high achieving peers does not promote intergenerational upward mobility is consistent with previous studies showing that colleges' "value added" to earnings is weakly related to peer *academic* quality (Dale and Krueger, 2002, 2014; Hoxby, 2020; Chetty et al., 2020; Mountjoy and Hickman, 2020). Abdulkadiroğlu et al. (2014) make a similar point for academically selective public high schools. We go beyond this work by exploring intergenerational effects, by showing that peer *social* status is a much stronger correlate of intergenerational gains, and by showing that social capital is itself an important output of elite education. Our findings on the causal link between increased exposure to high-status peers and upward mobility for children are consistent with correlational evidence from Chetty et al. (2022a) that regions where cross-SES social links are more common tend to have higher rates of upward mobility.

Third, our findings elevate a string of papers on intra-family and intergenerational "spillover" effects by showing that these effects are quantitatively important for long-run outcomes. Previous research uses similar designs to examine sibling spillovers on college, major, and school choice in education settings (Altmejd et al., 2021; Dustan, 2018), and to study the transmission of high school field of study from parents to children (Dahl et al., 2020). This literature provides "existence" results for various types of within-family spillovers, but leaves open the question about the importance of such effects for economic mobility overall. We push in this direction by linking our empirical findings to mobility rates through an economic model and showing that effects are potentially quite large. We similarly contribute to work on the marriage market effects of higher education by quantifying the link between marriage outcomes and intergenerational social capital transmission (Kirkebøen et al., 2021; Ge et al., 2018).

The closest paper to ours in this vein is Kaufmann et al. (2021). This study uses data on 1990-93 applicants to five selective Chilean universities to study how admission affects marriage and child outcomes. We innovate relative to this work in several ways. First, we access data on both parent and child social status, which allows us to to examine our central question—the intergenerational transmission of social capital and its interaction with human capital mobility. Second, we bring to bear data on a broader set of institutions, a longer time span, and full student preference lists. These data allow us to generate qualitatively new insights. For example, access to more data allows us to focus on the small set of elite degree programs that Zimmerman (2019) shows generate a disproportionate share of top outcomes, while access to data on preference lists allows us to unpack the key role that peers in the social as opposed to academic elite play in driving intergenerational social capital transmission.

Fourth, our results speak to a broader literature on intergenerational persistence in earnings, schooling, and IQ (Solon, 1999; Anger and Heineck, 2009; Black and Devereux, 2010; Grönqvist et al., 2010; Chetty et al., 2014, 2017; Hertz et al., 2008; Lundborg et al., 2018). We provide evidence on the causal role of elite education and highlight how social capital shapes the human capital outcomes that are the focus of many papers. The focus on elite formation distinguishes our work from previous research examining shifts between lower levels of educational attainment and prestige (Amin et al., 2015; Behrman and Rosenzweig, 2002; Holmlund et al., 2011; Pekkarinen et al., 2009).

Finally, we bring credible quantitative evidence to a canonical question in the literature on social capital. Much of the economics literature on social capital focuses on the importance of social and civic engagement for economic growth and well-being, particularly as related to the development of social trust. See Guiso et al. (2011) for a review. However, Bourdieu's initial conception of social capital emphasized its role in social reproduction, with elite universities as fulcra of elite reproduction specifically (Bourdieu, 1972, 1986, 1998). Our findings support Bourdieu's argument that elite universities help reproduce incumbent elites, but also qualify this idea by showing that, over time, elite universities change who the incumbents are by strengthening ties between social and human capital. One may view our findings as an existence result: elite universities can provide a long-run path to elite social capital even in high-inequality settings such as Chile, where concerns about elite entrenchment sparked major protests in 2019 (Taub, 2019; Flores et al., 2020).

2 Institutions

2.1 Secondary schools and social capital

Primary and secondary students in Chile attend three types of schools: public schools, subsidized voucher schools, and non-subsidized private schools. Public schools are government-run, free, and funded through student vouchers. Voucher schools are privately run but publicly subsidized through the voucher system. Non-subsidized private schools rely on tuition fees only and are considerably more expensive than voucher schools. See Hsieh and Urquiola (2006) for more detail on school funding in Chile. In the class of 2018—the last one we observe in our data—40.0% of students attended a public school, 49.6% a voucher school, and 10.3% a private school.

We distinguish between two types of unsubsidized private schools: elite and non-elite. To classify private schools we expand the approach from Zimmerman (2019). Focusing on the cohorts graduating from high school and entering college in the 1970s and 1980s, we identify a set of seven schools that consistently place their alumni in elite business and political positions.[2] Until recently, these seven elite private schools enrolled only male students. To extend the classification system to cover female students, we augment the elite group with the seven most popular schools among the sisters of male elite students, relying on family links available for recent cohorts (2004–2018). Each of these seven schools historically admitted only women, although two have become coeducational since the 1970s. Finally, to extend the classification system through the present, we identify eight private schools founded in the 1980s or later by organizations associated with the traditional elite schools. In the 2018 class, students graduating from these 22 elite private schools represented 1.1% of their cohort.

We take attendance at an elite private school as our main measure of social capital. This is an important choice to justify, because elite private schools may differ from other schools on many dimensions, including price and academic quality. Our basic argument is that the main way elite private schools stand out from other expensive private schools is in the social pedigree of their students, the social insularity of the educational experience, and the long-run importance of the social relationships that are formed there, not price or academic excellence. This argument has strong qualitative and quantitative support.

The production of social capital at elite private schools starts at the point of admission. Admission to an elite private school typically requires some sort of exam for the child, but also interviews with parents and in many cases letters of recommendation from members of the school community. Applicants whose parents graduated from elite schools typically have admission advantages similar to legacy enrollment policies in the US. Entering these schools is difficult for children without an elite background.

The social consequences of admissions decisions at elite private schools are magnified by a distinctive feature these schools share: unlike most of the other schools in the country,

[2] To identify these schools we relied on three reports produced by a head hunting firm—Seminarium—that characterized the education trajectories of business and political leaders in 2003 and 2010. The schools we classified as elite consistently rank among the 15 most popular among individuals in different elite occupations. Online Appendix A provides further details.

students are admitted when they are four years old and attend the same institution until graduating from high school. This means that students attending elite private schools spend 14 years of their lives together.

The social distinction of elite private schools is clearly visible in descriptive statistics. For each high school we compute indices of social pedigree based on the last names of the students who attend. Following Abramitzky et al. (2020)'s approach for identifying Jewish names in Census data, we compute a prestige score for each last name by comparing the share of individuals with that name in the population to the share with the name in either a) Chile's most exclusive polo club, the Club de Polo y Equitación San Cristóbal, or b) historical "Who's Who" lists of prominent Chileans from de Ramon (2003). For each name, we compute the prestige index E as

$$E = \frac{\text{Share in the club}}{\text{Share in the club} + \text{Share in the population}},$$

so that E is zero for names that never appear in membership lists and approaches one for names that are common in membership lists but rare in the population. People in Chile have two last names (on their mother's and father's side), so we compute individual scores by averaging over the two names, and compute high school scores by averaging over individuals in the high school. We also compute average tuition fees, average scores on the college admissions exam, and test score value added for each high school. Our measure of test score value added conditions on students' age and gender, parental education, household income, and the availability of different educational inputs (such as books) at home. See Online Appendix B for details on our value added and tuition measures.

Table 1 reports how measures of price, quality, and prestige vary by high school type. All variables are standardized to have mean zero and standard deviation one. Private schools are expensive, and elite private schools are among the most expensive private schools in the country. Their prices are on average 8 standard deviations above the non-private mean, compared to 4.2 standard deviations for non-elite private schools. However, elite private schools are not uniquely expensive. We identify a set of 35 non-elite private high schools with tuition fees at least as high as the least expensive elite school. Average tuition in this group is similar to what we see for elite private schools. Panel (a) of Figure 1 displays a histogram of the tuition distribution that identifies different school types.

On measures of academic performance, private schools outperform subsidized schools, while elite and expensive non-elite private schools score similarly. Elite private schools and non-elite expensive schools have average scores and value added about 2 standard deviations above the population mean. The gap between elite private schools and non-elite private schools is only about 0.2 to 0.3 standard deviations.

Where gaps between elite private schools and non-elite expensive schools are most pronounced is in the social prestige measures. Elite private schools score 5.7 standard deviations above the population mean on the polo club index and 6.1 standard deviations above the mean on the Who's Who index. Both values are about four standard deviations above expensive non-elite schools. Panel (b) of Figure 1 displays a histogram of the polo club prestige index. 20 of the 30 highest scoring schools on the prestige index are in the elite private category.

Social inputs at elite private schools matter in the long run for access to top jobs and positions in society. On the qualitative side, Warner (2014) describes his experience searching for investment banking jobs in Santiago, during which he is repeatedly asked about where he attended high school. Warner has a Harvard PhD, and views this as the more relevant credential, but recruiters seem less interested. Huneeus (2013) interviews the founder of a Chilean investment bank, who emphasizes the importance of high school background for social interactions in elite spaces:

> *"We have meritocracy as an objective in our firm, but only to a certain extent, because there are codes [...] when a guy has attended certain [elite] k-12 schools, those codes are built in."*

On the data side, Zimmerman (2019) shows that social ties between college classmates from high-status Chilean high schools are an important determinant of long run corporate leadership. Pairs of students from elite private high schools who are college peers are more than four times more likely to hold top corporate jobs at the same firms than pairs of students from private high schools in general.

The bottom line is that elite private schools are academically strong schools, and they are expensive schools. But where they most stand out is in the social pedigree of the students they admit, the duration of the time students spend there, and the long-run influence of the social ties between their students. The way students are chosen and the time they spend together cultivates what Coleman (1988) refers to as "closure of the social structure"—the idea that links within a social group are common, and ties to non-group members less common—and identifies as critical for the development of social capital through norms, networks, and exchange relations.

There is of course some fuzziness at the margin of our elite/non-elite classification. As we discuss later, our findings hold under alternate groupings and when we take continuous measures based on name indices as the outcomes of interest.

2.2 Higher education and human capital

Most Chilean universities select their students through a centralized admissions system. Students take a national university admissions exam and then submit a ranked list of up to ten degree programs to the admissions authority. They are then allocated to programs based exclusively on exam scores and preference rankings using a deferred acceptance algorithm.

We take performance on the university admissions exam as our main measure of human capital. This exam has been offered since the late 1960s and consists of required math and reading sections plus additional subject-specific tests required for certain programs. Taking the university admission exam and applying to universities is free for students graduating from subsidized high schools, and substantial financial aid programs are available to low-income applicants seeking to fund their higher education. Online Appendix A provides more detail on college finance in Chile; see also Solis (2017) and Bucarey (2018). We focus on the average of math and reading scores, and consider not taking the admissions exam as an outcome of potential interest.

The two most prestigious universities in Chile are the University of Chile (UC) and the Catholic University of Chile (PUC). Both universities have participated in the centralized admissions system since its beginning. As with elite private schools, the alumni of these two universities make up a large share of business and political elites. Within these universities, programs in business, law, engineering, and medicine are the most selective and highest paying. Zimmerman (2019) provides evidence on this point. Following Zimmerman (2019), we focus our analysis of elite degree programs on these four fields at UC and PUC.

Students from high-status backgrounds are overrepresented at elite universities. Among the freshmen starting at UC and PUC in 2019, 53.5% came from subsidized schools, 36.1% from non-elite private schools, and 10.1% from an elite private school. The over representation of non-elite and elite private school alumni was even larger in the business, law, medicine, and engineering programs, where they represented 43.5% and 17.4% of first year enrollment, respectively. Relative to the population of high school graduates, elite private school graduates are overrepresented at elite degree programs by a factor of 16. This is quantitatively similar to Chetty et al. (2020)'s finding that children from families in the top 1% of the income distribution make up 14.5% of students at Ivy+ universities in the US.

3 Data

3.1 Data sources

We draw on archival and administrative data from two public agencies: the Chilean Ministry of Education and the Department of Evaluation, Assessment, and Educational Records of the University of Chile (DEMRE). DEMRE is the agency in charge of the university admission system.

DEMRE provided individual-level records of admissions exam scores for the years 1968 through 2018 and of college applications for the years 1977 through 2018. We digitized these records from hard copies for application cycles in 2003 and earlier. In each year, we observe exam scores for all test takers. From 1977 on, we observe ranked lists of admitted and marginally rejected students at each degree program, including the application score the degree program used to evaluate the student. These admissions lists form the basis of our main empirical design, which compares just-admitted to just-rejected applicants at elite programs.

For many but not all application cycles we also obtain records of applicants' submitted preference rankings and the rules used to score those applications. With these records, available from 1977 to 1979, 1981 to 1989, and then from 2000 and onward, we are able to reconstruct the application process and identify individuals at the margin between specific degree programs, for example someone who is applying to medicine at PUC and has medicine at UC as their fallback option if they are rejected. These records form the basis for an alternate design that compares outcomes for people crossing thresholds between different target and fallback options.

The data also contain demographic information. We observe the high school each applicant attended. In addition, from 2004 onwards we observe self-reported socioeconomic characteristics and the national identification number of applicants' parents.

The Ministry of Education records that we use in this project cover the period 2002 to 2018. They include the universe of students enrolled in primary and secondary education and contain information on the schools students attend and their academic performance. The Ministry of Education also granted us access to a dataset identifying siblings attending school at the same time between 2002 and 2015. We combine these sibling links with the parent links provided by DEMRE to identify members of the same family.

We use these data to create two analysis samples: the intergenerational correlations sample (IC) and the elite colleges sample (EC).

3.2 Intergenerational correlations sample (IC)

To build the IC sample, we identify students reaching their senior year of high school between 2003 and 2017. We link these students to their scores on the university admissions exam and to the university and major in which they first enroll. About 85% of high school seniors take the admissions exam. We then use information on parent and sibling identifiers, together with registers from the Ministry of Health that link children born between 1992 and 2010 with their mothers, to identify the students' parents. We identify at least one parent for 81% of the students in our sample.

Finally, we link students' parents to their admissions exam and college enrollment records. We are able to link 30.0% of students with at least one of their parents' scores. That this rate is far from 100% makes sense given that college attendance in Chile rose rapidly between the parent generation and the child generation.[3] We consider both parents and students who did not take the test in many of our analyses.

Panel A of Table 2 describes the IC sample. Column (1) looks at all high school graduates and column (2) looks at graduates who register for the university admission exam. Columns (3) and (4) zoom in on students for whom we observe a parent identifier and students whose parents took the university admissions exam, respectively. Students' gender and age composition do not change much across columns. Differences are larger when we look at students' academic and socioeconomic characteristics. Children of parents who also applied to college are more likely to graduate from the academic track in high school, and perform better both in high school and in the university admission exam. They are also more likely to enroll in college in general and in elite college programs in particular. In terms of family background, they are more likely to graduate from private high schools, to come from high income households, and to have at least one parent who completed a university degree.

[3]The share of college-age individuals enrolled in higher education rose from 12% in 1977, the first year of our parent sample, to 38% in 2018, the last year of our child sample (UNESCO Institute for Statistics, 2022).

3.3 Elite colleges sample (EC)

To build the EC sample we identify applicants near the admission cutoff for an elite degree program between 1977 and 2003. We use the information on family links to match these applicants with their children. We identify at least one child for 41.1% of applicants. We add information on the secondary schools these children attend, their admissions exam scores, and the college degree programs in which they enroll.

Panel B of Table 2 presents summary statistics for this sample. Column (1) characterizes all college applicants in our sample, while column (2) examines applicants that we are able to link to children. Columns (3) and (4) focus on the subset of individuals applying to elite college programs and scoring close to the admissions cutoff, which we define as being within 25 points on the standardized admissions score. Column (3) characterizes below-cutoff applicants, while column (4) looks applicants who score above the cutoff. Individuals applying to elite college programs are balanced in terms of gender. Not surprisingly, their scores in the admission exam are higher than those in the broader population and they have a higher chance of being admitted to college. They are also more likely to have graduated from private high schools.

4 Intergenerational correlations

4.1 Social capital and the transmission of human capital

We now describe the mediating role that social capital plays in the transmission of human capital across generations, and the extent to which elite colleges influence the joint evolution of social and human capital. We focus first on intergenerational correlations between mothers and children, turning later to correlations between fathers and children.

Figure 2 presents intergenerational correlations between mother's test score rank and child academic outcomes. To construct this figure, we locate each applicant's score from the first time they take the admissions exam and compute his or her rank using the known score distribution. Scores on the college admission exam are normalized to follow a normal distribution with mean 500 and standard deviation 110. The extremes of the distribution are truncated, but the minimum and maximum scores are below the first percentile and above the 99th percentile, respectively. We place individuals who do not take the college admission exam in a different category that for exposition purposes we call percentile 0. When estimating these rank-rank correlations we omit mothers who we do not observe taking the exam. The maroon circle at the bottom left corner of each panel reports outcomes for this group. We split the sample by mother's high school type, our proxy for social capital.

Panel (a) of Figure 2 shows that the rank-rank relationship between mothers' and children's scores is approximately linear within high school type, but that mother's social capital tends to raise the intercept and reduce the slope. Exam rank for the children of subsidized school mothers rises by four percentiles for every ten percentile increase in their mother's rank, with a rank-zero intercept of 44 percentiles. Exam rank for the children of mothers who attended elite private schools rises by three percentiles for every ten percentile increase in mother's score, with a rank-zero intercept of 61 percentiles. Children of non-elite private school mothers are in the middle, with slopes and intercepts between those for subsidized school and elite private school mothers.

The effects of social capital on human capital mobility are large but decrease with baseline human capital. The 17 percentile gap between elite private and subsidized school mothers at rank zero is equal to what would be expected from a 45-percentile increase in test score rank for subsidized school mothers. The gap across school type for elite private and subsidized school mothers in the top percentile of the exam distribution is equal to 7 percentage points, or the expected gain from roughly an 18 percentile increase in scores for subsidized school mothers.

Differences in mother's social capital also affect the chances children join the human capital elite. Panel (b) of Figure 2 repeats panel (a) but takes an indicator variable for a child scoring in the top 1% of the college admissions exam as the outcome. This is roughly the level at which attending an elite degree program becomes a realistic option. Children whose mothers attended elite private schools have an advantage across the whole distribution of mother's human capital. Among children with mothers who scored at the very top of the college admission exam, those whose mothers also attended elite private school are around 5 percentage points (63%) more likely to reach the top 1% than those whose mothers attended a subsidized school.

Findings are similar for alternative measures of human capital. Online Appendix C.1 reports similar patterns when we use required standardized tests taken in grade 10 as the child outcome. The advantage of the standardized test measure is that all students take it, regardless of whether they are applying to college. The disadvantage is that it is not administered every year, so sample sizes are smaller.

4.2 Human capital and the transmission of social capital

Social capital is highly persistent across generations and its transmission depends on parent human capital. Panel (c) of Figure 2 plots the share of students who attend elite private schools by mother's exam rank, split by mother's high school type. Conditional on mother's human capital, differences by social capital are stark. 65% of students whose mothers scored at the top of the college admission exam distribution and attended an elite private school go on to attend an elite private school themselves, compared to only 15% of children whose mothers had the same scores but attended subsidized schools.

Though human capital matters a lot within high school type, it is considerably more unlikely for children of high human capital, low social capital mothers to make it to the top of the social capital distribution than for the children of low human capital, high social capital mothers to do so. Children whose mothers attended an elite private school and scored at the median of the distribution have a 40% probability of attending an elite private school themselves; this value drops to 30% for children of elite mothers who scored at the 25th percentile. However even 25th percentile elite mothers are more likely to send their children to elite private schools than top-scoring mothers who attended subsidized schools.

Parents' human and social capital also predicts children's college trajectories. Panel (d) of Figure 2 shows that, holding fixed mothers' human capital, children whose mothers attended elite private schools are more likely to enroll in an elite college program. This difference peaks at the very top of mothers' human capital distribution, where children whose mothers attended an elite private schools are twice as likely to enroll in an elite college program than children whose mothers attended subsidized schools. This result is important because it shows that the advantages of being born in a high social capital family translate into differences in outcomes as consequential as the college and major in which children specialize.

We next ask whether parents' admission to an elite *college* program predicts children's human and social capital. For this exercise, we focus on top scoring mothers, for whom attending an elite degree program is a realistic option. As shown in Figure 3, attending an elite college program is associated with better human and social capital outcomes for children at all levels of mothers' social capital. In particular, subsidized school mothers who are admitted to an elite college program are around 33% more likely to have children with top 1% test scores, 60% more likely to send their children to elite private schools, and 23% more likely to have a child who enrolls in an elite college program. These findings suggest that elite college programs may play a role in expanding access to the top of the human and social capital distributions across generations, but could also be driven by mothers' selection into elite colleges on the basis of attributes that we do not observe. The next section explores the causal role of elite colleges in more detail.

4.3 Fathers and children

Online Appendices C.2 and C.3 report results relating father's outcomes and parents' average outcomes to children's outcomes. Results in both cases are very similar to those for mothers. The one notable difference is that slopes of child test score rank in father's test score rank are similar across social capital groups, not decreasing with social capital.

5 Using admissions discontinuities

5.1 Specification

We use a regression discontinuity design to isolate the causal effect of admission to elite degree programs on intergenerational human and social capital transmission. This approach compares outcomes for children whose parents apply to elite degree programs and fall just above or just below the cutoff for admission.

Our main RD specifications have the form

$$E_{ijct} = \beta_0 + \beta_1 A_{jct} + f(S_{jct}; \theta) + \mu_c + \mu_t + \varepsilon_{ijct}, \tag{1}$$

where E_{ijct} is an educational outcome for child i whose parent j applied to the college-major combination c in year t. A_{jct} is an indicator for parent j's admission status to college-major c in year t, $f(S_{jct}, \theta)$ is a linear function of the application score S_{jct} whose slope is allowed to change at the admission cutoff, μ_c is a fixed effect for the target college-major combination, and μ_t is a fixed effect for the parent's application year. When estimating this specification we pool mothers and fathers, but we also present results that split by parent gender.[4] Our main estimates focus on parents whose application scores are within 25 points of the admission cutoff, the same window that Hastings et al. (2013) use in their analysis of Chilean admissions data. Our results are robust across a wide range of bandwidth choices. We restrict our sample to the first time a parent applies to college, which eliminates test re-takers from the data. We cluster standard errors two ways at the child $\times$ parent level.

5.2 Validity

For the regression discontinuity design to generate informative results, crossing the threshold for elite admission needs to generate variation in the degree programs parents attend. Though data on college enrollment is not available for our full sample period, we can test this proposition using data from 2006 through 2017, for which population enrollment records are available.

Figure 4 illustrates the relationship between admission and enrollment in elite college programs for individuals applying to college during the 2006-2017 period. Panel (a) shows the sharp change in admission probability at the cutoff. Only students above the admissions cutoff receive an offer through the centralized admission system. Panel (b) shows how the admissions discontinuity translates to enrollment. We observe a jump of 76 percentage points from a base of 12%.

The change in probability is less than one for three reasons. First, not all students admitted to an elite degree program accept the offer. This means that above-cutoff enrollment rates are below 100% and also that some initially rejected students can move up off of a waitlist and enroll. Second, in recent years both UC and PUC have introduced some special admission programs for talented students from disadvantaged backgrounds. The number of places offered through these programs is small, but they allow some applicants under the regular admission cutoff to enroll in elite college degrees. Third, students may retake the test and reapply in future years if they want, and some marginally rejected students may do this and eventually make it in to their target program.

The bottom line here is that, despite some non-compliance with centralized assignment, threshold-crossing induces a large discontinuity in enrollment. The fuzziness in the discontinuity design means that the effects of attending an elite college program are somewhat larger than the estimated admissions effects we present.

Interpreting regression discontinuity estimates as causal effects requires the assumption that "treated" units just above the cutoff are comparable to "control" units just below in terms of the observable and unobservable determinants of outcomes of interest. Standard tests of balance pass easily. We report results from these tests in Figure 5.

Panel (a) of Figure 5 shows the distribution of the running variable in the range

[4]Not many children have both of their parents near the admission cutoff of an elite college program. Pooling mothers and fathers increases statistical power.

of the cutoff. There is no visual evidence that students manipulate their scores to fall just above the cutoff. This makes sense given the structure of the admissions process, in which cutoffs depend only on centrally assigned exam scores, are determined endogenously by the demand for seats and the supply of spots, shift from year to year, and are not known to applicants until admissions results are revealed. We implement the formal test for manipulation suggested by Cattaneo et al. (2018) and fail to reject the null of no manipulation (p=0.356).

Panel (b) of Figure 5 shows that crossing the admissions threshold does not affect selection into the sample of parents. In principle, admission to an elite college program could affect the probability that applicants go on to have children. This would create a censoring problem, requiring additional assumptions on what outcomes for "missing" children would have been. It turns out, however, that admission does not affect the probability that an applicant becomes a parent. Online Appendix D.1 shows that the count of children is also stable across the threshold.

Panel (c) of Figure 5 looks within the sample of parents to examine the effects of threshold-crossing on a vector of potential confounders. We find no evidence of discontinuities in the gender of the parent, the kind of high school the parent attended, the gender of the child, or the birth year of the child. We do find a marginally significant difference in the family size reported by the children when registering for the admission exam. However, this difference is small, and a joint test of the null that the coefficients on each of these parent attribute and family characteristic variables is zero fails to reject at conventional levels (p=0.7333).

5.3 Interpretation

Changes in outcomes across the cutoff result from shifts in the bundle of program and peer attributes available at the target program relative to the mix of applicants' next-best alternatives. Table 3 describes how the observable attributes of the degrees where students enroll change when they gain admission to an elite program, splitting out the sample by the kind of high school the student attended.

Students marginally admitted to specific elite degree programs become much more likely to attend any elite degree program, and attend college with peers who are higher scoring and more likely to have attended high-status private high schools. Students who are admitted to elite degree programs become 76 percentage points more likely to enroll in their target degree program, 52 percentage points more likely to enroll in any elite degree program, and 27 percentage points more likely to enroll in any degree program at an elite college (UC or PUC). The average score of their peers on the admissions exam rises by about 26 points (0.76 standard deviations), the share of their college peers from elite private high schools rises by 4.7 percentage points (37%), and the elite name index of the high schools attended by their college peers rises by 0.50 standard deviations. We see similar effects across most outcomes for students from elite and non-elite schools.

In short, the elite admission treatment involves changes in a variety of institution and peer characteristics, including both social and academic pedigree. In section 6.4 we use additional data on applicants' preference lists to break out the importance of specific program attributes.

6 Results

6.1 Elite colleges, human capital, and social capital

We now turn to the effects of parents' elite admission on children's human and social capital accumulation. Table 4 reports estimates from regression discontinuity specification (1).

Our first finding is that parents' elite admission raises children's social capital. As reported in Panel (a) of Table 4, parents who are admitted to elite college programs are 4.5 percentage points more likely to send their child to an elite private school, a 21% increase relative to the below-threshold mean of 21.6%. For parents who did not themselves attend elite high schools, the gain is 3.3 percentage points, 21% of the below-threshold mean of 15.8%. Gains are similar (but less precisely estimated) for children of parents who themselves attended elite high schools, for whom the below threshold mean is much higher, at 67.6%.

We find similar results for alternate measures of social capital. The right columns of Panel (a) of Table 4 report results for an alternate measure of social capital: the polo-based elite name index at the high schools children attend. This index increases by 0.34 standard deviations across the cutoff.

These discontinuities are visually obvious. Figure 6 shows regression discontinuity plots for (the children of) parents who attended non-elite high schools. Panel (a) shows the discontinuity in the rate at which children attend elite private schools. Panel (b) shows the discontinuity in the name index.[5]

Parents at the admissions margin substitute between elite and non-elite private schools for their children, not between private schools and subsidized schools. As we report in Online Appendix D.2, the effects of threshold-crossing on non-elite private attendance have roughly the same size as the elite private effects, but opposite signs.

Our second finding is that parents' elite admission does not affect children's human capital accumulation. As reported in Panel (b) of Table 4, parents' elite admission does not raise children's mean scores on the college admissions exam or high school GPAs. These results hold in full sample and in splits by parent high school type. They are also precisely estimated. For example, we can rule out a 4.5 point (0.04 standard deviation) increase in mean scores in the full sample. Panels (c) and (d) of Figure 6 present visual evidence that these outcomes are smooth through the cutoff. Results reported in Online Appendix D.2 show that rates of exam-taking are also smooth through the cutoff.

Consistent with the absence of human capital gains, we observe that the academic quality of the schools children attend does not change across the cutoff. Panel (e) of Figure 6 illustrates this result, taking exam value added of the high schools children attend as the outcome of interest. This dovetails with descriptive findings from section 2 showing

[5] Online Appendix D.2 displays a version of Figure 6 using the full parent sample. This figure closely resembles Figure 6.

that the elite private schools students substitute towards at this margin stand out mostly for social pedigree, not academic quality.

Our third finding is that parents' elite admission shapes their children's higher education trajectories. As reported in Panel (c) of Table 4, children whose parents cross the admission threshold enroll in college programs where their classmates are 1.3 percentage points (12%) more likely to have elite private school backgrounds and score 5.69σ higher on the admissions exam. These effects are driven mainly by gains for children of non-elite parents. Panels (f) and (g) of Figure 6 provide regression discontinuity plots for these outcomes. Panel (h) of Figure 6 shows a similarly large discontinuity in the polo club elite name index for a child's college peers.

Panel (d) of Table 4 focuses on elite colleges and elite degree programs. When parents cross the elite admissions threshold, their children become 2.4 percentage points (7.5%) more likely to enroll in elite colleges (i.e., UC or PUC). Panel (i) of Figure 6 illustrates this result. In contrast, children's likelihood of enrolling in an elite *program* within these elite colleges does not change.

An interesting feature of these findings is the presence of higher education effects in the absence of exam effects. Because admissions depend only on academic performance, the implication is that the higher education effects arise from changes in application behavior, with higher social capital students applying to more selective colleges. Results presented in Online Appendix D.2 show that the effects of parent elite admission on the rates at which children *apply* to elite colleges are roughly equal to the elite college enrollment effects reported in Table 4. This parallels findings on college "undermatch" in the US (Hoxby and Turner, 2013; Dynarski et al., 2021).

6.2 Robustness

Our findings are robust to a wide variety of alternative approaches to estimation. Online Appendix F shows that our main results persist over a wide range of bandwidths, when we use polynomial instead of linear terms for the running variable, when we control for a rich set of sociodemographic characteristics, and when we make alternate sample selection choices. There are no jumps on the outcomes of interest at false "placebo" cutoffs. Further, our findings are robust to changes in the definition of elite high schools. Similar patterns of results arise when we consider narrower and broader classification schemes.

6.3 Mechanisms and heterogeneous effects

6.3.1 Gender and role modeling

We now turn to the mechanisms underlying the effects of elite admission on children's social and human capital. We first consider mechanisms related to child and parent gender.

The effects of parent elite admission may be mediated by gender through a variety of causal channels. For example, role model effects may be important and depend on gender match (Dahl et al., 2020). Alternatively, men and women may have different preferences over how or how much to invest in children, and elite admission may shape the degree to which one's preferences are expressed in joint choices (Duflo, 2003). We explore these possibilities by looking at heterogeneous admissions effects by parent and child gender. We focus on the sample we are most interested in from the perspective of upward mobility: children whose parents did not attend elite private schools.

Table 5 reports our findings. The column headings indicate whether the results cover all children, only daughters, or only sons. The rows further distinguish between the effect of mothers and fathers. We find little evidence of heterogeneous effects social capital effects by parent or child gender. As reported in panel (a) of Table 5, results for fathers and mothers and for daughters and sons on elite high school attendance are fairly similar. A test of the null hypothesis that the effects of father's and mother's admission are equal in the full sample of children returns a p-value of 0.622. A test of equality of effects for sons and daughters, pooling over parent gender, returns a p-value of 0.434.

For human capital, we see some modest evidence of gender-driven heterogeneity. Small positive effects on top 1% test score attainment when mothers are admitted to elite degree programs are offset by negative effects when fathers are admitted. We can reject that effects for fathers and mothers are equal at conventional levels (p=0.036). Gains for mothers are driven by positive effects for daughters, while losses when fathers are admitted are driven by losses for sons. We interpret these results cautiously because we do not see evidence of effects on average scores. Evidence of gender differences on patterns of children's college attendance is also modest.

Our broad conclusion is that our main findings on social capital apply to fathers and mothers, and to daughters and sons, and that gender match is not a first-order determinant of the effects we see.

6.3.2 Educational expenditures

Income effects are another plausible mechanism. Parents may earn more and increase their educational expenditures in general, with children's elite private attendance being one manifestation of that increase. This story, in which social capital follows from financial success, is quite different from causal stories in which social relationships formed at elite institutions drive intergenerational capital transmission.

To test the role of increasing educational expenditures as a driver of increased elite attendance, we directly examine how school expenditures shift when parents gain elite admission. Table 6 reports the results from this exercise.

We find that parents' admission to an elite college modestly increases educational expenditure, but that this increase is driven exclusively by increased rates of attendance at elite private schools, and not by increased enrollment at other private schools. Reading across Table 6, column 1 shows that admission to elite degree programs does not change the probability that we observe a tuition value at the schools children attend. Column 2 shows tuition at the schools where children enroll rises by 147,000 Chilean Pesos (CLP) at the cutoff, or about 4% of the below-cutoff mean. Columns 3, 4, and 5 show that the probability children attend an "expensive" school—defined as in section 2—rises by 4.1 percentage points across the cutoff, and that this effect is driven entirely by increased rates of attending elite private high schools, not non-elite expensive private schools. Column 6 takes as the dependent variable the type-specific average price tuition at the school the child attends, where type is either "elite private" or "other." This value rises by CLP 95,638, 65% of the total increase we find, indicating that most of the increase in tuition is driven by the shift towards elite private schools. Online Appendix D.3 provides discontinuity plots for key outcomes.

That generic expenditure effects do not drive our findings is consistent with results from previous work indicating that income effects are likely limited for non-elite parents gaining admission to elite public schools. Zimmerman (2019) shows admission to the elite business, engineering, and law programs in our sample only increases earnings for men graduating from private high schools. In contrast, we *do* find effects when focusing on the children of women and applicants who did not attend private K-12 schools, suggesting that our findings are not primarily driven by income effects.[6]

6.3.3 Regional mobility

All of the elite private high schools are in the Santiago region. Admission to an elite degree program in Santiago may make parents from other regions more likely to live in or near Santiago as adults, expanding elite high school access for their children by virtue of geographic proximity. We test this hypothesis by re-estimating our main specifications separately for parents from Santiago and for parents from other regions. We find no evidence that mobility across regions is an important mechanism. Results for parents from Santiago and from other regions are similar to those in the pooled sample. See Online Appendix D.6 for details.

6.3.4 The marriage market

The fourth type of mechanism we consider is changes in parents' social environment in college and beyond. We have already shown in Table 3 that admission to elite degree programs has large effects on the academic and social background of one's college peers, in particular by increasing the share of one's peers who attended elite K-12 schools themselves. Exposure to high human and social capital peers may shape access to or preferences for social capital accumulation in the next generation.

We being our examination of social inputs by focusing on a specific channel through which peer inputs may shape intergenerational outcomes: the marriage market. The identity and attributes of one's spouse are particularly important when studying child outcomes because both partners contribute genes, childcare, and family inputs. As described in section 3, we do not directly observe marriages, but we can identify couples through their children. We use these data to estimate versions of specification (1) taking spouse attributes as the outcomes of interest.

[6] Zimmerman (2019) finds that elite medical programs do significantly increase earnings for male and female students who graduated from both subsidized and private schools. In Online Appendix D.5 we show that our results persist even when we focus on the sub-group of non-elite parents applying to elite business, engineering and law programs (i.e., on parents who do not experience earnings gains).

Because the focus of the analysis is on parents we use a slightly different sample than in our analysis of child outcomes. We create a sample in which each observation corresponds to a parent's application, rather than an application-child, and cluster standard errors at the parent level instead of at the family level. We continue to limit the sample to the main group of interest: applicants who did not themselves attend elite high schools.

Table 7 reports our findings. As a preliminary step, we verify that the rate at which we observe applicants' spouses is smooth through the cutoff. This proves to be the case: we match 60% of marginal parents to spouse records, with no discontinuity in rates at the point of admission. Since our coverage of mothers is better than our coverage of fathers in the child data, we are able to identify more wives than husbands.

Our first result is that non-elite applicants admitted to elite colleges become more likely to partner with people in their program. The share of parents whose spouse attended their target program rises by 9.3 percentage points when they cross the threshold for admission, more than doubling the below-threshold mean rate of 6.0%. Panel (a) of Figure 7 displays this result. The rates at which applicants marry individuals in any elite program and individuals in any elite college rise by somewhat less than the target program effect, indicating some substitution towards the target program from other elite college programs.

Our second result is that marital matches generated by admission cross boundaries defined by baseline social capital. The rate at which applicants not from elite high schools marry someone from an elite private school rises by 3.2 percentage points when they cross the admissions cutoff, a 43% increase over the below-threshold mean of 7.5%. Panel (b) of Figure 7 shows the regression discontinuity plot for this finding. The shift towards partners from elite private high schools is part of a broader pattern of substitution towards higher-status private school partners and away from subsidized school partners: the rate at which applicants match to someone from a non-elite private school rises 3.9 percentage points (12%) and the rate at which they marry someone from any private school (elite or non-elite) rises by 7.1 percentage points (17%). Effect sizes are broadly similar for male and female applicants.

Our third result is that spouse test scores do not rise across the admissions cutoff. Panel (c) of Figure 7 illustrates this finding. Elite admission helps non-elite applicants match to high social capital partners, but it does not raise their partner's human capital.

Our findings on marriage market effects parallel our findings on children's outcomes, in the sense that we find large effects of admission on the social capital but not the human capital of one's partner. Coupled with limited evidence for causal stories mediated by gender and educational expenditure, our marriage market results provide qualitative support for the idea that changes in the social environment at college are an important driver of long-run effects for children, and raise the possibility that changes in marriage partners may themselves be a quantitatively important driver of children's outcomes.

6.3.5 Social capital in the neighborhood

Schools are leading sites of social capital formation, but they are not the *only* sites of social capital formation. To better understand the scope of changes in children's social lives that result from parent's elite admission, we place attributes of children's neighborhood peers on the left hand side of specification (1). We define neighborhood peers as high school completers with residential addresses within 100 meters of one's own address. These data are available only for residents of the three largest regions. See Online Appendix B for details.

Children of parents admitted to elite degree programs grow up in neighborhoods where their peers have higher social and human capital. Table 8 reports these results. Panel A shows that children of parents just above the cutoff for elite admission live in neighborhoods with peers who score about 0.22 to 0.26 standard deviations higher on the polo club name index. This effect is similar in size to the effect of parents' elite admission on the polo club name index of children's school peers reported in Table 4. As shown in Panels B and C, children also shift towards neighborhoods where peers pay higher school tuition and score better on the college admissions exam. Online Appendix Table D10 reports similar results using a 200 meter radius to define neighborhoods.

Despite increases in the human and social capital of residential peers, we see little evidence that children live in more expensive neighborhoods. As reported in Panel D of Table 8, the census block level price per square meter (a standard index of home price in Chile) does not change much across the admissions threshold, and we cannot rule out zero effects at conventional levels.[7]

We draw two conclusions from this exercise. First, parents' admission to elite degree programs reshapes children's social lives both at home and at school. The joint shift in neighborhood and home environment may augment social capital development. As Coleman (1988) points out, school communities develop stronger shared norms and trust relationships when social ties extend beyond the school. Second, as we found in our analysis of educational expenditures in section 6.3.2, simply spending more money does not appear to be the main mechanism underlying the shift in social environment.

6.4 Academic vs. social vs. marriage market inputs

6.4.1 Beyond elite degree programs

Our findings thus far show that admission to elite degree programs shapes intergenerational upward mobility in social capital but not human capital, and that changes in parents' social lives, including matching to high social capital spouses, may be an important reason why. We also show that admission to an elite college shifts a bundle of educational inputs simultaneously, including both peer academic skill and peer social pedigree. We now ask which components of this bundle—academic inputs, peer social pedigree, or access to high social capital marriage partners—drive the intergenerational effects we see.

Our approach relies on additional data. We augment our base dataset on admissions outcomes at the eight elite degree programs in two ways. First, we bring to bear data on

[7]Prices per meter are measured in Unidad de Fomento (UF), the inflation-adjusted unit of account typically used to describe real estate values in Chile. Due to limited precision we cannot rule out meaningful increases for this outcome. For non-elite students the upper bound on the 95% CI for the admissions effect is is about 5UF, or roughly 10% of the below-threshold mean.

applicants' full preference rankings. In our parent sample, these records are available for 1977-1979, from 1981 through 1989, and then from 2000 through 2003. What they allow us to do in the years they are available is identify applicants on the margin between pairs of degree programs with different attributes. We can then isolate the impact of observable elements of the elite college bundle, holding others fixed. For example, we can compare applicants on the margin of admission to program A, where peers have high social status. For each student, we identify a "fallback option" as the degree to which that student would be admitted if they are rejected from A, given their scores and their submitted application list. If some applicants have fallback options that are also characterized by high status peers, and others have fallback options that have low status peers, we can compare the size of admissions effects across these two groups to learn about the importance of peer social status for long-run outcomes.

The second way we augment our data is by using data on all degree programs, not just elite degrees. This expands the sample size dramatically, which is helpful given the restriction on application cycles. It also allows us to exploit all of the variation in peer attributes in the higher education system, not just variation generated by elite admission.

Motivated by our analysis of elite degree programs, we focus on three program attributes: academic quality Q, social pedigree or "eliteness" E, and elite marriage market access M. We define academic quality as the mean admissions exam score of admitted students, and social pedigree as the share of admitted students who attend an elite school. We define elite marriage market access as the share of non-elite students at the program who marry alumni of elite private schools. To avoid having one's own outcomes affect measured degree attributes, we use a cohort-level leave-out procedure in which the attribute of a degree program in a given application cohort is computed using data from all other cohorts. We combine measured degree attributes with the application list data to compute the difference between the attributes of the target and next option for each submitted application, and label these differences ΔQ, ΔE, and ΔM, respectively.[8]

6.4.2 Differential effects by changes in degree attributes

Figure 8 shows results from a simple initial exercise, in which we split up applications from non-elite parents (separately) by quartiles of ΔQ, ΔE, and ΔM, and estimate versions of equation 1 within each sample. Panels (a) through (c) report "first stage" effects. These effects are large. For example, when applicants in the top quartile of ΔQ gain admission to their target degree, the academic quality of their peers rises by 61 points (1.24 standard deviations of the college degree average test score distribution); when applicants in the bottom quartile gain admission to their target degree, the mean academic quality of their peers falls by 47 points (0.96 standard deviations).

The lower panels of Figure 8 show how human and social capital accumulation change

[8] ΔQ, ΔE, and ΔM each measure attributes of students' college degree programs. ΔM differs from the other two variables in that there is a natural first-stage outcome through which one might claim the effects of changes in M on child social capital should operate: whether a given non-elite student goes on to marry an alumnus of an elite private school. In Online Appendix B.4 we discuss the construction of M in more detail and show that cross-threshold changes in observed marriage outcomes for students are proportional to cross-threshold changes in M.

with admission in each sample. We find that the probability one's children attend an elite private school tracks gains and losses in peer elite high school shares and in elite marriage market access. As in our analysis of elite programs, effects are large relative to base rates. When parents in the top quartile of ΔM gain admission to their target degree, the chance their child attends an elite high school rises by 2.4 percentage points, or 17%. When parents in bottom quartile of ΔM are admitted, the chance their child attends an elite high school falls by 2.3 percentage points. In contrast, the relationship between peer academic quality and social capital mobility is, if anything, negative. We see no evidence that any of these variables are associated with changes in children's human capital.

A challenge in interpreting these findings is that changes in degree attributes may be correlated with one another. People with high values of ΔE may have lower values of ΔQ, for example. We address this issue by running parametric specifications that control simultaneously for the effects of academic, social, and marriage market variables. These specifications have the form

$$\begin{aligned} E_{ijct} =& \beta_0 + \beta_1 A_{ijct} + \beta_2 A_{ijct} \times \Delta E_{ijct} + \beta_3 A_{ijct} \times \Delta Q_{ijct} + \beta_4 A_{ijct} \times \Delta M_{ijct} \\ &+ \beta_5 \Delta E_{ijct} + \beta_6 \Delta Q_{ijct} + \beta_7 \Delta M_{ijct} + f(S_{ijct}, \mathbf{\Delta X}_{ijct}; \theta) + \mu_c + \mu_{c'(ijct)} + \mu_t + \varepsilon_{ijct}. \end{aligned} \tag{2}$$

E_{ijct} is an outcome for child i of parent j applying to program c in cohort t and A_{ijct} is an indicator for i's admission to c in year t. β_1 is the main effect of admission to the target degree relative to an observably identical next choice. β_2, β_3, and β_4 are coefficients on the main regressors of interest—interactions between admission and the change in degree-specific peer attributes across the cutoff. Controls include main effects of $\mathbf{\Delta X}_{ijct} = [\Delta E_{ijct}, \Delta Q_{ijct}, \Delta M_{ijct}]$, as well as a continuous linear function of S_{ijct} that is allowed to vary above and below the cutoff and to interact linearly with the $\mathbf{\Delta X}_{ijct}$. We include fixed effects for target degree c, next option degree c', and application cycle.

Table 9 reports the results of these regressions for our main outcomes. When reporting coefficients, we standardize the $\mathbf{\Delta X}_{ijct}$ to have mean zero and standard deviation one.

Results confirm the visual intuition from Figure 8. For social capital, admission to programs with higher shares of elite private school peers and higher elite marriage rates for one's gender raises the chances one's child attends an elite private school. These effects are sizeable. Admission to a program with one standard deviation higher elite marriage rate raises the chances one's child attends an elite school by 0.0090 percentage points, about 14% of the mean rate. In contrast, holding peer social status and elite marriage rate fixed, admission to a degree with a one standard deviation higher average exam score reduces the chance one's child attends an elite school by 0.0076 percentage points (12% of the sample mean).

Turning to human capital, peer social status and elite marriage rates do not affect children's exam performance. Peer academic performance has either a zero or a negative effect, depending on whether one looks at average exam scores or high school GPAs.

For higher education, we see positive effects of parents' peer elite high school share on children's elite college and elite degree program attendance. These effects are economically meaningful. For example, admission to a college degree with one-standard deviation higher elite peer share raises the chances one's child attends an elite degree program by 0.0070 percentage points, just under 10% of the mean rate of 0.072. We observe similar positive effects on measures of the social capital of children's classmates in the same college program, such as the share of college peers from elite private high schools and the elite name index at the college program (columns 6 and 7), but do not observe positive effects on the human capital of children's college classmates (column 8).

We see no evidence that parents' admission to a college with higher peer human capital or better marriage market opportunities raises the quality of the college their children attend, holding parent elite peer share fixed. Coefficients on the interactions between admission and the ΔQ and ΔM variables are zero or small and negative for each of the higher education outcomes.

The key theme emerging from Figure 8 and Table 9 is that admission to degree programs with high-end peer social inputs drives the intergenerational transmission of social capital, while admission to programs with stronger academic peers if anything reduces upward social mobility and does not raise human capital either. Together with our evidence on marriage matching for students admitted to elite degree programs, these findings suggest that college social inputs are crucial drivers of long-run social capital mobility.

Because college social inputs are not randomly assigned, the above analysis does not rule out the possibility that the social capital gains associated with admission to degree programs with higher status peers arise not from exposure to those peers but instead from changes in some other degree attribute with which exposure is correlated (and which is not correlated with peer *academic* achievement). One way to assess this possibility is to allow for effect heterogeneous effects by additional observable degree attributes and see whether the social input effects persist or are shifted. Online Appendix Table D4 reports results from specifications that allow for additional heterogeneity based on cross-threshold changes in field of study, an important determinant of earnings in this setting that is strongly correlated with student demographics (Hastings et al., 2013). Allowing for additional heterogeneity does not affect our findings.

6.5 Group identity and the social roots of intergenerational mobility

As a further test of the social input hypothesis, we conduct an exercise that uses social divisions within the set of elite schools to highlight the way social links formed in college shape dynastic paths in the long run. The idea here is that if social links are important, your college peers should determine not just whether your children join the social elite, but which group of elites they join.

We rely on the fact that within elite schools there is a group that belong to the same Catholic organization—the Opus Dei—and that have strong social links between them. As discussed in Online Appendix A Opus Dei and other elite schools are otherwise quite similar. They are located in similar neighborhoods, charge similar tuition fees, and have similar levels of the elite name indices. If social links formed at college drive intergenerational social capital effects we observe, then increased parent exposure to Opus

Dei peers should disproportionately raise child enrollment in Opus Dei schools relative to otherwise similar elite schools.

We build an index ΔO similar to the ΔE used earlier in this section, but capturing differences in parents' exposure to alumni of Opus Dei schools. We then split the sample into four different groups according to the size of ΔO and study how changes in non-elite parents' exposure to alumni of Opus Dei schools affects their children's probabilities of attending an Opus Dei and other elite schools. We rely once more on our baseline specification and estimate it independently in each sub-sample. Panel (a) of Figure 9 shows that there is substantial cross-program variation in Opus Dei shares. Applicants in the top quartile of ΔO experience a 3.7 percentage point increase in their share of Opus Dei college peers if they are admitted to their target program (from a base of 0.2%), while applicants in the bottom quartile experience a 1.6 percentage point decline (from a base of 1.9%).

Panel (b) of Figure 9 reports the estimated effects of parent elite admission on children's Opus Dei high school attendance. Increases in parental exposure to Opus Dei peers in college raise their children's chances of enrolling in Opus Dei high schools. For parents in the top quartile of ΔO, admission raises their children's chance of enrolling in Opus Dei school by 2.1 percentage points (36%). For parents in the bottom quartile of ΔO, admission *reduces* children's rates of enrollment in Opus Dei schools by 2.4 percentage points (42%). In contrast, parental exposure to Opus Dei peers has no effect on the rates at which their children enroll in *other* elite schools. Panel (c) of Figure 9 reports this finding. Overall, this set of results supports the idea that social links formed at college shape the intergenerational transmission of social capital.

6.6 High school type and friendship formation

Our discussion thus far takes the kind of K-12 school a child attends as a proxy for social capital accumulation. This approach has strong basis in studies of Chilean elite formation, as well as qualitative evidence from the US that elite high school attendance shapes social capital accumulation even for low-income students (Jack, 2019). However, a possible concern is that children whose parents did not attend elite K-12 schools themselves may have difficulty acquiring social capital even if they attend elite high schools, perhaps because of challenges integrating into the school's social environment. In the terminology of Chetty et al. (2022b), friending bias may limit social capital accumulation even if exposure to high-status peers rises.

We provide direct evidence on the social integration of friend groups across and within K-12 schools and on how children's friend groups are shaped by their parents college admissions outcomes. Our approach relies on a link between application records and data from the Longitudinal Study of Tobacco, Alcohol, and Drug Consumption carried on by the Catholic University of Chile between 2008 and 2011 (see Valenzuela and Ayala, 2011, for further details). This study followed a group of roughly 4,500 students starting seventh grade in 2008 over the course of four years. A survey implemented at the beginning of the study asked each student to identify their closest friends. We use these records to compute the average elite name index among students' friends. We then place this variable on the left-hand side of regression discontinuity specifications. We summarize the results of this exercise here, with details in Online Appendix E. Notably, we find no evidence of differential selection into survey reporting or differences in the number of friends reported.

Figure 10 illustrates our main findings. Panels (a) and (b) present regression discontinuity plots where the outcome is the mean elite name index of children's friends. The sample—limited to survey participants whose parents did not attend an elite K-12 school and are marginal applicants—is split by whether the share of elite peers at the parent's target degree program is higher ($\Delta E > 0$, panel (a)) or lower ($\Delta E < 0$, panel (b)) than in the next option program.

Children's friends rise in status when their parents gain admission to programs with higher-status peers, and fall in status when their parents gain admission to programs with lower-status peers. On average, children whose parents cross the threshold for admission to college degree programs with higher elite peer shares report an increase of 0.03 in the elite peer index value for own friends. This is equal to 30% of a standard deviation of the friends' elite name index in the survey sample and is statistically indistinguishable from the cross-threshold shift in the peer elite name index for the high schools children attend.

These findings confirm that parents' admissions outcomes shape children's social groups and that the identities of the K-12 schools children attend are effective proxies for social effects. Friending bias may be present in this context but does not appear to be a first order determinant of how children's friend groups shift when their parents gain access to socially elite degree programs.

7 Quantifying the contribution of elite universities

7.1 A VAR calculation

How much do the elite college effects we document shape the intergenerational and cross-sectional correlations between human and social capital? To get a sense of the quantitative importance of elite college for intergenerational mobility, we combine our descriptive and regression discontinuity estimates using a stylized vector autoregression (VAR) model that incorporates capital accumulation, elite college attendance, and marriage market matching. We are interested in intergenerational and cross-sectional correlations given the data we see, and also in how these correlations would look under different assumptions about the causal effects of elite higher education.

The assumptions we invoke when specifying the model are quite strong. We therefore view the exercise as an extended back of the envelope calculation, in the spirit of Kremer (1997)'s analysis of the quantitative importance of neighborhood effects or Chetty et al. (2019)'s discussion of the future trajectory of racial income gaps in the United States. Given our best guesses at the parameters governing the intergenerational evolution of social and human capital, do elite colleges matter a lot, or a little?

We model dynasties that evolve over time. Dynasties are endowed in each period with social and human capital. Given these values, they choose the "eliteness" of the college they attend. After college, they match to a spouse who is also characterized by human capital, social capital, and college eliteness. The social and human capital of the next generation in the dynasty are then determined as a function of parents' average social capital, human capital, and college eliteness.

This conceptual setup gives rise to the following VAR:

$$S_{it} = \alpha_0 + \alpha_1 \overline{S}_{it-1} + \alpha_2 \overline{H}_{it-1} + \alpha_3 \overline{E}_{it-1} + e_{1t} \tag{3}$$

$$H_{it} = \beta_0 + \beta_1 \overline{S}_{it-1} + \beta_2 \overline{H}_{it-1} + e_{2t} \tag{4}$$

$$E_{it} = \gamma_0 + \gamma_1 S_{it} + \beta_2 H_{it} + e_{3t} \tag{5}$$

$$S^s_{it} = \delta_0 + \delta_1 S_{it} + \delta_2 H_{it} + \delta_3 E_{it} + e_{4t} \tag{6}$$

$$H^s_{it} = \phi_0 + \phi_1 S_{it} + \phi_2 H_{it} + e_{5t} \tag{7}$$

$$E^s_{it} = \psi_0 + \psi_1 S_{it} + \psi_2 H_{it} + \psi_3 E_{it} + e_{6t} \tag{8}$$

S_{it}, H_{it}, and E_{it} are social capital, human capital, and college eliteness for dynasty i in generation t. We continue to measure human capital using entry exam scores. We measure social capital as the polo club name score eliteness of the high school an individual attends. As discussed in sections 2 and 6.1, this is a continuous analog of the binary "elite high school" categorization. We measure college "eliteness" as the average value of social capital for students who attend, as in section 6.4. S^s_{it}, H^s_{it}, and E^s_{it} are the same variables for the spouse, and $\overline{S}_{it}$, $\overline{H}_{it}$, and $\overline{E}_{it}$ are average values of the individual and the spouse. The e_{jt} are error terms, which we assume are statistically independent with mean zero and variances to be estimated.

A few restrictions are worth noting. First, we allow the direct effects of elite college to enter only through peer social capital. This is motivated by our findings in section 6.4 that the academic quality of college peers does not produce upward social or human capital mobility. Second, we restrict the college eliteness effects on child's human capital and spouse human capital to be zero. This choice is motivated by null effects in our regression discontinuity analysis for these outcomes. Third, we impose separability across all inputs and do not distinguish between mothers and fathers or daughters and sons. These choices are motivated by our finding of limited heterogeneity in elite college effects by baseline social capital and by parent and child gender.

Our approach to calibrating the model is to estimate the parameters governing elite colleges' role in production and matching using instrumental variables specifications that parallel the regression discontinuity designs in section 6.4. We then fill in the remaining parameters using OLS regressions similar to our analysis in section 4, restricting college effects to the estimated values in from the discontinuity designs. We sketch our method here, with details in Online Appendix G.

We start by creating instruments based on the characteristics of the target and fallback options of parents, following our approach in section 6.4. We characterize each college-major combination in terms of the social capital of the students it admits and the social capital of the spouses of these students. We then construct measures ΔE and ΔE^{spouse} based on the gap between the peer eliteness and spousal eliteness of each marginal applicant's target and fallback degree.

In equation (3), we use the interaction between ΔE and ΔE^{spouse} and threshold-crossing to instrument for parents' average social capital $\bar{S}_{it-1}$ and college eliteness $\bar{E}_{it-1}$. We estimate these specifications using the sample of children for whom we observe both parents and at least one is a marginal applicant, and include the same controls as in equation (2). Intuitively, attending a degree program associated with match to higher social capital spouses shifts $\overline{S}_{it-1}$ by shifting spouse social capital, because own social capital S_{it-1} is fixed at the time of application. Attending a degree program with higher peer eliteness raises $\bar{E}_{it-1}$ by increasing one's own college eliteness E_{it-1} and spouses's college eliteness E^s_{it-1}. This procedure generates estimates for α_1 and α_3. We recover the remaining parameters α_0 and α_2 using restricted OLS. We fix the values of α_1 and α_3 to coincide with the IV estimates. We then estimate the variance of e_{1t} using the residuals from the restricted OLS regression.

We similarly combine instrumental variables and restricted OLS to estimate equations (4), (6), and (8). Equation (4) follows the approach for equation (3), using the spouse eliteness instrument to recover β_1 and estimating other parameters using OLS. For equations (6) and (8) we run IV regressions that instrument E_{it} with an interaction between admission to the target program and ΔE to recover δ_3 and ψ_3. The rest of the parameters are recovered through restricted OLS.

We estimate equations (5) and (7) using OLS only. These equations capture descriptive relationships to which elite college attendance is not an input. Equation (5) is the model analog of the linear relationship between parent and child human capital with social capital as a vertical shifter reported in Figure 2. Equation (7) captures the relationship between own social and human capital and spouse human capital, which we show in Table 4 is not affected by whether one attends an elite college.

With parameter estimates in hand, we use standard VAR techniques to obtain the MA(∞) representation of the VAR(1) process, and use the MA representation to obtain expressions for the variance and autocovariance matrices of S_{it} and H_{it} as functions of model parameters. In addition to computing variance and autocovariance matrices for estimated parameter values, we compute these matrices under counterfactual assumptions about the causal role of college attendance.

We emphasize that this procedure involves many simplifications. To highlight a few, our instrumental variables specifications impose strong exclusion restrictions on the channels through which attending an elite college shapes long-run outcomes. We assume that treatment effects are homogenous and apply them away from the admissions cutoffs where they are estimated. We impose strong functional form assumptions (though these choices are guided by descriptive patterns in the data). We assume that parameters governing the process remain stable across generations, even though the Chilean economy and education system change over the period we study. Finally, when conducting counterfactual exercises, we assume that descriptive relationships governing other relationships in the data are stable even as the effects of college change. We interpret our findings as a back-of-the-envelope variance decomposition that explores the potential importance of elite colleges for intergenerational mobility over the past 50 years in Chile, not as precise predictions about what might happen in the future under different policy regimes.

Our main finding from this exercise is that elite colleges play a double-edged and quantitatively important role in making social capital both more persistent across generations and more meritocratic in its allocation. The first column of Table 10 reports baseline results based on observed parameter values, while the second column reports results from a counterfactual in which the causal effects of college on both social capital accumulation and marriage market matching are set to zero, i.e. where $\alpha_3 = \delta_3 = \psi_3 = 0$. Looking first at autocorrelations, in the base model the intergenerational correlation of social capital within a dynasty is 0.357. This falls by 33% to 0.238 in the no college effects counterfactual. At the same time, elite colleges tighten the link between academic and social success: in the base model, the cross-sectional correlation between social and human capital is 0.193. Under the counterfactual no college effects model, this value falls by one third to 0.138. We see a similar result for "intergenerational meritocracy": the correlation between *parent* human capital and child social capital falls by 15% when we zero out college effects.

These effects are large relative to the simulated effects of other kinds of policies. The third column of Table 10 reports results from a counterfactual exercise that leaves elite college effects at their base levels but eliminates the effect of social capital on selection into elite colleges by setting $\gamma_1 = 0$. The idea is to eliminate "undermatch" of low social status students. In our model, eliminating undermatch has effects that are similarly-signed to the effects of eliminating elite college effects entirely, but are slightly smaller. For example, the single-generation autocorrelation of social capital falls from 0.344 at baseline to 0.250, and the cross-sectional correlation of social and human capital falls from 0.174 to 0.162.

We also use the model to understand the extent to which the quantitative impacts of elite college are driven by marriage market effects. To do this we consider counterfactuals that alternately a) set $\alpha_3 = 0$ and thereby eliminate the direct effect of elite college on social capital accumulation while keeping marriage market effects fixed, or b) set δ_3 and ψ_3 equal to zero, thereby eliminating matching effects while keeping the direct effect fixed. We report results from these exercises in columns 4 and 5 of Table 10. We find that direct effects are the more important channel. When we set $\alpha_3 = 0$, the intergenerational correlation in social capital falls to 0.234, 96% of the way from the base case to the full no college effects counterfactual in column 2. When we set δ_3 and ψ_3 equal to zero, the same intergenerational correlation falls to 0.3374, 6% of the way from the base case to the full no college counterfactual.

7.2 Admissions policy and the mobility-meritocracy frontier

The VAR exercise considers the role of elite universities in society by shifting their causal impacts from the observed values to zero. This exercise addresses an important question but takes us away from the support of available data or plausible policy. An alternate approach is to ask what our findings say about the effects of marginal changes to existing policy on mobility and meritocracy.

We consider two types of marginal policy changes. The first type seeks to promote intergenerational mobility by providing admissions score bonuses to college applicants from subsidized schools. The policies we simulate resemble actual affirmative action interventions in the Chilean higher education system adopted starting in 2007.[9] The second type of policy provides score bonuses to high-status students from elite private high schools. This exercise captures the flavor of admissions policies at elite US universities, where admissions chances are higher for high-status students at a given level of academic achievement.[10]

Our goal here is to gain traction on three related questions. First, given the applications student submit and our estimates of the effects of assignment to degree programs with elite classmates, can realistic changes to admissions policy have meaningful effects on intergenerational social capital mobility? Second, how sharp a tradeoff between mobility and the meritocratic allocation of social capital do these policies pose? Third, how does the meritocracy-mobility tradeoff depend on the role of elite college peers in the production of social capital?

Our approach to this exercise proceeds as follows. In the first step, we use our knowledge of the rules of the assignment algorithm and students submitted application rank lists to simulate the allocation of students to programs under a series of counterfactual scoring rules in which students from subsidized (or elite private) schools receive progressively larger bonuses on their application index score, ranging from five to fifty points in five point intervals. In the second step, we compute counterfactual human and social capital outcomes for each child under the new assignment h using the rule

$$Y_{ij}^h = Y_{ij} + \gamma(E_j^h - E_j), \tag{9}$$

where Y_{ij}^h is the outcome under counterfactual assignment h for child i of parent j, Y_{ij} is the observed outcome for child i of parent j, E_j^h is the share of elite college peers for parent j under counterfactual assignment h, and E_j is the share of elite college peers observed in the data. γ is a parameter reflecting the effect of parents' college elite peer share on child outcome, estimated using RD specifications that parallel equation 2 but restrict the effects of college admission to operate only through a main effect and through peer elite high school share. In the third step, we compute correlations between parent and child social capital as well as between child human capital and child social capital under the observed allocation and under each counterfactual allocation. See Online Appendix H for details.

This exercise maintains the exclusion restrictions and homogenous effects assumptions from the VAR analysis. However, it relaxes assumptions on the functional form of intergenerational relationships and stays much closer to the existing policy regime in the

[9]Chilean policies had the effect of reducing admissions cutoffs for subsidized school students. The size of the cutoff reduction varied across programs, with the middle 80% of the distribution ranging from five to 112 points. See DEMRE (2023) for a detailed policy description. The reductions we simulate range from five to 50 points.

[10]For example, Arcidiacono et al. (2019) report that Harvard applicants in the high-status "legacy, donor, or child of faculty" (LDC) category receive higher scores on the personal, athletic, and extracurricular components of their applications than other students, and are much more likely to be admitted than non-LDC students who receive the same academic rating. To make things concrete, the modal Harvard admit receives an academic rating of two out of five. 49% of LDC applicants who receive this score are admitted, compared to 10% of non-LDC applicants.

counterfactuals it considers. A crucial remaining assumption is that submitted applications remain the same under the counterfactual policies. We view this assumption as reasonable for small point bonuses and much more palatable than the assumption imposed by the VAR that patterns of behavior governing intergenerational mobility stay constant as the effect of college assignment drops to zero.

Figure 11 reports our findings. The horizontal axis reports the correlation between children's human and social and human capital. The vertical axis reports the intergenerational social capital correlation. The axis is reverse-scaled so that moving vertically up the graph corresponds to lower intergenerational correlations and higher social capital mobility. Each point represents the outcome from a counterfactual simulation and is labeled with the size of the score bonus for the listed group.

Focus first on the solid-filled points, which report results from counterfactuals in which the causal effect of assignment to each degree adjusts to reflect the share of elite students in the degree program. Blue circles report results from score bonuses for subsidized-school sudents. Green squares report results for score bonuses to elite private school students. In these counterfactuals, the social capital production function depends on who your college peers are, so counterfactual outcomes change from baseline for two reasons: because students are assigned to different degree programs, and because degree programs have different shares of elite students, and therefore have different effects on social capital accumulation.

The first finding here is that admissions bonuses for lower social capital students can have quantitatively important effects on social mobility, but that these gains reduce the correlation between children's social and human capital—that is, the score bonus policy moves society along a *mobility-meritocracy frontier*. A ten-point bonus reduces the intergenerational correlation of social capital by 7.5%, from 0.524 to 0.473. At the same time, this score bonus reduces the correlation between children's social and human capital by 10%. The slope of the mobility-meritocracy frontier is approximately constant over the range of subsidies for low social capital students we consider, with a one-unit increase in the correlation between child social and human capital corresponding to a 2.5 unit increase in intergenerational social capital mobility.

The second finding is that, perhaps surprisingly, score subsidies for elite high school students *also* move society along the frontier, towards points with higher meritocracy and less mobility. Intuitively, this is because moderate score bonuses for elite school students create relatively small distortions in the allocation of spots in elite degree programs relative to the no-bonus baseline. At the same time, these bonuses increase the share of elite students in top programs, which raises the effects of access to elite college programs on social capital accumulation for all admitted students, pushing up the correlation between social and human capital. The implication is that if social capital production depends on access to elite peers, a planner placing high value on meritocracy might reasonably choose seemingly anti-meritocratic admissions subsidies for high-status applicants.

The hollow points on the figure report results from a parallel set of counterfactuals in which degree effects are held fixed at baseline values, so changes in outcomes result only from changes in degree assignments, not changes in the causal effects of assignments. In these simulations, bonuses to elite school graduates are an inside-the-frontier policy that reduces both mobility and meritocracy. Bonuses for subsidized schools graduates allow for a steeper frontier than in the first set of simulations: a ten point score bump reduces the intergenerational correlation of social capital by 4.8% and the intragenerational human capital-social capital correlation by 1%. Shifting the mix of students towards those with subsidized school backgrounds does not reduce the gains to attending an elite program, so a given mobility gain can be achieved at a smaller cost to meritocratic objectives.

The conclusion from both the local admissions counterfactuals and the VAR decomposition exercise is that elite universities play quantitatively important roles in *both* shaping the transmission of social capital across generations *and* shifting the allocation of social capital towards academic high achievers. Plausible changes to admissions policy could substantially increase the intergenerational mobility of social capital *or* increase the degree to which it is meritocratically allocated, but the tradeoffs between these two objectives are quantitatively substantial.

8 Conclusion

This paper uses five decades of data linking parents' and children's educational outcomes in Chile to obtain three main results. First, we show that access to elite colleges helps talented students from lower-status families expand access to social capital for their children. Second, we show that the key mechanisms underlying this effect are social, not academic. Parent elite admission does not improve children's academic outcomes, and the key correlate of upward social mobility for children is parents' exposure to peers with high social status, not high academic achievement. Third, we show that elite colleges play a quantitatively important role in the intergenerational transmission of elite social capital. This role is double-edged: elite colleges both increase the intergenerational persistence of elite social capital and shift its allocation along meritocratic lines, strengthening the ties between academic and social success.

Whether elite colleges help talented students from modest backgrounds join the social elite or help incumbent elites retain their positions is a central question in public debates on selective higher education. Our results indicate that, looking across generations, elite colleges push the social elite to become *both* academically "smarter" and intergenerationally stickier, highlighting a tension between ideas of fairness centered on meritocracy and ideas centered on opportunity. The idea that meritocracy need not expand opportunity dates to Young (2017)'s coinage of the term. Nevertheless, our finding that elite college admission expands access to elite social capital in the second generation paints a more optimistic picture than recent studies showing that elite college students from lower-status backgrounds are less likely to reach top positions in business and society than their high-status college peers (Zimmerman, 2019; Michelman et al., 2022).

One question we leave for future work is whether the dynastic history of the social elite affects how this group behaves. Do present day elites whose parents came from low-status backgrounds act differently than their peers whose parents were also members of this elite?

While ample evidence suggests that personal experiences can shape elite behavior in top roles (Bertrand and Schoar, 2003), it is also possible that the experience of elite education tends to homogenize subsequent behavior. How much it matters that universities reshape the social elite depends on the answer to this question.

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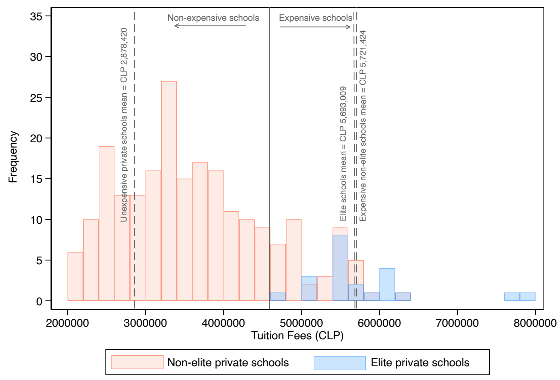
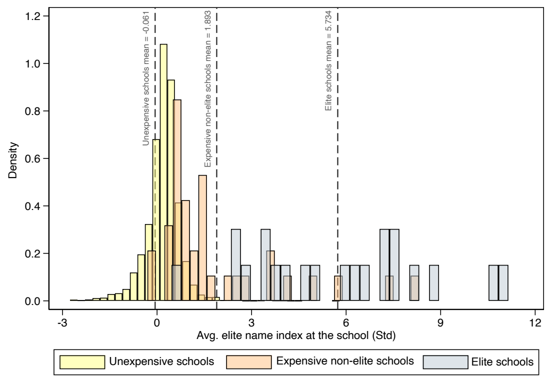
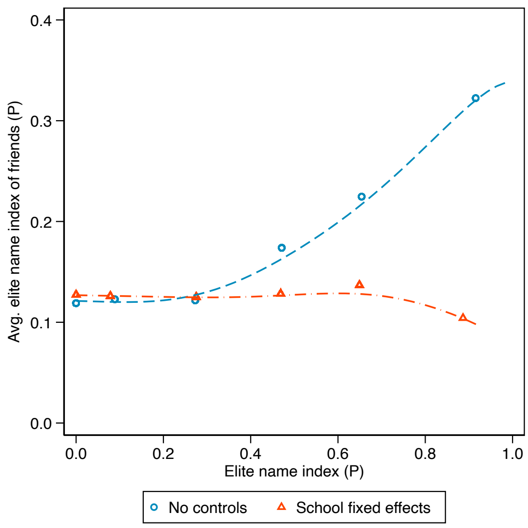
Figure 1: Characteristics of private K-12 schools



(a) Distribution of tuition fees



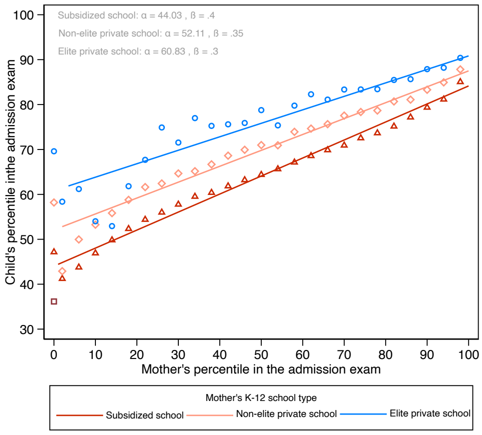
(b) Distribution of polo club elite name index



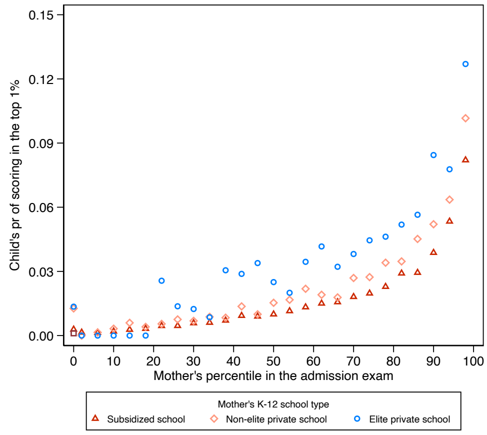
(c) Own vs friends' elite name index

Panels (a) and (b) in this figure describe inexpensive, non-elite expensive, and elite K-12 private schools along two dimensions: tuition fees and the polo club elite name index. Panel (a) illustrates the distribution of tuition fees charged by private schools. Panel (b) illustrates the distribution of the polo club elite name index. Panel (c) illustrates the relationship between a student own elite name index and the elite name index of his/her friends in seventh grade. Blue circles and blue dashed lines illustrate this relationship with no controls. Red triangles and orange dashed lines illustrate the relationship after partialling out school fixed effects from both variables. After partialling out school fixed effects, we added the mean of each variable to their residuals for illustration purposes. The lines correspond to local polynomials fitted using a Gaussian kernel and a bandwidth of 0.2 elite name index points. See section 2.1 for details.

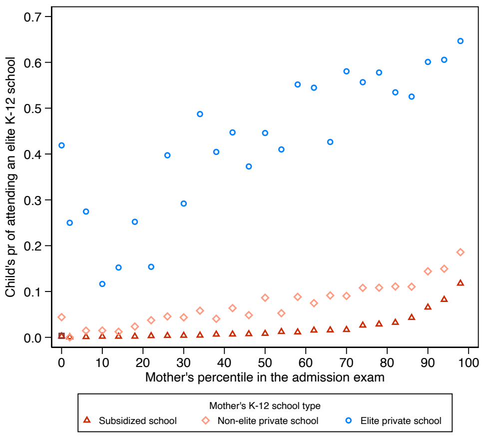
Figure 2: Correlations between mothers' scores and children's outcomes



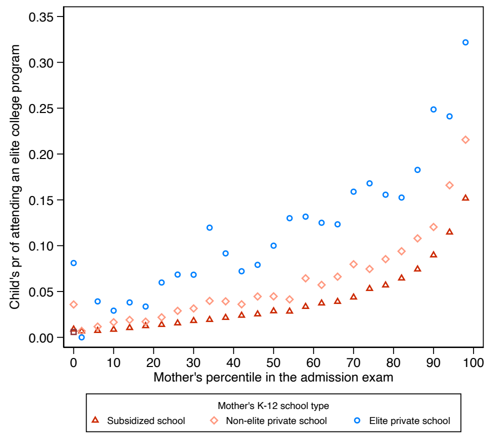
(a) Rank-rank exam score correlations



(b) Pr. child has top 1% score



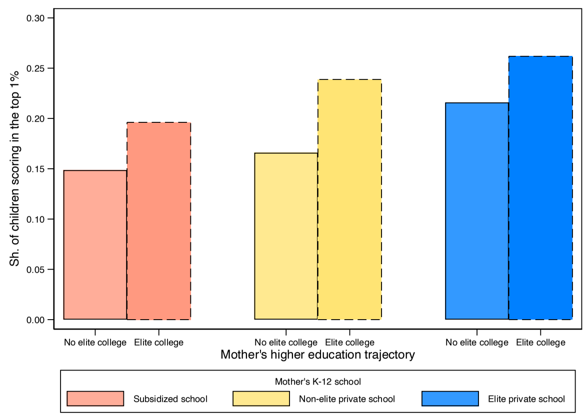
(c) Pr. child attends elite high school



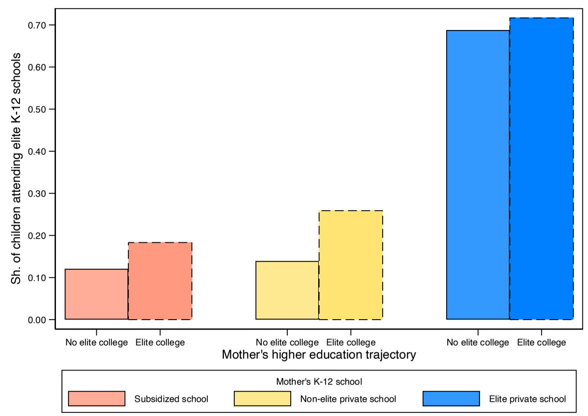
(d) Pr. child attends top college program

This figure illustrates correlations between children's outcomes and their mothers' percentile in the university admission exam distribution, splitting by mother's high school type. Panel (a) illustrates the relationship between mothers' and children's percentiles in the university admission exam. Child outcomes are average percentiles within bins defined by mother's scores. Panel (b) focuses on the probability that a child reaches the top 1% in the university admission exam distribution. Panel (c) shows the probability that a child attends an elite high school. Panel (d) shows the probability that a child attends a top college program. Maroon squares in all panels (at lower left) illustrate cases in which we do not observe mothers' high school and scores. Linear fits in panel (a) exclude observations where mother's scores are not observed. Panels (a) and (b) include cases in which children did not take the admissions exam; these children are treated as having zero rank or not achieving a top score, respectively. See section 4.1 for details.

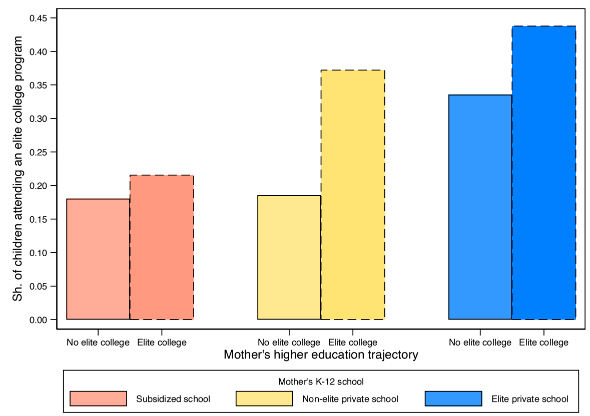
Figure 3: Children's outcomes by mother's elite college program attendance



(a) Pr. child has top 1% score



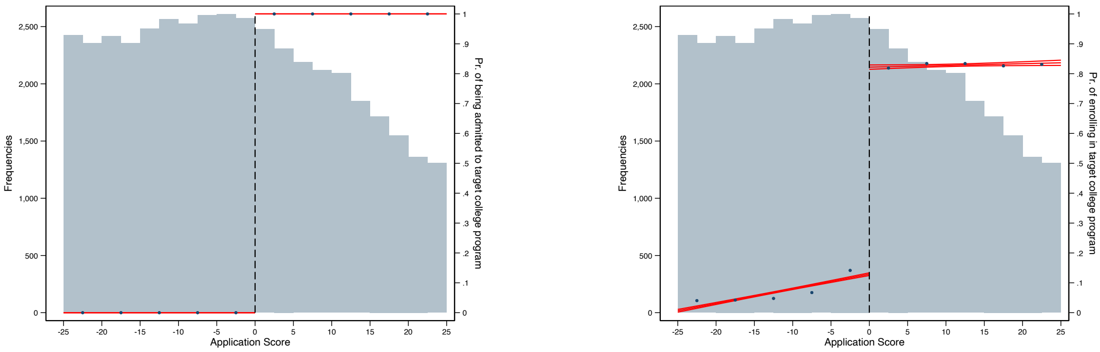
(b) Pr. child attends elite high school



(c) Pr. child attends elite college program

This figure illustrates how children's outcomes relate to whether their mothers attended elite college degree programs. All mothers in the sample used to build this figure scored in the top 1% of the university admission exam. The colors of the bars denote the type of high school attended by the mother. Light bars with solid borders illustrate means for children whose mothers did not attend an elite college program. Dark bars with dashed borders illustrate the means for children whose mothers did attend an elite college program. Panel (a) shows the probability that a child scores in the top 1% of the university admission exam distribution. Panel (b) shows the probability that a child attends an elite high school. Panel (c) shows the probability that a child attends an elite college program. See section 4.2 for details.

Figure 4: Changes in admission and enrollment outcomes around the admission cutoff

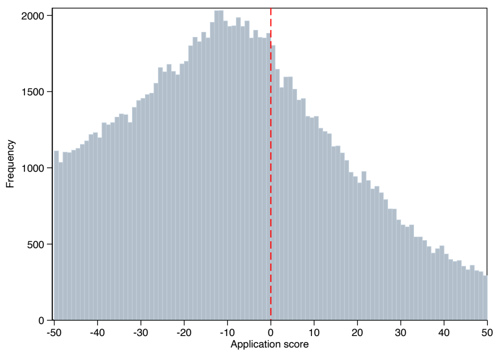


(a) Admitted to target college program

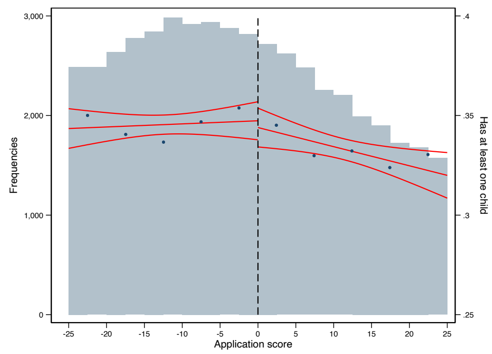
(b) Enroll in the target college program

Panel (a) illustrates how the probability of receiving an offer to an elite college program through the centralized admission system changes around the admission cutoff. Panel (b) illustrates the change in the probability of enrolling in the target elite college program. This figure uses data from the 2006 through 2017 application cycles. These are the years for which we observe enrollment data. The blue bars in the background illustrate the distribution of the running variable (i.e., application scores). Blue dots represent outcome means at different levels of the running variable. The red lines correspond to linear regressions and their 95% confidence intervals and were independently estimated at each side of the cutoff. See section 5.2 for details.

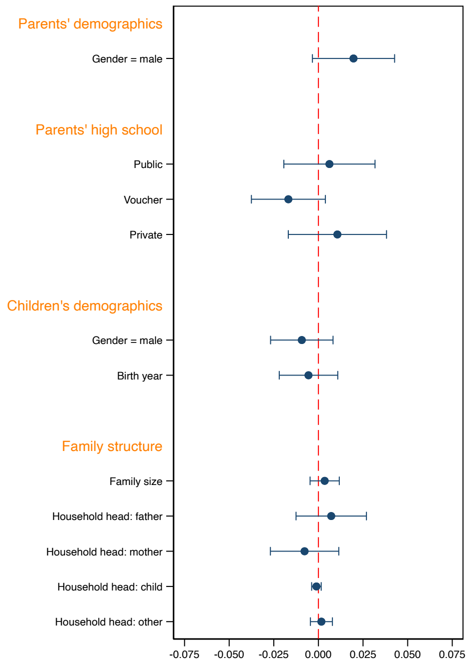
Figure 5: Regression discontinuity validity tests



(a) Distribution of application score



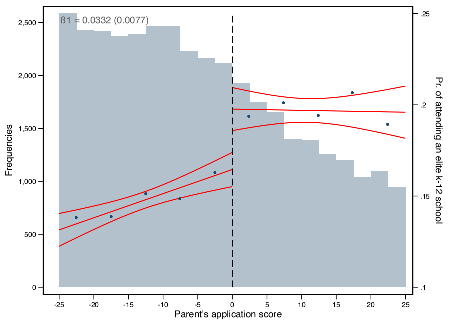
(b) Pr. of having a child



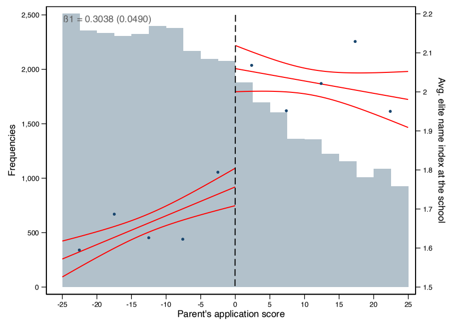
(c) Discontinuities in potential confounders

This figure presents the results of several tests of the validity of the regression discontinuity design. Panel A illustrates the distribution of application scores of individuals applying to elite college programs between 1977 and 2003 (i.e., the years in which we observe parents). Panel (b) uses the same sample to study how admission to an elite college program affects the probability of observing an applicant's child in our sample. Panel (c) reports regression discontinuity estimates of how threshold-crossing affects predetermined covariates. The estimates in Panel (c) come from running specification 1 taking the predetermined covariates as outcomes. Blue dots represent point estimates. Blue lines are 95% confidence intervals. See section 5.2 for details.

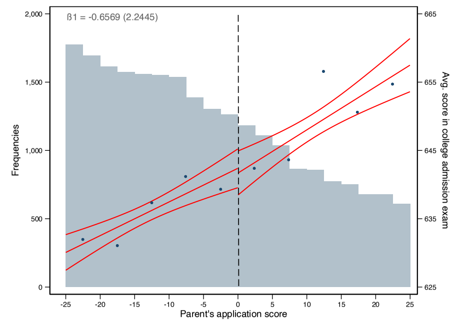
Figure 6: Effect of non-elite parents' admission to an elite college program on children's outcomes



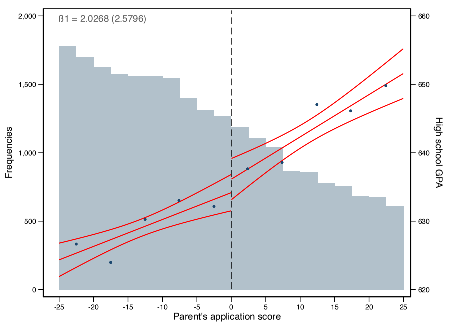
(a) Child attends elite K-12 school



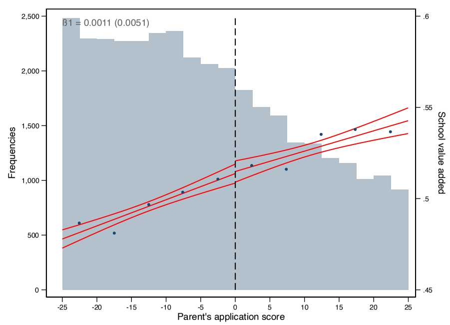
(b) Name index in child's school



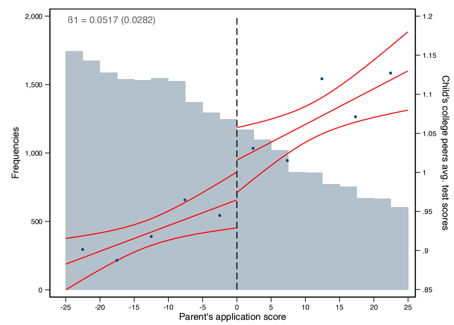
(c) Child's admissions exam score



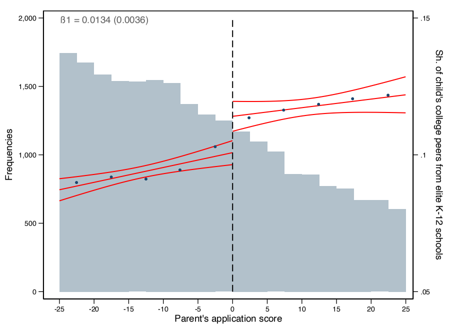
(d) Child's high school GPA



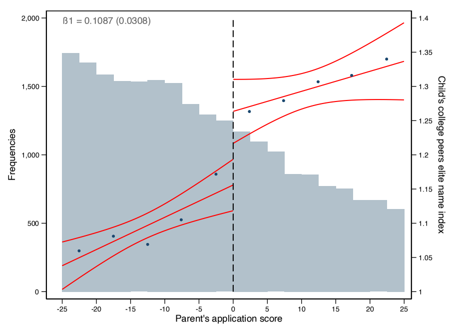
(e) Child's K-12 school value added



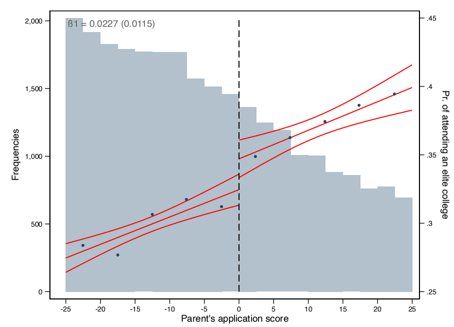
(f) Child's college peers test scores



(g) Child's college peers from elite schools



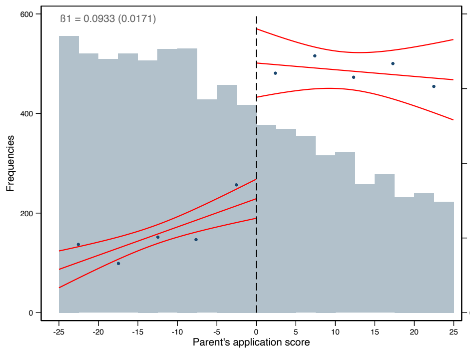
(h) Child's college peers name index



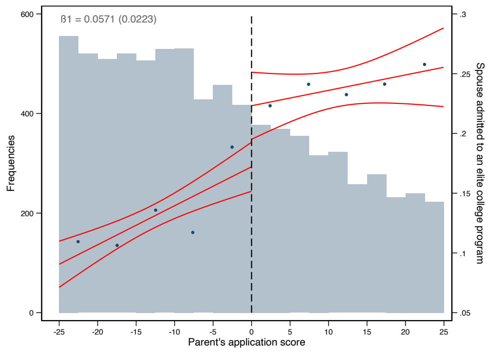
(i) Child attends an elite college

This figure illustrates how children's outcomes change when one of their parents gains admission to an elite college program. The sample is limited to parents applying to elite college programs who did not themselves attend an elite private K-12 school. Panel (a) shows the probability that the children attend an elite K-12 school; panel (b) the elite name index at the children's K-12 school; panel (c) children's average score in the college admission exam; panel (d) children's high school GPA; panel (e) the value added of children's K-12 school; panels (f) to (h) characterize children's college peers in terms of test scores and of their social pedigree; finally panel (h) describes children's probability of attending an elite college (i.e., University of Chile or Catholic University). The running variable—i.e., parent's application score—is centered around the admission cutoff of the parent target degree. Each dot represents outcome averages at different levels of parents' application score. The red lines are fitted values from linear regressions and their 95% confidence intervals, fit separately on each side of the cutoff. The blue bars in the background illustrate the distribution of the running variable in the estimation sample. See section 6.1 for details.

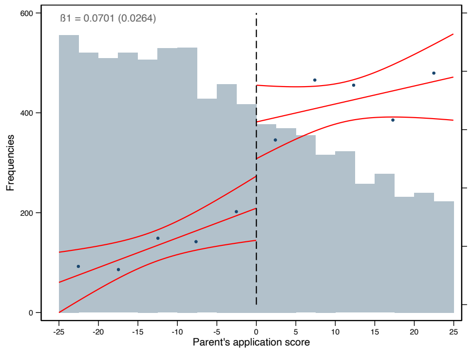
Figure 7: Effects of admission to an elite college program on spouse characteristics



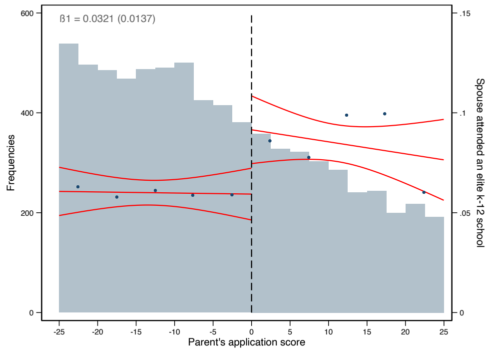
(a) Spouse admitted to target degree program



(b) Spouse admitted to any elite program



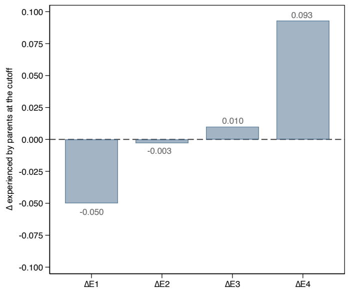
(c) Spouse attended an elite K-12 school



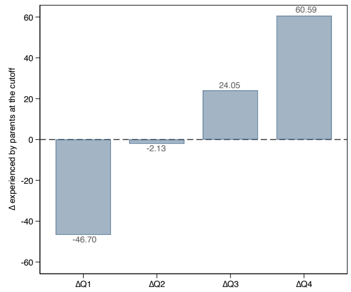
(d) Spouse attended any private K-12 school

This figure illustrates how admission to an elite college program changes the characteristics of spouses. Panel (a) shows the probability of marrying someone admitted to the target (i.e., above-threshold) degree program. Panel (b) shows the probability of marrying someone admitted to any elite college program. Panel (c) shows the probability of marrying someone who graduated from an elite private K-12 school, and panel (d) shows the probability of marrying someone who graduated from any private K-12 school (includes non-elite and elite private schools). The running variable in all cases corresponds to a parent application score. It is centered around the admission cutoff of his/her target program. Each dot represents the mean of the outcome variable at different levels of the parent's application score. The red lines illustrate the slope of the running variable and its 95% confidence interval. The slope is independently estimated at each side of the cutoff using a linear regression. The blue bars in the background show the distribution of the running variable. See section 6.3.4 for details.

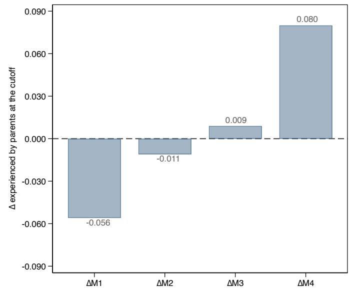
Figure 8: RD estimates of effects of parents' college exposure to elite peers (E), college exposure to high-scoring peers (Q), and college marriage prospects (M) on children's outcomes



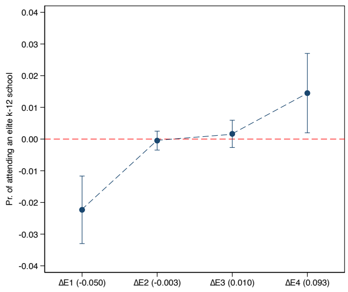
(a) E experienced by parents by ΔE



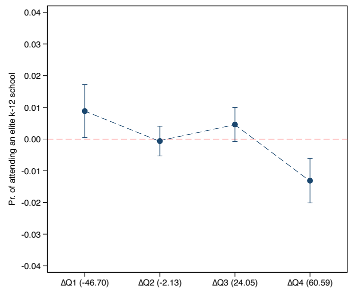
(b) Q experienced by parents by ΔQ



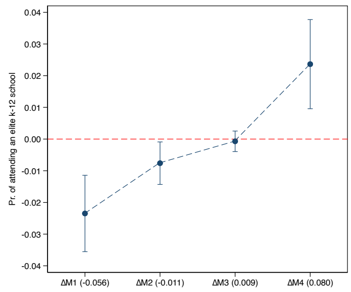
(c) M experienced by parents by ΔM



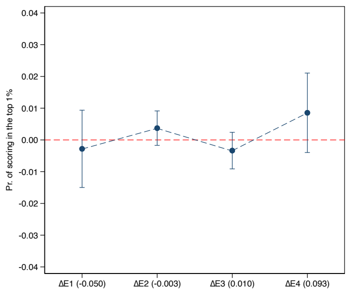
(d) Child attends an elite HS by ΔE



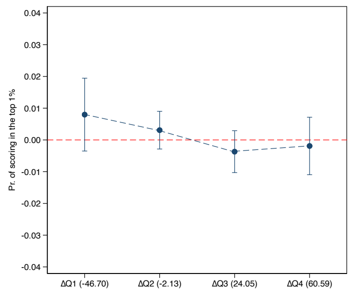
(e) Child attends an elite HS by ΔQ



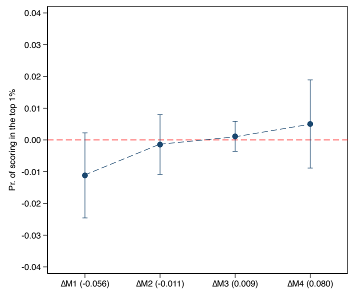
(f) Child attends an elite HS by ΔM



(g) Child scores in top 1% by ΔE



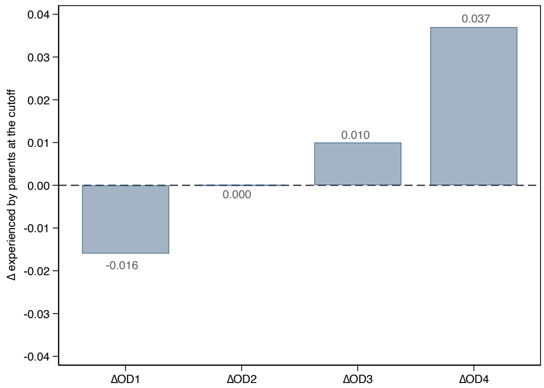
(h) Child scores in top 1% by ΔQ



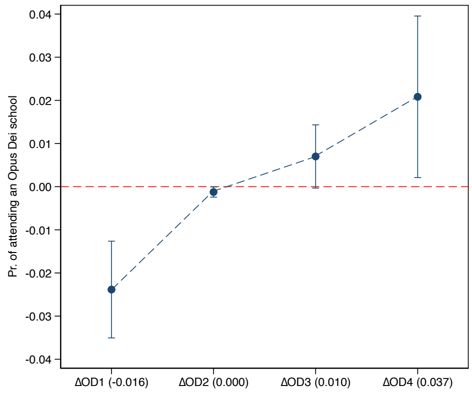
(i) Child scores in top 1% by ΔM

This figure illustrates how outcomes for children change when their parents cross admissions thresholds that shift them between different kinds of college degree programs. All results reported in this table are regression discontinuity estimates of equation 1, splitting the sample by attributes of the target and next option degree programs. The effect of parents' admission to their target college program is allowed to vary depending on the difference in the share of alumni of elite K-12 schools (ΔE), in peers' average score in the college admission exam (ΔQ), and in the share of non-elite students marrying alumni of elite K-12 schools (ΔM) in the target and next best college program. We split the sample in quartiles by ΔE, ΔQ, and ΔM. We then estimate equation 1 in each sub-sample. Each reported estimate represents the crossing threshold effect that being admitted to a target college program has on the outcome variable in the panel title for the listed quartile of ΔE, ΔQ and ΔM. The sample consists of parents who did not themselves attend elite private high schools applying to college degree programs in the centralized system with binding admissions constraints. Panels (a) to (c) illustrate the changes that parents experience at the cutoff in exposure to elite peers (E), in peer academic quality (Q), and in marriage market prospects (M). Panels (d) to (f) show changes in children's probability of attending an elite private K-12 school. Panels (g) to (h) show changes in the probability that the children score in the top 1% of the college admission exam. Vertical intervals in lower two rows are 95% confidence intervals. See section 6.4 for details.

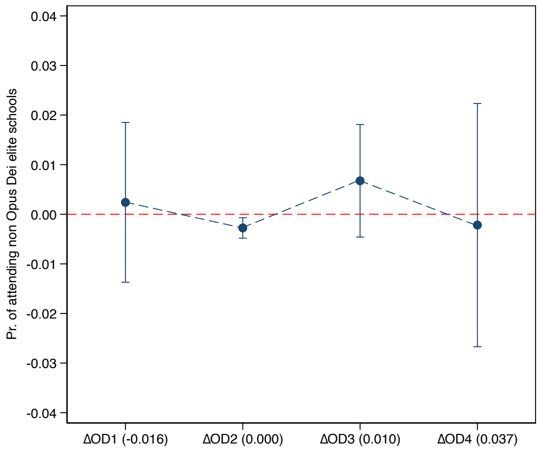
Figure 9: Effects of parents' college exposure to Opus Dei school alumni on children's K12 school



(a) Change in parents' exposure to Opus Dei alumni



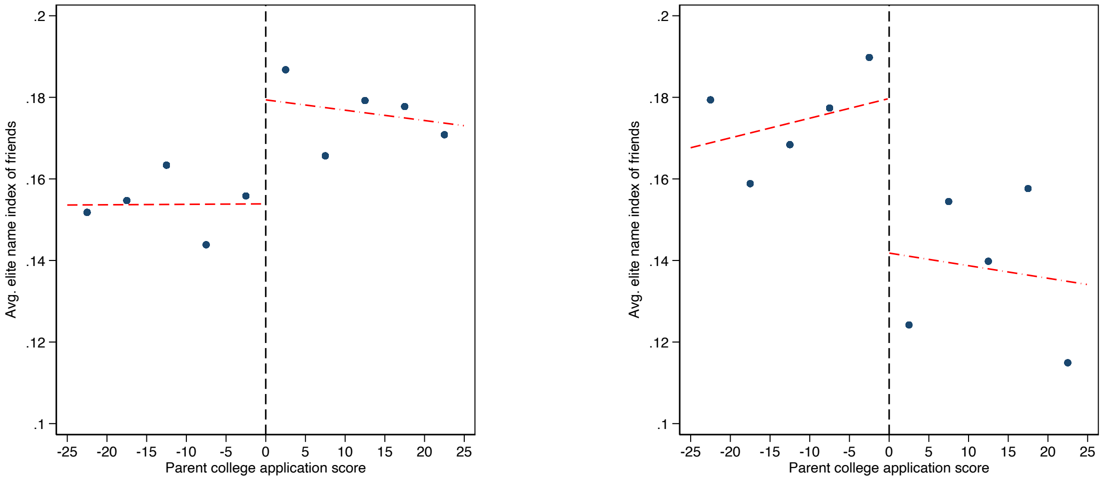
(b) Child attends elite Opus Dei school



(c) Child attends non-Opus Dei elite school

This figure illustrates how exposure to college peers from different elite K-12 schools affects the schools to which non-elite parents send their children. We distinguish between two groups of elite schools: Opus Dei and non Opus Dei. We use the information on each parent's target and next best option to compute the change that he/she would experience in exposure to alumni of Opus Dei K-12 schools if admitted to the target degree program. We then split the sample in quartiles of ΔO (i.e., the change that parents experience in exposure to alumni of Opus Dei schools). We then estimate equation 1 in each sub-sample. Panel (a) illustrates how parents exposure to alumni of Opus Dei schools changes at the cutoff. The estimates in panels (b) and (c) illustrate the effect of parents' admission to their target program on the probability of sending their children to an Opus Dei and to a non Opus Dei elite K-12 school, respectively. The coefficients illustrated by the blue dots in the figures show how the crossing threshold effect changes depending on the size of ΔO, from reductions in the first quartile of ΔO to increases in the third and fourth quartiles. Vertical lines are 95% CIs. See section 6.5 for details.

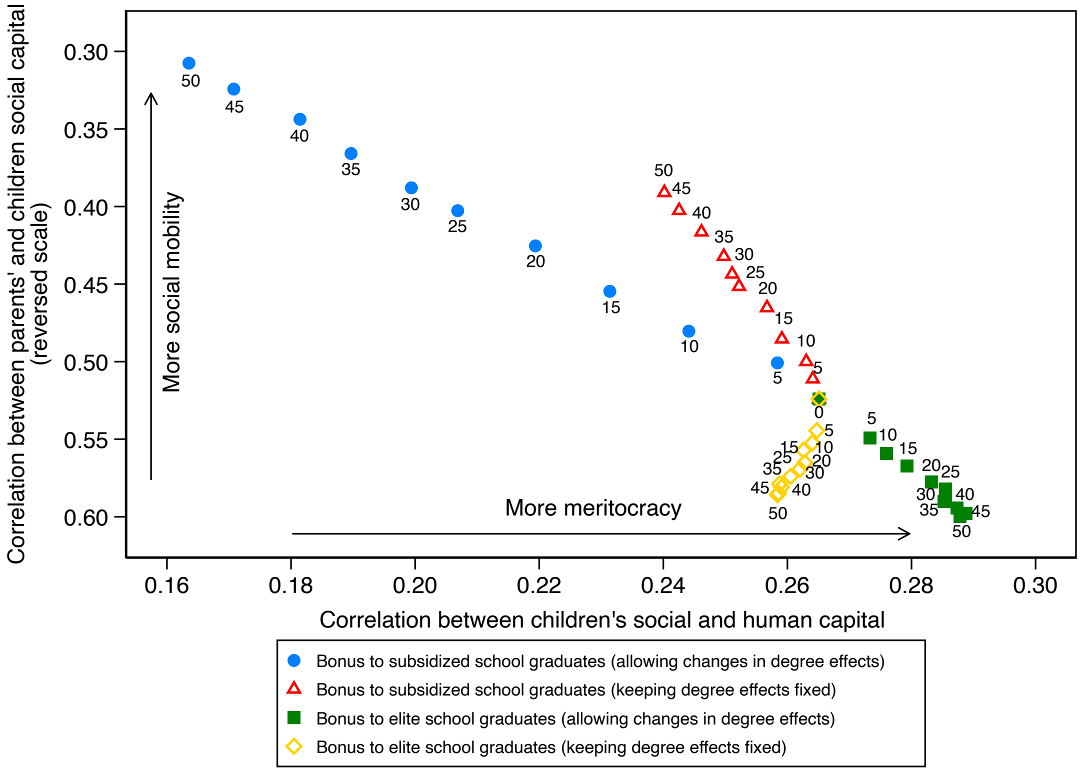
Figure 10: Parents exposure to elite peers in college and elite name index of children's friends in grade seven



(a) $\Delta E > 0$ (b) $\Delta E < 0$

This figure illustrates how parent exposure to alumni of elite K-12 schools during college affects the social status of the friends of their children. Panel (a) illustrates the change experienced by children whose parents were marginally admitted into degrees that increased their exposure to alumni of elite K-12 schools. Panel (b) illustrates the change experienced by children whose parents were marginally admitted into degrees that decreased their exposure to alumni of elite K-12 schools. Blue dots represent outcome means at different levels of the running variable. The red lines correspond to linear regressions and were independently estimated at each side of the cutoff.

Figure 11: The mobility-meritocracy frontier under simulated admissions policies



This figure illustrates the the relationship between the intergenerational correlation of social capital and the intragenerational correlation of human and social capital under simulated admissions policies. The scale of the y-axis—which plots the intergenerational correlation of social capital—is reversed. Each point is calculated from a counterfactual admissions simulation in which students from a given kind of high school (noted in the legend) receive an admissions score bonus of the amount listed next to each point. All simulations hold fixed submitted application lists, program capacity constraints, and admissions process rules and procedures (other than the changes in score calculations for selected groups). Effects of assignment to different degree programs on children's outcomes are based on regression discontinuity estimates of gains from exposure to high-status peers in college, denoted in the legend by E. The solid-filled points allow the effects of parents' assignment to a given degree on children's outcomes to adjust as peer composition shifts, while the the hollow points show results from counterfactuals in which degree causal effects are fixed, so that all changes in outcomes reflect differences in assignments. See section 7.2 for details. The blue circles and red triangles show results from simulations that give score bonus to (low-SES) graduates of subsidized schools, while the green squares and yellow diamonds show results from subsides given to (high status) graduates of elite schools.

Table 1: K-12 school characteristics

	Subsidized schools (1)	Non-elite private schools (2)	Non-elite expensive schools (3)	Elite schools (4)
Standardized tuition fees	-0.152	4.170	8.528	8.484
Standardized admission exam scores	-0.067	1.342	1.812	2.018
Standardized value added	-0.058	0.961	1.748	2.017
Standardized elite name index (Polo club)	-0.102	0.789	1.893	5.734
Standardized elite name index (Who's Who)	-0.084	1.125	2.489	6.107
Observations	9383	451	35	22

Notes: The table characterizes different types of K-12 schools in terms of the tuition fees they charge, the average scores their students obtain in the college admission exam, their value added, and their eliteness. The eliteness of schools is measured by two elite-name indexes based on the last names of their students. The first one uses as reference the last names of the members of an exclusive club in Chile, "Club de Polo y Equitación San Cristóbal", while the second one uses the last names of relevant individuals for the Chilean history identified in de Ramon (2003). Column (a) describes subsidized schools, column (b) non-elite private schools, column (c) non-elite expensive schools, and column (d) elite schools. See section 2.1 for details.

Table 2: Sample construction

	A. Intergenerational Correlations Sample			
	All high school graduates	High school graduates registered for the admission exam	High school graduates registered for the admission exam and reporting parents id	High school graduates registered for the admission exam with parents also taking the exam
	(1)	(2)	(3)	(4)
A.1 Demographic characteristics				
Female = 1	0.52	0.53	0.54	0.52
Age in grade 12	17.88	17.83	17.82	17.79
A.2 Academic characteristics				
High school track: academic	0.57	0.65	0.66	0.84
High school gpa	5.60	5.68	5.69	5.80
Registers for the exam	0.82	1.00	1.00	1.00
Takes the exam	0.75	0.89	0.90	0.96
Math score	499.46	499.87	503.18	544.88
Reading score	495.32	495.68	499.04	539.93
Attends college	0.39	0.47	0.48	0.65
Attends an elite college	0.01	0.02	0.02	0.03
A.3 Socioeconomic characteristics				
Public school	0.44	0.40	0.39	0.25
Voucher school	0.47	0.49	0.50	0.53
Non-elite private school	0.08	0.09	0.10	0.19
Elite private school	0.01	0.01	0.01	0.03
Low income ($< CLP270,000$)	0.52	0.49	0.47	0.28
Mid income ($CLP270,000 - CLP834,000$)	0.34	0.36	0.37	0.42
High income ($> CLP834,000$)	0.14	0.15	0.16	0.30
Parental Ed. = Less than high school	0.15	0.13	0.12	0.00
Parental Ed. = Completed high school	0.52	0.52	0.51	0.36
Parental Ed. = Completed a vocational he degree	0.14	0.15	0.15	0.25
Parental Ed. = Completed a university degree	0.19	0.20	0.21	0.40
Observations	2955112	2430011	2173416	980366
	B. Elite Colleges Sample			
	All college applicants (1977 - 2003)	College applicants with children	Elite college applicants with children (below the admission cutoff)	Elite college applicants with children (above the admission cutoff)
	(1)	(2)	(3)	(4)
B.1 Demographic characteristics				
Female = 1	0.46	0.67	0.50	0.51
B.2 Academic characteristics				
Math score	610.22	599.44	670.91	696.83
Reading score	583.82	574.68	656.25	676.63
Admitted to any college	0.70	0.65	0.83	1.00
Admitted to an elite college	0.04	0.03	0.06	1.00
B.3 Socioeconomic characteristics				
Public school	0.44	0.48	0.31	0.25
Voucher school	0.26	0.23	0.15	0.13
Non-elite private school	0.22	0.19	0.35	0.38
Elite private school	0.03	0.02	0.08	0.13
Observations	878240	360492	8473	6603

Notes: Panel A presents summary statistics for students reaching their high school senior year between 2003 and 2017. Column (a) describes all the students in the sample, column (b) those who register for the university admission exam after completing high school, column (c) students who report their parents ID number, and column (d) students with at least one parent taking the university admission exam between 1968 and 2003. Panel B presents summary statistics for individuals applying to college between 1977 and 2003. Column (a) describes the whole sample, column (b) those for whom we find children, and column (c) and (d) those who in addition to having children applied to top college programs and were near the admission cutoff. Column (c) focuses on those who did not gain admission, while column (d) on those who did gain admission. See section 3 for details.

Table 3: Effects of elite college admission on enrollment outcomes and peer environment

	All schools (1)	Non-elite schools (2)	Elite schools (3)
Pr. of being admitted to target program	1.0000	1.0000	1.0000
	(0.0000)	(0.0000)	(0.0000)
Pr. of enrolling in target program	0.7574	0.7391	0.8594
	(0.0472)	(0.0498)	(0.0344)
Pr. of enrolling in any elite program	0.5249	0.5229	0.5373
	(0.0834)	(0.0839)	(0.1004)
Pr. of enrolling in any elite college	0.2689	0.2823	0.1999
	(0.0544)	(0.0558)	(0.0689)
Avg. peer score in admission exam	26.3319	25.7998	29.6491
	(3.1807)	(3.3436)	(2.7982)
Sh. of peers from elite K-12 schools	0.0471	0.0507	0.0274
	(0.0087)	(0.0074)	(0.0222)
Elite name index of college peers (P)	0.4966	0.4971	0.4575
	(0.1082)	(0.0840)	(0.2635)
Observations	34798	29405	5393

Notes: This table presents regression discontinuity estimates from equation (1) of changes in college applicants' enrollment outcomes and college peer environments when they cross the threshold for admission to an elite degree program. We use data on individuals applying to elite college programs between 2007 and 2018, the years for which we observe enrollment. The titles in each row indicate the outcome variable. "Elite name index of college peers (P)" is the polo club elite name index. Columns reflect estimates in different samples, determined by student high school type. See section 3 for details. An observation corresponds to an individual × college program application. Standard errors clustered at the applicant level are reported in parentheses.

Table 4: Effect of parent admission to an elite college program on children's outcomes

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0448	0.0332	0.0272	0.3431	0.3038	-0.1204
	(0.0079)	(0.0077)	(0.0236)	(0.0518)	(0.0491)	(0.1600)
Observations	42696	37268	5428	42696	37268	5428
Counterfactual mean	0.216	0.158	0.676	2.146	1.730	5.362
	Panel B - Effects on child's human capital					
	Avg. score in the college			High school GPA admission exam		
Parent admitted to target program = 1	0.3738	-0.6569	5.5176	2.4096	2.0278	2.9961
	(2.0936)	(2.2445)	(5.5996)	(2.4097)	(2.5796)	(6.6529)
Observations	26681	23789	2891	26681	23789	2891
Counterfactual mean	641.157	637.936	670.473	634.4533	631.6637	665.0878
	Panel C - Effects on child's college program characteristics					
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0569	0.0517	0.0642	0.0131	0.0134	-0.0005
	(0.0263)	(0.0282)	(0.0697)	(0.0035)	(0.0036)	(0.0121)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.998	0.953	1.410	0.106	0.094	0.219
	Panel D - Effects on child's type of college and program					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0237	0.0227	0.0222	0.0056	0.0050	0.0052
	(0.0108)	(0.0115)	(0.0331)	(0.0086)	(0.0090)	(0.0283)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.315	0.302	0.439	0.156	0.147	0.235

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). The specification also includes parents' application-year fixed effect, parents' target program fixed effect, and parents' next best program fixed effect. Standard errors clustered two ways at the parent × child level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table 5: Effect of parent elite admission on children's outcomes, splitting by child and parent gender

	All children (1)	Daughters (2)	Sons (3)	All children (4)	Daughters (5)	Sons (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite private school			Pr. of attending a non-elite private school		
Non-elite parent admitted to target program = 1	0.0332	0.0392	0.0272	-0.0344	-0.0480	-0.0208
	(0.0077)	(0.0108)	(0.0110)	(0.0096)	(0.0135)	(0.0136)
Observations	37266	18553	18712	37266	18553	18712
Counterfactual mean	0.158	0.158	0.158	0.673	0.668	0.678
Non-elite mother admitted to target program = 1	0.0295	0.0290	0.0306	-0.0349	-0.0495	-0.0204
	(0.0115)	(0.0161)	(0.0166)	(0.0136)	(0.0191)	(0.0193)
Observations	16871	8425	8446	16871	8425	8446
Counterfactual mean	0.173	0.172	0.173	0.709	0.708	0.709
Non-elite father admitted to target program = 1	0.0372	0.0502	0.0241	-0.0322	-0.0428	-0.0206
	(0.0104)	(0.0148)	(0.0147)	(0.0135)	(0.0191)	(0.0190)
Observations	20395	10128	10266	20395	10128	10266
Counterfactual mean	0.146	0.146	0.146	0.642	0.633	0.651
	Panel B - Effects on child's human capital					
	Avg. score in the admission exam			High school GPA		
Non-elite parent admitted to target program = 1	-0.6569	0.0819	-1.4346	2.0268	1.5098	2.7064
	(2.2445)	(3.0693)	(3.2641)	(2.5796)	(3.4651)	(3.7623)
Observations	23786	11847	11938	23786	11847	11938
Counterfactual mean	637.936	631.880	643.907	631.664	645.445	618.038
Non-elite mother admitted to target program = 1	2.9746	3.3879	2.2720	5.8345	5.5504	4.3487
	(3.5472)	(4.8389)	(5.1436)	(4.1602)	(6.3309)	(6.0878)
Observations	8267	4063	4203	8267	4063	4203
Counterfactual mean	652.054	646.589	657.292	645.5378	659.3529	632.2243
Non-elite father admitted to target program = 1	-1.8803	-1.3516	-2.9861	0.5496	-0.6170	1.9672
	(2.8715)	(3.9069)	(4.1931)	(3.2745)	(4.4103)	(4.7714)
Observations	15519	7784	7735	15519	7784	7735
Counterfactual mean	630.109	623.903	636.329	623.9839	637.8906	610.0348
	Panel C - Effects on child's type of college and program					
	Pr. of attending an elite college			Pr. of attending an elite program		
Non-elite parent admitted to target program = 1	0.0227	0.0221	0.0243	0.0050	0.0128	-0.0032
	(0.0115)	(0.0163)	(0.0162)	(0.0090)	(0.0114)	(0.0138)
Observations	27202	13532	13669	27202	13532	13669
Counterfactual mean	0.315	0.325	0.305	0.147	0.111	0.182
Non-elite mother admitted to target program = 1	0.0290	0.0457	0.0117	0.0114	0.0177	0.0053
	(0.0192)	(0.0274)	(0.0271)	(0.0157)	(0.0198)	(0.0241)
Observations	9987	4948	5039	9987	4948	5039
Counterfactual mean	0.352	0.362	0.342	0.175	0.130	0.218
Non-elite father admitted to target program = 1	0.0215	0.0086	0.0337	0.0028	0.0097	-0.0075
	(0.0143)	(0.0204)	(0.0202)	(0.0110)	(0.0141)	(0.0168)
Observations	17215	8584	8630	17215	8584	8630
Counterfactual mean	0.293	0.303	0.283	0.130	0.099	0.161

Notes: The table presents estimates of specification (1) showing the effect of admission to an elite college program on children's education trajectories. The sample is limited to parents who did not themselves attend an elite private school. Columns are sample splits and rows are outcomes. Within each panel, the first row reports effects pooling mothers and fathers, the middle row reports effects for mothers, and the bottom row reports effects for fathers. Columns within each subpanel report, from left to right, estimated effects for all children, daughters only, and sons only. The sample varies across panels. Panel A focuses on children old enough to observe attending primary education (i.e., born before 2014). Panels B and C focus on children old enough to observe applying to college (i.e., born before 2001). Standard errors clustered two ways at the parent × child level are reported in parentheses. The counterfactual mean is the mean of the outcome variables just below the admissions cutoff. See Section 6.3.1 for details.

Table 6: Effect of parents' admission to elite college programs on educational expenditures for children

	Pr. of observing tuition fees (1)	Tuition Fees (CLP) (2)	Pr. of attending an expensive school (3)	Pr. of attending an expensive elite school (4)	Pr. of attending an expensive non-elite school (5)	School type specific mean tuition (CLP) (6)
Parent admitted to target program = 1	0.0017	147,044	0.0414	0.0410	0.0004	95,638
	(0.0079)	(46,444)	(0.0107)	(0.0089)	(0.0093)	(20,249)
Observations	37268	30247	30247	30247	30247	30247
Counterfactual mean	0.810	3,631,832	0.360	0.168	0.192	3,759,138

Notes: The table presents regression discontinuity estimates obtained using equation (1). The is limited to children a) whose parents applied to elite degree programs and did not themselves attend elite private high schools and b) who attend schools for which we observe annual tuition fees (with the exception of the first column). Expensive schools are defined as those charging the same or more than the cheapest elite private school (i.e., CLP 4,790,000). This means that we classify all elite schools in our sample as expensive schools. "Type-specific mean tuition" is the mean value of tuition for the type of school the child attends, where type either elite private or other. Standard errors clustered two ways at the parent × child level are reported in parentheses. "Counterfactual means" are below-threshold means of the outcome variable. See section 6.3.2 for details.

Table 7: Effects of parents' admission to elite college programs on marriage market outcomes

	All Parents (1)	Mothers (2)	Fathers (3)
Spouse observed = 1			
Admitted into target program = 1	0.0113	0.0225	-0.0057
	(0.0132)	(0.0171)	(0.0174)
Counterfactual mean	0.598	0.379	0.825
Spouse was admitted into target program = 1			
Admitted into target program = 1	0.0933	0.1470	0.0660
	(0.0171)	(0.0377)	(0.0170)
Counterfactual mean	0.060	0.115	0.030
Spouse was admitted into an elite college program = 1			
Parent admitted into target program = 1	0.0571	0.0926	0.0396
	(0.0223)	(0.0450)	(0.0235)
Counterfactual mean	0.170	0.296	0.102
Spouse was admitted to an elite college = 1			
Admitted into target program = 1	0.0701	0.0632	0.0741
	(0.0264)	(0.0458)	(0.0330)
Counterfactual mean	0.446	0.475	0.433
Spouse attended an elite school = 1			
Admitted into target program = 1	0.0321	0.0284	0.0337
	(0.0137)	(0.0292)	(0.0155)
Counterfactual mean	0.075	0.099	0.065
Spouse attended any private school = 1			
Admitted into target program = 1	0.071	0.0975	0.0627
	(0.0236)	(0.0458)	(0.0281)
Counterfactual mean	0.397	0.405	0.394
Spouses' performance in admission exam			
Admitted into target program = 1	0.0241	-2.1690	1.7944
	(4.8833)	(7.9793)	(5.9440)
Counterfactual mean	579.228	627.884	556.470
Observations	5834	1953	3821

Notes: The table presents regression discontinuity estimates of specification (1) with spouse attributes as the outcome of interest. The sample is mothers and fathers applying to elite degree programs who did not attend elite high schools themselves. Rows are outcomes and columns are sample splits. Column (1) pulls mothers and fathers together, column (2) focuses on mothers, and column (3) on fathers. Standard errors clustered at the applicant level are in parentheses. "Counterfactual means" are below-threshold means of the dependent variable. See section 6.3.4 for details.

Table 8: Effect of parents' admission to an elite college program on children's neighborhood

	All parents (1)	Non-elite parents (2)	Elite parents (3)
	Panel A - Elite name index		
Parent admitted in target major	0.2552	0.2319	0.1628
	(0.0837)	(0.0838)	(0.2859)
Observations	9424	8579	845
Counterfactual outcome mean	1.930	1.729	4.165
	Panel B - Avg. tuition fees		
Parent admitted in target major	139,813	137,079	37,163
	(47,988)	(49,523)	(132,361)
Observations	9424	8579	845
Counterfactual outcome mean	1,554,473	1,469,199	2,501,308
	Panel C - Avg. scores in the college admission exam		
Parent admitted in target major	6.8683	6.8466	-0.9822
	(2.2252)	(2.3448)	(5.1389)
Observations	9423	8578	845
Counterfactual outcome mean	598.947	594.904	643.840
	Panel D - Census block square meter average price (UF)		
Parent admitted in target major	1.9528	1.4541	1.3382
	(1.0852)	(1.1388)	(2.4436)
Observations	9423	8578	845
Counterfactual outcome mean	52.051	50.489	67.913

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on the characteristics of the neighborhood in which they lived when their children completed high school. We split the sample by parents' high school type as noted in columns. Outcomes are listed in panel sub-headers. We only observe addresses for children completing high school in the Santiago, Valparaiso, and Biobio regions. More than 60% of the student population attends school in one of these three regions. While the analyses presented in panels A to C focus on characteristics of neighbors living in a 100 meter radius, the analysis in panel D focuses on the average square meter price in a census block. In urban areas, a census block coincides with an actual block. The specification includes parents' application-year fixed effect and parents' target program fixed effect. Standard errors clustered two ways at the parent × child level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.3.5 for details.

Table 9: Effects of attributes of parents' college programs on children's outcomes

	Pr. of attending an elite K-12 school	Avg. score in admission exam	High school GPA	Attends an elite college	Attends an elite college program	Avg peer score in college program	Sh. of peers from elite K-12 schools in college	Elite name index among college program peers (P)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Parent admitted in target major=1	-0.0010	0.7376	-0.7236	-0.0006	-0.0009	0.000927	-0.000333	-0.002826
	(0.0017)	(0.7400)	(0.8487)	(0.0030)	(0.0021)	(0.0084)	(0.0008)	(0.0074)
Parent admitted in target major=1 × ΔE (STD)	0.0073	0.0119	0.5176	0.0206	0.0092	0.006499	0.005936	0.047654
	(0.0042)	(1.2489)	(1.3965)	(0.0059)	(0.0043)	(0.0151)	(0.0019)	(0.0161)
Parent admitted in target major=1 × ΔQ (STD)	-0.0077	-2.4424	-1.5139	-0.0060	-0.0018	-0.029007	-0.001908	-0.019350
	(0.0019)	(0.9232)	(1.0636)	(0.0037)	(0.0025)	(0.0104)	(0.0010)	(0.0087)
Parent admitted in target major=1 × ΔM (STD)	0.0097	0.4635	-0.2734	-0.0113	-0.0005	0.008812	-0.000226	-0.001324
	(0.0037)	(1.1585)	(1.3117)	(0.0054)	(0.0038)	(0.0139)	(0.0017)	(0.0145)
Observations	350983	242545	242545	276984	276984	239194	239194	239194
Counterfactual mean	0.063	600.829	603.1494	0.187	0.072	0.647	0.048	0.695

Notes: This table presents estimates from parametric regression discontinuity specification (2) of the effects of attributes of the programs to which parents are admitted on outcomes for children. Each column is a single specification. Reported coefficients are the main effect of admission to the target program and interactions between admission and differences between the attributes of the target and next-option degree program. We consider differences along three dimensions: share of college peers from elite high schools (ΔE), average college peer exam scores (ΔQ), and share of non-elite college peers who marry alumni of elite K-12 schools (ΔM). All the Δ variables are in standard deviation units. Samples vary across columns due to data availability. Column (1) focuses on children old enough to observe attending primary education (i.e., born before 2014). The rest of the columns focus on children old enough to observe applying to college (i.e., born before 2001). "Elite name index among college peers (P)" is the polo club elite name index. We control for a linear polynomial of the running variable, the slope of which is allowed to change at the cutoff. The slope of the running variable on both sides of the cutoff is allowed to vary with ΔE, ΔQ and ΔM. The main effects of ΔE, ΔQ, and ΔM are also included in the specification. We also control for parents' application-year and parents' target program and next option fixed effects. Standard errors clustered two ways at the parent × child level are presented in parentheses. "Counterfactual mean" is the mean below-threshold value of the depend variable. See section 6.4 for details.

Table 10: Inter- and intra-generational correlations between social and human capital

	Baseline model	No direct effect of elite colleges on social capital or on the marriage market ($\alpha_3 = 0, \delta_3 = 0, \psi_3 = 0$)	No direct effect of social capital on elite college attendance ($\gamma_1 = 0$)	No direct effect of elite colleges on social capital ($\alpha_3 = 0$)	No direct effect of elite colleges on marriage market ($\delta_3 = 0, \psi_3 = 0$)
	(1)	(2)	(3)	(4)	(5)
$Corr(S_{it}, H_{it})$	0.1929	0.1379	0.1743	0.1409	0.1868
$Corr(S_{it}, S_{it-1})$	0.3567	0.2384	0.2594	0.2433	0.3490
$Corr(H_{it}, H_{it-1})$	0.2795	0.2718	0.2768	0.2737	0.2769
$Corr(S_{it}, H_{it-1})$	0.2905	0.1935	0.2871	0.1978	0.2841
$Corr(H_{it}, S_{it-1})$	0.1501	0.1288	0.1381	0.1316	0.1460

Notes: The table presents correlations obtained from the VAR model described in Section 7. The figures on the first column come from the baseline model. The figures in columns (2) to (5) come from restricted versions of the model. Restricted versions of the models make some parameters equal to zero, but keep the variance-covariance matrix estimated for the baseline model unchanged.

Elite Universities and the Intergenerational Transmission of Human and Social Capital

Online Appendix

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June 15, 2023
Latest Version

Contents

A Institutions: Further Details

A.1 Elite schools and elite occupations

This section of the Online Appendix provides additional detail on the Chilean primary and secondary education system, extending the discussion in section 2 of the main text. The Chilean school system is organized in two education cycles: primary education—grades 1 to 8—and secondary education—grades 9 to 12. Education is provided by three types of schools: public schools, voucher schools, and non-subsidized private schools. Public schools are free and are funded through student vouchers.[11] Voucher schools are private, but they are publicly subsidized through the voucher system. These schools were able to charge tuition fees on top of the voucher between 1994 and 2015. However, the amount of the voucher they received decreased as their tuition fees increased. Non-subsidized private schools are fully funded through tuition fees and are considerably more expensive than voucher schools.

According to the registers of the Ministry of Education, in the class of 2018—the last one we observe in our data—40% of the students attended a public school, 50% a voucher school, and 10% a private school. For this paper we further divide private schools in two categories: non-elite private schools and elite private schools.

To identify elite private schools we follow an approach similar to Zimmerman (2019). We focus on the cohorts graduating from high school and entering college in the 1970s and 1980s and identify a set of seven schools that consistently place their alumni in elite business and political positions. To identify these schools we rely on three reports produced by a head hunting firm—Seminarium (2003a,b, 2013)—that characterized the education trajectories of business and political leaders in 2003 and 2010. The business leaders characterized in these reports correspond to owners and corporate executives of firms with turnovers above USD 250 million. The political leaders include presidents, ministers, vice ministers, senators, and representatives. When ranking schools according to their representation in different elite occupations, seven traditional elite private schools consistently appear in the top 10. These seven schools are Colegio Craighouse, Colegio de los Sagrados Corazones de Manquehue, Colegio del Verbo Divino, Colegio San Ignacio El Bosque, Colegio Tabancura, Saint George College, and The Grange School. Figure A.I illustrates the share of individuals in elite occupations and in the whole population by type of high school. Alumni of non-elite private and elite private schools are over represented in elite occupations, but this phenomenon is particularly pronounced for the latter group. Despite representing 1% of the high school graduates, their shares in elite occupations fluctuate between 15% (among representatives) and 45% (among large firms owners).

The traditional elite private schools historically enrolled only male students, and some are still male only. Further, many new private schools opened in the 1980s and later, and some these may now be "elite" in their own right. We therefore extend our definition of elite private schools to include both traditional elite schools for women and new elite

[11] In the early 1980s the Chilean school system suffered a major transformation. Public schools were transferred from the Ministry of Education to the municipalities. In addition, the funding system was changed and a voucher system was introduced.

schools.

We identify traditionally elite women's schools in a data-driven way, by looking at schools where the sisters of male students in traditional elite schools enroll. For this exercise we rely on family links available for recent cohorts (i.e., 2004-2018). Using these links we ranked schools according to the share of sisters of elite boys enrolling in them. Table A.I presents this ranking. The list includes some of traditional elites that used to be only for men (e.g., The Grange School), traditional elite female schools (e.g. Villa Maria Academy), and a set of schools founded in the 1980s or later (e.g. Colegio Cumbres, founded in 1986). We end up with a list of seven schools that were and in many cases still are female-only. These schools are Dunalastair, Sagrado Corazon de Apoquindo, Villa Maria Academy, Santa Ursula, Colegio Los Andes, Colegio Huelen, and La Maisonnette.

We identify the new elite schools by compiling a list of eight schools that grew out of traditional elite schools in the 1980s or later. These schools were founded either by alumni of the traditional elite schools or by the same organizations (such as religious groups) that run traditional elite schools. These eight schools are Colegio Apoquindo, Colegio Cordillera, Colegio San Benito, Colegio Cumbres, Colegio Los Alerces, Colegio Monte Tabor y Nazareth, Colegio Everest, and Colegio Huinganal.

Our finding from Table 1 of the main text that elite private school students differ dramatically from other students in terms of social capital name indices suggests that our approach to classification—which did not take name indices into account—is a reasonable one. Data on the schools attended by the children of graduates from traditional elite schools provides further support for our approach. We identify the high schools where graduates from traditional elite schools scoring near the admission cutoff to an elite college program send their children.

Table A.II reports the 25 most common such schools, which together account for 74% of children of parents who attended the traditional elite schools. Schools in our elite group make up the top 12 most common schools in this set, and 19 of the top 25. Later in this Online Appendix we show that the main results of the paper are robust to different definitions of elite schools. We show that the results hold when focusing only on the 14 "traditional elite schools", and also when using a slightly broader definition of elite schools (i.e., all the schools in Table A.II).

Table 1 in the main text describes the distribution of college entrance exam scores by high school type. Figure A.II provides more detail. Students completing their secondary education in elite private schools perform better in the college admission exam than those who complete their secondary education in subsidized and non-elite private schools. Indeed, very few students from subsidized schools score at the very top of the college admission exam. The difference is less pronounced when looking at the graduates of non-elite private schools. Many of them are able to obtain very high scores in the college admission exam.

In section 2.2 of the main text we discuss the overrepresentation of elite private school graduates at selective universities and elite degree programs. Figure A.III provides more detail on this point, and how it relates to elite application and enrollment. Elite private school graduates not only perform better in the college admission exam. Even after conditioning on students' performance in the college admission exam, the graduates of elite private schools are considerably more likely to apply and to be admitted to elite college programs. When looking at students in the top 5% of the college admission exam, we find that the graduates of elite private schools are 15 percentage points more likely to apply to an elite college program than the graduates of non-elite private schools. When comparing them with the graduates of subsidized schools, we find a difference of around 25 percentage points.

The differences we find in applications explain almost completely the gap we document in enrollment. These differences affect the composition of the student body of elite colleges and elite college programs. Among the freshmen starting in any of the elite universities—i.e., University of Chile and Catholic University of Chile—in 2019, 53.46% came from subsidized schools, 36.07% from non-elite private schools, and 10.47% from an elite private school. The over representation of non-elite and elite private school alumni is even larger in the most prestigious programs—i.e., business, law, engineering and medicine—where they represented 43.48% and 17.43% of the first year enrollment respectively. As illustrated in Figure A.IV, it is 16 times more likely to find an elite private school graduate in these programs than in the whole population. Table A.III shows that this over representation phenomenon of elite private school graduates peaks in University of Chile and in the Catholic University of Chile. When looking at the composition of the student body of other selective universities in the country, the shares of elite private school graduates drop dramatically. These results suggest that elite private schools influence their alumni education trajectories in ways that go beyond human capital.

Figure A.V further characterizes schools in terms of their location, fees, social pedigree, and academic results. Panel (a) illustrates the location of non-elite and elite schools in Santiago. The elite schools are concentrated in the north-east, which not surprisingly is also the most expensive area of the city. As Panels (b) and (c) show, elite schools are among the most expensive of the country. However, there are a few similarly expensive non-elite private schools. According to Panels (c) and (d) the graduates of these elite schools obtain very high scores in the college admission exam. Nevertheless, the graduates of some non-elite schools obtain similarly high scores. The dimension in which elite schools really stand out is the social pedigree of their students.

In the main body of the paper we present an exercise to further understand the role of exposure to alumni of elite K-12 schools in college on children's trajectories. For this exercise, we take advantage of the fact that within elite schools, there is a group that belong to the same Catholic organization—the Opus Dei—and that have strong social links between them. Exploiting this feature of the Chilean setting, we study how exposure to specific group of elite peers during college influence children's trajectories. As shown in Figure A.VI, Opus Dei and the rest of the elite schools are located in very similar neighborhoods (panel a), charge similar tuition fees, and have similar eliteness levels (panel b). The two elite schools that rank highest in social pedigree are Opus Dei schools, but the rest of the Opus Dei schools in the sample are similar to other elite schools in this index.

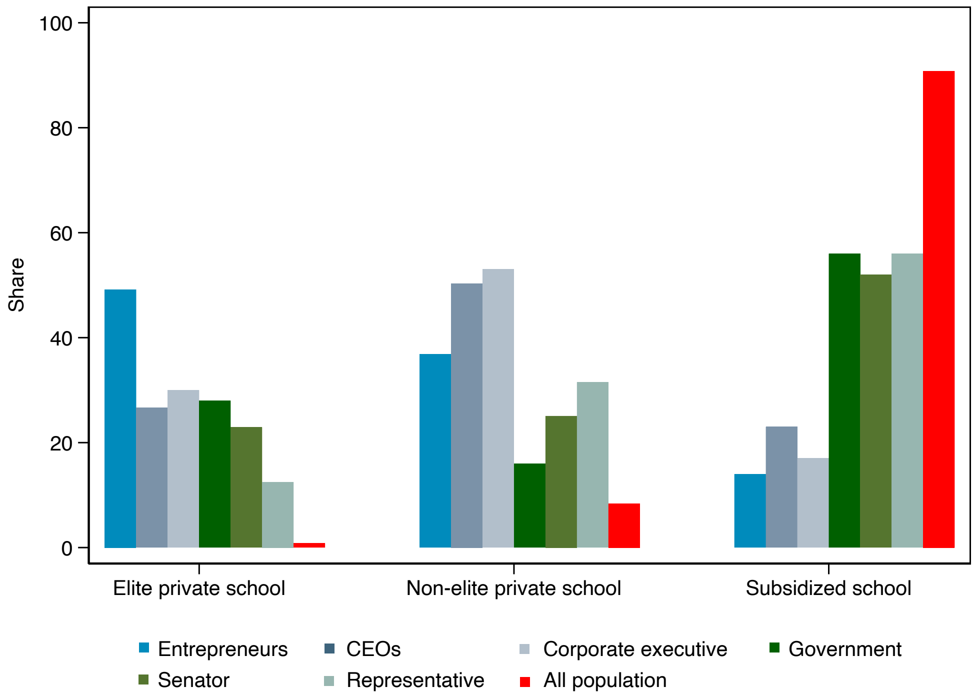
A.2 Elite colleges and higher education finance

This section supplements section 2.2 of the main text with some additional detail on elite universities and higher education finance in Chile. In the main text we note that alumni of UC and PUC make up a large share of business and political elites. As reported in Figure A.VII, more than 60% of the individuals in business or political elite positions come from one of these two institutions.

Turning to college finance, taking the university admission exam and applying to universities is free for students graduating from subsidized high schools (i.e., public and voucher schools). In addition, since tuition fees in Chile are relatively high, there are generous funding programs available for students. Eligibility for different types of financial aid depends on socioeconomic and academic criteria. Subsidized student loans, for instance, are currently available to everyone whose average score in the reading and math section of the admission exam is above the percentile 40. The largest scholarship programs currently require a higher score and are only available for students in the bottom 70% of the income distribution.[12]

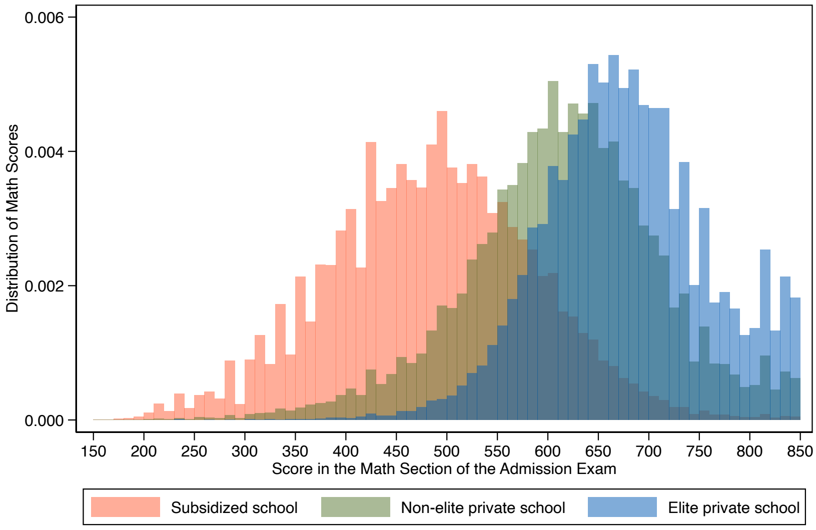
[12]The financial aid system has experienced important transformation in recent years. In addition to making some existing benefits available to more students, new programs have been introduced. For instance, starting in 2015, students in the bottom 60% of the income distribution were eligible for free higher education. Regardless of their scores on the admission exam, if a university that has agreed to participate of the free higher education program admits them, they do not need to pay fees. Universities receive from the government a reference tuition fee for each student admitted under this program.

Figure A.I: Share of individuals in elite occupations by type of high school

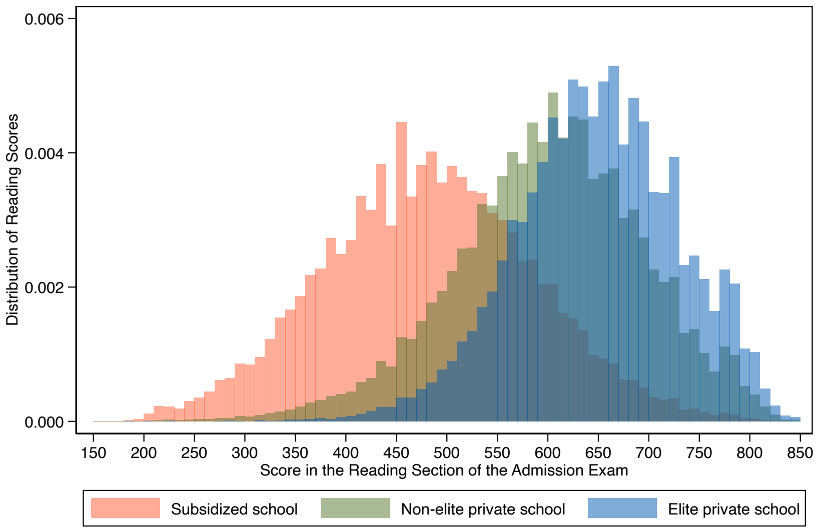


This figure illustrates the share of individuals graduating from elite private, non-elite private and subsidized high schools in different elite occupations and in the whole population. Elite occupations include leadership positions in business and politics. The data for figures comes from three reports developed by Seminarium—a specialized head hunting consulting firm—in 2003 and 2010. See section A.1 for details.

Figure A.II: Distribution of Scores in the College Admission Exam by Type of School



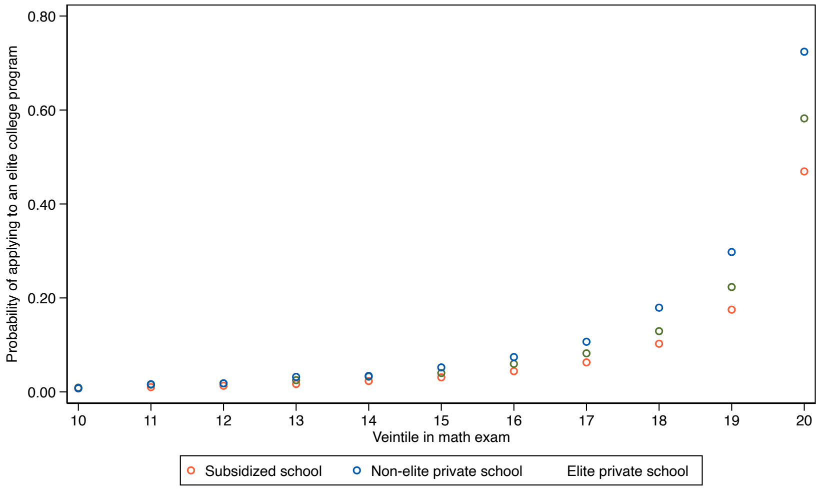
(a) Mathematics Scores



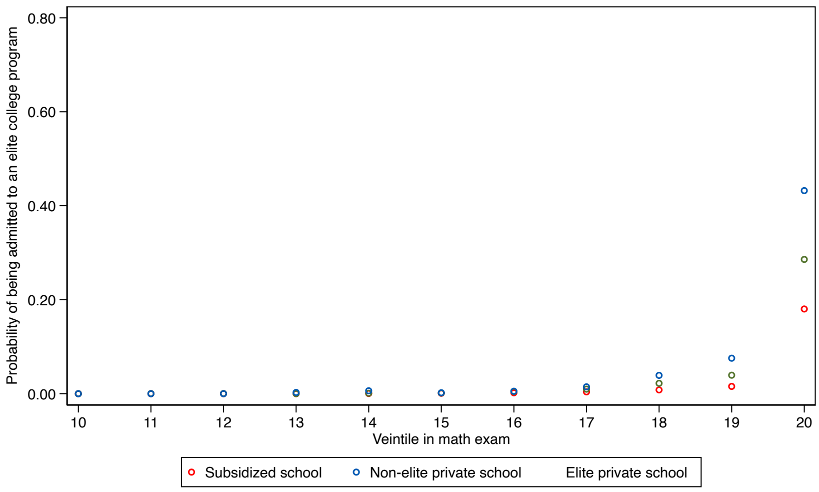
(b) Reading Scores

This figure illustrates the distributions of math and reading scores in the college admission exam distinguishing by the type of school that applicants attended. The plotted distributions only include applicants taking the exam between 2002 and 2017.

Figure A.III: Probability of Applying and being Admitted to an Elite College Program by Type of School



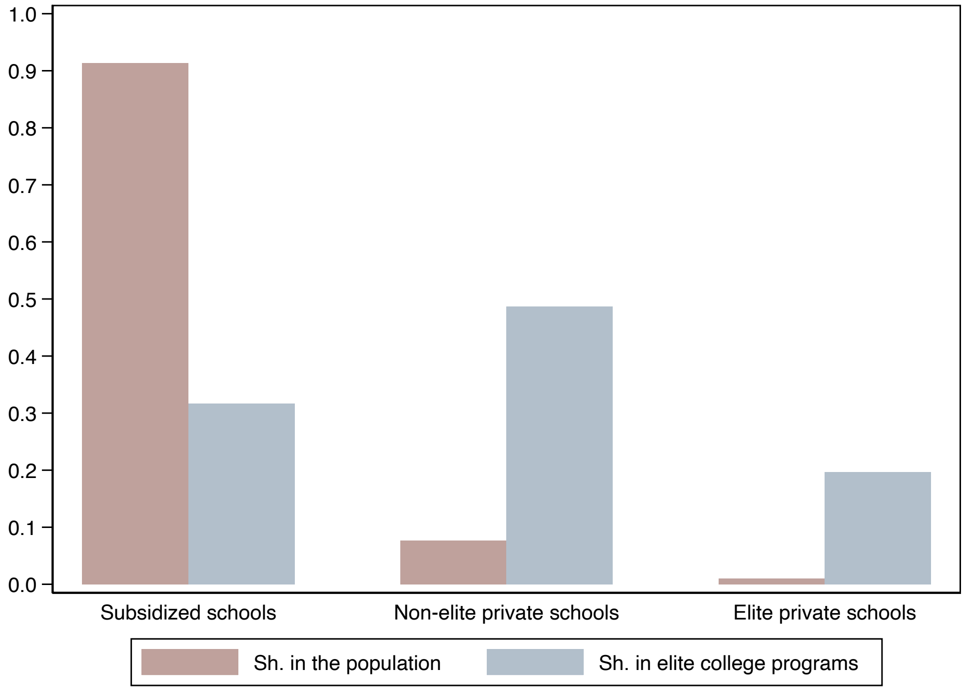
(a) Pr. of applying to an elite college program



(b) Pr. of being admitted to an elite college program

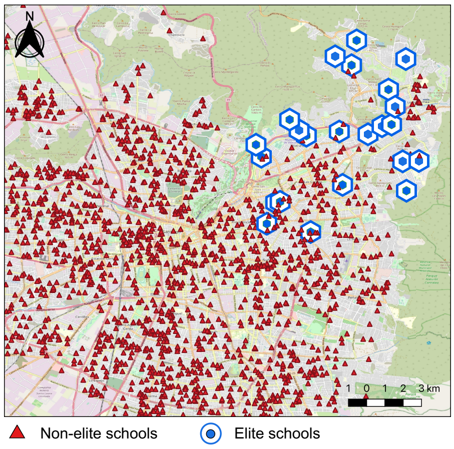
This figure illustrates the probability of applying and being admitted to a top college program for students at different levels of the academic performance distribution. The figure allows these probabilities to vary depending on the type of school in which applicants completed their secondary education. The plotted distributions includes students graduating from high school between 2002 and 2017.

Figure A.IV: Share of individuals in elite college programs by type of school

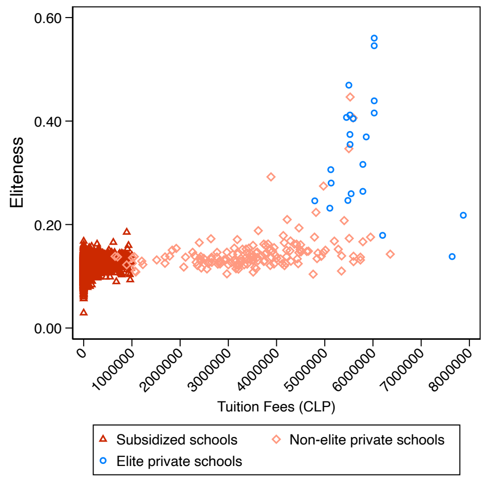


This figure illustrates the share of individuals graduating from different types of schools admitted to elite college programs. The figure also presents the shares that different types of schools represent in the population. The data behind this figure comes from individuals completing high school between 2003 and 2017.

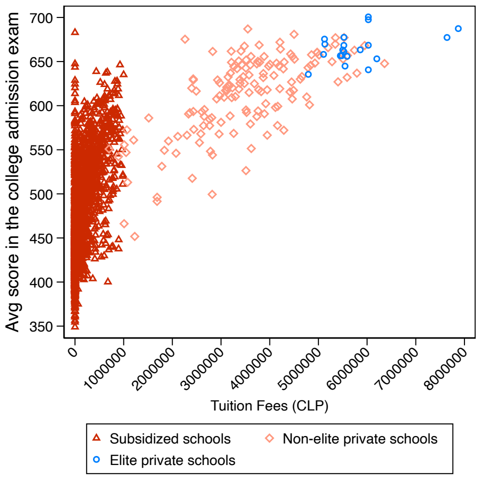
Figure A.V: Characteristics of K-12 schools



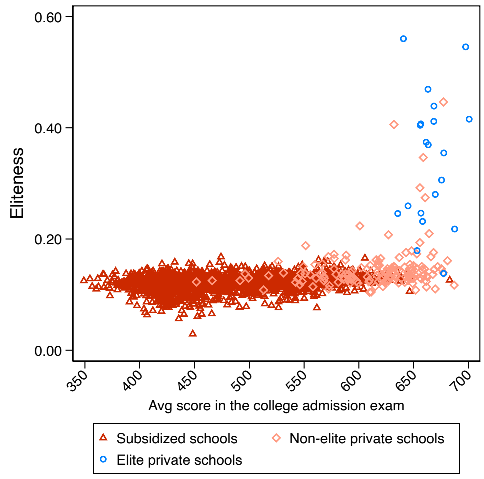
(a) Geographic distribution of schools



(b) Elite names index and tuition fees



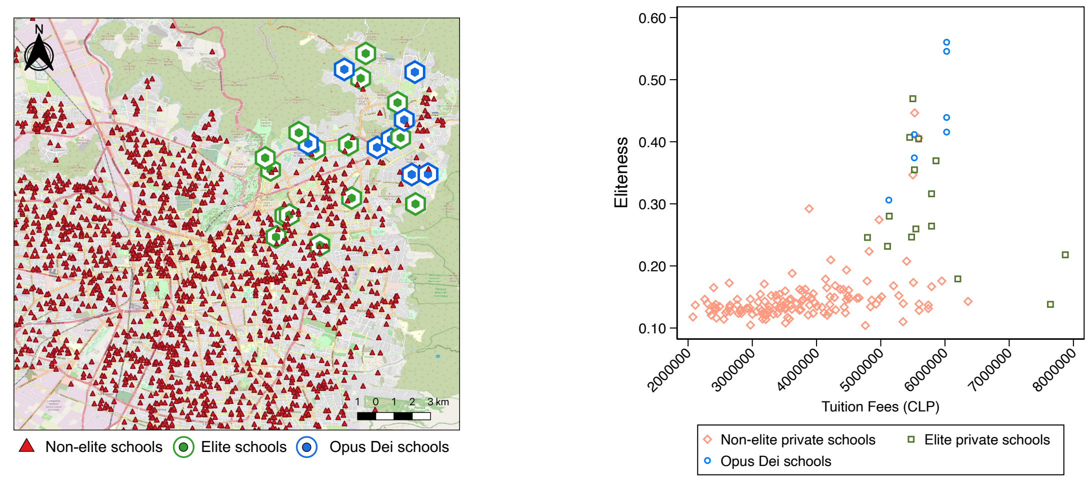
(c) College admission exam and tuition fees



(d) Elite names index and admission exam

This figure describes subsidized, non-elite private and elite private K-12 schools along four dimensions: location, tuition fees, elite names index, and scores in the college admission exam. Panel (a) illustrates where non-elite and elite schools are located in Santiago, the capital city of Chile. Panel (b) illustrates the relationship between tuition fees and the elite last name index discussed in the paper. Panel (c) illustrates the relationship between tuition fees and average performance in the college admission exam. Finally, panel (d) illustrates the relationship between average performance in the college admission exam and the elite names index. See section A.1 for details.

Figure A.VI: Characteristics of Opus Dei K-12 private schools

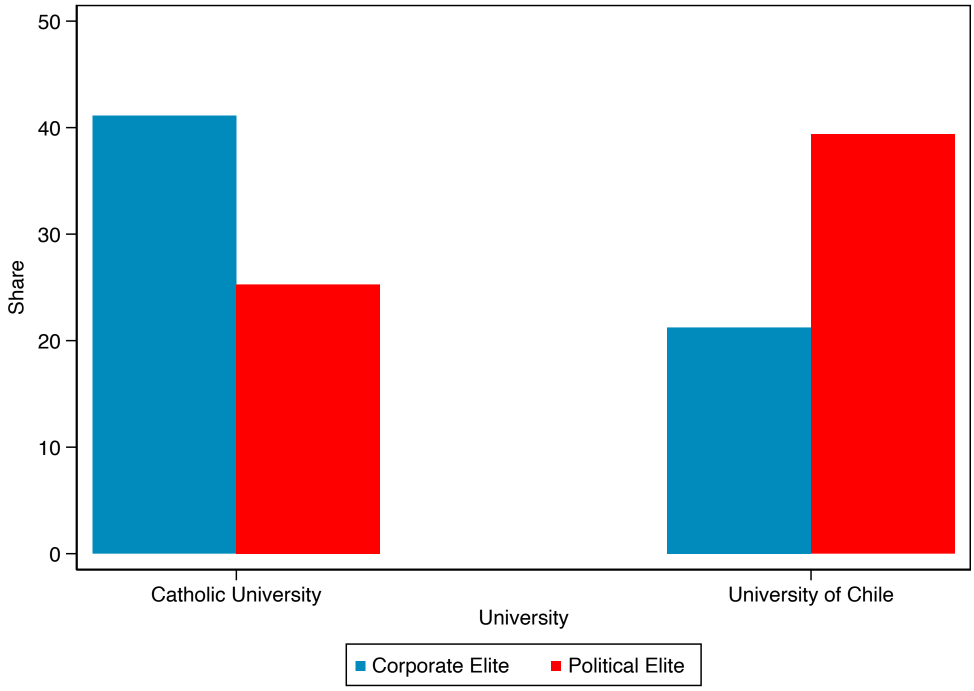


(a) Geographic distribution of elite schools

(b) Elite name index and tuition fees

This figure characterizes two different type of elite schools: Opus Dei and non Opus Dei. Panel (a) illustrates the locations of these schools, while panel (b) their elite name index and tuition fees. Both groups of schools are quite similar in terms of location, fees, and eliteness.

Figure A.VII: Share of individuals in elite occupations by university



This figure illustrates the share of individuals graduating from the two most selective universities in Chile—i.e., Universidad de Chile and Universidad Católica—and their participation in elite business and politics occupations. The data behind these figures comes from three reports developed by Seminarium—a specialized head hunting consulting firm—in 2003 and 2010. See section A.2 for details.

Table A.I: Schools attended by sisters of boys enrolled in traditional elite K-12 schools

Rank (1)	School (2)	Share of sisters (%) (3)
1	Colegio Cumbres	11.86
2	Colegio Los Andes de Vitacura	11.78
3	Colegio Everest	7.68
4	Colegio Villa Maria Academy	7.57
5	Colegio Los Alerces	7.24
6	Colegio Tabor y Nazareth	7.14
7	Colegio del SC de Apoquindo	6.17
8	Colegio Saint George College	5.03
9	Colegio San Benito	4.77
10	Colegio Huelén	4.54
11	SS.CC. de Manquehue	3.78
12	Colegio Santa Úrsula	3.75
13	Colegio The Grange School	3.06
14	Colegio Apoquindo	1.56
15	Colegio Dunalastair	1.38
16	Colegio La Maisonnette	1.10
Total		88.41

Notes: The table presents the schools most commonly attended by the sisters of boys enrolled in traditional elite K-12 schools. The share were computed using the universe of high school graduates registering for the university admission exam between 2003 and 2018. See section A.1 for details.

Table A.II: K-12 schools attended by children of parents who attended older elite K-12 schools

Rank (1)	School (2)	Share of children of elite parents (%) (3)
1	Colegio Cumbres*	6.66
2	Colegio Everest*	6.66
3	Colegio del Verbo Divino*	5.22
4	Colegio Saint George*	5.17
5	Colegio San Benito*	4.99
6	Colegio The Grange School*	4.75
7	Colegio Villa Maria Academy*	4.54
8	Colegio Tabancura*	4.37
9	Colegio Tabor y Nazareth*	3.90
10	Colegio Los Andes*	3.43
11	Colegio Cordillera*	2.63
12	Colegio Los Alerces*	2.40
13	Colegio San Anselmo	2.35
14	Colegio SS.CC. de Manquehue*	1.98
15	Colegio Santiago College	1.88
16	Colegio San Isidro	1.79
17	Colegio Santa Úrsula*	1.65
18	Colegio Padre Hurtado y Juanita de los Andes	1.58
19	Colegio San Ignacio El Bosque*	1.51
20	Colegio SC de Apoquindo*	1.48
21	Colegio Huelén*	1.41
22	Colegio Craighouse*	1.08
23	Colegio The Newland School	1.03
24	Colegio Francisco de Asís	0.96
25	Colegio La Maissonette*	0.96
Total		74.39

Notes: The table presents the schools most commonly chosen by elite parents (those who attended older elite K-12 schools) near the admission threshold of an elite college program for their children. The stars indicate schools that we identify as elite private schools using our classification scheme. See Online Appendix A.1 for details.

Table A.III: Share of Students from Elite Schools in Different College Programs

College	Business/Economics (1)	Civil Engineering (2)	Law (3)	Medicine (4)
Universidad Católica de Chile	29.7	22.6	25.3	11.8
Universidad de Chile	13.9	6.0	9.5	6.7
Universidad de Concepción	0.4	0.1	0.7	0.5
Universidad Católica de Valparaíso	2.9	1.6	3.8	
Universidad Técnica Federico Santa María	3.3	3.9		
Universidad de Santiago	7.6	4.4		3.6
Universidad Austral	0.6		0.4	0.3
Universidad de Valparaíso	0.6	2.0	0.5	1.9

Notes: The table presents the share of elite school students admitted into different college programs. Figures were computed using individuals applying to college between 1978 and 2003. See Online Appendix A.1 for details.

B Variable construction

This section provides additional details on variable construction.

B.1 Tuition fees

School tuition fees were obtained from two sources. First, from the Ministry of Education we obtained information on the tuition fees charged by voucher schools. Voucher schools were allowed to charge tuition fees on top of the voucher between 1994 and 2015. We normalized these tuition fees so they reflected the 2021 level of prices. The information on the tuition fees charged by private schools was manually collected. To reduce the number of schools for which we needed this information, we focused on the private schools attended by the children of individuals applying to elite college programs whose scores put them within the bandwidth we use in our main analyses. In most cases, this information was available on the websites of the schools. If the tuition fees on the website did not correspond to 2021, we adjusted them so they would reflect 2021 price levels. In a few cases, however, we directly called the schools to inquire about their prices. Combining these different sources we were able to collect data on the tuition fees charged by the schools attended by more than 80% of the children in our sample. As reported in Table 6 in the main text, there is no change at the cutoff in the probability of observing the tuition fees that parents paid for their children K-12 schools.

B.2 K-12 school value added

One of the variables we use to characterize the K-12 school that the children of elite college program applicants attend is the school value added. To build this variable we exploit the fact that in Chile there is a standardized test—SIMCE—that is regularly applied to primary and secondary education students. For this exercise, we focus on the test scores that students obtain when they are in grade 10 (this is the only high school grade in which the standardized test is applied). We combine the test scores with a rich vector of socioeconomic and demographic students' characteristics and estimate the following specification:

$$Y_{it} = \beta_0 + \Sigma_{k=1}^{K} \beta_k X_{kit} + \mu_t + \mu_{s(it)} + \varepsilon_{it}$$

where Y_{it} is the average of the scores that students obtain in the reading and math section of the exam, X_{kit} is one of the K controls we include in this specification, μ_t is a year fixed effect, and μ_s is a school fixed effect. Our measure of school value added is given by μ_s.

The controls X_{kit} include gender, dummies for birth year, dummies for parental education (less than high school, completed high school, vocational higher education, university education), dummies for three household income categories (low, middle, high), dummies for three categories of books at home (less than 10, 10 to 50, more than 50), and two dummies indicating the availability of a computer and of Internet at home.

B.3 Neighborhood characteristics

In Section 6.3.5 we study how parents' admission to elite college programs affects the neighborhood in which they live when their children complete high school. To characterize neighborhoods, we compute the average elite name index, tuition fees, and college admission exam scores of children within a 100- and 200-meter radius of each child's home address, excluding the reference child. We identify neighbors using data from Barrios-Fernández (2022). This data contains geocoded addresses of students completing high school between 2004 and 2012 in three regions of Chile: the Metropolitan Region of Santiago, the Valparaiso Region, and the Biobio Region. More than 60% of the student population comes from one of these three regions. We match children in our sample with his/her neighbors completing high school between 2004 and 2012. We build this measure only for children old enough to complete high school between 2004 and 2012 in one of the three regions in which we observe addresses. On average, these children have 38.65 neighbors in a 100 meters radius, and 128.50 neighbors in a 200 meters radius.

We do not have information on the characteristics of the houses in which children live with their parents, but we do observe the value of the square meter at the census block level. Census blocks are the smallest geographic unit used in the Chilean census, and in urban areas they coincide with actual city blocks. As in the case of the variables described in the previous paragraph, we build this variable for children completing high school between 2004 and 2012 in the three regions for which we observe addresses. The land prices used in this section are reported in an inflation adjusted account unit, UF.

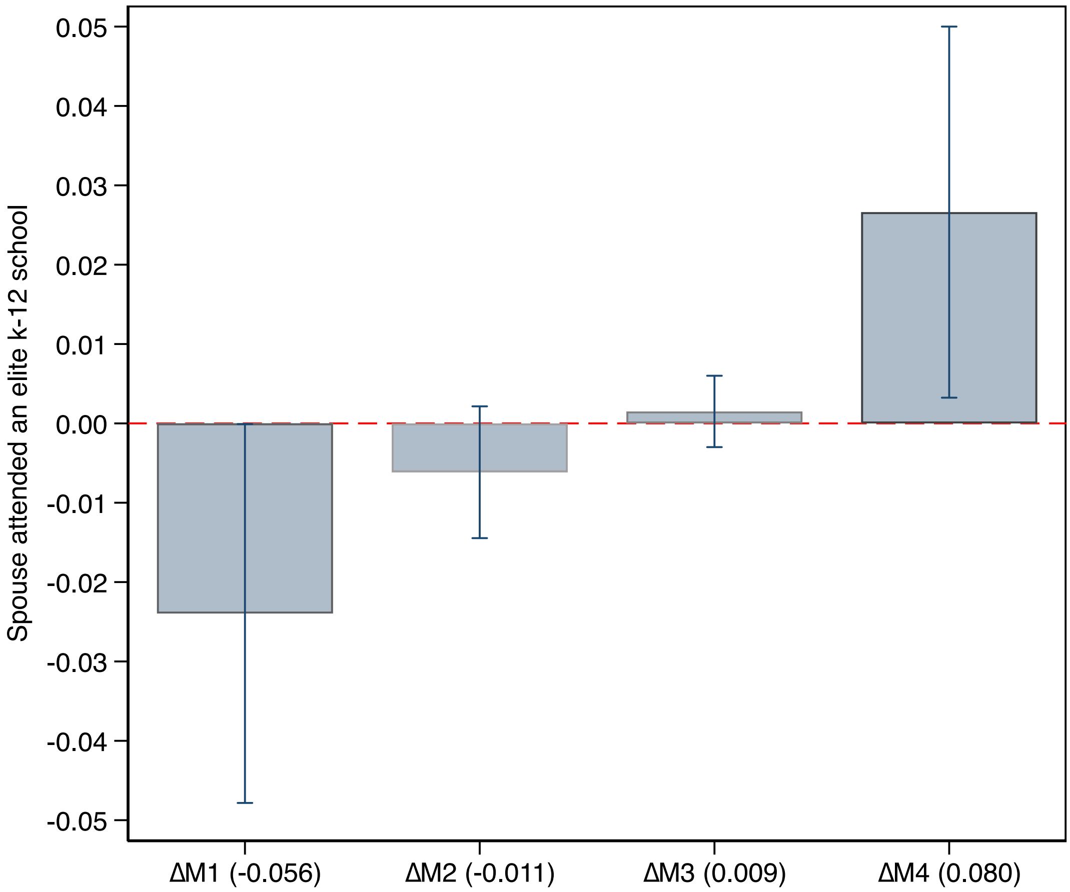
B.4 Marriage market strength in college degree programs

In section 6.4 we develop program-specific measures of marriage market prospects. The goal is to capture variation in the likelihood that non-elite individuals admitted to specific college programs will marry elite individuals. We build a measure M_{dt} that is equal to the share of non-elite admitted students marrying elite individuals for each college program d and each application year t. When computing these shares for individuals applying to college in year t we only used applicants from other years t^{-}.

The point of this measure is that admission to degrees with higher values of M_{dt} should raise the rate at which non-elite students go on to marry elite students. We test its performance by estimating regression discontinuity specifications of the form given in equation (1), splitting by quartile of ΔM—the difference between the value of M_{dt} at the target and next-option degree for a given individual. For context, panel (c) of Figure 8 in the main text reports how values of M_{dt} at the degrees where students are admitted change across the cutoff. For students in the top quartile of ΔM, admission to the target degree raises M_{dt} at the degree where they are admitted by 0.08. Changes in M_{dt} are close to zero in the middle two quartiles, and negative in the bottom quartile. If actual marriage outcomes track measures track our measure of marriage market opportunity, we should observe similar patterns, though perhaps different magnitudes.

We report results in Figure B1, with each bar representing a regression discontinuity estimate. We observe an increasing pattern across quartiles of ΔM, with negative effects in the bottom quartile, approximately zero effects in the middle two quartiles, and positive effects in the top quartile. In short, the change applicants experience in the probability of marrying into the elite is proportional to ΔM_{dt}. We interpret this as evidence that our measure of marriage market opportunity does a credible job of predicting changes in marriage market experiences for individuals randomized into different degree programs.

Figure B1: Effect of admission to an elite college program on marriage market outcomes



This figure reports regression discontinuity estimates from equation 1 where the outcome is an indicator for whether one's spouse attended an elite private high school, splitting the sample by cross-threshold changes in our measure of degree-specific marriage market prospects M. Each bar is a regression discontinuity estimate and the sample is split by quartiles of ΔM, from the bottom quartile on the left to the top quartile on the right. Numbers in parentheses on the horizontal axis the mean values of cross-threshold changes in M within the quartile as reported in Panel (c) of figure 8. Vertical bars are 95% CIs. See section B.4 for details.

C Intergenerational correlations

C.1 Alternate human capital measures

The rank-rank correlations between child and parent scores in the main text are based on college admissions exams. However, not all children take the college admission exam. As reported in Table 2, the college admission exam is taken by 75% of high school graduates, and by around 90% of children for whom we identify parents. In this section we complement the results in the main body of the paper by estimating rank-rank correlations that use children's performance on a standardized test applied to all students at the end of grade 10 rather than their college entrance exam scores. The grade 10 standardized test is known as the SIMCE. The downside of the SIMCE measure is that the test is not administered every year. Thus, these rank-rank correlations only include children who were in grade 10 in 2001, 2003, 2006, 2008, 2010, 2012, 2013 or 2015.

We find similar patterns to those reported in the main text. Panel (a) of Figure C.I displays rank-rank correlations between children and mothers, while panel (b) displays correlations between children and fathers. Although the slopes are slightly smaller than those obtained using the admissions exam data for children's ranks, a clear positive correlation remains. In addition, the children of parents who attended elite private high schools obtain on average higher scores, with convergence across social status groups as mother's test scores rise but not as father's test scores rise.

C.2 Intergenerational correlations between fathers and children

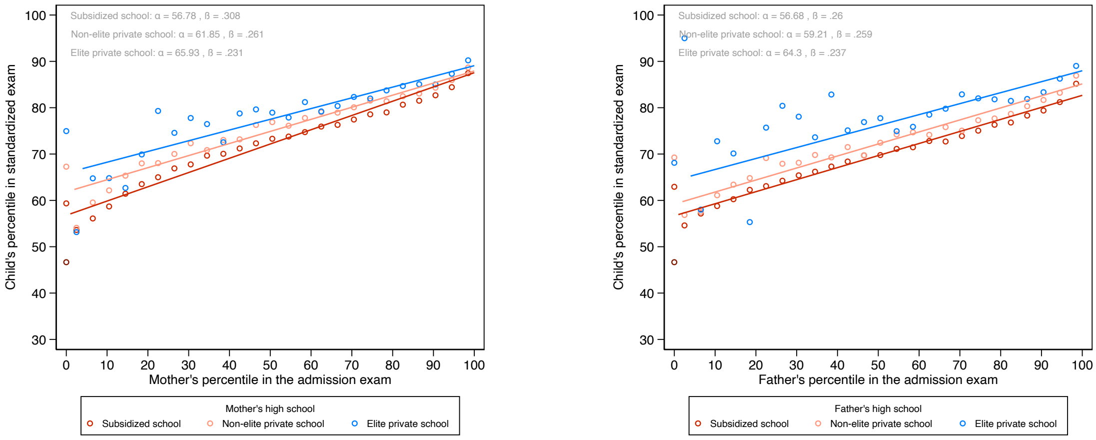
In section 4 we discuss correlations between mothers' outcomes and outcomes for children. This section presents a parallel analysis of correlations between fathers' outcomes and children's outcomes. Figure C.II reproduces main text Figure 2 but using data for fathers rather than mothers. Panel (a) presents rank-rank correlations between fathers' and children's performance on the college admission exam. As in the case of mothers, we find a positive rank-rank correlation of between 0.3 and 0.4. As noted in the main text, an important difference we observe is that slopes are similar across different levels of fathers' social capital. Unlike what we observed for mothers, there is little convergence at the top of the score distribution. Results for other outcomes parallel those in main text Figure 2.

Figure C.III repeats main text Figure 3 but using data for fathers rather than mothers. Qualitative patterns are similar across the board.

C.3 Intergenerational correlations between parents and children

Figure C.IV reproduces main text Figure 2, replacing outcomes for mothers with average outcomes for both parents. The sample is limited to children for whom we have college admissions exam data for both parents. Broad patterns are similar to those reported in the main text. Panel (a) in Figure C.IV presents rank-rank correlations between parents and children's performance on the college admission exam. We find a positive rank-rank correlation of between 0.3 and 0.5. The slopes estimated when focusing on parents who attended subsidized or non-elite private K-12 schools are larger than when looking independently at mothers or fathers. Other measures of children's human and social capital also improve with parents' average performance on the college admission exam.

Figure C.I: Correlations between Parents' Scores in the College Admission Exam and Children's Scores in SIMCE

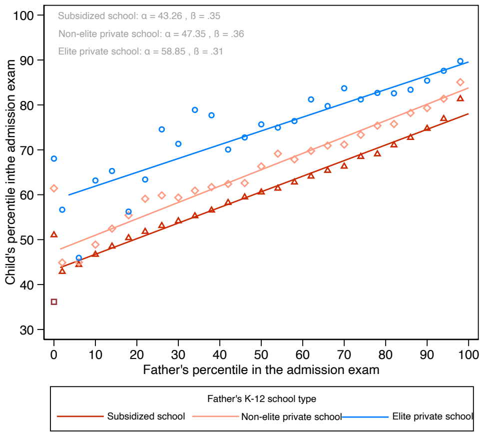


(a) Mothers

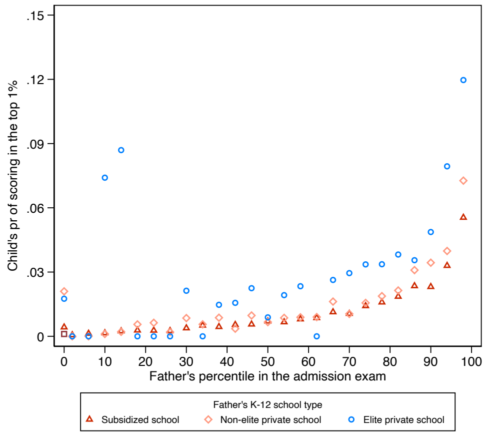
(b) Fathers

This figure illustrates rank-rank correlations between parents' scores in the college admission exam and their children scores in the SIMCE. The SIMCE is a standardized test that students take at the end of grade 10. We allow the correlations to vary depending on the type of high school attended by the parents. Panel (a) focuses on correlations between mothers and children, while panel (b) between fathers and children.

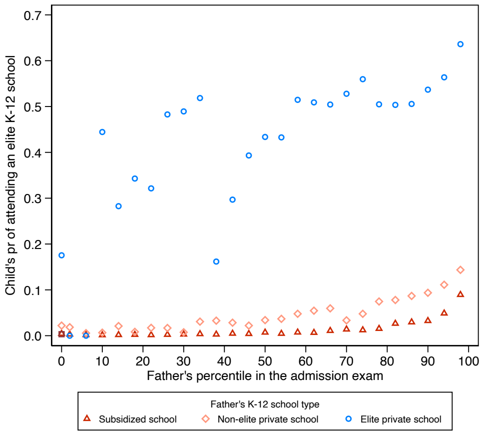
Figure C.II: Correlations between Fathers' Scores and Children's Outcomes by father's K-12 school type



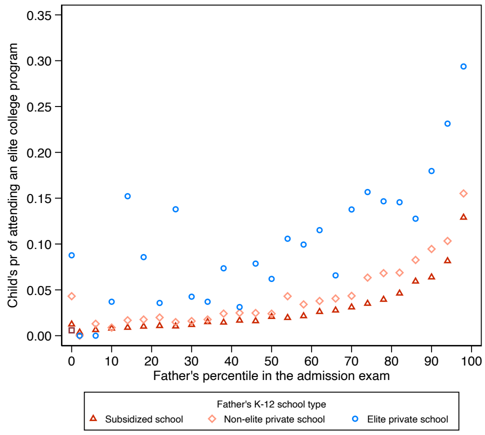
(a) Rank-rank correlations



(b) Child scores in top 1%



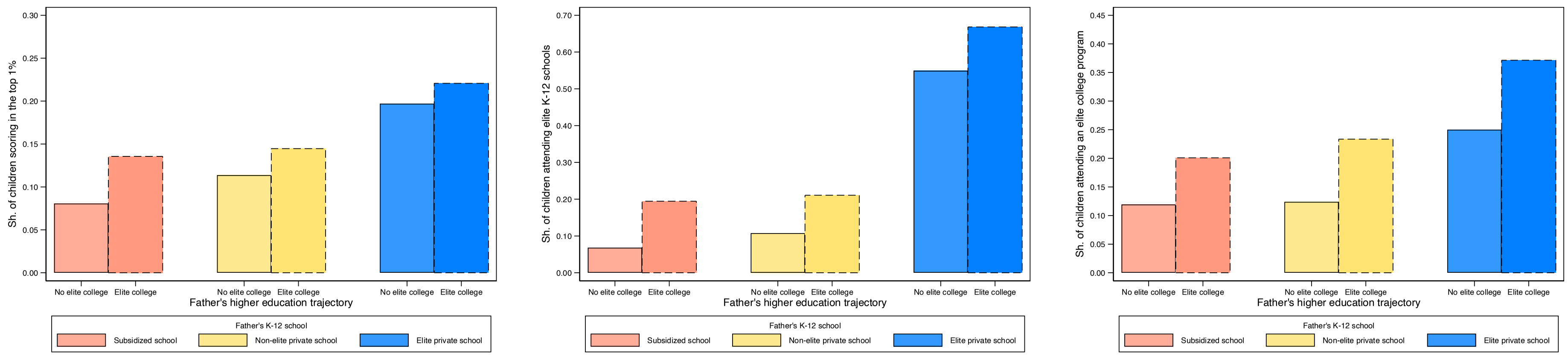
(c) Child attends elite high school



(d) Child attends elite college program

This figure illustrates correlations between different children outcomes and their fathers' percentile in the university admission exam distribution. For each outcome we allow the relationship to vary depending on the type of high school attended by the father. Panel (a) illustrates the relationship between fathers' and children's percentiles in the university admission exam. Panel (b) focuses on the probability that a child reaches the top 1% in the university admission exam distribution; panel (c) on the probability that a child attends an elite school; and panel (d) on the probability that a child attends an elite college program. The linear relations illustrated in panel (a) ignore zeros. Maroon circles in all panels illustrate cases in which we do not observe fathers' high school and scores. See section C.3 for details.

Figure C.III: Child outcomes by father's elite college attendance.



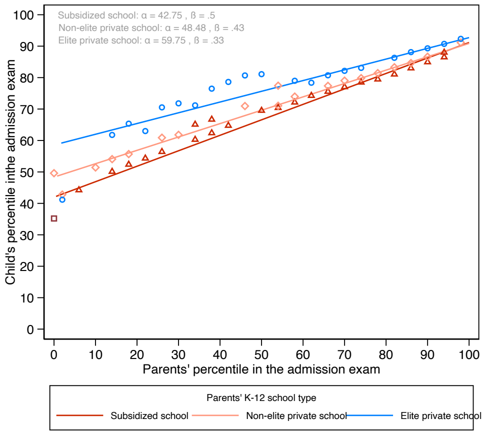
(a) Child scores in top 1%

(b) Child attends an elite high school

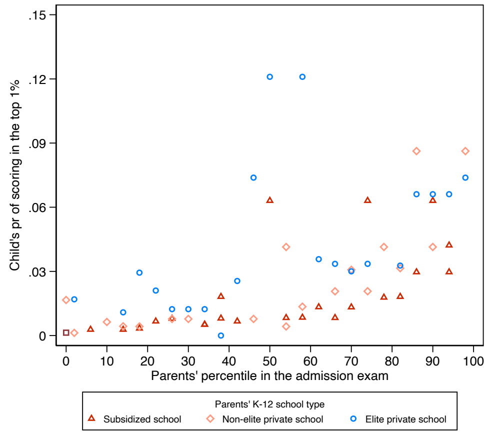
(c) Child attends elite college program

This figure illustrates how children's outcomes relate to whether their fathers attended elite college degree programs. All fathers in the sample used to build this figure scored in the top 1% of the university admission exam. The colors of the bars denote the type of high school attended by the father. Light bars with solid borders illustrate means for children whose fathers did not attend an elite college program. Dark bars with dashed borders illustrate the means for children whose fathers did attend an elite college program. Panel (a) shows the probability that a child scores in the top 1% of the university admission exam distribution. Panel (b) shows the probability that a child attends an elite K-12 school. Panel (c) shows the probability that a child attends an elite college program. See section C.3 for details.

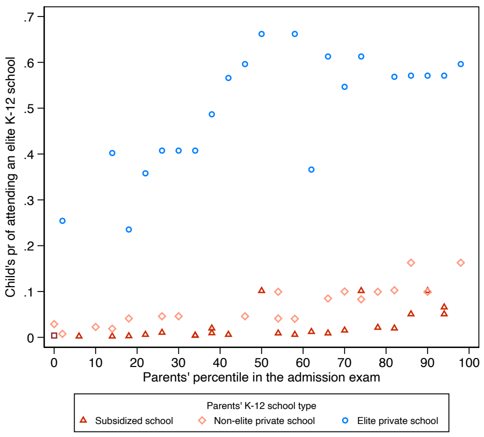
Figure C.IV: Correlations between Parents' Scores and Children's Outcomes



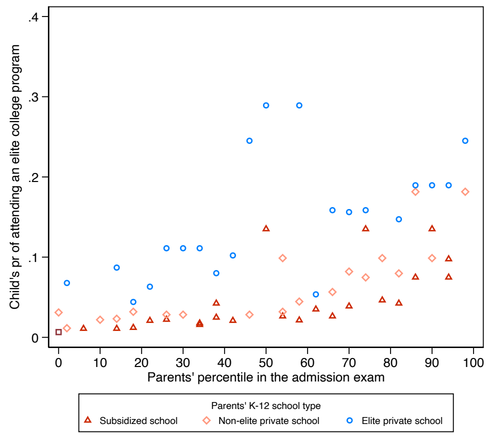
(a) Rank-rank correlations



(b) Child scores in top 1%



(c) Child attends elite high school



(d) Child attends elite college program

This figure illustrates correlations between different children outcomes and their parents' percentile in the university admission exam distribution. For each outcome, we allow the relationship to vary depending on the type of high school attended by the parents. We classify children's social background based on the most exclusive of their parents' high school. Panel (a) illustrates the relationship between parents' and children's percentiles in the university admission exam. Panel (b) focuses on the probability that a child reaches the top 1% in the university admission exam distribution; panel (c) on the probability that a child attends an elite school; and panel (d) on the probability that a child attends an elite college program. The linear relations illustrated in panel (a) ignore zeros. Maroon circles in all panels illustrate cases in which we do not observe parents' high school and scores. See section C.3 for details.

D Additional results

D.1 Changes in fertility at the cutoff

Figure 5 in the main text reports that parents' chances of having at least one child do not change when they cross the cutoff for admission to an elite degree program. Figure D1 repeats this exercise but using the number of children applicants have as the outcome of interest. We see no evidence of a change in this variable across the admissions cutoff.

D.2 Regression discontinuity estimates for additional educational outcomes and sample definitions

This section provides figures and tables that supplement our main analysis of the elite college regression discontinuity in section 6.1 of the main text.

Figure D2 reproduces main text figure 6 using the full elite college applicant sample rather than restricting to parents not from elite high schools.

Tables D1 and D2 report estimates of equation 1 for outcomes beyond those reported in main text Table 4. Key results are as follows. Panel (a) of Table D1 reports estimated effects of parent elite admission on children's attendance at non-elite private schools. The effects here are almost identical in magnitude to the effects of parent admission on children's elite private school attendance, but with negative signs. The primary margin of substitution at the cutoff is between elite and non-elite private schools. This panel also reports results for an alternate measure of child social capital: the "Who's Who" elite name index at the high school the child attends. Effects for this index are almost identical to the effects for the polo club index that we report in the main text.

Panels (b), (c), and (d) of Table D1 report results for additional human capital measures. These measures are the high school GPA component of the college admissions score, taking the college admissions exam, scoring in the top 5% or top 10% on the college admissions exam, and achieving a combination of grades and test scores high enough to permit admission for some program in an elite college or an elite program in an elite college. We observe null effects across all of these outcomes.

Panel (a) of Table D2 show that parent elite admission raises children's chances of applying to an elite college by roughly the same amount as the increase in elite college enrollment reported in main text Table 4 (the enrollment effect is 0.0237 in the full sample; the application effect is 0.0253). The finding that application patterns change rationalizes the increase in enrollment despite null effects on the human capital measures that determine admissions outcomes.

Panels (b) and (c) of Table D2 describe how parents' elite admission shapes alternate measures of children's educational trajectories. The elite name indices of children's college peers rise with parent elite admission (c). These effects are present in the full sample and for children of non-elite parents; results for children of elite parents are noisily estimated. Children become more likely to follow a comprehensive "elite trajectory"—from an elite high school to an elite college—when their parents are admitted to an elite degree program (d).

In Table D3 we replicate the analyses looking at changes in children's college peers, but focusing only on children who are actually admitted to a college that participates in the centralized admission system. The estimates we obtain are very similar to the ones presented in panel (b) of Table D2, in which we include non-admitted children in the sample and assign them college peer values based on averages among non-admitted students. That the treatment of non-admitted students does not affect our findings makes sense given that children's rates of admission to any college are high and do not change when parents cross the admissions cutoff.

D.3 Further details on educational expenditure

We supplement our discussion of educational expenditure effects in main text section 6.3.2 and Table 6 with additional graphical evidence. Figure D3 shows regression discontinuity plots for key outcomes reported in Table 6. We see a clear discontinuity in educational expenditure but no increase in the rate at which students attend non-elite expensive schools. The discontinuity in the school-type based expenditure index is clear. As reported in the main text, the shift towards elite private schools explains most of the overall increase in educational expenditures.

D.4 Effects of attributes of parents' college programs on children's outcomes

We expand the analyses presented in Section 6.4.2 by allowing parental admission effects to vary depending on the target and next-option field of study. For this exercise we classify each degree in our sample in ten fields of study following the International Standard Classification of Education (ISCED-F 2013).[13]. We define the fields of study at the two-digits level, with the exception of *Businesses administration and law*. In this case, we separate *Business and administration* from *law*. Based on this classification, we generate a variable that identifies the target and next-option field of study (F_{ijct}) and estimate the following specification:

$$\begin{aligned} E_{ijct} =& \beta_0 + \beta_1 A_{ijct} + \beta_2 A_{ijct} \times \Delta E_{ijct} + \beta_3 A_{ijct} \times \Delta Q_{ijct} + \beta_4 A_{ijct} \times \Delta M_{ijct} \\ &+ \beta_5 \Delta E_{ijct} + \beta_6 \Delta Q_{ijct} + \beta_7 \Delta M_{ijct} + \Sigma_f \gamma_f A_{ijct} \times 1(F_{ijct} = f) \\ &+ f(S_{ijct}, \mathbf{\Delta X}_{ijct}, F_{ijct}; \theta) + \mu_c + \mu_{c'(ijct)} + \mu_f + \mu_t + \varepsilon_{ijct}. \end{aligned} \tag{10}$$

E_{ijct} is an outcome for child i of parent j applying to program c in cohort t and A_{ijct} is an indicator for i's admission to c in year t. β_1 is the main effect of admission to the target degree relative to an observably identical next choice. β_2, β_3, and β_4 are coefficients on the main regressors of interest—interactions between admission and the change in degree-specific peer attributes across the cutoff. In addition, we allow the threshold crossing effect to vary depending on the target and next-option field of study. Controls include main effects of $\mathbf{\Delta X}_{ijct} = [\Delta E_{ijct}, \Delta Q_{ijct}, \Delta M_{ijct}]$, as well as a continuous linear function

[13]Visit this link for further details

of S_{ijct} that is allowed to vary above and below the cutoff and to interact linearly with the $\mathbf{\Delta X}_{ijct}$ and with F_{ijct}. We include fixed effects for target degree c, next option degree c', target $\times$ next-option field of study, and application cycle.

Table D4 reports the results of these regressions for our main outcomes. When reporting coefficients, we standardize the $\mathbf{\Delta X}_{ijct}$ to have mean zero and standard deviation one. As in the case of specifications discussed in Section 6.4.2, parent exposure to alumni of elite K-12 schools during college increases a child's probability of attending an elite K-12 school, an elite college, and an elite college program. It also increases a child's share of college peers from elite K-12 schools and college peers' elite name index. It does not, however, impact child's test scores or college program selectivity measured by peer test scores. As in our previous analyses, parent college degree selectivity does not seem to improve children's outcomes. The share of non-elite individuals marrying elite individuals only seems to improve a child's probability of attending an elite K-12 school. Allowing for differential effects depending on the fields of study chosen by parents does not change the conclusions discussed in the main body of the paper.

D.5 Heterogeneity by high school and degree type

We extend the elite college regression discontinuity analysis by digging deeper into heterogeneity by high school type and college degree program. We first consider splits within the sample of non-elite parents by breaking out parents who attended subsidized public and voucher schools from parents who attended non-elite private schools. Figure D4 reports estimated regression discontinuity effects that split the non-elite sample in this way. We observe similar effects on children's elite high school attendance for parents from subsidized and non-elite private high schools. Effects on human capital outcomes are null in both groups. Effects on college outcomes are noisily estimated but again fairly similar across groups. Table D5 replicates the main analyses distinguishing between children whose parents attended subsidized schools and those whose parents attended non-elite private schools. Both groups of children are affected by their parents' admission to elite college programs.

In Figure D5 we study whether the effects documented in the main body of the paper are driven by parents being admitted to business oriented programs or to medicine. This distinction is potentially important, because Zimmerman (2019) shows that the distributional effects of admission are very different for business-oriented and medical programs. Business-oriented programs help students from private school backgrounds reach the very top of the income distribution and top corporate leadership roles, but have limited effects for students from other backgrounds. In contrast, medical programs raise average income for all students but do not help them reach the very top of the income distribution.

As reported in Tables D6 and D7, we find that admission to both types of elite college programs raise the chances that children of non-elite parents of attend elite private high schools, but that effects for medical programs are somewhat larger than for the business-oriented programs (0.0546 vs. 0.0265).

D.6 Parents from Santiago vs parents from other regions of the country

Because all of the elite K-12 schools and colleges are located in Santiago, one hypothesis worth studying is whether the effects we document for children are driven by parents moving to Santiago to attend college. To explore this hypothesis, we replicate our main analyses splitting the sample depending on whether parents attended K-12 schools located in Santiago or in other cities. The idea is that for parents living in Santiago before college, the geographic mobility effects of attending college in Santiago are likely more limited. Tables D8 and D9 present our results.

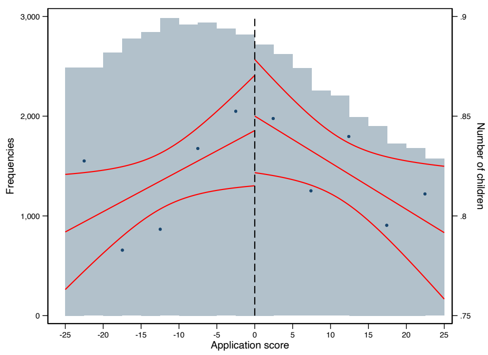
We find that attending an elite college program makes parents more likely to send their children to an elite K-12 school regardless of whether they (the parents) attended high school in Santiago or not. The estimated coefficient is slightly larger for parents who attended K-12 schools in Santiago, suggesting that parents' migration to Santiago is not an important driver of our results.

Paralleling our findings for the pooled sample, we find no human capital gains in either geographical group. When splitting the sample between parents from Santiago and from other cities, the increase we find on children's probability of attending an elite college becomes not significant. However, the coefficients are very similar to the ones documented in the main body of the paper.

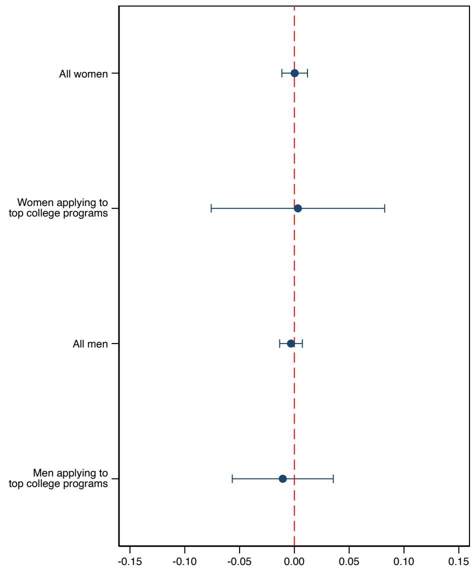
D.7 Additional results on children's neighborhood

This section shows that the results presented on Section 6.3.5 on changes in neighborhood characteristics are robust to use a 200 meter radius instead of a 100 meter radius to define a child's neighborhood. Table D10 present the estimates of this additional exercise.

Figure D1: Admission to elite college programs and fertility



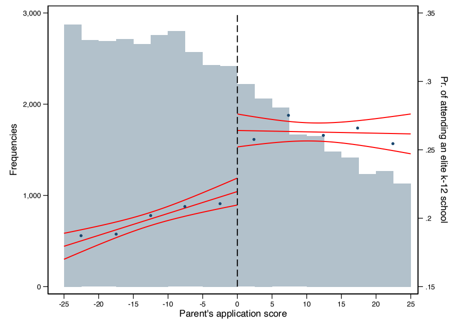
(a) Change in Number of Children



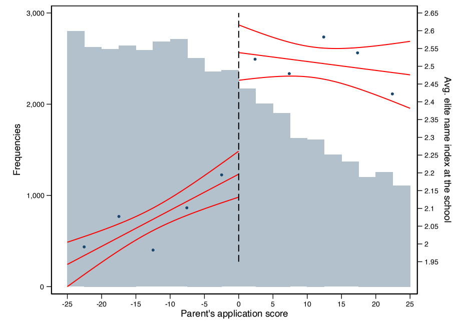
(b) Change in Number of Children for different Sub-samples

This figure illustrates changes on the number of children we observe for college applicants. Panel (a) focuses on individuals applying to elite college programs between 1976 and 2002. The running variable corresponds to individuals' college application score. It is centered around the admission cutoff of their target college program. Each dot represents outcome averages at different levels of individuals' application score. The red lines correspond to linear regressions and their 95% confidence intervals and were independently estimated at each side of the cutoff. The blue bars in the background illustrate the distribution of the running variable—i.e., individuals' application score—in the estimation sample. Panel (b) illustrates the estimated effects for independent group of individuals applying to college in the same period. Each dot corresponds to the estimated coefficient for a different sub-sample of college applicants. The dot at the very top illustrates the threshold crossing effect for all women applying to college between 1976 and 2002. The second dot focuses only on the subset of women applying to elite college programs. The third dot studies what happens with all men applying to college between 1976 and 2002. And finally, the fourth dot illustrates the crossing threshold effect for men applying to elite college programs. The dots represent the estimated coefficient, and the bars 95% confidence intervals. See section D.1 for details.

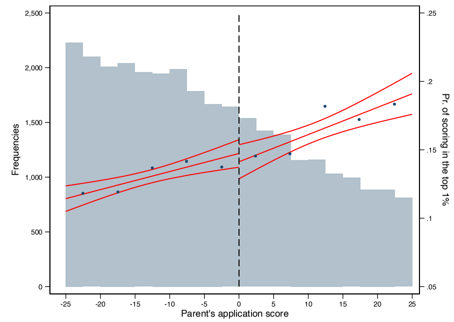
Figure D2: Effect of parents' admission to an elite college program on children's outcomes– full sample



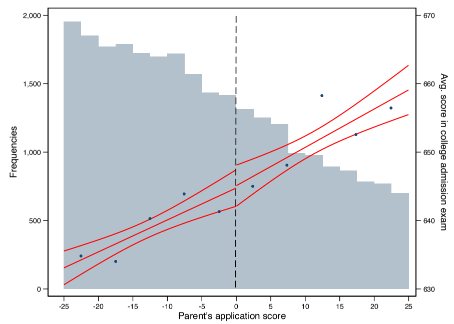
(a) Child attends elite K-12 school



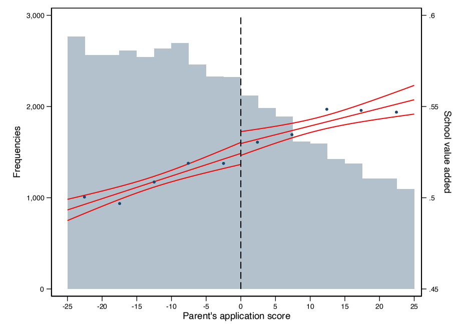
(b) Name index in child's school



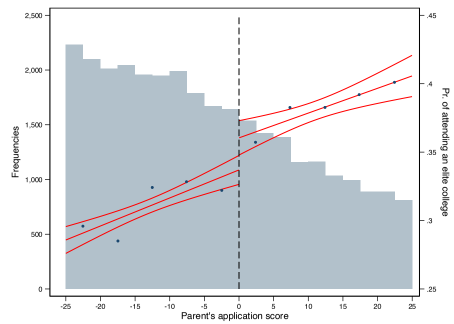
(c) Child scores in top 1%



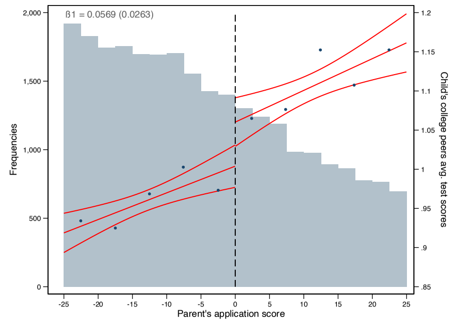
(d) Child's admissions exam score



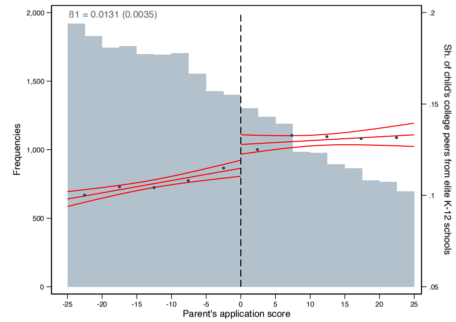
(e) Child's K-12 school value added



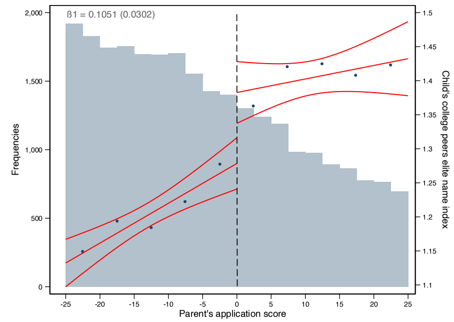
(f) Child attends an elite college



(g) Child's college peers test scores



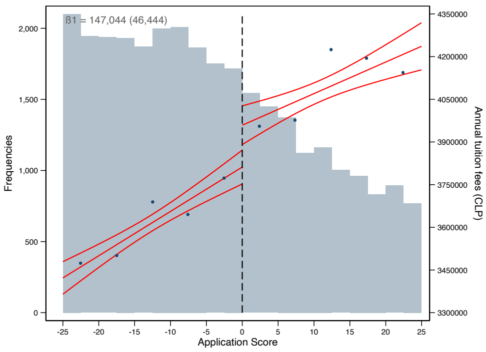
(h) Child's college peers from elite schools



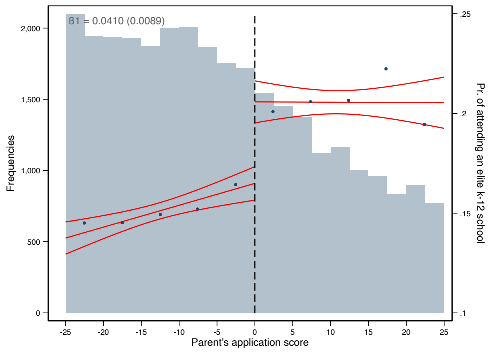
(i) Child's college peers name index

This figure illustrates how outcomes for children change when one of their parents gains admission to an elite college program. The sample is limited to parents applying to elite college programs. Parents are included in the sample regardless of what kind of high school they attended. Panel (a) shows the probability that the children attend an elite K-12 school. Panel (b) shows the elite name index at the children's K-12 school. Panel (c) shows children's probability of scoring in the top 1% of the college admission exam distribution. Panel (d) shows the average score children obtain in the college admission exam. Panel (e) shows the value added of children's K-12 school. Panel (f) shows children's probability of attending an elite college (i.e., University of Chile or Catholic University). The running variable is the parent's application score. It is centered around the admission cutoff at the target elite degree program. Each dot represents outcome averages at different levels of parents' application score. The red lines are fitted values from linear regressions and their 95% confidence intervals, fit separately on each side of the cutoff. The blue bars in the background illustrate the distribution of the running variable in the estimation sample. See section D.2 for details.

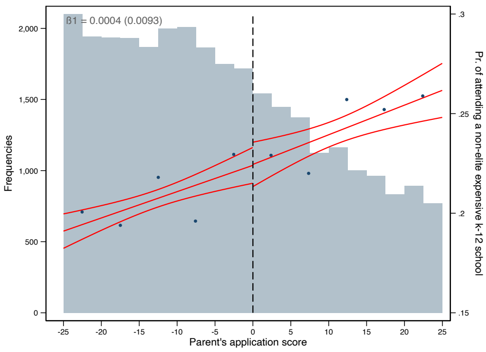
Figure D3: Effect of parents' admission to an elite college program on educational expenditure



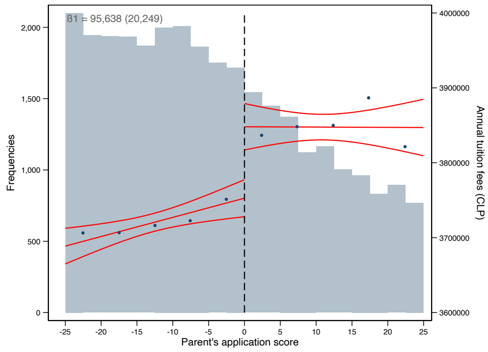
(a) Tuition fees



(b) Pr. of attending an elite school



(c) Pr. of attending a non-elite expensive school



(d) Δ in tuition fees explained by Δ in elite schools attendance

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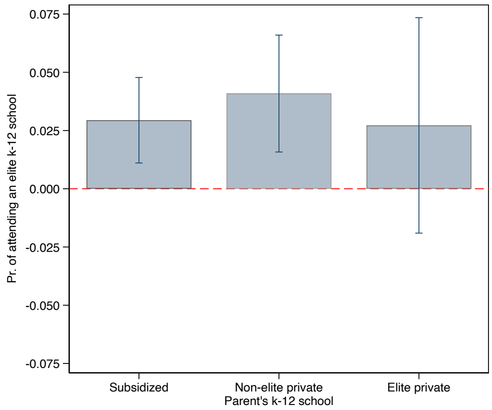
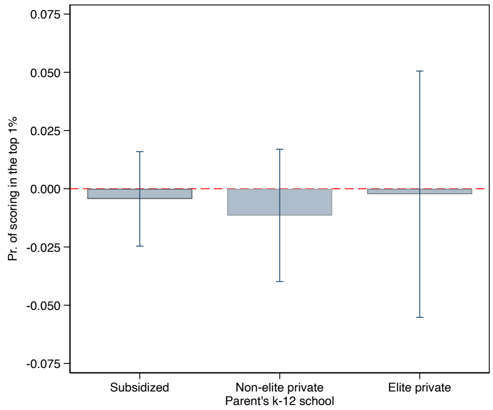
This figure shows how parents' admission to an elite college program changes their expenditures on their children's education. Panel (a) illustrates the change in annual tuition fees paid by parents marginally admitted to an elite college program in their children K-12 schools. Panels (b) and (c) show how the probability of sending children to an elite and non-elite expensive private K-12 school changes at the cutoff. Finally, panel (d) studies how much of the increase in tuition fees documented in panel (a) is explained by parents becoming more likely to send their children to an elite K-12 school. To implement this exercise, we replaced the actual fees charged by elite and non-elite schools by the average fee on each category. In all cases, the running variable corresponds to parents' application score to elite college programs. It is centered around the admission cutoff of their target programs. Each dot represents the mean of the outcome variable at different levels of parents' application score. The red lines correspond to linear regressions and their 95% confidence intervals and were independently estimated at each side of the cutoff. The blue bars in the background illustrate the distribution of the parents' scores in the estimation sample. See section D.3 for details.

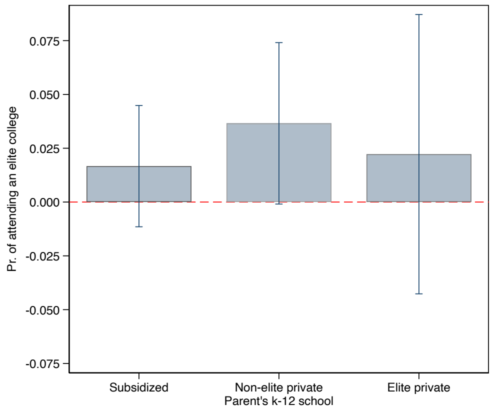
Figure D4: Effect of parents' admission to an elite college program on their children's outcomes– alternate high school splits



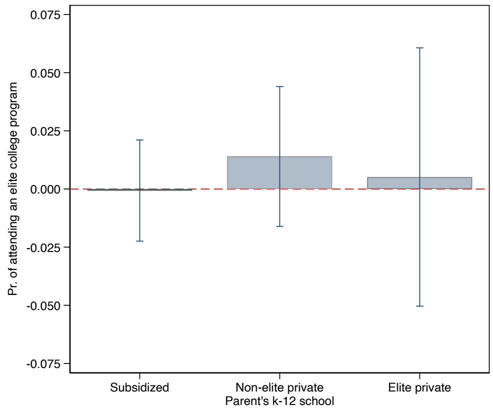
(a) Child attends elite K-12 school



(b) Child scores in the top 1%



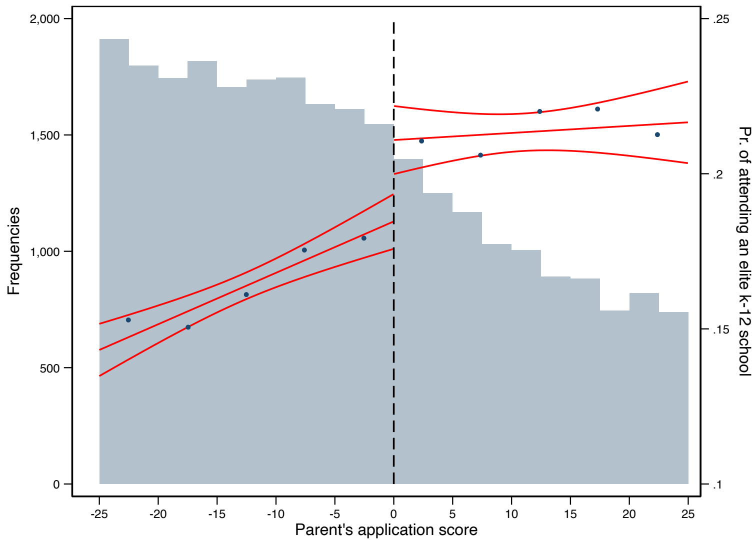
(c) Child attends an elite college



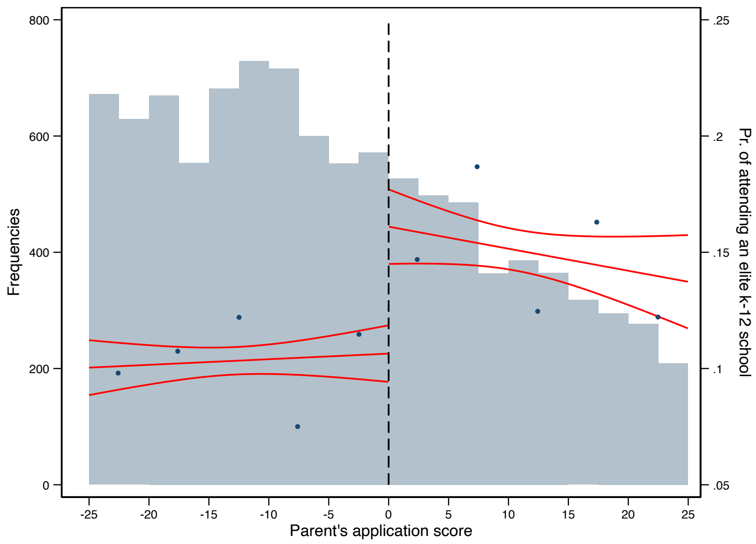
(d) Child attends an elite college program

This figure illustrates the effects of parents' admission to elite college programs on their children's educational trajectories depending on the type of K-12 school attended by the parent. In panel (a) the outcome is children's probability of attending an elite K-12 school. In panel (b) the outcome is children's probability of scoring in the top 1% of the college admission exam. In panel (c) the outcome is children's probability of attending an elite college. In panel (d) the outcome is children's probability of attending an elite college program. Each coefficient is estimated using our main specification in the set of parents who attended subsidized, non-elite private, and elite private schools, respectively. See section D.5 for details.

Figure D5: Effect of parents' admission to an elite college program on their children's K-12 school type, split by parents' field of study



(a) Business and Law



(b) Medicine

This figure illustrates how the probability of attending an elite private school changes for the children of non-elite parents when one of their parents gains admission to a top college program. Panel (a) focuses on cases in which parents gain admission to top business and law programs, while panel (b) on cases in which parents gain admission to top medical schools. The running variable corresponds to the parents' application score to top college programs. It is centered around the admission cutoff of their target program. Each dot represents the share of children going to university at different levels of parents' application score. The red lines correspond to linear regressions and their 95% confidence intervals and were independently estimated at each side of the cutoff. The blue bars in the background illustrate the distribution of the parents' scores in the estimation sample. See section D.5 for details.

Table D1: Parents' admission to an elite college program and children's outcomes—additional outcomes

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending a non-elite private school			WW elite name index at K-12 school		
Parent admitted to target program = 1	-0.0440	-0.0344	-0.0408	0.3342	0.2847	-0.0507
	(0.0091)	(0.0096)	(0.0233)	(0.0506)	(0.0483)	(0.1508)
Observations	42696	37268	5428	42696	37268	5428
Counterfactual mean	0.632	0.673	0.312	2.537	2.127	5.706
	Panel B - Effects on child's pr. of taking the college admission exam and scoring in the top 1%					
	Pr. of taking the college admission exam			Pr. of scoring in the top 1%		
Parent admitted to target program = 1	-0.0044	-0.0007	-0.0313	-0.0060	-0.0075	-0.0023
	(0.0077)	(0.0081)	(0.0241)	(0.0081)	(0.0084)	(0.0270)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.869	0.871	0.852	0.137	0.129	0.209
	Panel C - Effects on child's college admission exam and on college admissions					
	Pr. of scoring in the top 5%			Pr. of being admitted to any college		
Parent admitted to target program = 1	0.0007	-0.0013	0.0079	-0.0020	0.0022	-0.0308
	(0.0109)	(0.0115)	(0.0330)	(0.0073)	(0.0076)	(0.0239)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.336	0.325	0.438	0.8830	0.8862	0.8546
	Panel D - Effects on child's eligibility for elite college programs					
	Pr. of being eligible for an elite college			Pr. of being eligible for an elite college program		
Parent admitted to target program = 1	-0.0007	-0.0046	0.0286	0.0216	0.0143	0.0761
	(0.0100)	(0.0108)	(0.0252)	(0.0119)	(0.0126)	(0.0362)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.763	0.752	0.870	0.413	0.398	0.553

Notes: The table presents estimates obtained from specification (1) that illustrate the effect of elite and non-elite parents' admission to an elite college program on their children's education trajectories. The sample varies across panels. Panel A focuses on children old enough to have enrolled in primary education (i.e., born before 2014). Panels B to D focus on children old enough to have applied to college in the period we observe (i.e., born before 2001). Standard errors clustered two ways at the parent × chile level are presented in parentheses. See section D.2 for details.

Table D2: Parents' admission to an elite college program and children's outcomes—additional outcomes

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's college applications					
	Pr. of applying to an elite college			Pr. of applying to an elite college program		
Parent admitted to target program = 1	0.0253	0.0206	0.0516	0.0013	-0.0009	0.0125
	(0.0120)	(0.0128)	(0.0347)	(0.0113)	(0.0119)	(0.0363)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.505	0.488	0.662	0.290	0.276	0.420
	Panel B - Effects on child's college peers' test scores and school of origin					
	College peers' avg test scores (std)			Share of college peers from elite K-12 schools		
Parent admitted to target program = 1	0.0569	0.0517	0.0642	0.0131	0.0134	-0.0005
	(0.0263)	(0.0282)	(0.0697)	(0.0035)	(0.0036)	(0.0121)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.953	0.998	1.410	0.106	0.094	0.219
	Panel C - Effects on college peers' elite name index					
	Polo elite name index in college program			WW elite name index in college program		
Parent admitted to target program = 1	0.1051	0.1087	-0.0225	0.1161	0.1192	-0.0176
	(0.0302)	(0.0308)	(0.1039)	(0.0330)	(0.0338)	(0.1101)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	1.199	1.093	2.171	1.389	1.273	2.448
	Panel D - Effects on child's whole educational trajectory					
	Pr. of attending an elite K-12 school and an elite college			Pr. of attending an elite K-12 school and an elite college program		
Parent admitted to target program = 1	0.0314	0.0233	0.0548	0.0074	0.0054	0.0023
	(0.0076)	(0.0072)	(0.0326)	(0.0059)	(0.0055)	(0.0277)
Observations	30663	27204	3458	30663	27204	3458
Counterfactual mean	0.111	0.083	0.364	0.060	0.045	0.199

Notes: The table presents estimates obtained from specification (1) that illustrate the effect of elite and non-elite parents admission to an elite college program on their children education trajectories. All the results in this table were estimated focusing on children old enough to have applied to college in the period we observe (i.e., born before 2001). Standard errors clustered two ways at the parent × child level are presented in parentheses. See section D.2 for details.

Table D3: Parents' admission to an elite college program and children's peers in college—Only children admitted to college

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Child's college peers' avg test scores (std)			Child's share of college peers from elite K-12 schools		
Parent admitted to target program = 1	0.0574	0.0531	0.0563	0.0132	0.0136	-0.0013
	(0.0263)	(0.0282)	(0.0695)	(0.0035)	(0.0036)	(0.0121)
Observations	26292	23439	2852	26292	23439	2852
Counterfactual mean	1.004	0.959	1.413	0.106	0.094	0.220

Notes: The table presents estimates obtained from specification (1) that illustrate the effect of elite and non-elite parents admission to an elite college program on the college peers of their children. All the results in this table were estimated focusing on children old enough to have applied to college in the period we observe (i.e., born before 2001) and who were actually admitted to college. Standard errors clustered two ways at the parent × child level are presented in parentheses. See section D.2 for details.

Table D4: Effects of attributes of parents' college programs on children's outcomes

	Pr. of attending an elite K-12 school	High school GPA	Avg. score in admission exam	Attends an elite college	Attends an elite college program	Avg. peer score in college program	Sh. of peers from elite K-12 schools in college program	Elite name index among college program peers (P)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Parent admitted in target major = 1 × ΔE	0.0104**	0.3597	-0.2546	0.0210***	0.0099**	0.0074	0.0065***	0.0512***
	(0.0043)	(1.4440)	(1.2913)	(0.0061)	(0.0045)	(0.0156)	(0.0019)	(0.0165)
Parent admitted in target major = 1 × ΔQ	-0.0068***	-1.3424	-2.3932**	-0.0085**	-0.0033	-0.0241**	-0.0017	-0.0181*
	(0.0020)	(1.1806)	(1.0240)	(0.0041)	(0.0027)	(0.0115)	(0.0011)	(0.0094)
Parent admitted in target major = 1 × ΔM	0.0069*	-0.0379	0.4401	-0.0100*	0.0007	0.0099	-0.0004	-0.0022
	(0.0037)	(1.3506)	(1.1976)	(0.0055)	(0.0038)	(0.0143)	(0.0017)	(0.0145)
Observations	350983	242545	242545	276984	276984	239194	239194	239194
Counterfactual outcome mean	0.063	603.149	600.829	0.187	0.072	0.647	0.048	0.695

Notes: This table presents estimates from parametric regression discontinuity specification 10 of the effects of attributes of the programs to which parents are admitted on outcomes for children. Each column is a single specification. Reported coefficients are interactions between parental admission to target degree and differences between the attributes of the target and next-option degree program. We consider differences along four dimensions: share of college peers from elite high schools (E), average college peer exam scores (Q), and share of non-elite college peers who marry alumni of elite K-12 schools (M). In addition, we allow the effect to vary depending on the fields of the target and next-option degree. We distinguish between ten fields following the ISCED-F 2013 definitions. Thus, the specification includes fixed effects defined by the target and next-option field of study combination, as well as interactions between these effects and scoring above the admission cutoff. All the variables are in standard deviation units. Samples vary across columns due to data availability. Column (1) focuses on children old enough to observe attending primary education (i.e., born before 2014). The rest of the columns focus on children old enough to observe applying to college (i.e., born before 2001). The regressions in columns (3) and (4) focus on the students we observe completing high school and taking the college admission exam. "Elite name index among college peers (P)" is the polo club elite name index. We control for a linear polynomial of the running variable, the slope of which is allowed to change at the cutoff. The slope of the running variable on both sides of the cutoff is allowed to vary with E, Q and M. It is also allowed to change depending on the target and next-option field of study combination. The main effects of E, Q, and M are also included in the specification. We also control for parents' application-year and parents' target program and next option fixed effects. Standard errors clustered two ways at the parent-child level are presented in parentheses. "Counterfactual mean" is the mean below-threshold value of the depend variable.

Table D5: Effect of parent admission to an elite college program on children's outcomes by parent high school type

	All non-elite parents (1)	Subsidized school parents (2)	Non-elite private school parents (3)	All non-elite parents (4)	Subsidized school parents (5)	Non-elite private school parents (6)
Panel A - Effects on child's K-12 school						
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0332	0.0294	0.0409	0.3038	0.2672	0.3700
	(0.0077)	(0.0094)	(0.0128)	(0.0491)	(0.0644)	(0.0745)
Observations	37268	22100	15168	36204	21396	14808
Counterfactual mean	0.158	0.137	0.191	1.730	1.608	1.918
Panel B - Effects on child's human capital						
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0075	-0.0043	-0.0114	-0.6569	-1.5148	1.3397
	(0.0084)	(0.0103)	(0.0145)	(2.2445)	(2.8523)	(3.5960)
Observations	27204	17225	9978	23789	15351	8437
Counterfactual mean	0.129	0.124	0.139	637.936	633.265	646.886
Panel C - Effects on child's college program characteristics						
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0517	0.0393	0.0786	0.0134	0.0137	0.0139
	(0.0282)	(0.0356)	(0.0461)	(0.0036)	(0.0043)	(0.0065)
Observations	27204	17225	9978	27204	17225	9978
Counterfactual mean	0.953	0.890	1.073	0.094	0.082	0.116
Panel D - Effects on child's type of college and program						
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0227	0.0167	0.0366	0.0050	-0.0007	0.0140
	(0.0115)	(0.0144)	(0.0191)	(0.0090)	(0.0111)	(0.0153)
Observations	27204	17225	9978	27204	17225	9978
Counterfactual mean	0.315	0.309	0.327	0.147	0.143	0.154

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). The specification also includes a second degree polynomial of the running variable, parents' application-year fixed effect, and parents' target program fixed effect. Standard errors clustered two ways at the child × parent level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table D6: Effect of parent admission to an elite college program on children's outcomes (business, engineering, and law)

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0455	0.0265	0.0479	0.3635	0.2956	-0.0597
	(0.0095)	(0.0093)	(0.0246)	(0.0634)	(0.0607)	(0.1710)
Observations	31901	27166	4735	31072	26369	4703
Counterfactual mean	0.243	0.175	0.692	2.374	1.881	5.566
	Panel B - Effects on child's human capital					
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0063	-0.0083	-0.0061	0.2287	-1.0101	4.6720
	(0.0092)	(0.0096)	(0.0287)	(2.4638)	(2.6822)	(6.0613)
Observations	22486	19482	3003	19475	16972	2502
Counterfactual mean	0.129	0.118	0.207	637.503	633.225	669.527
	Panel C - Effects on child's college program characteristics					
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0598	0.0504	0.0645	0.0145	0.0141	0.0021
	(0.0305)	(0.0332)	(0.0746)	(0.0043)	(0.0044)	(0.0131)
Observations	22486	19482	3003	22486	19482	3003
Counterfactual mean	0.989	0.932	1.417	0.113	0.098	0.226
	Panel D - Effects on child's type of college and program					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0221	0.0224	0.0040	0.0151	0.0149	0.0070
	(0.0126)	(0.0134)	(0.0354)	(0.0100)	(0.0105)	(0.0304)
Observations	22486	19482	3003	22486	19482	3003
Counterfactual mean	0.326	0.308	0.453	0.153	0.142	0.236

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite business, engineering, or law program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). Standard errors clustered two ways at the child × parent level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table D7: Effect of parent admission to an elite college program on children's outcomes (medicine)

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
Panel A - Effects on child's K-12 school						
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0460	0.0546	-0.0872	0.3017	0.3372	-0.1414
	(0.0138)	(0.0132)	(0.0745)	(0.0811)	(0.0772)	(0.4509)
Observations	10795	10102	693	10522	9835	687
Counterfactual mean	0.138	0.112	0.569	1.477	1.322	3.986
Panel B - Effects on child's human capital						
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0047	-0.0064	0.0424	1.0437	0.2720	13.3731
	(0.0168)	(0.0171)	(0.0844)	(3.9716)	(4.1000)	(17.3359)
Observations	8175	7720	452	7206	6817	387
Counterfactual mean	0.161	0.157	0.224	651.052	649.756	677.062
Panel C - Effects on child's college program characteristics						
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0539	0.0584	0.1331	0.0100	0.0123	0.0226
	(0.0522)	(0.0538)	(0.2140)	(0.0062)	(0.0063)	(0.0348)
Observations	8175	7720	452	8175	7720	452
Counterfactual mean	1.022	1.005	1.363	0.086	0.082	0.176
Panel D - Effects on child's type of college and program						
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0277	0.0225	0.1672	-0.0193	-0.0185	0.0129
	(0.0214)	(0.0220)	(0.1014)	(0.0170)	(0.0173)	(0.0791)
Observations	8175	7720	452	8175	7720	452
Counterfactual mean	0.326	0.308	0.453	0.153	0.142	0.236

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite medicine program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). Standard errors clustered two ways at the child × parent level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table D8: Parents' admission to an elite college program and children's outcomes—parents from Santiago

	Non-elite parents (1)	Elite parents (2)	All parents (3)	Non-elite parents (4)	Elite parents (5)	All parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite K-12 school			Pr. of attending a non-elite private K-12 school		
Parent admitted to target program = 1	0.0394	0.0272	0.0546	-0.0404	-0.0408	-0.0522
	(0.0099)	(0.0236)	(0.0103)	(0.0126)	(0.0233)	(0.0116)
Observations	21039	5428	26467	21039	5428	26467
Counterfactual mean	0.152	0.676	0.249	0.684	0.312	0.615
	Panel B - Effects on child's human capital					
	Avg. score in the college admission exam			Pr. of scoring in the top 1%		
Parent admitted to target program = 1	-2.4602	5.5176	-0.4762	-0.0032	-0.0023	-0.0020
	(3.0665)	(5.5996)	(2.7129)	(0.0114)	(0.0270)	(0.0105)
Observations	12740	2891	15632	14797	3458	18256
Counterfactual mean	635.623	670.473	641.634	0.121	0.209	0.136
	Panel C - Effects on child's type of college and college program					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0184	0.0222	0.0208	0.0091	0.0052	0.0092
	(0.0156)	(0.0331)	(0.0141)	(0.0121)	(0.0283)	(0.0111)
Observations	14797	3458	18256	14797	3458	18256
Counterfactual mean	0.320	0.450	0.342	0.142	0.235	0.158

Notes: The table presents estimates obtained from specification (1) that illustrate the effect of elite and non-elite parents' admission to an elite college program on their children's education trajectories. Only parents from the Santiago region are included in this table. Samples vary across panels. Panel A focuses on children old enough to have enrolled in primary education (i.e., born before 2014). Panels B to C focus on children old enough to have applied to college in the period we observe (i.e., born before 2001). Standard errors clustered at the family level are presented in parentheses. See section D.6 for details.

Table D9: Parents' admission to an elite college program and children's outcomes—parents from outside Santiago

	(1)	(2)
	Panel A - Effects on child's K-12 school	
	Pr. of attending an elite K-12 school	Pr. of attending a non-elite private K-12 school
Parent admitted to target program = 1	0.0268 (0.0120)	-0.0272 (0.0147)
Observations	16229	16229
Counterfactual mean	0.166	0.659
	Panel B - Effects on child's human capital	
	Avg. score in the college admission exam	Pr. of scoring in the top 1%
Parent admitted to target program = 1	0.3918 (3.2898)	-0.0160 (0.0126)
Observations	11049	12407
Counterfactual mean	640.514	0.139
	Panel C - Effects on child's type of college and college program	
	Pr. of attending an elite college	Pr. of attending an elite college program
Parent admitted to target program = 1	0.0267 (0.0170)	-0.0016 (0.0135)
Observations	12407	12407
Counterfactual mean	0.310	0.152

Notes: The table presents estimates obtained from specification (1) that illustrate the effect of non-elite parents admission to an elite college program on their children education trajectories. Only parents from outside the Santiago region are included in this table. Panel A focuses on children old enough to have enrolled in primary education (i.e., born before 2014). Panels B to C focus on children old enough to have applied to college in the period we observe (i.e., born before 2001). Standard errors clustered at the family level are presented in parentheses. See section D.6 for details.

Table D10: Effect of parents' admission to an elite college program on children's neighborhood

	All parents (1)	Non-elite parents (2)	Elite parents (3)
	Panel A - Elite name index		
Parent admitted in target major	0.2174	0.1902	0.2623
	(0.0762)	(0.0765)	(0.2497)
Observations	9424	8579	845
Counterfactual outcome mean	1.902	1.721	3.909
	Panel B - Avg. tuition fees		
Parent admitted in target major	119,853	111,408	104,268
	(43,812)	(45,176)	(116,107)
Observations	9424	8579	845
Counterfactual outcome mean	1554473.305	1469199.343	2501308.338
	Panel C - Avg. scores in the college admission exam		
Parent admitted in target major	5.7717	4.8490	7.7065
	(2.1233)	(2.2411)	(4.3817)
Observations	9423	8578	845
Counterfactual outcome mean	594.384	590.498	637.523
	Panel D - Census block square meter average price (UF)		
Parent admitted in target major	1.9528	1.4541	1.3382
	(1.0852)	(1.1388)	(2.4436)
Observations	9423	8578	845
Counterfactual outcome mean	52.051	50.489	67.913

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on the characteristics of the neighborhood in which they lived when their children completed high school. We split the sample by parents' high school type as noted in columns. Outcomes are listed in panel sub-headers. We only observe addresses for children completing high school in the Santiago, Valparaiso, and Biobio regions. More than 60% of the student population attends school in one of these three regions. While the analyses presented in panels A to C focus on characteristics of neighbors living in a 200 meter radius, the analysis in panel D focuses on the average square meter price in a census block. In urban areas, a census block coincides with an actual block. The specification includes parents' application-year fixed effect and parents' target program fixed effect. Standard errors clustered two ways at the parent $\times$ child level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.3.5 for details.

E Changes in children's friends

This section studies whether parent admission to elite college programs affects the social status of the friends that their kids make in K-12 school. To implement these analyses we rely on data from the Longitudinal Study of Tobacco, Alcohol, and Drug Consumption carried on by the Catholic University of Chile between 2008 and 2011 (see Valenzuela and Ayala, 2011, for further details). This study followed a group of roughly 4,500 students starting seventh grade in 2008 over the course in four years. A survey implemented at the beginning of the study asked each student to report the number and identity of their closest friends. With the support of the Ministry of Education we were able to link the data collected through the survey with our administrative records and compute for each individual the social status of their closest friends based on the elite name index introduced in Section 2.

Using this data we implement two types of analyses. First, we present descriptive evidence that the relationship between an individual's social status and the social status of his/her friends is almost entirely explained by the K-12 school he/she attends. Panels (a) and (b) in Figure E1 show the distribution of the elite name index in the whole student population and in the survey. Although private schools are overrepresented in the survey, the distribution of the elite name index in the survey is similar to its distribution in the population.

Panel (c) in Figure E1 illustrates the relationship between the average elite name index of friends and own elite name index. When plotting the raw relationship between these variables, we find that average social status of friends grows with an individual own social status, particularly at the top of the distribution. However, this positive relationship goes away when controlling for school fixed effects.[14]

These findings suggest that the eliteness of one's friends is not that strongly related to one's own family prestige, *conditional on the the high school one attends*. We interpret our descriptive results as support for the idea that the identities of the high schools that students attend are strong predictors of social capital accumulation.

Our second exercise directly tests the effects of parents' admission to colleges with higher shares of elite peers on children's propensity to become friends with high-status peers in high school. Our approach is to estimate versions of the regression discontinuity specifications from equation 1 that take the eliteness of children's survey-reported friend groups as the outcome variable.

We modify this specification in several ways to fit the size and design of the survey sample. First, we drop the fixed effects for parent target degree that are included as controls in equation 1. Including these controls is not feasible in our survey-based specifications because many degrees in our much smaller survey sample have only a few parents listing them as a target. These controls were included in equation 1 for precision and removing them does not compromise the regression discontinuity design.

[14]Specifically, we regress own and friends elite name index on a set of school indicator dummies, compute the residuals from these regression, and plot the relationship between the residuals of own and friends' elite name index. We add the sample mean back to the residuals for visual comparability.

Second, we adopt a weighting scheme to accommodate the survey's sampling procedure. The survey oversampled students from private and elite K-12 schools. For instance, although in 2008 only 0.77% of seventh grade students were enrolled in an elite K-12 school, in the survey this group of students represented 4.56% of the sample. We reweight using inverse sampling probability by high school type, so that shares of students in public, voucher, private, and elite K12 schools in the reweighted survey sample match shares in the full population.

Third, and finally, we focus on stripped-down specifications that split by the value of ΔE at parents' target and next choice options. This follows from our findings in Table 9 that changes in college elite peer shares are key drivers of intergenerational social capital accumulation as measured by high school type. In cases where ΔE is positive, we estimate standard regression discontinuity specifications and report the effects of admission to the target program. However, in the cases where ΔE in exposure to alumni of elite K-12 schools is negative, we redefined the indicator of admission as a dummy variable taking the value one for individuals scoring *below* the score of the last applicant admitted to the target degree, and multiply the running variable by minus one. That is, the admission indicator in these specifications always indicates admission to the degree program with the higher share of elite students. This allows us to estimate in a single specification the effect of parent admission to a degree that increases his/her exposure to alumni of elite K-12 schools, pooling across all admissions margins where the elite peer share changes.

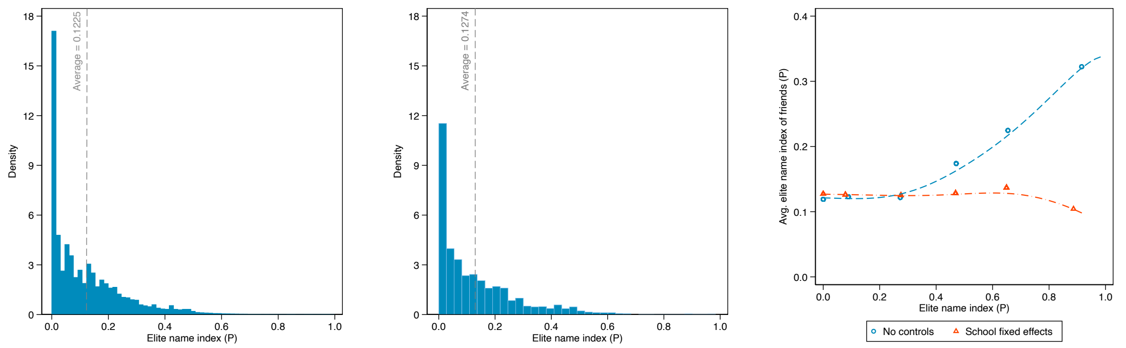
Figure E2 shows how the average elite name index of kids' friends changes with parent admission to a target college program that increased (panel a) or decreased (panel b) exposure to alumni of elite K-12 schools during college relative to the next option. Discontinuities are visually clear in both graphs. Parents who target and are admitted to programs with higher shares of elite peers go on to have children with higher-status friends. Parents who target and are admitted to programs with *lower* shares of elite peers go on to have children with *lower* status friends.

Table E1 pools the two panels into a single regression specification, with the admission indicator always equal to one at the degree with the higher value of of E, as described above. The first column reports the effect of admission on the probability that a child appears in the friendship survey. This probability is very low, since relatively few students are surveyed. Changes in magnitude across the threshold are small and statistically insignificant, mitigating concerns related to differential censoring. The second column limits the sample to the surveyed population, and reports the effect of admission on the probability that a child has more than five friends. Here again we do not see meaningful effects.

The third column in Table E1 reports our key results: parent admission to programs with higher elite peer shares raises the average elite name index of children's friends. The index value rises by 0.03, roughly a 30% of a standard deviation of the average elite name index of friends in the whole sample. As shown in the fourth column, these children also experience an increase in the average elite name index of the K-12 school they attend. This increase represents more than two thirds of the increase we find on the elite name index of their friends, suggesting that an important part of the latter effect is driven by the K-12 school they attend.

Finally, the fifth column of Table E1 reports the effects of parent admission to a program with higher-status peers on the probability a child attends an elite school. The effect here does not differ statistically from zero at conventional levels (p=0.12) but is almost identical in size to what we report for parent admission to elite college programs in Table 4.

Figure E1: Own vs friends' elite name index



(a) Elite name index distribution in the whole population

(b) Elite name index distribution in the survey

(c) Avg. elite name index of friends vs own elite name index

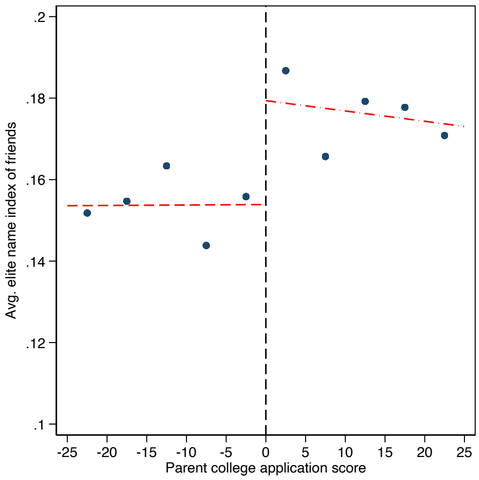
This figure illustrates the distribution of the elite name index in the whole student population (panel a) and in the survey data (panel b). It also illustrates the relationship between the average social status of friends and and individual own social status (panel b). Social status is measured by the elite name index introduced in Section 2 of the paper. Blue circles and blue dashed lines illustrate this relationship with no controls. Red triangles and orange dashed lines illustrate the relationship after partialling out school fixed effects from both variables. After partialling out school fixed effects, we added the mean of each variable to their residuals for illustration purposes. The lines correspond to local polynomials fitted using a Gaussian kernel and a bandwidth of 0.2 elite name index points. Results are very similar when using lowess regressions instead. These results are available upon request

Table E1: Parents exposure to elite peers in college and children's friends in grade seven

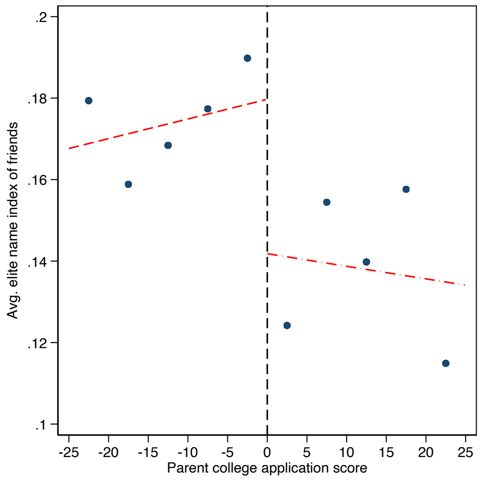
	Pr. of observing children's friends (1)	Pr. of having more than 5 friends (2)	Avg. elite name index of children's friends (3)	Avg. elite name index of children's K-12 school (4)	Pr. of attending an elite K-12 school (5)
Parent admitted to degree that increases ΔE	0.0003	-0.0067	0.0299	0.020	0.0308
	(0.0002)	(0.0699)	(0.0148)	(0.010)	(0.0200)
Observations	812530	1066	1066	1066	1066
Counterfactual outcome mean	0.002	0.568	0.161	0.169	0.159

Notes: This table presents the results of a specification that studies whether parent admission to a degree that increases his/her exposure to alumni of elite K-12 schools affects the number and characteristics of their kids' friends. As in the rest of the paper, these specifications use a bandwidth of 25 points. All specifications in odd columns control for a linear function of the running variable which slope is allowed to change at the cutoff. Column (1) looks at changes in the probability of having data on children's friends, column (2) looks at changes in the probability that children have five or more friends, column (3) look at changes in the average elite name index of children's friends, column (4) at changes on the average elite name index in children's K-12 school, and finally, column (5) looks at changes in children's probability of attending an elite K-12 school. The standard deviation of the average elite name index of friends in the survey sample is 0.1025. Thus, the effect reported in column (3) represents an increase of 30% of a standard deviation in the average elite name index of friends.

Figure E2: Parents exposure to elite peers in college and elite name index of children's friends in grade seven



(a) $\Delta E > 0$



(b) $\Delta E < 0$

This figure illustrates how parent exposure to alumni of elite K-12 schools during college affects the social status of the friends of their children. Panel (a) illustrates the change experienced by children whose parents were marginally admitted into degrees that increased their exposure to alumni of elite K-12 schools. Panel (b) illustrates the change experienced by children whose parents were marginally admitted into degrees that decreased their exposure to alumni of elite K-12 schools. Blue dots represent outcome means at different levels of the running variable. The red lines correspond to linear regressions and were independently estimated at each side of the cutoff.

F Robustness checks

We test the robustness of our main findings to a variety of alternative specifications.

F.1 Controlling for predetermined covariates

Table F1 reproduces key analyses from main text Table 4 but adds a set of predetermined covariates as control variables. These covariates are parent's gender, parent's type of K-12 school, child's gender, child's birth year, self-reported household earnings, and self-reported family size. Adding these controls does not affect our findings.

F.2 Alternative bandwidths

Figure F1 illustrates how the effect of parent elite admission on children's social capital depends on the bandwidth used to estimate the regression discontinuity specification. We vary the bandwidth used in five point intervals from 10 points to 40 points (i.e., 15 points on either side of our main bandwidth of 25 points). Effects in the full sample and for non-elite parents are stable. Effects for elite parents become somewhat larger at narrow bandwidths, suggesting that the estimates we report in the main text for this group are if anything conservative. Table F2 replicates table 4, but using a bandwidth of 10 points. Although in some cases we lose precision, the main results discussed in the paper are still apparent under this specification.

F.3 Placebo cutoffs

We conduct an additional "placebo cutoff" robustness exercise. We create placebo cutoffs at 10 point intervals from 30 points below to 30 points above the true cutoff, and re-estimate the regression discontinuity specifications at each placebo value. We focus on children's elite private school attendance as the outcome of interest. Figure F2 reports results from this exercise. The zero value on the horizontal axis corresponds to the true cutoff—i.e., the actual treatment.

In the full sample and in the sample of non-elite parents, the placebo estimates are universally small and do not differ statistically from zero at conventional levels. In the smaller elite parents sample, estimates are noisy but also do not differ statistically from zero.

F.4 Alternative elite K-12 school definitions

We consider two alternative ways of identifying elite private schools. The first approach limits elite schools to only the traditional elites, as defined in Section A.1. The second approach defines as elite the 25 most popular schools among the children of parents who themselves graduated from elite schools, as listed in Table A.II.

Tables F3 and F4 present results from these exercises. Our main results do not qualitatively change when using these alternative elite definitions.

F.5 Polynomial of degree two

Regression discontinuity specifications in the main text use linear controls for the running variable. Linear specifications are standard in the regression discontinuity literature, but we nevertheless assess the robustness of our findings to quadratic controls. Figure F3 displays regression discontinuity plots using quadratic controls, taking children's attendance at an elite private school as the outcome of interest. We find similar results to our main specifications, with the one exception being that we find larger effects for elite parents.

To further explore the robustness of our results to controlling for a quadratic polynomial of the running variable, in Table F5 we replicate the results in Table 4. Point estimates for children's social capital, human capital, and college type effects are all similar under this alternate specification, though in some cases less precisely estimated. We do see somewhat smaller effects for the attributes of children's college peers. Overall, these findings support our main claims that parents' elite admission shapes children's social but not human capital.

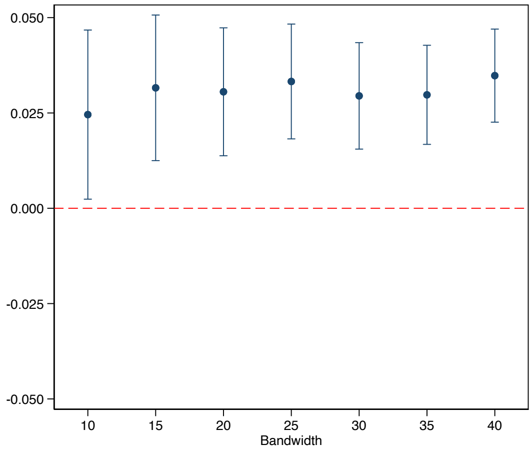
F.6 Other sample definitions

We consider two alternative approaches to sample construction. First, our main analysis limits the sample to parents' first time applying through the centralized system. Table F6 eliminates the first application restriction, considering all applications. As in the main analysis, we find that parents' elite admission raises child social capital and changes the attributes of college degree programs, but doesn't increase human capital accumulation. Our results for children's social capital, children's human capital, and the observable attributes of children's college programs (Panels A through C) are very similar to those reported in the main text. Point estimates and below-threshold means decline somewhat, with similar effects in percentage terms. Precision increases with the larger sample size. We do observe a more noticeable decline in the "attend an elite college" coefficient (Panel D, left side) relative to the main text. This coefficient remains positive but is only marginally significant (roughly the ten percent level) in the expanded sample.

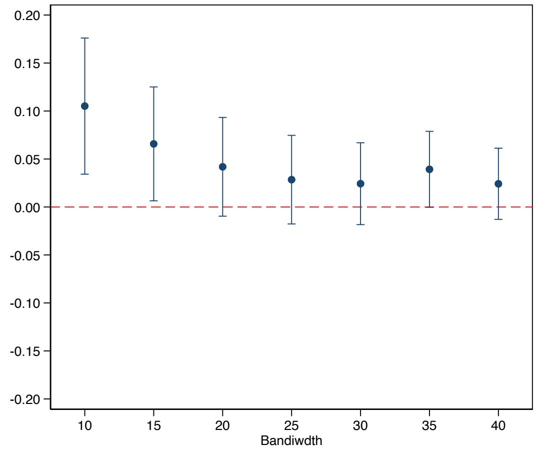
Second, we consider specifications that focus on the set of parents who can be matched to Ministry of Health birth records. As described in section 3, we construct parent-child links using datasets from DEMRE and the Ministry of Health. While the Ministry of Health data provide mother-child links for all children born in the country, children show up in the DEMRE data only if they participate in the admissions testing process in some way. As we describe in sections 3 and 5, the vast majority of children do participate in this process, and we see no evidence of imbalance in selection into the sample on the basis of treatments of interest. Nevertheless, it is interesting to ask whether our results would look different if we considered only parents whose (potential) children would show in the Ministry of Health data. These data cover mothers with who give birth between 1992 and 2010, so we focus on women who applied to college between 1990 and 2003.

Table F7 presents results from this exercise. The sample is dramatically reduced relative to the main text because of the cohort restriction and restriction to female applicants. The full sample count for school type falls from 42696 in Table 4 to 6589. However, we still find that parent admission to elite college raises child social capital, with somewhat larger effects than in the main analysis (Panel A). For human capital (Panel B), we use elementary and secondary grade SIMCE scores rather than admissions exam scores because very few children in this sample are old enough to have participated in the college admissions process. As in the main text, we find null effects. We do not report results for college outcomes because few children in this subsample have applied to college.

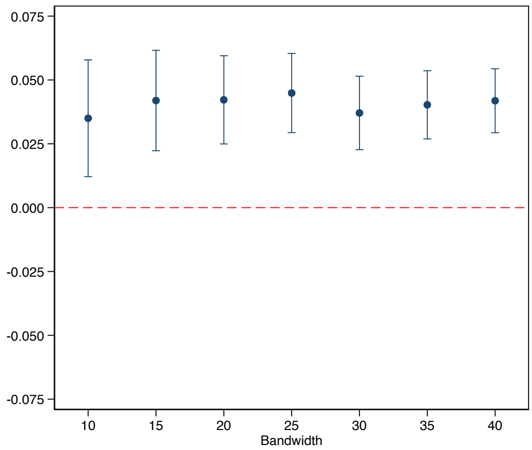
Figure F1: Effect of parents' admission to an elite college program on children's probability of attending an elite school—alternative bandwidths



(a) Non-elite parents



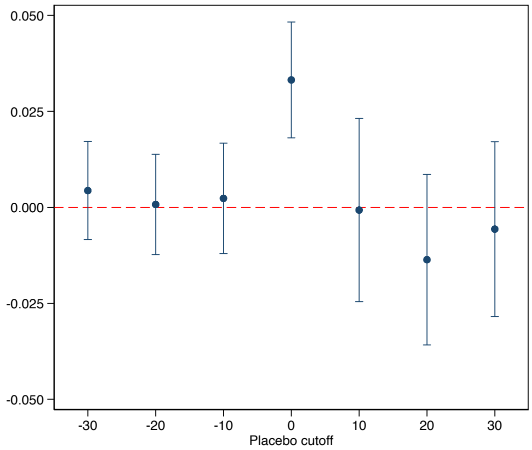
(b) Elite parents



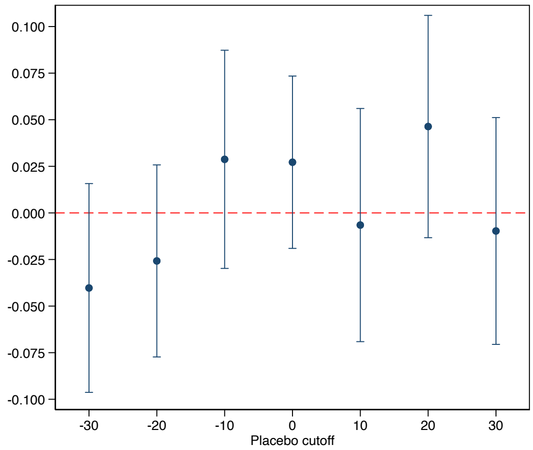
(c) All parents

This figure presents estimates of equation 1 for a variety of alternative bandwidths beyond our main bandwidth of 25 points. The outcome is an indicator for whether their child attends an elite private school. Each point corresponds to a regression discontinuity estimate obtained running our main specification with a different bandwidth. Panel (a) uses the sample of non-elite parents. Panel (b) uses the sample of elite parents. Panel (c) uses the full sample of parents. Confidence intervals are computed using standard errors clustered two ways at the parent $\times$ child level. See section F.2 for details.

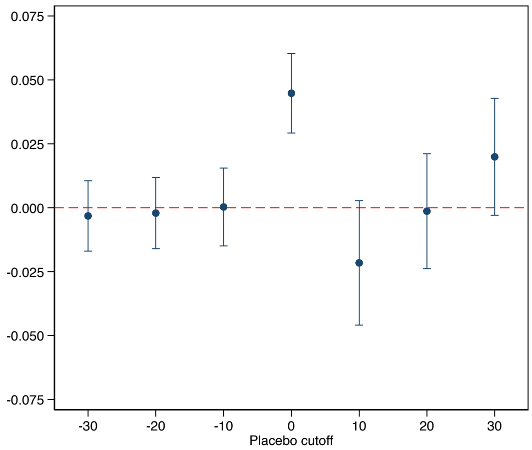
Figure F2: Effect of parents' admission to an elite college program on children's elite high school attendance—placebo cutoffs



(a) Non-elite parents



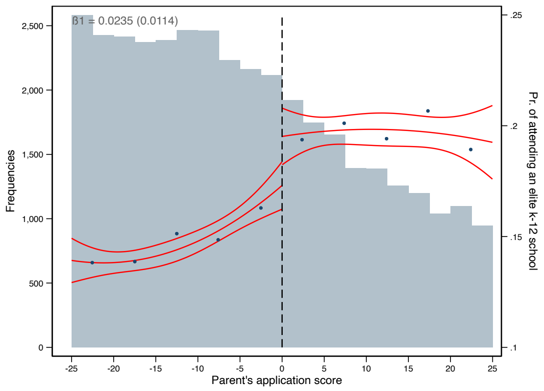
(b) Elite parents



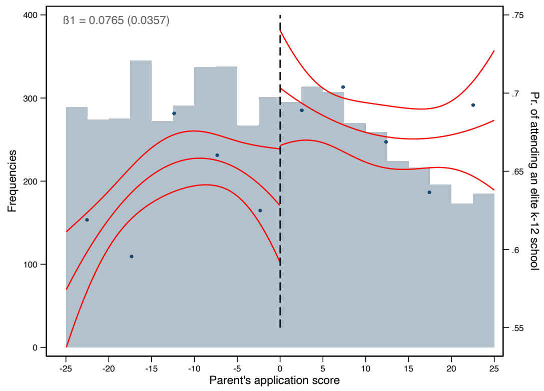
(c) All parents

This figure illustrates estimates for the effects of parents' admission to an elite college program on their children's probability of attending an elite school. Each point corresponds to an estimate obtained using equation 1, but changing the location of the admission cutoff used in estimation to a variety of false "placebo" values. The numbers on the x-axis indicate the distance between placebo cutoffs and the actual cutoff. Panel (a) focuses on non-elite parents, panel (b) on elite parents, and panel (c) on the full sample of parents. Confidence intervals are computed using standard errors clustered two ways at the parent $\times$ child level. See section F.3 for details.

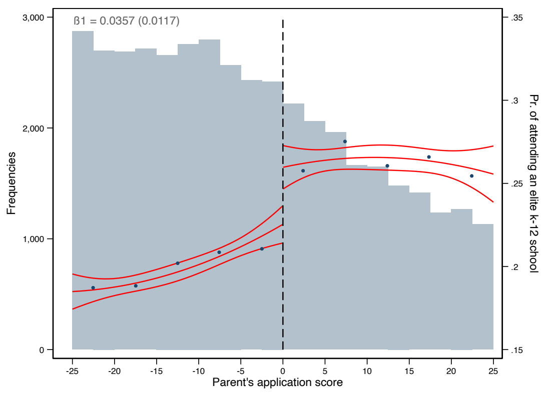
Figure F3: Effect of parents' admission to an elite college program on children's elite private school attendance—polynomial of degree 2



(a) Non-elite parents



(b) Elite parents



(c) All parents

This figure illustrates estimates for the effects of parents' admission to an elite college program on their children's probability of attending an elite school. Panel (a) focuses on non-elite parents, panel (b) on elite parents, and panel (c) on the full sample of parents. The red lines are quadratic polynomials and their 95% confidence intervals and were independently estimated at each side of the cutoff. The blue bars in the background illustrate the distribution of the parents' scores in the estimation sample. Reported coefficients and standard errors are based on quadratic fits with standard errors clustered two ways at the parent $\times$ child level. See section F.5 for details.

Table F1: Parents' admission to an elite college program and children's outcomes—additional controls

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
Panel A - Effects on child's K-12 school						
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0391	0.0305	0.0555	0.3452	0.3158	0.3180
	(0.0099)	(0.0096)	(0.0337)	(0.0596)	(0.0580)	(0.1979)
Observations	21860	19240	2619	21860	19240	2619
Counterfactual mean	0.186	0.127	0.660	1.889	1.491	5.055
Panel B - Effects on child's human capital						
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0024	-0.0062	0.0262	0.0803	-1.5471	10.1989
	(0.0102)	(0.0107)	(0.0335)	(2.2931)	(2.4947)	(5.7618)
Observations	20715	18175	2539	20485	17952	2532
Counterfactual mean	0.150	0.139	0.239	639.650	635.886	669.269
Panel C - Effects on child's college program characteristics						
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0597	0.0454	0.1289	0.0113	0.0106	0.0068
	(0.0289)	(0.0315)	(0.0708)	(0.0037)	(0.0039)	(0.0123)
Observations	20715	18175	2539	20715	18175	2539
Counterfactual mean	1.008	0.957	1.414	0.105	0.091	0.220
Panel D - Effects on child's type of college and program						
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0214	0.0133	0.0754	0.0046	0.0007	0.0388
	(0.0133)	(0.0142)	(0.0386)	(0.0107)	(0.0112)	(0.0347)
Observations	20715	18175	2539	20715	18175	2539
Counterfactual mean	0.365	0.344	0.527	0.171	0.158	0.277

Notes: The table presents estimates obtained from equation 1 augmented to include additional covariates. The specification controls for a linear polynomial of the running variable—i.e., parents' application score—which slope is allowed to change at the cutoff. The specification also includes parents' application-year and parents' target college program fixed effect. The specification also controls for parent's gender, parent's type of K-12 school, child's gender, child's birth year, household earnings, and family size. Household earnings and family size are self reported by students when registering for taking the college admission exam at the end of high school. Earnings are reported in broad categories. The sample only includes children born before 2001 who are old enough to register for the exam and report variables used as controls. Standard errors clustered two ways at the parent × children levels are presented in parentheses. See section F.1 for details.

Table F2: Effect of parent admission to an elite college program on children's outcomes (Bandwidth = 10)

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0350	0.0246	0.1051	0.3005	0.3034	0.2593
	(0.0117)	(0.0113)	(0.0362)	(0.0771)	(0.0735)	(0.2460)
Observations	19847	17219	2626	19847	17219	2626
Counterfactual mean	0.225	0.162	0.694	2.192	1.725	5.574
	Panel B - Effects on human capital					
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0056	-0.0021	-0.0179	-0.6776	-1.1721	2.5139
	(0.0118)	(0.0123)	(0.0416)	(3.0795)	(3.2770)	(8.9340)
Observations	13828	12235	1591	11978	10659	1317
Counterfactual mean	0.1463	0.1369	0.2256	644.795	641.694	671.890
	Panel C - Effects on college program characteristics					
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0533	0.0501	0.1068	0.0046	0.0064	-0.0041
	(0.0382)	(0.0409)	(0.1006)	(0.0052)	(0.0053)	(0.0178)
Observations	13828	12235	1591	13828	12235	1591
Counterfactual mean	1.026	0.981	1.424	0.1110	0.0977	0.2273
	Panel D - Effects on type of college and program					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0174	0.0193	0.0038	0.0063	0.0097	-0.0131
	(0.0155)	(0.0165)	(0.0463)	(0.0125)	(0.0130)	(0.0428)
Observations	13828	12235	1591	13828	12235	1591
Counterfactual mean	0.341	0.3278	0.434	0.165	0.155	0.251

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). Standard errors clustered two ways at the child × parent level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table F3: Parents' admission to an elite college program and children's outcomes—traditional elite schools only

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending a traditional elite school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0183	0.0181	-0.0254	0.3431	0.3007	0.0013
	(0.0070)	(0.0069)	(0.0241)	(0.0518)	(0.0492)	(0.1552)
Observations	42696	36889	5807	42696	36889	5807
Counterfactual outcome mean	0.148	0.115	0.388	2.146	1.714	5.241
	Panel B - Effects on child's human capital					
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Non-elite parent admitted to target program = 1	-0.0060	-0.0079	0.0017	0.3738	-0.7963	6.1967
	(0.0081)	(0.0084)	(0.0259)	(2.0936)	(2.2626)	(5.2612)
Observations	30663	26857	3805	26681	23481	3199
Counterfactual mean	0.137	0.128	0.212	641.157	637.521	670.810
	Panel C - Effects on child's college program characteristics					
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program=1	0.0569	0.0511	0.0780	0.0131	0.0131	0.0065
	(0.0263)	(0.0285)	(0.0652)	(0.0035)	(0.0036)	(0.0113)
Observations	30663	26857	3805	30663	26857	3805
Counterfactual mean	0.998	0.948	1.411	0.106	0.092	0.217
	Panel D - Effects on college program characteristics					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Non-elite parent admitted to target program = 1	0.0237	0.0215	0.0269	0.0056	0.0040	0.0100
	(0.0108)	(0.0115)	(0.0315)	(0.0086)	(0.0090)	(0.0272)
Observations	30663	26857	3805	30663	26857	3805
Counterfactual outcome mean	0.329	0.313	0.452	0.156	0.146	0.237

Notes: This table presents estimates obtained from equation 1 that illustrate the effect of parents' admission to an elite college program on children's outcomes. In this case, the schools used to define elite and non-elite parents and elite and non-elite schools for children include only the traditional elite schools, a sub-sample of those used in the main body of the paper. Samples vary across panels. Panel A focuses on children old enough to have enrolled in primary education (i.e., born before 2014). Panels B and C focus on children old enough to have applied to college in the period we observe (i.e., born before 2001). Standard errors clustered two ways at the parent × child level are presented in parentheses. See section F.4 for details.

Table F4: Parents' admission to an elite college program and children's outcomes—extended elite schools

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an extended elite school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0548	0.0483	0.0160	0.3431	0.2867	0.0975
	(0.0084)	(0.0084)	(0.0199)	(0.0518)	(0.0493)	(0.1473)
Observations	42696	36077	6619	41594	35027	6567
Counterfactual outcome mean	0.272	0.194	0.756	2.146	1.673	5.026
	Panel B - Effects on child's human capital					
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Non-elite parent admitted to target program = 1	-0.0060	-0.0062	-0.0064	0.3738	-0.3652	3.5640
	(0.0081)	(0.0085)	(0.0247)	(2.0936)	(2.2811)	(4.9890)
Observations	30663	26455	4206	26681	23180	3499
Counterfactual mean	0.137	0.127	0.208	641.157	637.048	671.210
	Panel C - Effects on child's college program characteristics					
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program=1	0.0569	0.0531	0.0680	0.0131	0.0131	0.0073
	(0.0263)	(0.0287)	(0.0626)	(0.0035)	(0.0036)	(0.0109)
Observations	30663	26455	4206	30663	26455	4206
Counterfactual outcome mean	0.998	0.942	1.411	0.106	0.091	0.216
	Panel D - Effects on child's type of college and program					
	Pr. of attending an elite college			Pr. of attending an elite college program		
Non-elite parent admitted to target program = 1	0.0237	0.0235	0.0191	0.0056	0.0057	0.0044
	(0.0108)	(0.0116)	(0.0300)	(0.0086)	(0.0090)	(0.0261)
Observations	30663	26455	4206	30663	26455	4206
Counterfactual outcome mean	0.329	0.311	0.453	0.156	0.144	0.241

Notes: This table presents estimates obtained from equation 1 that illustrate the effect of parents' admission to an elite college program on children's outcomes. In this case, the schools used to define elite and non-elite parents and elite and non-elite schools for children include all the schools in Table A.II. Samples vary across panels. Panel A focuses on children old enough to have enrolled in primary education (i.e., born before 2014). Panels B and C focus on children old enough to have applied to college (i.e., born before 2001). Standard errors clustered two ways at the parent × child level are presented in parentheses. See section F.4 for details.

Table F5: Effect of parent admission to an elite college program on children's outcomes—second degree polynomial

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
Panel A - Effects on child's K-12 school						
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0344	0.0222	0.0761	0.2509	0.2660	-0.1024
	(0.0117)	(0.0114)	(0.0357)	(0.0773)	(0.0742)	(0.2405)
Observations	37268	5428	42696	37268	5428	42696
Counterfactual mean	0.158	0.676	0.216	1.730	5.362	2.146
Panel B - Effects on human capital						
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0072	-0.0017	-0.0439	-2.4994	-3.6566	6.4856
	(0.0118)	(0.0123)	(0.0405)	(3.0801)	(3.2835)	(8.5035)
Observations	27204	3458	30663	23789	2891	26681
Counterfactual mean	0.129	0.209	0.137	637.936	670.473	641.157
Panel C - Effects on college program characteristics						
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0183	0.0215	-0.0073	0.0018	0.0101	-0.0552
	(0.0159)	(0.0168)	(0.0492)	(0.0125)	(0.0130)	(0.0428)
Observations	27204	3458	30663	27204	3458	30663
Counterfactual mean	0.953	1.410	0.998	0.094	0.219	0.106
Panel D - Effects on type of college and program						
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0174	0.0193	0.0038	0.0063	0.0097	-0.0131
	(0.0155)	(0.0165)	(0.0463)	(0.0125)	(0.0130)	(0.0428)
Observations	27204	3458	30663	27204	3458	30663
Counterfactual mean	0.302	0.439	0.315	0.147	0.235	0.156

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). The specification also includes a second degree polynomial of the running variable, parents' application-year fixed effect, and parents' target program fixed effect. Standard errors clustered two ways at the child × parent level are presented in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section 6.1 for details.

Table F6: Effect of parents admission to an elite college program on children's outcomes (Multiple applications)

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
Panel A - Effects on child's K-12 school						
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0351	0.0236	0.0200	0.2556	0.2082	-0.1261
	(0.0061)	(0.0059)	(0.0207)	(0.0387)	(0.0360)	(0.1383)
Observations	65471	58197	7274	65471	58197	7274
Counterfactual mean	0.189	0.138	0.654	1.901	1.541	5.157
Panel B - Effects on child's human capital						
	Pr. of scoring in the top 1%			Avg. score in the college admission exam		
Parent admitted to target program = 1	-0.0003	-0.0015	-0.0012	0.2598	-0.3973	1.5691
	(0.0062)	(0.0065)	(0.0224)	(1.6892)	(1.7963)	(4.7561)
Observations	47836	43011	4823	41539	37454	4084
Counterfactual mean	0.126	0.118	0.196	636.481	633.601	665.347
Panel C - Effects on child's college program characteristics						
	Peer avg score in the college admission exam			Sh of peers from elite K-12 schools in college		
Parent admitted to target program = 1	0.0497	0.0466	0.0233	0.0110	0.0112	-0.0063
	(0.0213)	(0.0227)	(0.0574)	(0.0028)	(0.0028)	(0.0100)
Observations	47836	43011	4823	47836	43011	4823
Counterfactual mean	0.950	0.910	1.352	0.098	0.086	0.209
Panel D - Effects on child's type of college and program						
	Pr. of attending an elite college			Pr. of attending an elite college program		
Parent admitted to target program = 1	0.0136	0.0131	0.0050	0.0037	0.0024	0.0085
	(0.0086)	(0.0091)	(0.0277)	(0.0067)	(0.0069)	(0.0236)
Observations	47836	43011	4823	47836	43011	4823
Counterfactual mean	0.313	0.301	0.433	0.144	0.136	0.222

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. It differs from the main text analysis in that it includes parents applications across multiple application cycles, not just the first one. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panels B to D use data on children old enough to have applied to college in our sample period (i.e., born before 2001). The specification also includes parents' application-year fixed effect, parents' target program fixed effect, and parents' next best program fixed effect. Standard errors clustered two ways at the parent × child level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section F.6 for details.

Table F7: Effect of mother admission to an elite college program on children's outcomes (1990-2003)

	All parents (1)	Non-elite parents (2)	Elite parents (3)	All parents (4)	Non-elite parents (5)	Elite parents (6)
	Panel A - Effects on child's K-12 school					
	Pr. of attending an elite private school			Elite name index in K-12 school		
Parent admitted to target program = 1	0.0736	0.0449	0.1056	0.3998	0.3744	-0.2268
	(0.0195)	(0.0191)	(0.0420)	(0.1257)	(0.1062)	(0.2907)
Observations	6589	5127	1462	6589	5127	1462
Counterfactual mean	0.254	0.153	0.685	2.324	1.540	5.642
	Panel B - Effects on child's human capital					
	Pr. of scoring in the top 1%			Avg. score in the SIMCE (Grade 4)		
Parent admitted to target program = 1	-0.0227	-0.0235	-0.0164	-0.5115	-2.2599	4.7445
	(0.0157)	(0.0175)	(0.0356)	(1.7946)	(2.0915)	(3.4931)
Observations	4625	3566	1058	4472	3452	1019
Counterfactual mean	0.087	0.086	0.093	315.043	314.159	318.713

Notes: The table presents estimates of regression discontinuity specification (1) that describe the effect of parent admission to an elite college program on outcomes for their children. It differs from the main text analysis because it includes only applications from mothers who applied to an elite college between 1990 and 2003. We split the sample by parent's high school type as noted in columns. Outcomes are listed in panel sub-headers. Samples vary across panels. Panel A uses data on children old enough to have enrolled in primary education within our sample period (i.e., born before 2014). Panel B focuses on children who reached grade 4 in 2002 or between 2005 and 2018 (i.e., the years in which we observe SIMCE scores). The specification also includes parents' application-year fixed effect, parents' target program fixed effect, and parents' next best program fixed effect. Standard errors clustered two ways at the parent × child level are in parentheses. "Counterfactual means" are below-threshold mean values of the outcome of the dependent variable. See section F.6 for details.

G VAR model

This section provides further detail on the back of the envelope calculation presented in Section 7 of the main text. We model dynasties that evolve over time. Dynasties are endowed in each period with social and human capital. Given these values, they choose the "eliteness" of the college they attend. After college, they match to a spouse who is also characterized by human capital, social capital, and college eliteness. The social and human capital of the next generation in the dynasty are then determined as a function of parents' average social capital, human capital, and college eliteness.

This conceptual setup gives rise to the following VAR:

$$S_{it} = \alpha_0 + \alpha_1 \overline{S}_{it-1} + \alpha_2 \overline{H}_{it-1} + \alpha_3 \overline{E}_{it-1} + e_{1t} \quad (1)$$

$$H_{it} = \beta_0 + \beta_1 \overline{S}_{it-1} + \beta_2 \overline{H}_{it-1} + e_{2t} \quad (2)$$

$$E_{it} = \gamma_0 + \gamma_1 S_{it} + \gamma_2 H_{it} + e_{3t} \quad (3)$$

$$S^s_{it} = \delta_0 + \delta_1 S_{it} + \delta_2 H_{it} + \delta_3 E_{it} + e_{4t} \quad (4)$$

$$H^s_{it} = \phi_0 + \phi_1 S_{it} + \phi_2 H_{it} + e_{5t} \quad (5)$$

$$E^s_{it} = \psi_0 + \psi_1 S_{it} + \psi_2 H_{it} + \psi_3 E_{it} + e_{6t} \quad (6)$$

S_{it}, H_{it}, and E_{it} are social capital, human capital, and college eliteness for dynasty i in generation t. We continue to measure human capital using entry exam scores. We measure social capital as the polo club name score eliteness of the K-12 school an individual attends. As discussed in sections 2 and 6.1, this is a continuous analog of the binary "elite K-12 school" categorization. We measure college "eliteness" as the average value of social capital of the college peers of an individual, as in section 6.4. S^s_{it}, H^s_{it}, and E^s_{it} are the same variables for the spouse, and $\overline{S}_{it}$, $\overline{H}_{it}$, and $\overline{E}_{it}$ are average values of the individual and the spouse. The e_{kt} are error terms, which we assume are statistically independent with mean zero and variances to be estimated.

Our approach to calibrating the model is to estimate the parameters governing elite colleges' role in production and matching using instrumental variables specifications that parallel the regression discontinuity designs in section 6.4. We then fill in the remaining parameters using OLS regressions similar to our analysis in section 4, restricting college effects to the estimated values in from the discontinuity designs.

We start by creating instruments based on the characteristics of the target and fallback options of parents, following our approach in section 6.4. We characterize each college-major combination in terms of the social capital of the students it admits and of the social capital of the spouses of these students. We then construct measures ΔE and ΔE^{spouse} based on the gap between the peer eliteness and spousal eliteness of each marginal applicant's target and fallback college program.

To calibrate equation 1, we estimate an IV specification of the following form:

$$S_{ijc\tau} = \alpha_1 \overline{S}_i + \alpha_3 \overline{E}_i + \mathbf{D_{ijc\tau}}\Gamma + \mu_c + \mu_{c'(ijc\tau)} + \mu_\tau + \varepsilon_{ijc\tau} \quad (7)$$

$S_{ijc\tau}$ is the social capital of child i of parent j applying to program c in application cohort

τ. The endogenous regressors are parent average social capital $\overline{S}_i$ and parent average college eliteness $\overline{E}_i$. We instrument for these variables using the admission interactions $A_{ijc\tau} \times \Delta E$ and $A_{ijc\tau} \times \Delta E^{spouse}$. $\mathbf{D_{ijc\tau}}$ is a vector of controls that includes the main effects of ΔE and ΔE^{spouse}, linear terms in admissions score $Score_{ijc\tau}$ that may vary above and below the cutoff, interactions between the $Score_{ijc\tau}$ terms and the ΔE and ΔE^{spouse} terms, and the main effect of admission $A_{ijc\tau}$. The μ_c, $\mu_{c'}$, and μ_τ are fixed effects for target degree, next option degree, and application cohort, as in main text equation 2. We estimate this specification in the sample of college applicant parents for whom we observe spouse and child outcomes.

This specification is an IV analogue of main text equation 2. Intuitively, crossing an admissions threshold where the value of ΔE is large raises one's own college eliteness, which in turn raises couple-average college eliteness $\overline{E_i}$. If individuals who attend more elite colleges are more likely to marry spouses who also attend elite colleges, this will also raise $\overline{E_i}$. Crossing an admission threshold where the value of ΔE^{spouse} is large raises spouse social capital which in turn raises couple-average social capital $\overline{S}_i$. Own social capital is by definition fixed at the time of application. The exclusion restriction imposed here is that couple-average social capital and couple average college eliteness are the only channels through which admission to degree programs with high levels of E or E^{spouse} shape child outcomes.

This approach recovers estimates of the social capital and college eliteness parameters in equation 1, α_1 and α_3. Note that although equation 1 also includes a human capital term, we cannot estimate it using the IV approach because, as we report in Table 7 of the main text, elite admission does not affect spouse human capital, and own human capital as defined here is fixed at the time of admission. We therefore recover the human capital coefficient α_2 using restricted OLS. Specifically, we estimate

$$S_{it} = \alpha_0 + \hat{\alpha_1}\overline{S}_{it-1} + \alpha_2\overline{H}_{it-1} + \hat{\alpha_3}\overline{E}_{it-1} + e_{1it} \tag{8}$$

restricting coefficients α_1 and α_3 to the values recovered from the IV specification. We use the residuals from this specification to compute an estimate of the variance of e_{1t}. We estimate this specification in subset of the IGC sample for whom we observe human and social capital outcomes for both parents.

We calibrate equation 2 in a similar way. We first obtain an estimate for β_1 by running an IV specification in which $\overline{S}_i$ is instrumented with an interaction between $A_{ijc\tau}$ and ΔE^{spouse}. Then, we obtain estimates for β_0 and β_2 by running an OLS specification in which β_1 is restricted to take the value obtained in the IV specification.

We follow this approach for equations 4 and 6 as well, using the sample of parents for whom we observe spouses. For equation 4, we first obtain an estimate for δ_3 from a specification in which we instrument E_{it} with an interaction between A_{jt} and ΔE_{jt}. We then recover δ_0, δ_1 and δ_2 via an OLS specification in which we restrict δ_3 to take the value obtained from the IV specification. The right hand side variables on equation 6 are the same as in equation 4, so we follow the same approach to calibrate it.

We estimate the two remaining equations, equations 3 and 5, using OLS. We estimate equation 3 using the full sample of children, and we estimate equation 5 using the sample of parents for whom we observe spouses.

Table G1 presents results from the above estimation steps. The column number matches the equation in the VAR. Rows are independent variables. We indicate with the superscript "2SLS" estimates obtained through 2SLS, and with the superscript "OLS" estimates obtained from constrained OLS regressions. The row at the bottom of the table presents the estimates of the variance of the error terms e_{it}.

With these parameter estimates in hand, we use standard VAR techniques to obtain the MA(∞) representation of the VAR(1) process, and use the MA representation to obtain expressions for the variance and autocovariance matrices of S_{it} and H_{it} as functions of model parameters. In addition to computing variance and autocovariance matrices for estimated parameter values, we compute these matrices under counterfactual assumptions about the causal role of college attendance.

Table G1: VAR parameters estimation

	Children's outcomes			Spouse's characteristics		
	S_{it}	H_{it}	E_{it}	S^s_{it}	H^s_{it}	E^s_{it}
	(1)	(2)	(3)	(4)	(5)	(6)
$\overline{S_{it-1}}$	0.373^{2SLS}	0.161^{2SLS}				
	(0.246)	(0.050)				
$\overline{H_{it-1}}$	0.272^{OLS}	0.445^{OLS}				
	(0.004)	(0.005)				
$\overline{E_{it-1}}$	0.431^{2SLS}					
	(0.087)					
S_{it}			0.472^{OLS}	0.271^{OLS}	0.097^{OLS}	0.072^{OLS}
			(0.003)	(0.004)	(0.003)	(0.001)
H_{it}			0.382^{OLS}	0.115^{OLS}	0.265^{OLS}	0.075^{OLS}
			(0.004)	(0.004)	(0.004)	(0.001)
E_{it}				0.058^{2SLS}		0.040^{2SLS}
				(0.014)		(0.002)
Observations	553,839	553,839	157,352	88,976	88,976	88,976
Cragg-Donald Wald F statistic	16.134	431.737		3853.52		3853.52
Var(e)	0.616	0.646	0.651	0.820	0.542	0.092

Notes: The table presents estimates from 2SLS and OLS regressions described in Section G. We use these regressions to calibrate the VAR describing the evolution of human and social capital across generations introduced in Section G. Column numbers match the equations on the VAR. We indicate with the superscript 2SLS estimates obtained from 2SLS regressions in which we instrument the endogenous variable with an interaction between crossing and admission threshold and ΔE or ΔE^s. These regressions focus only on parents scoring near a college admission cutoff and as in the main body of the paper control for the running variable—i.e., a parent application score—and by parent application year and parent target degree fixed effects. We indicate with the superscript OLS estimates obtained from constrained OLS regressions in which some of the parameters were forced to take the values obtained by the 2SLS. In equations (1) and (2) standard errors are clustered at the child level; while in equations (4) to (6) at the parent level. In equation (3) we simply use heteroskedasticity robust standard errors. The final row presents estimates for the variance of the random terms associated with each equation of the VAR.

H Admissions policy changes and intergenerational mobility

This section provides further details on the exercise we implement to study the potential consequences of changnes in admissions policy on the persistence of social capital across generations. Specifically, we study the consequences of programs that boosts the application scores of students from different kinds of high schools (either subsidized or elite) by giving them a bonus that ranges between 5 and 50 points (i.e., between 15% and 135% of the application score's standard deviation).

H.1 Auxiliary model

Our goal is to understand how shifts in the allocation of parents to degree programs shape social and human capital outcomes for children. We focus on parents' share of college peers from elite high schools as the causal channel of interest. This follows evidence from Table 9. Let Y_{ij} denote the outcome for child i of parent j observed in the data, and Y_{ij}^h denote the same outcome under counterfactual degree assignment h. We let

$$Y_{ij}^h = Y_{ij} + \gamma(E_{ij}^h - E_{ij}), \tag{1}$$

so that the counterfactual outcome rises and falls with the change in the share of elite peers at the parents' college degree program, $E_{ij}^h - E_{ij}$. Y_{ij} and E_{ij} are observed, so the challenges here are 1) to recover E_{ij}^h, the counterfactual assignment, and 2) to recover γ, the effect of college elite peer share on outcomes of interest.

H.2 RD estimation

We recover γ using a simplified version of specification (2) that studies how parents' elite peer share impacts children's social capital (measured by the Polo elite name index introduced in Section 2) and children's human capital (measured by the average of reading and mathematics scores in the college admission exam). Specifically, we estimate the following specification:

$$\begin{aligned} Y_{ijct} = &\alpha + \beta A_{ijct} + \gamma A_{ijct} \times \Delta E_{ijct} + \delta \Delta E_{ijct} \\ &+ f(S_{ijct}, \mathbf{\Delta E}_{ijct}; \theta) + \mu_c + \mu_{c'(ijct)} + \mu_t + \varepsilon_{ijct} \end{aligned} \tag{2}$$

Y_{ijct} is the outcome for child i of parent j who applied to degree c in year t and A_{ijct} is an indicator for parent j's admission to degree c in year t. β is the main effect of parent admission to his/her target degree relative to an observably identical next choice. γ is the coefficients on the main regressor of interest—interactions between admission and the change in degree-specific exposure to alumni of elite K-12 schools across the cutoff. Controls include the main effect of $\mathbf{\Delta E}_{ijct}$, as well as a continuous linear function of S_{ijct} that is allowed to vary above and below the cutoff and to interact linearly with $\mathbf{\Delta E}_{ijct}$.

We include fixed effects for target degree c, next option degree c', and application cycle.

This specification strips down equation (2) to focus on the share of peers from elite high schools as the driver of children's outcomes. Table H1 summarizes results from this step. As in Table 9 we show that parent admission to degrees with higher elite peer shares has a large effect on child social capital but not human capital.

H.3 Assignment simulations and counterfactual outcomes

We recover E_{ij}^h for different counterfactual h using simulation exercises. Each exercise has two steps.

In the first step, we simulate program assignments in the parent generation under a given score bonus for students from subsidized high schools, holding fixed both applicants' submitted rank lists and the count of spots available in different programs. Several features of this exercise are important to note:

- We restrict attention to application years for which we observe the full list of preferences submitted for each applicant. These years are 1977, 1978, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 2001, 2002, and 2003.
- Chile uses the deferred acceptance algorithm to assign college applicants to programs.
- Our understanding of the assignment process is strong enough and the quality of data high enough to recreate essentially all observed assignments. Our code replicates the allocation for 99.99% of the college applicants in our sample.
- We simulate ten counterfactual scenarios in which we increase the application score of students from subsidized schools between five and fifty points in intervals of five points. Program assignments are fully determined by seat availability, rank lists, and application scores.

Let $c(i, h)$ denote the program assigned to i under counterfactual h, and $E(c, h)$ be the share of elite K-12 students assigned to c under h. We then compute the individual-level elite shares of interest E_{ij}^h as $E_{ij}^h = E(c(i, h), h)$, that is, the share of elite peers under counterfactual h at the degree to which the student is assigned under h. In addition, we compute an alternate counterfactual share measure $\tilde{E}_{ij}^h = E(c(i, h), h_0)$, where h_0 denotes the observed baseline scenario. This alternative counterfactual is equal to the *observed* share of elite peers at the program to which i is assigned under counterfactual h; it effectively holds the causal impact of each degree fixed while reassigning students across programs.

H.4 Correlations

We compute correlations between social capital and child social capital and between child human capital and child social capital under the observed allocation and under each counterfactual allocation. Figure 11 plots the results of these calculations under our main counterfactuals (i.e., the E_{ij}, in filled points) and under counterfactuals that hold degree effects fixed (the $\tilde{E}_{ij}$, in hollow points). Each point is labeled with the size of the point bonus that students of the listed type receive. Note that the vertical axis is reversed, so that intergenerational mobility rises as one moves vertically up the graph.

Our findings trace out a "mobility-meritocracy" frontier. As one adds bonus points to applicants from subsidized schools, mobility increases. These effects are sizeable. In our primary simulations, a ten-point bonus reduces the intergenerational correlation of social capital by 10%, from 0.525 to 0.475. A 25 point bonus reduces the intergenerational correlation of social capital by 21%. However, these changes also reduce the correlation between social and human capital in the child generation. We use the term "meritocracy" as shorthand for this correlation, with the idea that it reflects the allocation of a reward (in this case social capital) on the basis of achievement (in this case, test score performance). A ten point score bonus reduces the correlation between children's social and human capital by 7.5% and a 25 point bonus by 21%. The slope of the mobility-meritocracy frontier is approximately constant over the range we consider, with a one-unit increase the correlation between child social and human capital corresponding to an 2.5 unit decrease in intergenerational social capital mobility.

Our alternate counterfactuals treat the share of elite K-12 students within each college degree program as fixed, so that all changes in reported correlations come from the reallocation of students across degree programs, not shifts in the effects of the programs on assigned students. The mobility-meritocracy frontier is steeper in these simulations: a given mobility gain can be achieved at a smaller cost to meritocratic objectives. The difference between our primary and secondary series reflects a challenge of achieving mobility gains when outcomes are determined by peer composition. As the value of the score bonus grows, elite high school student shares at more selective programs decline, reducing gains for assigned subsidzed-school students.

Table H1: Effects of parent exposure to alumni of elite K-12 schools in college on children's outcomes

	Elite name index in child's school (P)	Avg. score in college admission exam
	(1)	(2)
Parent admitted in target major=1	-0.0087	0.0148
	(0.0095)	(0.0074)
Parent admitted in target major=1 × ΔE (STD)	2.0258	0.0417
	(0.3700)	(0.1572)
Observations	350983	276984
Counterfactual mean	0.9470	0.2058

Notes: This table presents estimates from parametric regression discontinuity specification (2) of the effects of parent exposure to alumni of elite K-12 school in college on outcomes for children. Each column is a single specification. Reported coefficients are the main effect of admission to the target program and interactions between admission and differences between the share of alumni of elite K-12 schools of the target and next-option degree program. The ΔE variable is in standard deviation units. Samples vary across columns due to data availability. Column (1) focuses on children old enough to observe attending primary education (i.e., born before 2014). The second column focuses on children old enough to observe applying to college (i.e., born before 2001). "Elite name index in child's school (P)" is the polo club elite name index. We control for a linear polynomial of the running variable, the slope of which is allowed to change at the cutoff. The slope of the running variable on both sides of the cutoff is allowed to vary with ΔE. The main effect of ΔE is also included in the specification. We also control for parents' application-year and parents' target program and next option fixed effects. Standard errors clustered two ways at the parent × child level are presented in parentheses. "Counterfactual mean" is the mean below-threshold value of the depend variable.

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