Political and Business Dynasties in France: a Social Gradient in Returns to Elite Education [*]

Stéphane Benveniste [♣]

January 2023

Abstract

Dynasties constitute a visible sign of intergenerational persistence and raise questions on the legitimacy of the ruling elite. Among graduates of prestigious higher education institutions, this paper quantifies occupational following in the French political and business elites. We link nominative data on 103,309 graduates from 12 French *Grandes Écoles* born between 1931 and 1975 to their professional careers between 1958 and 2019 as politicians with national-level mandates or as board members of French firms. Identifying familial lineage though shared surnames, we find that children of political and business leaders had higher chances than their graduate peers to embrace careers in the elite, emphasizing a social gradient in returns to elite education. Political dynasties were particularly sizeable, although progressively declining. These dynasties also affect the composition of the French elite. Indeed, dynastical board members are less frequently graduates from top institutions than first-generation directors, and members of the elite manage to propel their offspring much younger to top business and political positions.

JEL Classification: D72, I23, I26, J24, J62.
Keywords: Dynasties, intergenerational mobility, elite occupations, politics, business, *Grandes Écoles*.

[*]This work was supported by the French National Research Agency Grant ANR-17-EURE-0020, and by the Excellence Initiative of Aix-Marseille University – A*MIDEX. I would like to thank for their helpful comments Baptiste Coulmont, Arnaud Lefranc, Morgan Raux, Akiko Suwa-Eisenmann, Alain Trannoy, Louis-André Vallet, as well as participants to the PSE Workshop in Economics of Education and the PSE Economic History Seminar.

[♣]Institut national d'études démographiques (INED), F-75020 Paris, France; Aix-Marseille University (Aix-Marseille School of Economics), CNRS, Marseille, France.

"Two hundred families are the masters of the French economy, and so French politics. [...] The two hundred families place their representatives in positions of power."
Édouard Daladier, Prime Minister, Congress of the Radical Party from 1934 in Nantes

1 Introduction

Dynasties, such as the *Murdochs*, *Rockefellers*, or *Kennedys* in the United States, or the *Peugeots*, *Dassaults* or *Le Pens* in France, constitute an ostentatious sign of intergenerational persistence. They raise questions on the legitimacy of the ruling elite, may feed social resentment, and were often the bedrock of major historical turmoil, such as the French *Révolution*. Moreover, the widening gap in economic (Piketty, 2014) and social (Savage, 2015) conditions between top positions and the rest of the society is a sign that these concerns for equity in the access to top positions are fundamental to consider.

In this paper, we analyze occupational dynasties within the French elite, both in politics and business.[1] We use registers from 12 of the most prestigious French *Grandes Écoles* (Bourdieu, 1989, pp. 198-211) and document that among their masculine graduates, children of members of the political and business elites have 2.4 times more chances than their peers to embrace similar elite careers. The former result is therefore conditional on education and constitutes a direct association of social origin to occupational attainment. Moreover, we show that these dynasties have a negative impact on the composition of the French elite: second-generation business leaders are less likely to have graduated from a leading *Grande École*, and elite members propel their kins much younger to top business and political positions.

France constitutes a particularly suitable context for the study of differential returns to education for the ruling elites for two reasons.[2] First, access to top positions in the society essentially demand a curriculum in one of the leading *Grandes Écoles* (Suleiman, 1978; Bauer

[1] We thereby investigate "allocative inequality" for the attainment of specific positions, and not "within-occupation rewards inequality", which may notably study earnings inequality within occupations (Torche, 2011).

[2] "Elite" remains polysemic by nature and is often subject to an ad-hoc definition per study. Ours is conventional and includes politicians with missions at the national level and board members of French firms, as further detailed in section 3.

and Bertin-Mourot, 1987; Bourdieu, 1989).[3] Second, and largely as a consequence of these common backgrounds in small size institutions, a high degree of interpenetration of the French political and business elites was widely documented (see for example Suleiman, 1978, using his own surveys; Birnbaum et al., 1978, with data from the *Who's Who in France*; Kramarz and Thesmar, 2013, using a variety of sources including alumni directories).

A challenge to our analysis may arise from the fact that parental affiliation to the elite increases the prospects to be admitted to a *Grande École* (Bourdieu, 1989; Euriat and Thélot, 1995; Albouy and Wanecq, 2003; Benveniste, 2021), whose graduates are therefore partly selected. Children of elite families therefore represent a higher share of graduates than they do in societies. Yet, we argue that the former point does not constitute a serious threat to our findings. Indeed, those entering the schools without a father in the elite are themselves highly positively selected and constitute a comparison group of very competitive individuals (Mare, 1993). Therefore, our estimates of risk ratios for elite occupational following among graduates of the *Grandes Écoles* are presumably downward-biased with respect to what they would be among the whole French population. Another challenge regards the difficulty to find data on familial links, especially for a population from the elite, which is rarely surveyed on a representative basis. We overcome the latter shortcoming by identifying lineage thanks to surnames, a method increasingly used in the economic literature (see for example Güell et al., 2007, 2015; Clark et al., 2014; Barone and Mocetti, 2020). To that end, we follow Benveniste (2021) and construct the probability to be linked to a father who belongs to the ruling elite. The latter is a function of the number of bearers of a similar surname in the elite in the previous cohort and of the frequency of the surname in the French population. This methodology requires to circumscribe the analysis to the transmission between fathers and sons.

We unveil a large predominance of elite dynasties, especially among the political elite. We use nominative data on fathers from the period 1901-1955 and on sons over the period 1931-1975, who served as national politicians (Presidents, ministers, and members of Parliament), or as board members of French firms, with or without executive functions. We first confirm that the *Grandes Écoles* constitute the main entry to top positions in society, as 26.2% of

[3] In France, only specific elite professions, such as physicians or lawyers, essentially go through dedicated training programs in the universities.

those with elite occupations in our sample graduated from one of the 12 schools, against 0.33% of the French population. More importantly, among the 103,309 graduates born in 1931-1975, those with a father with top political or business positions are more likely than their peers to become a member of the French elite. This result holds through a series of robustness checks regarding sample choices or estimation methods. We thereby show the existence of a "double-dividend": on top of the better admission chances to the *Grandes Écoles* (Benveniste, 2021), we show that children of the elite benefit from higher returns from such education.

Political dynasties are the most notable in magnitude. Those born between 1931 and 1975 whose fathers were in politics had 36.7 times more chances than their peers graduating from the same *Grande École* to become a national politician, whereas they evenly entered business careers. Yet, business dynasties are also very prominent as a graduate has 8.5 times more chances than his peers to become a businessman with executive functions if his father was one. Some schools however appear to better level the playing field for their graduates, among which there is no significant differences for the access to elite positions (e.g. *ENS Ulm*, *ENS Cachan* or *ESSEC*; presentation of the schools are provided in section 3.2), whereas graduates from *EM Lyon* whose parents are not part of the elite have 6.5 times less chances to access these positions. Even conditionally on graduation from *ENA*, the major school for the training of politicians, those with parents involved in politics are about 40 times more likely to have a political career of national importance. Nevertheless, a favorable result is that dynastical following has largely reduced over the course of our period of study, especially in politics, a phenomenon also documented for the United States (Clubok et al., 1969; Dal Bó et al., 2009).

A second stage of the analysis, albeit not causal, suggests that there is a social cost to these dynasties. We study variations in the schooling and age of first position, as a function of paternal belonging to the elite, within the sample of 17,822 individuals holding elite positions. We show that children of businessmen enter business and political positions respectively 5.4 and 9.3 years younger than their colleagues, even with inclusion of cohort and school fixed effects (and up to 8.0 and 11.2 years before for children of business executives). While they do not access more frequently business positions than their peers, children of politicians

reaching such positions also benefit from a 5.7-year anticipation in the age of their first position. Yet, there is no acceleration process for careers in politics, perhaps surprisingly as anecdotal evidence often suggests this type of phenomena (Turchi, 2009), possibly rather for local mandates. Additionally, we show the education of dynastical business directors differs from that of their colleagues, as they are twice less likely to be a graduate from one of the 12 *Grandes Écoles*. Two competing interpretations are discussed in the paper: either substitution of alternative attributes such as job-specific skills, or otherwise nepotism. We argue that the latter is more convincing. Indeed, not only those with elite background more frequently attain elite positions among graduates, but they are also more likely to bypass the traditional validation process of the *Grandes Écoles*. Furthermore, engaging a career in the elite 11 years ahead probably induces being less experience.

Nevertheless, we are not able to thoroughly distinguish the different mechanisms at work, which may include access to networks, favoritism, shaping of aspirations or ability, as well as transfer of financial capital (section 2 presents the literature on these potential mechanisms). Yet, our results are conditional on graduation from the 12 *Grandes Écoles*, which, to some degree, already select individuals based on aspirations, productivity, as well as access to financial liquidity for the schools with fees. The inclusion of schools' controls in our analysis accounts for part of the heterogeneity with respect to these characteristics, although much remains unexplained. Our work is also subject to some limits, which we point out in the paper, essentially the non-exhaustivity and time-varying coverage of our data on business directors, as well as the imperfectly accounted life cycle bias with less time for the youngest cohorts to enter the elite. Despite these caveats, the present paper allows to document the intergenerational anchoring of families in the French elite, a phenomenon on which we did not find any previous systematic statistical analysis over several cohorts.

Our study relates to two strands of the literature. The first is the one about occupational following, which is defined as the entry of children into a parent's profession. This was described as a common feature of very diverse societies and political systems across time and space (Putnam, 1976). Occupational dynasties were documented for politicians (Clubok et al., 1969; Laband and Lentz, 1985; Dal Bó et al., 2009; Feinstein, 2010; Niess, 2012; Geys, 2017; Rossi, 2017), liberal professions (Mocetti, 2016 for pharmacists; Aina and

Nicoletti, 2018), legal professions (Laband and Lentz, 1992), physicians (Lentz and Laband, 1989), as well as self-employed and entrepreneurs (Laferrere and McEntee 1996; Dunn and Holtz-Eakin, 2000; Fairlie and Robb, 2007; Sørensen, 2007; Colombier and Masclet, 2008; Lindquist et al., 2015). For instance, Clubok et al. (1969) document that the share of Congressmen's sons also serving in the Congress was above 20% in the late 18th century, and progressively fell to a still significant level of 5 to 7% in the 1950s. Laband and Lentz (1985) find similar magnitudes for 1965 (8% with parents in politics), and also show that dynastical politicians enter the Congress younger, experience longer tenure, and are more likely to run reelection campaigns unopposed. Using Swedish register data, Folke et al. (2017) are able to show that politicians extract rents to the benefice of their children and not of their siblings, which confirms that the intergenerational perspective is the most relevant. For the private sector, Dunn and Holtz-Eakin (2000) exploit waves from 1966 to 1982 of the United States National Longitudinal Surveys and find that having a self-employed parent doubles the probability to work in self-employment. Furthermore, Corak and Piraino (2011) show that, by their 28th birthday, 40% of Canadian men born in 1963 had a work experience in a company in which their father also worked. Finally, the extensive research on intergenerational social class mobility was connected to occupational following by Weeden and Grusky (2005), who developed the concept of micro-classes. This corresponds to "occupation-level data on the forms of social closure", institutionalized though unions, licensing, job training and socialization with colleagues. Jayet (2021) offers an application to France and he suggests that intergenerational micro-class reproduction is proportionally higher than standard class reproduction.

Besides, the literature showed that occupational following and dynasties matter for global welfare, especially in contexts in which networks, nepotism, or capital constitute substitutes to ability or productivity. Examples include Bennedsen et al. (2007) who use the gender of a CEO's firstborn child as an instrumental variable for the transfer of firms' control (as firms are more likely to be transmitted to sons than daughters), and demonstrate a negative effect of such nepotism on firms' operating profitability. Equivalent results were found by Pérez-González (2006), or Villalonga and Amit (2006), who show that the value of firms plummets when they are transmitted to heirs, rather than opened for succession. Dynasties may also induce lower levels of exerted efforts (Rossi, 2017), and they were found to favor

less skilled individuals (Basso et al. 2021 in the context of Italian lawyers; Geys 2017 for local Italian politicians). Although an exception in this *tableau* is provided by Sraer and Thesmar (2007), who find that French family-managed firms are more profitable, several studies rather showed that inherited firms suffer from worst management practices, notably Bloom and Van Reenen (2007). Overall, researchers mainly concluded that intergenerational occupational reproduction entails a misallocation of resources. Worst, when regarding political representatives, it was often described as a mere threat to democracy (Mosca, 1896). Different mechanisms for this intergenerational transmission were suggested by the literature, which we detail in section 2.

Our second contribution is to the role of education in intergenerational social mobility. A long tradition in sociology analyzes their interconnection. One may refer to Breen and Müller (2020) for a review, complemented by country cases. The tripartite relationship between Origins, Education and Destination (often defined as occupational attainment) was conceptualized by the "OED triangle". In this framework, social origin influences the level and quality of education, which translates to the labor market through returns to education. However, there may remain a residual direct effect of social origin on destination. This latter effect is net of the average returns to any given education. Therefore, another way of presenting the direct origin-destination association is that it constitutes differential returns to education, depending on social origin.

In this framework, educational inequality, i.e. the association of parental background to educational attainment, constitutes a first channel of inequality. It was largely documented across countries and time, including for the French *Grandes Écoles* (Bourdieu and Passeron, 1964; Bourdieu, 1989; Euriat and Thélot, 1995; Albouy and Wanecq, 2003; Falcon and Bataille, 2018; Bonneau et al., 2021; Benveniste, 2021). Researchers highlighted a significant association between social origin and the probability to be admitted to these elite schools.

Scholars showed that admissions to elite institutions also translate into high returns on the labour market (Hoekstra, 2009; Wakeling and Savage, 2015; Anelli, 2020; Chetty et al., 2020). Such returns not only include income, wealth, and occupation, but also network, marriage, and prestige (Dickson and Harmon, 2011). For the access to specific positions,

higher education often constitutes a prerequisite, as argued by Bovens and Wille (2017), who state that in Western democracies, it is the most effective way to political and business top occupations.

Yet, residual social inequalities remain conditionally on educational attainment (Erikson and Jonsson, 1998; Vallet, 2004; Crawford et al., 2016, among others). Indeed, Bernardi and Ballarino (2016) study 14 countries and find that half to three quarters of the association of social origin and occupational attainment is mediated by education, while one quarter to one half is the result of a residual direct effect of social origin on occupational attainment.[4] The latter inequality subsists in all countries, and is particularly high in Italy, Spain, and to a lesser extent in France, while in countries such as Germany, the majority of the parental influence operates on the level of attained education. Importantly, the residual effect of social origin on destination was studied across different levels of education. An influential work by Hout (1988) claimed that there was no residual origin-destination association among graduates from college in the 1980s United States. This finding constituted a strong support for the meritocratic virtue of higher education. However, this was later contradicted (Torche, 2011; Bernardi and Ballarino, 2016; Falcon and Bataille, 2018). Notably, Torche (2011) uses the American Panel Study of Income Dynamics, with finer definition of educational attainment than Hout (1988), and shows that the residual origin-destination association is high among those with low levels of education, decreases for college graduates, but increases for graduates with advanced-degrees.[5] She highlights a U-shaped pattern of parental influence with respect to the level of attained education, which holds for class, status or earnings. Falcon and Bataille (2018) confirm this result for France with cohorts born between 1918 and 1984, as parental influence increases among *Grandes Écoles* graduates.

Alternatively, some studies provided an exclusive focus on elite education. Depending on the decile of parental income, Chetty et al. (2020) document very unequal admissions to 12 elite institutions including the *Ivy League* colleges, for individuals born in 1980-1982.

[4] There also exists an intense debate about the evolution over time of these associations. One may again refer to Breen and Müller (2020) for a presentation. In short, many scholars found a decrease of social reproduction over the past generations, while some argue (notably Erikson and Goldthorpe, 1992) that this oversees acute persistence at the top of the distribution. Such measures are also directly influenced by structural changes, notably in the social and occupational composition of societies.

[5] Yet, this high origin-destination association at the top is not observed for all diploma, as Torche (2018) shows greater mobility among PhD holders.

However, they find that most of the intergenerational income elasticity is due to the differences in the attended colleges, as a result of social origin, while residual differences in returns to education within colleges are small. If admissions remain a socially selective process, it suggests that attending college has an "equalizing" influence. To the contrary, Zimmerman (2019) uses a discontinuity in admissions to estimate the causal effect of education in elite Chilean colleges, and he shows that graduation increases mean income for affluent students, but not for their underprivileged peers. Such contradictions in the literature may surely be explained by distinctive contexts, but also by differences in the delineation of the elite, as much for the origin as for the destination. There may also well be complementary mediating factors to the final level of education, which could be included in the analysis. For instance, Reeves et al. (2017) obtained access to the exhaustivity of entries in the *Who's who* (taken as a proxy of elite social status) and found that conditionally on education at *Oxford* or *Cambridge*, individuals who previously went to a set of 9 secondary schools (a marker of an affluent origin) had twice more chances to have their biography in the *Who's who*. Indeed, the complete journey from social origin to social destination is a multistep process, in which each step may be influenced by social origin, and each may itself further influence the next step (DiPrete and Eirich, 2006). An extreme case of such inclusion of these mediating factors is Sullivan et al. (2018), who find no residual direct effect, when accounting for the full educational path, as well as measures of cognitive skills at age 5, 10 and 16.

The rest of the paper is organized as follows. Section 2 discusses the mechanisms of intergenerational occupational reproduction. Section 3 describes the data we use on elite positions and *Grandes Écoles* graduates. It also presents our strategy to match the nominative datasets and documents the central role of the *Grandes Écoles* for the access to elite positions in France. Section 4 details our use of surnames and explains our econometric specification. Section 5 provides our main results on dynasties in the French elite and explains our robustness checks. Section 6 expands the analysis, notably with results on heterogeneity between schools and across time. Section 7 tackles the consequences of these dynasties, by looking at their effect on age of entry in the elite and schooling of politicians and business directors. Finally, section 8 provides some concluding remarks.

2 Mechanisms of intergenerational occupational reproduction

The literatures on dynasties, as well as on the mediating role of education in intergenerational mobility both analyzed the mechanisms explaining the persistence of families at the top of the social hierarchy. Erikson and Jonsson (1998) suggest four different channels for the differences in returns to education depending on social origin: social networks, favoritism, aspirations, and differences in productivity. Evans and Jovanovic (1989) complement this list with the importance of liquidity constraints as opposed to inherited capital.

We know that networks—and in particular family links—constitute decisive assets for the entry in the labor market (Kramarz and Skans, 2014; Dustmann et al., 2016). In politics, this may help to raise campaign funds, or to hire efficient staff. For instance, Dal Bó et al. (2009) use a regression discontinuity design with the outcome of close elections, and argue that the better success of dynastical politicians and their higher tendency to run in their state of birth suggests the use of a pre-existing networks, rather than differences in abilities. Aina and Nicoletti (2018) partition the access to liberal professions in four successive necessary steps. They associate the higher odds of completing the required period of practice for children of liberal professions, as a sign of family networking. Yet, the frontier between what constitutes social networking and what is sheer favoritism is empirically often complicated to distinguish.

Favoritism or nepotism typically take place in family businesses (Bennedsen et al., 2007), but they were also proved to influence career success in companies more generally (Gagliarducci and Manacorda, 2020), as well as in politics (Geys, 2017), or even medical schools (Lentz and Laband, 1989). Favoritism may include hiring choices (Gagliarducci and Manacorda, 2020), but it may also concern the direct inheritance of family businesses (Pérez-González, 2006; Villalonga and Amit, 2006; Bennedsen et al., 2007). It was demonstrated that the probability to inherit increases with the level of expected rents for the heirs (Mocetti, 2016).[6] Close to favoritism, there may be some degree of discrimination in favor of individ-

[6]Direct bequests of businesses is not marginal. Using a survey of family businesses from 1992, Fairlie and Robb (2007) find that 1.6% to 6.6% were inherited, depending on the types of firms included. Lentz and

uals, who fulfill specific expectations from social agents—based on social norms, loyalty, homophily or habit. A related mechanism is exposed by Feinstein (2010), who compares winners to defeated candidates of elections and suggests that dynastic politicians benefit from "brand name advantages", which survive controls on campaign expenditures, experience, and time and geographical covariates.[7] For the private sector, this relates to the concept of "brand equity", i.e. the value of a brand (Aaker, 1991), as for example suggested by the common use of "& sons" signs by craftsmen (Feinstein, 2010). On top of this "name advantage", Laband and Lentz (1985) argue that there exists a dynastical transfer of voters' loyalty, and we argue that the same could apply for customers or business partners (a mechanism usually encompassed in networks but that features favoritism when it includes loyalty and priors on trustworthiness). The valuation or endorsement of specific social skills, tastes or hobbies may also lead to homophilic behavior, which resembles favoritism. For that matter, one may refer to Bourdieu (1979) for the theory, Hartmann (2000) for an application to the selection of French and German business leaders, and Rivera (2012, 2015) for a case-study of hiring practices for elite positions in the United States. Yet, there may also be efficiency reasons to favor one's own family, such as a reduced need for monitoring, as shown by van Aaken et al. (2020) for the coordination of supervisory and management boards.

Aspirations and preferences may also be intergenerationally transmitted. Jennings et al. (2009) show that this is strongly the case for political views and partisanship. Among other traits, several studies also underlined the transmission of risk aversion (De Paola, 2013; Dohmen et al., 2012). Besides, Guyon and Huillery (2021) identify that, conditional on test scores, socially underprivileged students aspire less to the best educational tracks than their more affluent peers. The authors show that this comes from two distinct factors: disadvantaged students are less informed on educational opportunities, and they also underestimate their ability to graduate from highly selective tracks.[8] As for preferences, Dunn and Holtz-Eakin (2000) find that intergenerational transmission of self-employment status

Laband (1990) find an even greater share of 14.2% of inherited firms in a sample of independent American businesses from 1979.

[7]This "name advantage" was previously suggested, notably by Laband and Lentz (1983) in theory, or Dal Bó et al. (2009) empirically for politicians. Examples of "brand names" are multiple and could include the names *Nehru-Gandhi* in India, *Hariri* in Lebanon, *Bush* or *Kennedy* in the United States, *Churchill* in the United Kingdom, and *Debré*, *Kosciusko-Morizet* or *Le Pen* in France.

[8]Beyond aspirations, the informational advantage of more affluent families may for instance lead to strategic selection of fields of study, which are decisive for careers' development (Duru-Bellat et al., 2008).

runs along similar gender lines—daughters are influenced by their mothers, and sons by their fathers—, which they interpret as a transmission of "entrepreneurial tastes or abilities".[9]

Indeed, differences in productivity may also arise from human capital transmission. Laband and Lentz (1983) develop a model of intergenerational occupational following and argue that its main channel is the facilitated transmission of "job-specific" or "career-related" skills. They use as a typical example families of farmers, for whom the workplace coincides with home and whose youngsters get familiar with specific expertise at an early age. The two authors confirm empirically this mechanism for children of lawyers (Laband and Lentz, 1992), but not for children of medical doctors (Lentz and Laband, 1989). For families in politics, this specific knowledge may for example serve to aspiring politicians to find early careers accessible positions in strategic localities. As for the private sector, Fairlie and Robb (2007) study American family firms in 1992 and show that 51.6% of the owners had a self-employed relative, among which 43.6% worked in that family firm, which they perceive as a practice of job-specific skills transfer. They indeed show that having worked in the family business is associated with higher sales and profits, a higher probability to have employees, and less business cessations. Besides, a specific literature compares the role of nature and nurture, with the underlying idea that biological attributes such as genes may matter for talent, ability, and productivity (see Sacerdote 2011 for a discussion). For example, Lindquist et al. (2015) use Swedish data on adoption to study the intergenerational association in entrepreneurship. They find that if pre-birth factors matter (notably the entrepreneurship status of biological parents), post-birth factors (adoptive parents) are at least twice more important. This may support the importance of non-cognitive skills (Blanden et al., 2007), actually influenced by a wider environment than the nuclear family (Anger, 2012). In addition, all the aforementioned "productivity dimensions" imply different abilities to build one's own social network (Marmaros and Sacerdote, 2006). This is a channel suggested by Zimmerman (2019), who shows that among graduates of Chilean elite institutions, affluent peers are more likely to lead the same firm, whereas no such effect is found for less privileged ones.

Finally, access to financial resources was also identified as a channel for intergenerational

[9] A similar gendered transmission was found in France by Colombier and Masclet (2008). The fact that ancestors serve as role models was also widely confirmed (see Clubok et al., 1969, as one of the many examples).

reproduction. Notably, Evans and Jovanovic (1989) model the choice of becoming an entrepreneur and show empirical evidence that less affluent individuals are disadvantaged by liquidity constraints, as financial investment is a pre-requisite to launch a business. Yet, compared to the rest of the previously discussed factors, the relative importance of financial capital in the family was often tempered in the literature, for instance by Dunn and Holtz-Eakin (2000) or Fairlie and Robb (2007).

In practice, it is difficult for empirical research to disentangle the relative importance of the different mechanisms. As exposed in most of the studies presented in this section, researchers often rely on a combination of specific identification strategies and of inevitable assumptions on their interpretation.

3 Data

In this section, we first describe political and business elite positions, which include individuals born over the period 1901-1975. Then, we present the data regarding the *Grandes Écoles*' graduates born between 1931 and 1975. As we use surnames to track intergenerational familial lineage, we restrict the analysis to men. Indeed, the nominative data on elite positions simply provides usual names of individuals, which for women alternatively are their maiden name or spouse name. The data on schools' graduates only partially provides spouse names of feminine students, i.e. for 21% of women born between 1931 and 1975. It is therefore only possible to precisely match graduates and elite positions for masculine individuals. Yet, this does not reduce our sample size too significantly, even though 27.0% of graduates born over our period of study are women, and no more than 15.1% of politicians and 19.9% of business people.[10]

[10] Beller (2009) argues that excluding women—as most studies do—from the assessment of intergenerational mobility is not trivial for the estimations. However, the high level of homogamy among the French elite (Goux and Maurin, 2003; Bouchet-Valat, 2014; Frémeaux and Lefranc, 2020) implies that fathers and mothers have similar characteristics, which reduces the issue.

3.1 Elite occupations

We proxy the access to elite positions with two main types of occupations: politics, with mandates or nominations at the national level, and business, with mandates at the boards of French firms.

Politicians at the national level

We consider as elite political positions nominations as minister, or as secretary of State, as well as mandates of President of the French Republic, *député* at the *Assemblée Nationale* (Member of the Parliament), Senator, and French member of the European Parliament. The sample includes politicians elected or nominated during the 5th Republic, since 1958 and until 2019, who are born between 1901 and 1975. The data on Presidents of the French Republic was self-collected. We obtained the list of ministers and secretaries of State from the Archive department of the Prime Minister. The lists of French MPs, senators, and French European MPs were provided respectively by the Archive departments of the *Assemblée Nationale*, *Sénat*, and European Parliament.

Observations include the first and last names, often gender and birthdates, as well as the dates of mandates. We can partly complete missing genders and birthdates for politicians that combined different types of mandates and nominations, when one data source provides more complete information than the other. Using a census of births in France by gender and first name provided by the French National Statistical Institute (INSEE), we are also able to complete gender through the construction of gender propensity scores by first name, and with a limited number of ad-hoc verifications mostly for bearers of gender-neutral first names. Birthdates were completed through ad-hoc requests of biographies online for 334 politicians[11].

Our sample of masculine politicians born in 1931-1975 is constituted of 2,211 individuals, among which 278 served a function in the executive power (President of the Republic, minister, or secretary of State), 1,534 had at least one mandate of *député*, 666 a mandate of senator, and 241 a mandate of European member of Parliament. Naturally, many occupied

[11] See footnote 20, which reports all online sources exploited, including for that specific purpose.

several types of positions, with as much as 90% of the members of the executive power, who also had a parliamentary mandate. We also include 1,894 politicians born in 1901-1930, but only exploit this data to identify the fathers of those born in our period of study. Among these politicians, 67% served as *députés*, 35% as senators, 13% as members of the executive power and 10% as European members of the Parliament.

Boards' composition

The composition of the boards of the major French firms is retrieved from *BoardEx* and *Mint Global (Orbis, Bureau van Dijk)*.[12] It includes information on boards' composition over the period 1995-2019 on 1,688 traded firms, as well as 391 non-traded firms. As for the data on politicians, these observations include the first and last names, as well as often the gender and birthdate of these board members. We also have information on positions, namely whether they involve executive functions or not, as well as the starting and ending dates of the mandates. We recode this information by considering that an individual is an executive businessman if he holds at least one position as an executive director across the period. We complete gender in a similar way as we did for politicians. Birthdates are however missing for 35.2% of the sample of masculine board members, and this information would be more complicated to complete than for politicians due to the larger volume and more heterogeneous notoriety of firms' directors. Thus, we restrict the analysis to the businessmen with complete data.[13]

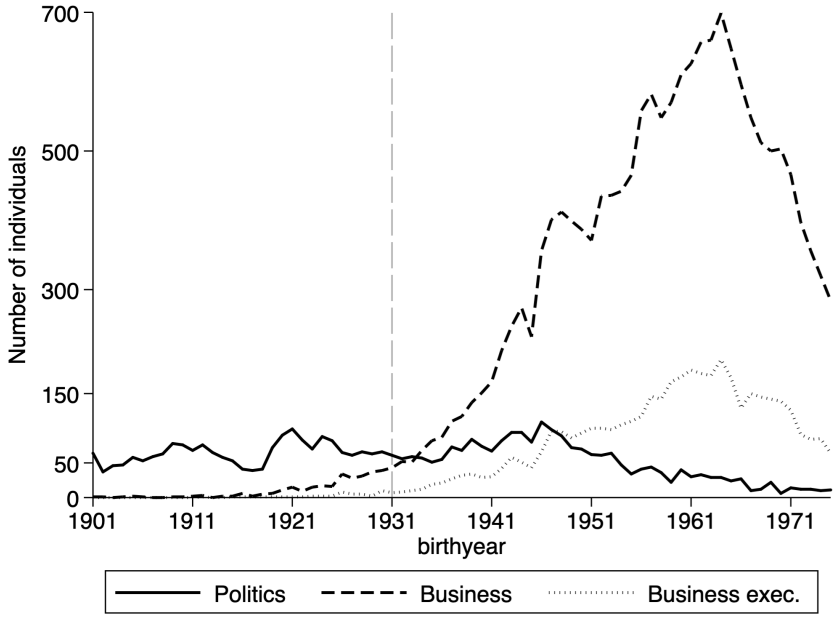
Over the period of analysis 1931-1975, there are 15,670 masculine directors, among which 3,976 are executive (25.4%). 43% of the sample is constituted of directors registered both in *BoardEx* and *Mint Global*, while 36% are mentioned in *Mint* only, and 21% in *BoardEx* alone. Combining both sources thereby improves the coverage of boards' positions. Whereas

[12] These sources were frequently used in the academic literature, as for example by Adams and Kirchmaier (2016) or Ahn, Daniel P. and Ludema, Rodney (2017). Their scope is not entirely clearly stated, but the largest French firms are included.

[13] Looking at observables in our dataset, business directors with missing birthdates appear of lower status than directors with complete information, notably for the share with executive functions (9.2% against 25.4%), or the number of positions per director (1.14 against 1.78). This small selection with respect to the data provided by *BoardEx* and *Mint Global* appears as a mild issue, as we are anyway interested in top positions, not defined restrictively. However, it constitutes a source of measurement error, as we will wrongly identify some surnames as less present in the elite than they truly are.

data on the political elite includes mandates and nominations from 1958 to 2019, presence in the boards is only covered over the period 1995-2019. Although individuals commonly hold boards' positions after the legal retirement age, this shift implies that the distribution of birthyears differs between our sample of political and business elites. Indeed, the modal birth year for politicians is 1946, while it is 1964 for firms' directors.

Figure 1: Distribution of the number of observed individuals by birthyear and by elite type.



Notes: The curves plot the total number of individuals holding an elite position, by position type and by birthyear from 1901 to 1975. *Business exec.* refers to businessmen with an executive role in the firms. They constitute a subset of all businessmen.

Figure 1 reports the number of individuals in our dataset per birthyear and position type. The vertical dashed line separates the individuals born before 1931, which are only exploited as fathers, from those in our period of study between 1931 and 1975. The number of politicians per birthyear is relatively stable, with a continuous decrease since the birthyear 1946 though. This is explained by two principal factors. First, our data concerns men only and an increasing share of political positions are occupied by women. Assuming this change does not alter dynastical transmission among men, this is not a concern since our estimates are computed within the sample of masculine graduates. The second factor is not restricted to politicians but also concerns businessmen: our data are subject to a lifecycle bias. Because they are younger, more recent cohorts are less likely to be observed in an elite position. We discuss the implication for our estimates in section 4.2. Data on businessmen is globally more

time-varying. Notably, it includes a very limited number of business leaders before 1931, with only 273 directors who serve as potential fathers. As we further discuss in the paper, this implies that the estimation of intergenerational transmission from fathers in business is subject to larger measurement errors for the first cohorts we study. Indeed, a significant share of our sample is wrongly qualified as not having a father in business for these first cohorts.

3.2 *Grandes Écoles*' graduates

The French *Grandes Écoles* are a pluri-centenarian model, partly shaped by Napoléon Bonaparte, as a meritocratic tournament to train the elite of the nation for the State's service. Their mission was initially to train leaders for the military, engineers, or professors, whilst the share of their graduates becoming industrialists—and more generally business people—progressively increased (Suleiman, 1978). The peculiarity of these institutions is that they are explicitly dedicated to the education of the elite. Throughout the 20$^{\text{th}}$ century and until the present days, they have indeed constituted the traditional path to the most important positions in the French society (Bauer and Bertin-Mourot, 1987; Bourdieu, 1989; Kadushin, 1995; Kramarz and Thesmar, 2013; Vion et al., 2014). Yet, intergenerational reproduction was documented as particularly high, especially in the most prestigious institutions (Bourdieu, 1989; Euriat and Thélot, 1995; Albouy and Wanecq, 2003; Benveniste, 2021; Bonneau et al., 2021). To investigate whether there are additional inequalities for the entry in the labor market, we analyze the access to elite positions among the graduates of the *Grandes Écoles*.[14]

To that end, we use a database, first exploited by and more extensively presented in Benveniste (2021), which exhaustively covers students of 12 of the most prestigious *Grandes Écoles*. Restricting to masculine students born between 1931 and 1975, it contains 112,936 curricula followed by 103,309 distinct individuals. Appendinx Table B.1 reports the number of students per 5-year birth cohort for each school. The schools in the sample include *École Polytechnique*, *EM Lyon*, *ENA*, *ENS Cachan*, *ENS Ulm*, *ESCP*, *ESPCI*, *ESSEC*, *Mines*

[14]Such residual inequalities were documented by Falcon and Bataille (2018) but without a focus on elite positions.

Paris, *Ponts et chausées*, *Sciences Po Paris*, and *Télécom Paris*.[15] The data was collected from the schools' Alumni associations, libraries, or archive departments, as well as from other archive institutions.

Sciences Po Paris teaches political science and administration. The *École Nationale d'Administration* (*ENA*) was founded after World War 2 and trains senior civil servants. The *École Normale Supérieure Ulm* (*ENS Ulm*) was founded to train professors and researchers in humanities and science, while the *École Normale Supérieure Cachan* (*ENS Cachan*) has similar missions with a particular focus on engineer sciences, mechanics, civil engineering, and social sciences. The sample also includes five public engineering schools: *ESPCI Paris*, *École Polytechnique*, *École des Ponts et Chaussées*, *Télécom Paris* and *Mines Paris*. Finally, there are three business schools: *EM Lyon*, *ESSEC* and *ESCP*. Further contextual details on these schools are presented in Suleiman (1978) or Benveniste (2021). Our analysis is based on students graduating from any of these 12 *Grandes Écoles*. However, as we demonstrate in section 3.3, their graduates do not access similarly the political and business elites. Therefore, we use school fixed effects in our main specifications, and also explore the heterogeneity of our results between schools.

The schools' registers systematically include the first name and the surname of each student. 38% of the observations contain information on middle names. Gender is provided for about one third of the observations and we completed it in the same way we did for elite positions, using first names. Finally, we approximate the birthyear of each student. As a two-year post-secondary school curriculum is required before taking an admission examination, the standard age of admission to the *Grandes Écoles* is around 20 years old. Therefore, students enrolling in 1951 are assumed to be born in 1931, while those enrolling in 1970 are assumed to be born in 1950. The birthyear of students who pursued multiple curricula is based on the date of admission to the first school they were admitted to.[16]

[15] The present work adds students from *EM Lyon* and *ENS Cachan* to the list used in Benveniste (2021). The data was not available, but the inclusion of *École Centrale Paris* and of *HEC Paris* would have been beneficial, especially as the latter school is important in the training of the business elite (Vion et al., 2014), although much less than *Polytechnique*, *Sciences Po Paris*, or *ENA* (François and Lemercier, 2016).

[16] Admissions to *ENA* are peculiar because this is a school attended after a preliminary master degree (graduate studies). Indeed, 60% of ENA's students previously attended at least one of the 11 other *Grandes Écoles*, which allows us to identify their birthyear through the year of first admission to a school. We assume that the remaining 40% did enroll at the same average age (of 27 years old) than those with multiple curricula within our sample.

The sample of graduates from the *Grandes Écoles* only marginally evolves over time. Appendix Table B.1 shows that the number of students per cohort is slightly increasing at the beginning of the period. The relative importance of business schools also rises. Yet, the recruitment of the *Grande Écoles* remains remarkably stable, especially when we compare it to the structural changes in the French universities over the period (see a discussion in Suleiman 1978). Using heterogenous samples of *Grandes Écoles*, Euriat and Thélot (1995), Albouy and Wanecq (2003) and Falcon and Bataille (2018) essentially document a slightly decreasing and even sometimes stable intergenerational reproduction in the French elite school over the 20th century. Using a sample of schools quasi-identical to the present study, Benveniste (2021) shows that the dynastical reproduction among graduates was mostly stable for all cohorts born since 1916. This stability matters for the reading of our results, as a significant social opening of the *Grandes Écoles* during our period of analysis would have interacted with disparities in returns to education among their graduates, possibly widening the differentials. In this stable context, we do not presume the evolution of potential differences in the attainment of elite positions.

3.3 Matching: the *Grandes Écoles* as the royal way to elite positions

In this section, we describe our approach to match the different nominative datasets of elite positions and graduates, and provide some descriptive statistics documenting that the *Grandes Écoles* are predominant in the training of those occupying elite positions in France.

To ensure consistency between the different sources and properly identify individuals, we implement fuzzy matching on surnames as well as first names.[17] We proceed to a first matching between the different datasets on elite positions including politicians (executive power, *Assemblée Nationale*, Senate, or European Parliament), as well as business directors (*BoardEx* or *Mint Global*). This matching precedes the descriptive statistics provided in subsection 3.1. Any match is discarded when birthdates or gender differ. Thereby, we identify

[17] We use token and bigram fuzzy matchings, which allow to detect shortened and mis-spelled surnames. For example, *de Margerie* is similar to *de Jacquin de Margerie* and is matched *via* token fuzzy matching, while the non-existing surname *Benoitcattin* is matched to *Benoit-Cattin* thanks to bigram fuzzy matching.

59 individuals born between 1931 and 1975, who occupied positions both in firms' boards and in politics. While the period covered by the samples of politicians and business directors is not completely congruent, we still identify 2.7% of the politicians of our sample with a practice of *pantouflage*. This consists for public agents to work for the private sector and is particularly developed in France (rather among senior civil servants for whom we would probably find higher figures than for elected politicians).[18]

A similar approach of fuzzy matching is applied to link the universe of individuals who held elite positions to the graduates from the *Grandes Écoles*. As we do not know the precise day of birth for schools' graduates, we rather discard matches with more than 10 years difference in birthyears if the approximate birthyear from the schools follows the one from the elite positions, and only a 5-year difference if the birthyear from the schools precedes the one from the elite positions.[19] Then, we verify the positions-graduates matches using directors' biographies available online to minimize the number of false positive matches.[20]

Thanks to this rigorous match of graduates and careers, we confirm the propulsive power of the *Grandes Écoles* for the access to elite positions in France.[21] Table 1 provides descriptive statistics on the holders of elite positions by five-year cohort: their number, the average age at which they reached the elite, and the share of *Grandes Écoles* graduates. The evolution of the number of positions was already discussed in section 3.1. Rather than individuals entering younger in politics and business across time, the decreasing pattern of the age of first entry underlines a life cycle bias. Younger individuals, at the end of the period, are less likely to have already entered a political or business top position. Across cohorts,

[18] At a very high degree of elite, Bauer and Bertin-Mourot (1997) argue that 47% of the CEOs of the 200 largest French firms attained these position through a "State asset", i.e. coming from civil service or being close to political power.

[19] It is indeed less likely to be admitted to a *Grande École* before 15 years old than it is to enroll between 25 and 30 years old. The time windows may appear large, but matches are then scrutinized on an ad-hoc basis.

[20] We reviewed all matches and discarded wrong ones due to homonyms by comparing education when it is provided, or alternatively exact birth dates, maiden names, middle names, or known professional activities. To this end, we used *LinkedIn*, *Wikipedia* and *Who's who in France* entries, *lesbiographies.com*, *viadeo.journaldunet.com*, *marketscreener.com/business-leaders*, *dirigeants.bfmtv.com*, *dirigeant.societe.com*, *lemoniteur.fr* and *https://www.lsa-conso.fr/annuaire-professionnels-grande-consommation* websites, biographies published by the business newspaper *Les Échos*, as well as institutional biographies available from firms' websites.

[21] Analogous patterns of reduced pool for elite recruitment were documented for example in the United Kingdom (see Reeves et al., 2017 on secondary education in 9 elite schools including *Eton*, as well as at *Oxford* or *Cambridge*) or the United States (Jalbert et al., 2002).

Table 1: Descriptive statistics by cohort on the holders of elite positions.

Birth cohort	All elite positions			Politicians			Business directors		
	Number of individuals	Average age at first position	Share who studied in a GE	Number of individuals	Average age at first position	Share who studied in a GE	Number of individuals	Average age at first position	Share who studied in a GE
all cohorts	17,822	49.6	26.2%	2,211	47.8	16.0%	15,670	50.0	27.6%
1931-1935	561	57.3	26.6%	283	50.4	13.1%	280	65.0	40.0%
1936-1940	906	56.6	26.6%	353	49.0	13.0%	563	62.1	35.0%
1941-1945	1,456	56.0	25.8%	415	47.8	14.0%	1,056	59.7	30.6%
1946-1950	2,275	54.5	27.1%	435	48.3	17.7%	1,852	56.1	29.5%
1951-1955	2,267	52.4	26.8%	267	48.2	15.7%	2,013	53.1	28.4%
1956-1960	2,853	50.3	25.6%	181	46.9	22.1%	2,674	50.6	25.8%
1961-1965	3,195	46.7	25.7%	144	44.9	15.3%	3,053	46.8	26.2%
1966-1970	2,552	43.4	25.1%	77	42.4	19.5%	2,477	43.4	25.2%
1971-1975	1,757	39.9	27.5%	56	40.9	28.6%	1,702	39.9	27.5%

Notes: This table reports by cohort the number of individuals holding elite positions, the average age at which they first accessed such positions, as well as the share with a diploma from one of the 12 *Grandes Écoles* in our sample. Appendix Tables B.2a, b and c break down the latter share by school.

the average age of entry in such positions is 49.6 years old, while the age of the very last cohort (1971-1975) in 2019, the last year over which we observe elite positions, spans from 44 to 48 years old. For the business elite, this life cycle bias is completed by a selection on observables for the first cohorts: those who are still observed in function between 1995 and 2019 are more enduring. For those born in 1931-1935, they cannot be observed before 60 years old. There is no such selection for the political representatives, for which we observe elections and nominations from 1958 to 2019. For the businessmen of the first cohorts, the age at first position is therefore mechanically observed older. They are also more likely to be graduates from a *Grande École*.[22] Besides their peculiar case, whereas only 0.33% of the French population born between 1931 and 1975 studied in one of the 12 elite schools, 26.2% of those occupying an elite position are among their graduates, confirming the central role of these relatively small schools in reaching elite positions. The share of politicians who studied in a *Grande École* (16.0%) is lower than the share of business directors who did (27.6%). Yet, as many as 40% of politicians in the executive power (members of governments or Presidents of the Republic) graduated from one of those 12 schools, against 29.5% for business directors with executive positions. The share of graduates among political representatives is even

[22]We could think that board members are less likely to have graduated from an elite school in the more recent cohorts. François and Lemercier (2016) focus on CEOs and multiple boards' members of firms in the SBF120, a major French stock index. Among this even higher degree of elite, they rather find that the share of graduates from *ENA* and *École Polytechnique* increased between 1979 and 2009. This confirms that the apparent decrease we observe is an artefact of sample selection in the first cohorts.

increasing, a phenomenon which was previously described by Bourdieu (1981) as a rising importance of "professional politicians" as opposed to militants.

4 Empirical strategy

In this section, we first detail the construction of our main independent variables with a method inspired by Benveniste (2021): the probability that a graduate's father held a given type of elite position. To that end, we use surnames to link generations, in the continuity of an increasing number of social science studies, which take advantage of the rich informational content of surnames (Güell et al., 2007, 2015; Collado et al., 2012; Clark et al., 2014; Geys, 2017; Barone and Mocetti, 2020; Basso et al., 2021; Benveniste, 2021). In a second subsection, we present our baseline specification to estimate the intergenerational occupational following.

4.1 Using surnames to infer the probability of having a father in the elite

All bearers of a given surname are descendants of a father sharing the same surname.[23] However, simply observing the surnames in the data and not information on proper familial linkages, the likelihood of a direct link for men of different cohorts sharing a last name depends on names' frequencies. We therefore use a census providing the number of births in France per surname per cohort, produced by the French National Statistics Institute (INSEE). Figure A.1 reports that the distribution of surnames is fortunately highly skewed in France, with an abundance of rare surnames, which makes surnames a powerful and effective intergenerational tracker.

The census provides the number of births in the French territory, and it is valid to inform on surnames' frequencies over time only for surnames, which are not associated with important immigration flows. Indeed, surnames may appear in the lists of board members

[23] In France, surnames were hereditarily transmitted through the patriarchal line until two laws of 2003 and 2008 allowed to choose between the father's name, the mother's name, or a combination of both. Patronyms therefore constitute a reliable link of fathers and children born between 1931 and 1975.

in French firms, although individuals are born abroad. We cannot precisely measure the surname frequency in such a situation, and therefore we restrict our analysis to graduates of the *Grandes Écoles* with surnames, which are not associated with immigration over the period of study.[24] Appendix C.1 explains how we identify "foreign" surnames. Thereby, we dismiss individuals born abroad or whose fathers are born abroad. In addition to being motivated by data considerations, this choice alleviates the issue constituted by self-selection in migration, namely the fact that unobserved characteristics differ between natives and migrants (Borjas, 1987). Indeed, Meurs et al. (2006) document higher unemployment rates and a reduced access to high-status occupations for immigrants and children of immigrants in 1999 in France.

We then construct for each student a time-window for the probable birthyear of his father. The average age of paternity, whatever the order of the child, was 31.7 years in 1946 and 29.5 years in 1966. Indeed, in the middle of the 20$^{\text{th}}$ century, more than 90% of fathers were between 20 years old and 40 years old at the birth of their child (Mazuy et al., 2015). Therefore, we use each individual approximate birthyear in the data from the *Grandes Écoles* and define the probable birthyear of his father as being 20 to 40 years before. A student born in 1965 is therefore assumed to have a father born between 1925 and 1945, which represents 21 complete years. This allows us to count at the individual level the number of bearers of the same last name, in the political and business elites, who are potential fathers of each graduate in our sample. The number of masculine (M) bearers of surname S in a given type of elite position e (politics, business, or both) born 40 to 20 years before year y (y_f are potential birthyears of the father) is noted:

$$Elite^{M}_{e,S,y_f \in [y-40;y-20]}$$

We follow Benveniste (2021) in defining as explanatory variables the probability that the father belonged to the elite by relating $Elite^{M}_{e,S,y_f \in [y-40;y-20]}$ to the distribution of births per surname in the general population. We adjust the methodology by constructing $N_{S,y_f \in [y-40;y-20]}$, as the number of births of bearers of the surname S in the French population in the paternal

[24] All descriptive statistics in the paper are provided for surnames considered as "native". The difference remains however limited. For example, there are 2,211 politicians with "native" surnames, against 2,333 when we include those with "foreign" surnames. Robustness of our results is also provided without the exclusion of "foreign" surnames.

cohort, i.e. 40 to 20 years before year y.[25]. With the simplifying and acceptable assumption that for each surname in each 21-year period, there are as many masculine births as feminine ones, we may compute the probability for an individual i born in year y that his father held an elite position as:

$$FatherElite_{i,e}(S, y(i)) = \frac{Elite^{M}_{e,S,y_f \in [y-40;y-20]}}{N_{S,y_f \in [y-40;y-20]}/2}$$

While the data does not provide a definite father–child link, our independent variable $FatherElite_{i,e}$ takes the value 0 for the graduates i whose surnames have no bearer holding an elite position of type e born 20 to 40 years before them. It takes the probability of a value 1 of having a father holding such a position for the others. The latter probability is a function of $Elite^{M}_{e,S,y_f \in [y-40;y-20]}$ the number of bearers of the surname S who held an elite position e and were born 20 to 40 years before the birthyear y of the graduate i, and of $N_{S,y_f \in [y-40;y-20]}$ the number of births of bearers of the surname S in the paternal cohort y_f. Table B.3 provides detailed descriptive statistics on the explanatory variables for both types of elites, as well as political representatives and businessmen separately.[26]

4.2 Baseline specification

Our baseline empirical equation, in which subscripts refer to graduate i, the type of elite e or e' is as follows:

$$Elite_{i,e'} = \alpha + \beta.FatherElite_{i,e} + \gamma.School_i + \theta.Cohort_i + \epsilon_i$$

Our specification simplifies the analysis by reducing the time-dimension to its intergenerational component. Indeed, $Elite_{i,e'}$ is a dummy variable for access to the elite at any moment during the career of individual i, whatever the tenure. Similarly, $FatherElite_{i,e}$ is defined as the father having held an elite position at least once across the career, whatever

[25] In the census, the number of births is structured by decades for most surnames, or only by 25 years cohorts for a limited set of surnames. We therefore compute for each observation a weighted average depending on the number of years overlapping with each cohort or decade. As an example, to compute the number of births between 1925 and 1945 of a given surname, we may use the number of births for the decades 1921-1930, 1931-1940 and 1941-1950 with factors $\frac{6}{10}$, 1, and $\frac{5}{10}$ respectively.

[26] The table confirms the selection of the first cohorts, for which we observe less fathers in the elite. We also show in section 5 that our results are robust to the restriction to values of $Elite^{M}_{e,S,y_f \in [y-40;y-20]}$ above different thresholds.

the potential simultaneity with having a son in the elite. A first reason is that our sample size would be too small for us to capture the dynamics of the dynastical advantage, with respect to the timing of positions. A second reason is that while data on political mandates is very accurate, the coverage of business positions is cohort-varying. In addition, dates of entries and exits of positions in the boards are not always precisely provided by *BoardEx* and *Mint Global*. As our main interest focuses on the intergenerational process and as careers in these elite positions are quite stable, we find it both convenient and reasonable to consider an individual as a member of the elite, as long as he occupied at least once an elite position. A drawback of this data structure is that we are not able to fully correct for life cycle biases.[27]

In our baseline analysis, we pool together political and business elites, where e (in the independent variable) and e' (in the dependent variable) are defined as both types of elites. In France, these two types of ruling elite were documented as being highly interpenetrated by sociologists (Suleiman, 1978 using his own surveys; Birnbaum et al., 1978 with data from the *Who's Who in France*; Bourdieu, 1989). The French specificity of *pantouflage*, i.e. public agents working in the private sector, also rationalizes such global definition of the French occupational elite. As presented in subsection 4.1, the main independent variable $FatherElite_e$ equals 0 when there is no chance that the father of graduate i occupied a position of type e, and it otherwise equals the probability of a value 1 corresponding to having a father who occupied a position of type e. Therefore, parameter β estimates among graduates from the *Grandes Écoles* the difference in probabilities to reach an elite position between children of the elite and the others. $School_i$ are school fixed effects, which accomodate for differential probabilities to attain elite positions between the schools. Cohort fixed effects $Cohort_i$ capture the variation over time in our data of the sphere of elite positions, and notably the time-varying coverage of the business-elite and the lifecycle bias. To that end, we defined 5-year births' cohorts, the first one being 1931-1935 and the last one 1971-1975. The heterogeneity analysis applies the same equation to subsample of schools (without schools' controls), or using specific types of position e or e' that may alternatively be political

[27] Grawe (2006) discusses the bias from age-dependence of earnings both in the paternal and the child generation. In our framework, the belonging to the elite is achieved once and for all, as long as an individual occupied at least one position. However, as discussed in section 3.3, graduates from the more recent cohorts had less time to access an elite position. The inclusion of cohort fixed effects partly accounts for it, but more advanced techniques would be available if we observed outcomes and age at given times (Lefranc, 2018).

positions, business positions, or its more restrictive subset of business executive positions. Finally, to investigate heterogeneity across time, we group cohorts over three periods of 15 years: 1931-1945, 1946-1960 and 1961-1975. We add to our main specification interactions terms of the main independent variable and a vector of indicators variables $Period_i$ for the period of birth:

$$Elite_{i,e'} = \alpha + \beta.FatherElite_{i,e} + \beta_P.FatherElite_{i,e} \times Period_i + \gamma.School_i + \theta.Period_i + \epsilon_i$$

5 Main results

In this section, we first quantify among graduates from the *Grandes Écoles* the advantage of children of the elite for the recruitment or election in elite positions, pooling political and business elites together. We then verify the robustness of our estimates to distinctive weighting methods and data choices.

Our main result relates to intergenerational reproduction in the access to political and business elite positions for people born between 1931 and 1975. Table 2 reports risk-ratios from log-binomial regressions. All specifications ensure an equal weight to each five-year cohort to provide more meaningful results across time. This neutralizes the variations of graduates' cohort sizes across time, which we document in Appendix Table B.1. Column (2) introduces cohort fixed effects. Thereby, we take into account the time-varying coverage of our data on elite positions. Column (3) circumscribes the analysis within school, with the introduction of school fixed effects. Our preferred specification from column (4) combines *Grande École* and cohort fixed effects. We find that among the *Grandes Écoles*' masculine graduates born between 1931 and 1975, those whose fathers were either a politician or a business board member had 2.4 times more chances to access these elite positions than their peers. On top of the better prospects to be admitted to the *Grandes Écoles* documented by Benveniste (2021), the present paper shows that there is a double dividend, with higher returns to such education for children of the elite.

Appendix Table B.5 shows the robustness of our result to different sample adjustments and estimation methods. We show that both the significance and the magnitude of the point estimates are very similar with unweighted regressions, not mitigating the evolution of the

Table 2: Among *Grandes Écoles* graduates, sons of members of the elite have better prospects to attain an elite position.

Dependent variable	Dummy variable for entering an elite position			
	(1)	(2)	(3)	(4)
Father in elite position	3.463***	3.182***	2.944***	2.408***
	(1.028)	(0.861)	(0.816)	(0.642)
Observations	103,309	103,309	103,309	103,309
Cohort weights	Yes	Yes	Yes	Yes
Cohort fixed effects		Yes		Yes
School fixed effects			Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column displays estimates from a separate regression. Observations are graduates from the 12 *Grandes Écoles*, among whom we identify those who attained an elite position after graduation. The table reports risk ratios from log-binomial estimations. Risk ratios above 1 reflect an increased probability to reach an elite position (positive coefficients of row estimates), while risk ratios below 1 would indicate a reduced probability (negative coefficients of row estimates). Using a continuous variable (the probability of having a father in the elite) as an independent variable, estimates refer to the risk-ratios for the independent variable at the value 1, i.e. having a father who is a member of the elite. The weighting scheme used for all estimations ensures that each 5-year cohort has the same weight whatever its number of observations. Cohort fixed effects are dummy variables for each cohort, except cohort 1951-1955, which serves as a reference because it is the middle of our period of study. School fixed effects are dummy variables for each school, except *Sciences Po Paris*, which serves as a reference because it is the school with more students. See Appendix Table B.4 for the estimated risk ratios on all control variables.

number of graduates over time. As the first cohorts are the ones for which we observe less ancestors, and virtually no business ancestor, as documented by Figure 1, we also confirm that our results are robust to the exclusion of the first or the two first cohorts (1931-1935 and 1936-1940). Moreover, our estimates are robust to restrictions of the sample to more precisely tracked parental belonging to the elite. For this test, we impose that the values of the probability that the father was a member of the elite is either null, either over 10 or even over 25%. Finally, we show that our results hold, even if we do not restrict our analysis to "native" surnames, for which we more precisely track the number of births across generations.

6 Heterogeneity analysis

This section explores the heterogeneity in the intergenerational elite reproduction along three dimensions: schools, the type of elite—be it in politics or business—, and time.

6.1 Differences between *Grandes Écoles*

The *Grandes Écoles* constitute the royal way to elite positions in the French society as discussed in section 1 and documented in section 3.3. However, we show that graduation from one of these elite schools does provide different careers prospects depending on one's social background. We now investigate whether there are differences between schools, with some being able to level the playing field among their students, and others not offering their graduates comparable professional opportunities in reaching elite positions, as paternal resources remain influential.

We find that the inequality of returns to education for the access to elite positions varies widely between schools. Table 3 reports estimates of risk-ratios from distinctive regressions on sub-samples for each of the 12 schools.[28] *Télécom Paris* is the only school for which our main finding is reversed: graduates whose fathers held elite positions did themselves attain such positions with much lower prospects than their peers. This school-specific result may come as a surprise, but it nevertheless remains isolated and may be a statistical exception due to a small number of graduates. Results are not significant for graduates of *ESPCI*, for which the sample size is particularly small. We find point estimates suggesting higher prospects of entry in the elite for graduates from the 10 other schools, whose fathers were members of the elite. However, accession to elite positions does not significantly differ from their peers for the children of politicians and businessmen graduating from *ENS Ulm*, *ESSEC*, *ENS Cachan*, or *Mines Paris*. By contrast, children of the elite have 2.2 times significantly more chances than their peers to access political or business elite positions when graduating from *ESCP*, 3.0 times more chances when graduating from *Sciences Po Paris*, 3.4 when graduating from

[28] In this analysis, the weights by cohort are computed for each school individually, with respect to the evolution of its own number of graduates.

Table 3: Heterogeneity by school of graduation: risk ratios for the attainment of an elite position for sons of members of the elite.

Dependent variable	Dummy variable for entering an elite position					
	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESPCI	ESCP
	(1)	(2)	(3)	(4)	(5)	(6)
Father in elite position	6.490***	5.756***	1.908	1.227	3.97e-07	2.191***
	(2.179)	(1.341)	(1.880)	(1.489)	(6.35e-06)	(0.637)
Observations	3,664	4,365	6,946	4,158	1,611	11,905
Weights (graduates per cohort)	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	No	No	No	No	No	No
School fixed effects	N/A	N/A	N/A	N/A	N/A	N/A
	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom
	(7)	(8)	(9)	(10)	(11)	(12)
Father in elite position	1.898	2.214	3.376**	9.965**	3.009***	0.00858***
	(1.705)	(2.245)	(1.882)	(10.01)	(1.102)	(0.0148)
Observations	11,570	4,302	12,675	5,705	40,914	5,121
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	No	No	No	No	No	No
School fixed effects	N/A	N/A	N/A	N/A	N/A	N/A

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column from each sub-panel displays estimates from a separate regression. The weighting scheme in this analysis is constructed by school and ensures that each 5-year cohort has the same weight independently of the evolution of the number of graduates at the school level. Appendix Table B.6 provides similar outcomes with the inclusion of cohort fixed effects.

Polytechnique, as much as 5.8 at *ENA*, 6.5 for *EM Lyon*, and up to 10.0 times for graduates of *Ponts et chaussées*.[29]

We conclude from this analysis that some school manage to provide comparable opportunities to their graduates, while graduates from a few other institutions—notably *Ponts et*

[29]Except for the statistical power and therefore their significance, these results do not relate to the importance of each school in training members of the elite. As it appears in Appendix Table B.2a, among the schools with significant differential returns, only 1.1% of those in an elite position are graduates from *EM Lyon*, against 3.3% from *ENA*. Likewise, these shares also vary between the schools for which differences are not significant, for example with 0.7% of those in an elite position who graduated from *ENS Ulm* and 3.6% from *ESSEC*.

chaussées, *EM Lyon*, or *ENA*—are offered very distinctive careers' opportunities, depending on their social origin.[30] It is not possible to untangle what are the precise mechanisms for these differences with the present data. That may well be a conjunction of parental and graduates' characteristics (which are, to some degree, still under the control of each school through its admission process), as well as differences between schools in the curricula, the specific preparation for labour markets, or the reach and effectiveness of the schools' networks in comparison to familial ones.

6.2 Political versus business elites

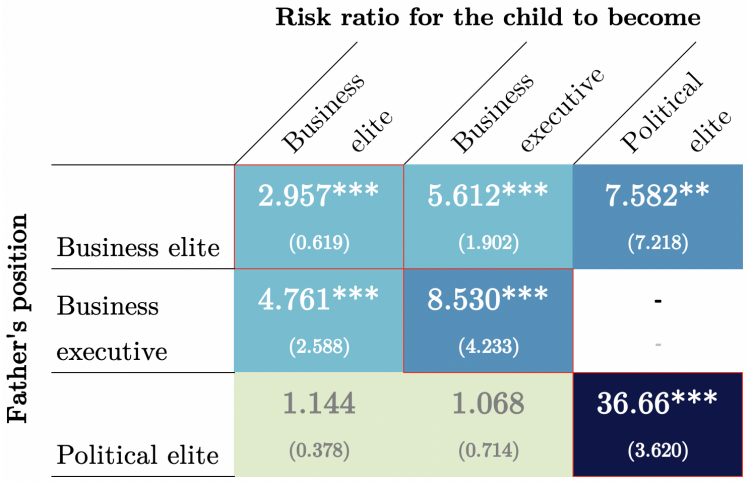
Our main analysis, as well as the heterogeneity between schools, rely on a comprehensive definition of the elite, which pools together both political and business elites. However, they are not perfectly homogeneous.[31] We therefore distinguish between these two types of elites. We also focus on business executives, which are more comparable than all businessmen to politicians, notably in terms of the share of the population attaining these positions.

We construct a matrix of intergenerational occupational reproduction, which relates each type of elite positions occupied by fathers, to different risk ratios for the access of their sons to each type of elite positions. Results are reported in Table 4, in which all specifications use an equal weight for each five-year cohort and include school and cohort fixed effects. The first line concerns children of business directors. Among graduates from the *Grandes Écoles*, they have almost 3 times more chances to also become a business director, about 5.6 times more chances to become a business executive, and up to 7.6 times more chances to become a politician, with a function at the national level. Businessmen with an executive role provide even greater prospects to their kins, who graduate from an elite school relatively to their peers. They have about 4.8 times more chances to become business directors, and up to 8.5

[30] It is notable that admissions to *Ponts et chaussées* and to *ENA* are already among the most influenced by the parental graduation from a *Grande École* (Benveniste, 2021), suggesting that a high origin–destination association mediated by education may operate pairwise with a high direct effect of origin on destination.

[31] Indeed, Bourdieu (1979) develops the concepts of economic and cultural capitals and ranks social agents within this typology. Businessmen and public agents both are well-endowed, but business leaders are rather associated with economic capital, and public agents with cultural capital. Bourdieu (1981) more particularly characterizes political leaders as having very peculiar codes, which are not easily accessible to outsiders.

Table 4: Heterogeneity by type of elite: type of position of the father – type of position of the child matrix of occupational dynasties.



Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. All cells display estimates from a separate regression. All estimations include equal weights per 5-year cohort, as well as school and cohort fixed effects. This heat matrix reports, for graduates of the 12 *Grandes Écoles*, their risk ratios for the appointment or election to different types of positions (business, business executive, or politics) depending on the position occupied by their fathers. The darker the cell the higher the risk ratio.

times to occupy an executive function.[32] Interestingly, children of politicians become business directors with no distinctive prospects than the rest of the graduates from the *Grandes Écoles* but experience as much as 37 times more chances to become a politician with functions at the national level. It turns out that there are intergenerational linkages between business and political elites but that the intergenerational political following is particularly high, and that children of politicians do not particularly turn into businessmen.[33] We should recall that due to measurement errors in the sample of business directors, with some missing data on directors, estimates involving the fathers holding business positions are downward-biased. Therefore the true gap between the intergenerational political and business following is likely to be smaller, although it seems unlikely that the entire difference would be explained by these measurement errors.

[32]Due to the smaller sample sizes of business executives and politicians, and to limited number of children of executive businessmen who became politicians, the convergence of the log-binomial regression for the estimation of the chances of a child of a business executive to become a politician fails.

[33]The latter result contrasts with findings for Italy by Gagliarducci and Manacorda (2020), who find that having a family member in political office results in higher earnings and employment in the labor market. However, they do not focus on the elite as their study covers all politicians from the local to the national level, and a representative sample of all jobs in the private sector through matched employer-employee.

Besides, the *Grandes Écoles* in our sample do not equally train politicians, or businessmen, as documented in Appendix Table B.2. Businessmen are more frequently graduates from business and engineering schools, and in particular from *École Polytechnique* (see Table B.2c). By contrast, 12.3% of the politicians in our sample graduated from *Sciences Po Paris* and 4.9% from *ENA*, against only 1.3% from *Polytechnique*, the third school of importance for becoming a politician (see Table B.2b). Therefore, we complete the analysis by investigating heterogeneity between political and business elites through a focus on the schools, which are the most important for the training of each category.

Table 5: Heterogeneity by type of elite and school: access to the political elite for sons of politicians graduating from *ENA* or *Sciences Po Paris*, and access to the business elite for sons of businessmen graduating from *Polytechnique*.

Dependent dummy for entering:	Politics				Business		Executive business	
	ENA		Sciences Po Paris		Polytechnique			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Father in politics	42.29***	37.50***	19.44***	22.69***				
	(10.37)	(2.122)	(7.157)	(5.243)				
Father in business					3.378*	3.029**		
					(2.205)	(1.672)		
Father in business (executive)							11.35***	9.509***
							(5.488)	(3.116)
Observations	4,365	4,365	40,914	40,914	12,675	12,675	12,675	12,675
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	No	Yes	No	Yes	No	Yes	No	Yes
School fixed effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column displays estimates from a separate regression. The weighting scheme in this analysis is constructed by school and ensures that each 5-year cohort has the same weight regardless of the evolution of the number of graduates at the school level.

Intergenerational political elite reproduction among *Sciences Po Paris* and *ENA*'s graduates, and intergenerational business elite reproduction among *Polytechnique*'s graduates are reported in Table 5. All estimations weight cohorts similarly across the sample, while even-numbered columns add cohort fixed effects to account for the time-varying coverage of elite positions. We find that a graduate from *ENA* has 37.5 times more chances than his

peers to reach a national political position at a given point of his career if his father also occupied one. Benveniste (2021) shows that someone born between 1941 and 1990 has about 250 times more chances to be admitted to *ENA* if his father studied at the school too. We show that on top of this large inequality for admission, once someone outside the elite enters the school, studying at *ENA* still do not open similar careers opportunities. Similarly, students at *Sciences Po Paris*, whose fathers were in politics have 22.7 times more chances than their peers to follow in their footsteps. By contrast, students graduating from *Polytechnique*, whose fathers were business directors had about 3 times more chances than their peers to become business directors themselves. This remains a large difference as it occurs net of education in an elite institution. Yet, if we consider a more restrictive definition, children of business executives who graduated from *Polytechnique* had 9.5 times more chances than their peers to also become a business director with executive functions.

6.3 Evolution over time

Our study emphasizes significant levels of intergenerational occupational reproduction among the French elite for those born between 1931 and 1975. Yet, we may investigate the evolution of this phenomenon across cohorts. Figure 1 outlines that the structure of the sample between political and business elites has evolved over the period. To overcome this peculiarity, we document distinctively the evolution of the intergenerational occupational reproduction for the two types of elites. As we are rather interested in the general trend than temporary variations, and in order to increase statistical power—especially for the beginning of the period with a limited number of business ancestors born before 1931—, we group cohorts in three periods of 15 years: 1931-1945, 1946-1960, and 1961-1975. Table 6 reports regressions estimates for business intergenerational reproduction—columns (1) to (3)—and political intergenerational reproduction—columns (4) to (6). We include interaction terms of the probability of the father to be a member of the occupational elite with 15-year periods indicators, as detailed in section 4.2. Columns (1) and (4) include 15-year period fixed effects. Columns (2) and (5) supplement it with school fixed effects, and columns (3) and (6) also include the weighting scheme of our main specification.

Table 6: Heterogeneity across time: business or political dynasties.

Dependent dummy variable	Entering business			Entering politics		
	(1)	(2)	(3)	(4)	(5)	(6)
Father in business	2.473***	2.346***	2.379***			
	(0.493)	(0.444)	(0.468)			
Father in business						
× Period 1931-1945	1.050***	2.873***	3.042***			
	(460.7)	(1,134)	(1,249)			
× Period 1946-1960	1.245	0.943	0.918			
	(0.946)	(0.590)	(0.582)			
× Period 1961-1975	reference	reference	reference			
Father in politics				3.241***	2.623**	2.687**
				(1.229)	(1.194)	(1.191)
Father in politics						
× Period 1931-1945				19.36***	28.35***	28.95***
				(15.22)	(13.12)	(13.62)
× Period 1946-1960				10.78***	13.31***	12.90***
				(4.859)	(6.627)	(6.159)
× Period 1961-1975				reference	reference	reference
Observations	103,309	103,309	103,309	103,309	103,309	103,309
Cohort weights			Yes			Yes
Period fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
School fixed effects		Yes	Yes		Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column displays estimates from a separate regression.

Our results suggest a decrease of intergenerational reproduction among the elite across time. Intergenerational reproduction for graduates born in the most recent period 1961-1975 serves as a reference point. Columns (3) and (6) of Table 6, which include the weighting scheme and all controls, report that children of business directors born in 1961-1975 graduating from one of the 12 *Grandes Écoles* had 2.4 times more chances than their peers to follow

in their fathers' footsteps, against 2.7 times more chances for children of the political elite to themselves enter politics. We find no significant difference of the business reproduction for those born in 1946-1960, while it appears that intergenerational business reproduction was significantly different for those born between 1931 and 1945, about 3 times higher. Yet, we recall that those from the most ancient cohorts, as well as their fathers, were positively selected on observables, while those in the most recent period had less time to access elite positions. This may induce at least part of the decreasing pattern of intergenerational reproduction in business, although we include period fixed effects.

The decline of the importance of political dynasties in France appears much more pronounced.[34] Compared to its level for cohorts born between 1961 and 1975, political reproduction was 12.9 times higher for those born in 1946-1960, and as much as 29.95 times higher for those born in 1931-1945, as compared to 1961-1975.[35] This implies that among graduates from the *Grandes Écoles*, those born in 1931-1945 who had a father in politics had 77.8 times more chances to become national politicians than their peers. This felt by a factor 2.25 for those born in 1946-1960, who still had 34.7 times more chances to attain such position. It fell more sharply by a factor 12.90 for those born in 1961-1975, with 2.687 times more chances than their peers to enter politics, a level which is indeed of comparable magnitude than intergenerational occupational reproduction among business directors. In conclusion, the clear difference in the levels of occupational dynasties between political and business elites outlined in Table 4 seems driven by differences for cohorts born before 1960.

These findings are consistent with results for France by Falcon and Bataille (2018) who find a decreasing origin-destination association among students from the *Grandes Écoles* between cohorts born in 1918-1940 and cohorts born in 1950-1969. They however underline a clear increase for the subsequent cohort born in 1970-1984, with which we only partly overlap. Obviously, their broader definition of occupational categories in social classes is not entirely comparable to our focus on elite occupations.

[34] A decline of political dynasties was also documented over a much longer timeframe for the United States by Clubok et al. (1969) and Dal Bó et al. (2009). The former study reports a share of Congresspersons, who had legislator relatives falling from 24.2% in 1790 to 15.1% in the late 1850s, 10.0% in 1920, and 5.0% in 1960. The latter work provides similar insights from 1789 to 1994, with a fall from 11% of dynastic legislators between 1789 and 1858 to 7% over 1966-1994.

[35] In spite of period fixed effects, results for politicians born in the most recent cohorts are also partly affected by the aforementioned lifecycle bias.

7 Implications: less educated and experienced elite

We conclude our analysis by investigating the implications of these dynasties on the composition of the elite. We use the sample of 15,670 business directors and 2,211 political representatives and test two potential consequences: the education and the age of first position of dynastical elite members. Comparable outcomes of analysis were previously used, notably by Geys (2017) for education, and by Laband and Lentz (1985) for the age of entry. The analysis remains descriptive, not causal.

7.1 Education in the *Grandes Écoles*

To analyze the association of dynasties with the level of education, we estimate the following empirical model:

$$GrandeEcole_i = \alpha + \gamma.FatherElite_{i,e} + \beta.X_{i,e} + \theta.Cohort_i + \epsilon_i$$

The dependent variable ($GrandeEcole_i$) is a dummy variable indicating the education of individual i in an elite school. It alternatively captures education in any of the schools, in an engineering school, in a business school, or in a school of administration or research (*ENA*, *Sciences Po*, *ENS Ulm* or *ENS Cachan*). $FatherElite_{i,e}$ is the probability that the father of individual i held an elite position of type elite e (politics or business). As we restrict the analysis to men, there is no need to control for gender. The controls X are dummy variables, which depend on the type of elite e, and identify positions as a member of the executive power for political representatives, and positions as business executives for businessmen. We include cohort fixed effects to account for potential variations in the educational structure of the political or business elites across time. The estimates are separately computed for individuals in politics or in business.

We know that children of the elite are over-represented in the *Grandes Écoles* (Benveniste, 2021), and we may expect that, among politicians and business directors, this naturally translates into a more frequent education in such a school for children of the elite. If this is not the case, it implies that the advantage on the labor market for children of the elite is even greater than the advantage they have in admissions to the *Grandes Écoles*. And indeed,

we find that business dynasties are associated with less education of elite members in the elite schools. Table 7 reports the risk-ratios of the probability to have graduated from any of the *Grandes Écoles* (columns 1 and 2), an engineering school (columns 3 and 4), a business school (columns 5 and 6) or a school of administration or research (columns 7 and 8) with respect to having a father in politics (odd columns) or business (even columns). Panel (a) relates to the political representatives, and panel (b) to business directors.

Table 7: Consequence of dynasties: *Grande École* graduation.

(a) Of those acceding the political elite.

Dependent variable: graduated from	any of the 12 Grandes Ecoles		any engineering school		any business school		administration or research school	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Father in politics	3.404***		14.80***		0		2.986***	
	(1.082)		(11.45)		(0)		(0.925)	
Father in business		1.241		0		4.745		1.489
		(0.664)		(0)		(8.402)		(0.861)
Observations	2,211	2,211	2,211	2,211	2,211	2,211	2,211	2,211
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Positions controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(b) Of those acceding the business elite.

Dependent variable: graduated from	any of the 12 Grandes Ecoles		any engineering school		any business school		administration or research school	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Father in politics	1.120		0.186		0.311		2.397*	
	(0.558)		(0.293)		(0.311)		(1.172)	
Father in business		0.488***		0.145**		0.787		0.451
		(0.115)		(0.121)		(0.360)		(0.281)
Observations	15,670	15,670	15,670	15,670	15,670	15,670	15,670	15,670
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Positions controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Estimates are risk ratios from log-binomial regressions. Standard errors, clustered at the cohort level, are in parentheses. Each column from each sub-panel displays estimates from a separate regression. Observations are individuals, who held at least one elite position. Each 5-year cohort has the same weight, whatever the number of members of the elite. Cohort fixed effects are dummy variables for each cohort, except cohort 1951-1955, which serves as a reference. See Appendix Table B.7 for the estimated risk ratios on all control variables.

Among the national political representatives, the existence of dynasties does not reduce the education in the *Grandes Écoles* as a classical pathway for political careers. To the contrary, as children of the elite are more likely to study in these elite institutions, they are also more likely to have done so among the pool of political representatives. In particular, they are about 15 times more likely to have studied in an engineering school. However, the frequency of graduation from the *Grandes Écoles* is not significantly different for children of businessmen, who enter politics than for other politicians, although point estimates suggest that they more frequently study in business schools.

A more critical conclusion is reached among the business elite. Interestingly, sons of politicians, who end up in the boards of French firms are more likely to have graduated from an administration or research school, and point estimates suggest that they are rather less likely to have graduated from engineering or business schools, although this is not significant for the latter schools. This may suggest that the choice of school strongly depends on the parental occupation. In that case, sons of politicians would be much more likely to study at *Sciences Po Paris* or *ENA*, but then these graduates may pursue different types of careers either in business or in politics. But what may probably be the most important of our findings regards the sons of businessmen, who are members of the business elite: they are twice less likely to have graduated from a *Grande École*. They are even 7 times less likely to have graduated from an engineering school, which constitutes solid evidence that it is not required for them to have the standard level of education to enter the board of a French firm. As alternative aspirants with this standard level of education are consequently not recruited, what we emphasize could constitute a misallocation of resources.

If graduation from a *Grande École* should not constitute a social objective *per se*, it was well documented that they serve as a validation process for the access to top positions in France, as previously discussed. Although there may obviously be assets (such as job-specific skills, Laband and Lentz, 1983) that serve as substitutes to education and while our empirical strategy does not allow to decisively conclude, the fact that the children of the business elite tend to bypass the traditional passthrough of the *Grandes Écoles* to access the elite suggests favoritism. Indeed, there is no reason to think that such assets could not be obtained otherwise, and no reason to argue that a curriculum in a *Grande École* would be

detrimental to those skills.

7.2 Age of first entry in elite position

Finally, we investigate whether dynastical members of the elite enter their first position at a distinctive age, through the following descriptive empirical model:

$$AgeAtFirstPosition_i = \alpha + \gamma.FatherElite_{i,e} + \beta.School_i + \theta.Cohort_i + \epsilon_i$$

The dependent variable ($AgeAtFirstPosition_i$) is simply the age at which the individual i attained his first elite position. $FatherElite_{i,e}$ is similar as in all previous specifications, and $School_i$ are school fixed effects. Cohort fixed effects $Cohort_i$ are particularly important in the analysis of age at first position, due to the time-varying coverage of positions and the life cycle bias previously discussed. We also estimate the equation separately for individuals in politics and in business, as well as for business executives only.

Table 8: Consequence of dynasties: age at first elite position.

Dependent variable	Age of entry in politics			Age of entry in business			Age of entry in business (executive)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Father in politics	0.956			-5.665***			0.614		
	(2.753)			(1.594)			(4.501)		
Father in business		-9.335***			-5.407**			-7.739***	
		(2.227)			(1.747)			(2.074)	
Father in business (executive)			-11.22***			-7.982**			-9.003**
			(0.407)			(2.618)			(3.205)
R^2	0.062	0.063	0.063	0.535	0.536	0.535	0.259	0.261	0.260
Observations	2,206	2,206	2,206	13,920	13,920	13,920	3,734	3,734	3,734
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
School fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column displays estimates from a separate OLS regression. Observations are individuals, who held at least one elite position. Each 5-year cohort has the same weight, whatever the number of members of the elite. School fixed effects are dummy variables for each school, except *Sciences Po Paris*, which serves as a reference. Cohort fixed effects are dummy variables for each cohort, except cohort 1951-1955, which serves as a reference. R^2 among business directors are highly inflated by the cohort fixed effects, due to the data time-varying coverage documented in section 3. See Appendix Table B.8 for the estimated risk ratios on all control variables.

The average age of entry observed in the data is 49.6 years old. First and third quartiles are 43 and 56, which then constitute the age interval of half of the entries in an elite position. Entry in national politics happens slightly younger, at 47.8 years old [Q1: 41; Q3: 55], against 50.0 [Q1: 43; Q3: 56] for businessmen. Table 8 reports results from an OLS regression for our analysis of the association of dynasties with the age of entry in the elite. We find that children of politicians enter politics at a comparable age than first-generation politicians. This result may seem surprising. Indeed, anecdotal evidence sometimes reports precocious careers of children of politicians with nepotistic practices (Turchi, 2009), but this may rather concern local mandates. Although children of politicians do not reach business positions significantly more than the rest of the graduates from the *Grandes Écoles* (as shown in Table 4), those who become board members reach these positions 5.7 years younger.

Again, the most striking difference regards the children of businessmen. Their access to elite positions is accelerated for all types of positions: they become politicians with a national function 9.3 years before their colleagues, board members 5.4 years younger, and business executive 7.7 years younger. The children of business executives are even propelled much younger to top positions: 8.0 years in companies' boards, up to 9 years for those with an executive position, and even 11.2 years in politics.

May an early attainment of elite positions simply entail specific assets, or to what extent is it a sign of favoritism? It appears difficult to explain that individuals born in the same cohort and studying in the same *Grande École* enter politics at 38 years old if their father was a business executive, and 49 years old if he was not, only because sons of businessmen have higher aspirations, or receive a familial education that makes them so much more able to explain such a difference. Although our analysis cannot provide a final answer, this suggests that at least part of these differences arise from familial social network, financial assets, or favoritism, rather than simple differences in abilities.

8 Concluding remarks

This paper investigates political and business dynasties in France for men born between 1931 and 1975. We first confirm the hegemony of the *Grandes Écoles* in reaching the positions we

define as corresponding to the French elite, namely politicians with national-level missions and board members of French firms. Indeed, 26.2% of our sample of elite members graduated from 12 small schools, which train in comparison only 0.33% of the French population. Yet, the graduates from these elite schools do not face similar careers' opportunities. Over the period 1958-2019, those whose father served as a political or business leader had higher chances to also become a member of the elite, which constitutes evidence of differential returns to education.

On top of the advantages that benefit the children of the elite in the admissions to the *Grandes Écoles* emphasized by Benveniste (2021), this paper uncovers an additional leverage for advantaged families in securing elite positions over generations. These successive advantages constitute what we refer to as a "double-dividend", first in the educational system and then on the labor market. Moreover, this could well not be the end of the story. Indeed, using a web survey and including a wide range of controls notably for the level of education and schooling at *Oxford* or *Cambridge*, Friedman et al. (2015) show that, in Great Britain, the upwardly mobile who reach elite occupations receive £6,500 to £8,000 lower annual earnings.

We also show that the dynasties highlighted in this study have consequences, which may be considered adverse, on the composition of the French elite. Among all businessmen, dynastical ones are twice less likely to have graduated from a *Grande École*, and up to 7 times less likely to have graduated from an engineering school. They are also nominated at the boards of French firms up to 9 years younger. It seems reasonable to argue that this constitutes a lack of experience in comparison to their colleagues. Nonetheless, it does not necessarily imply that dynastical elite members are less qualified or less performing. They still could exploit more valuable networks or benefit from specific skills or assets transferred within the family. As defended by Geys (2017), our findings demand to further assess the performance of second-generation elite members. A worst performance would decisively demonstrate the presence of nepotistic practices, partly suggested by our results. Whatever the outcome of such analysis, the present work establishes that social origin constitutes a gatekeeper for careers in the elite, even among *Grandes Écoles*' graduates.

We should recall that our data on business elites unfortunately suffer from a few weak-

nesses. In particular, the coverage of our sources varies across cohorts. This could alter some of our conclusions regarding intergenerational reproduction within the business elite. In particular, we may underestimate its importance relatively to political dynasties.

Finally, due to data constraints, this analysis sets aside the increasing importance of women over the period, both in educational attainment and to a lesser extent in the access to top positions. Bertrand et al. (2010) and Sullivan et al. (2018) suggest that gender gaps prevail among graduates of similar institutions, programs, and even fields of specialization. As intergenerational occupational following was shown to run along similar gender lines, it may be an important channel to study, notably to further apprehend gender gaps.

References

Aaker, D. A. (1991). *Managing brand equity*. New York: Free Press.

Adams, R. B. and Kirchmaier, T. (2016). Women on boards in finance and STEM industries. *American Economic Review*, 106(5):277–81.

Ahn, Daniel P. and Ludema, Rodney (2017). Measuring smartness: Understanding the economic impact of targeted sanctions. Technical report, United States Department of State.

Aina, C. and Nicoletti, C. (2018). The intergenerational transmission of liberal professions. *Labour Economics*, 51:108–120.

Albouy, V. and Wanecq, T. (2003). Les inégalités sociales d'accès aux grandes écoles. *Économie et statistique*, 361(1):27–52.

Anelli, M. (2020). The returns to elite university education: A quasi-experimental analysis. *Journal of the European Economic Association*, 18(6):2824–2868.

Anger, S. (2012). Intergenerational transmission of cognitive and noncognitive skills. In Ermisch, J., Jäntti, M., and Smeeding, T., editors, *From Parents to Children: The Intergenerational Transmission of Advantage*, pages 393–421. Russell Sage Foundation.

Barone, G. and Mocetti, S. (2020). Intergenerational mobility in the very long run: Florence 1427–2011. *The Review of Economic Studies*.

Basso, G., Brandimarti, E., Pellizzari, M., and Pica, G. (2021). Quality and selection in regulated professions. *CEPR Discussion Papers*. nº15674.

Bauer, M. and Bertin-Mourot, B. (1987). *Les deux cents, comment devient-on un grand patron ?* Seuil, Paris.

Bauer, M. and Bertin-Mourot, B. (1997). *Radiographie des grands patrons français: les conditions d'accès au pouvoir, 1985-1994*. Éditions L'Harmattan.

Beller, E. (2009). Bringing intergenerational social mobility research into the twenty-first century: Why mothers matter. *American Sociological Review*, 74(4):507–528.

Bennedsen, M., Nielsen, K. M., Pérez-González, F., and Wolfenzon, D. (2007). Inside the family firm: The role of families in succession decisions and performance. *The Quarterly Journal of Economics*, 122(2):647–691.

Benveniste, S. (2021). Like father, like child: Social reproduction in the French Grandes Écoles throughout the 20th century. *mimeo*.

Bernardi, F. and Ballarino, G. (2016). *Education, occupation and social origin: A comparative analysis of the transmission of socio-economic inequalities*. Edward Elgar Publishing.

Bertrand, M., Goldin, C., and Katz, L. F. (2010). Dynamics of the gender gap for young professionals in the financial and corporate sectors. *American economic journal: applied economics*, 2(3):228–55.

Birnbaum, P., Barucq, C., Bellaiche, M., and Marié, A. (1978). *La classe dirigeante française: Dissociation, interpénétration, intégration*. Presses universitaires de France.

Blanden, J., Gregg, P., and Macmillan, L. (2007). Accounting for intergenerational income persistence: noncognitive skills, ability and education. *The Economic Journal*, 117(519):C43–C60.

Bloom, N. and Van Reenen, J. (2007). Measuring and explaining management practices across firms and countries. *The quarterly journal of Economics*, 122(4):1351–1408.

Bonneau, C., Charrousset, P., Grenet, J., and Thebault, G. (2021). Quelle démocratisation des grandes écoles depuis le milieu des années 2000? *Rapport Institut des politiques publiques (IPP)*, N°30.

Borjas, G. J. (1987). Self-selection and the earnings of immigrants. *The American economic review*, 77(4):531–553.

Bouchet-Valat, M. (2014). Les évolutions de l'homogamie de diplôme, de classe et d'origine sociales en France (1969-2011): ouverture d'ensemble, repli des élites. *Revue française de sociologie*, 55(3):459–505.

Bourdieu, P. (1979). *La Distinction. Critique sociale du jugement*. Les Éditions de Minuit, Paris.

Bourdieu, P. (1981). La représentation politique. *Actes de la recherche en sciences sociales*, 36(1):3–24.

Bourdieu, P. (1989). *La Noblesse d'État. Grandes écoles et esprit de corps*. Les Éditions de Minuit, Paris.

Bourdieu, P. and Passeron, J.-C. (1964). *Les Héritiers. Les étudiants et la culture.* Les Éditions de Minuit.

Bovens, M. and Wille, A. (2017). *Diploma democracy: The rise of political meritocracy*. Oxford University Press.

Breen, R. and Müller, W. (2020). *Education and intergenerational social mobility in Europe and the United States*. Stanford University Press.

Chetty, R., Friedman, J. N., Saez, E., Turner, N., and Yagan, D. (2020). Income segregation and intergenerational mobility across colleges in the United States. *The Quarterly Journal of Economics*, 135(3):1567–1633.

Clark, G., Cummins, N., Diaz Vidal, D., Hao, Y., Ishii, T., Landes, Z., Marcin, D., Mo Jung, K., Marek, A., and Williams, K. (2014). *The Son also Rises: 1,000 Years of Social Mobility*. Princeton University Press, Princeton.

Clubok, A. B., Wilensky, N. M., and Berghorn, F. J. (1969). Family relationships, congressional recruitment, and political modernization. *The Journal of Politics*, 31(4):1035–1062.

Collado, M. D., Ortuño-Ortín, I., and Romeu, A. (2012). Intergenerational linkages in consumption patterns and the geographical distribution of surnames. *Regional Science and Urban Economics*, 42(1-2):341–350.

Colombier, N. and Masclet, D. (2008). Intergenerational correlation in self employment: some further evidence from French ECHP data. *Small Business Economics*, 30(4):423–437.

Corak, M. and Piraino, P. (2011). The intergenerational transmission of employers. *Journal of Labor Economics*, 29(1):37–68.

Crawford, C., Gregg, P., Macmillan, L., Vignoles, A., and Wyness, G. (2016). Higher education, career opportunities, and intergenerational inequality. *Oxford Review of Economic Policy*, 32(4):553–575.

Dal Bó, E., Dal Bó, P., and Snyder, J. (2009). Political dynasties. *The Review of Economic Studies*, 76(1):115–142.

De Paola, M. (2013). The determinants of risk aversion: the role of intergenerational transmission. *German Economic Review*, 14(2):214–234.

Dickson, M. and Harmon, C. (2011). Economic returns to education: What we know, what we don't know, and where we are going—some brief pointers. *Economics of education review*, 30(6):1118–1122.

DiPrete, T. A. and Eirich, G. M. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology*, 32:271–297.

Dohmen, T., Falk, A., Huffman, D., and Sunde, U. (2012). The intergenerational transmission of risk and trust attitudes. *The Review of Economic Studies*, 79(2):645–677.

Dunn, T. and Holtz-Eakin, D. (2000). Financial capital, human capital, and the transition to self-employment: Evidence from intergenerational links. *Journal of labor economics*, 18(2):282–305.

Duru-Bellat, M., Kieffer, A., and Reimer, D. (2008). Patterns of social inequalities in access to higher education in France and Germany. *International journal of comparative sociology*, 49(4-5):347–368.

Dustmann, C., Glitz, A., Schönberg, U., and Brücker, H. (2016). Referral-based job search networks. *The Review of Economic Studies*, 83(2):514–546.

Erikson, R. and Goldthorpe, J. H. (1992). *The constant flux: A study of class mobility in industrial societies*. Oxford University Press.

Erikson, R. and Jonsson, J. O. (1998). Social origin as an interest-bearing asset: family background and labour-market rewards among employees in Sweden. *Acta Sociologica*, 41(1):19–36.

Euriat, M. and Thélot, C. (1995). Le recrutement social de l'élite scolaire en France: évolution des inégalités de 1950 à 1990. *Revue française de sociologie*, pages 403–438.

Evans, D. S. and Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of political economy*, 97(4):808–827.

Fairlie, R. W. and Robb, A. (2007). Families, human capital, and small business: Evidence from the characteristics of business owners survey. *Industrial and Labor Relations Review*, 60(2):225–245.

Falcon, J. and Bataille, P. (2018). Equalization or reproduction? Long-term trends in the intergenerational transmission of advantages in higher education in France. *European Sociological Review*, 34(4):335–347.

Feinstein, B. D. (2010). The dynasty advantage: Family ties in congressional elections. *Legislative Studies Quarterly*, 35(4):571–598.

Folke, O., Persson, T., and Rickne, J. (2017). Dynastic political rents? economic benefits to relatives of top politicians. *The Economic Journal*, 127(605):F495–F517.

François, P. and Lemercier, C. (2016). Une financiarisation à la française (1979-2009). Mutations des grandes entreprises et conversion des élites. *Revue française de sociologie*, 57(2):269–320.

Frémeaux, N. and Lefranc, A. (2020). Assortative mating and earnings inequality in France. *Review of Income and Wealth*, 66(4):757–783.

Friedman, S., Laurison, D., and Miles, A. (2015). Breaking the 'class' ceiling? social mobility into Britain's elite occupations. *The Sociological Review*, 63(2):259–289.

Gagliarducci, S. and Manacorda, M. (2020). Politics in the family: Nepotism and the hiring decisions of Italian firms. *American Economic Journal: Applied Economics*, 12(2):67–95.

Geys, B. (2017). Political dynasties, electoral institutions and politicians' human capital. *The Economic Journal*, 127(605):F474–F494.

Goux, D. and Maurin, E. (2003). Who marries whom in France? In Blossfeld, H.-P. and Timm, A., editors, *Who Marries Whom? Educational Systems as Marriage Markets in Modern Societies*, pages 57–78. Springer.

Grawe, N. D. (2006). Lifecycle bias in estimates of intergenerational earnings persistence. *Labour economics*, 13(5):551–570.

Güell, M., Rodríguez Mora, J. V., and Telmer, C. I. (2007). Intergenerational mobility and the informative content of surnames. *CEPR Discussion Papers*. n°6316.

Güell, M., Rodríguez Mora, J. V., and Telmer, C. I. (2015). The informational content of surnames, the evolution of intergenerational mobility, and assortative mating. *The Review of Economic Studies*, 82(2 (291)):693–735.

Guyon, N. and Huillery, E. (2021). Biased aspirations and social inequality at school: Evidence from French teenagers. *The Economic Journal*, 131(634):745–796.

Hartmann, M. (2000). Class-specific habitus and the social reproduction of the business elite in Germany and France. *The Sociological Review*, 48(2):241–261.

Hoekstra, M. (2009). The effect of attending the flagship state university on earnings: A discontinuity-based approach. *The review of economics and statistics*, 91(4):717–724.

Hout, M. (1988). More universalism, less structural mobility: The American occupational structure in the 1980s. *American Journal of sociology*, 93(6):1358–1400.

Jalbert, T., Rao, R. P., and Jalbert, M. (2002). Does school matter? an empirical analysis of CEO education, compensation, and firm performance. *International Business and Economics Research Journal*, 1(1):83–98.

Jayet, C. (2021). L'approche de la mobilité sociale par les microclasses: une application sur données françaises. *Revue francaise de sociologie*, 62(1):63–104.

Jennings, M. K., Stoker, L., and Bowers, J. (2009). Politics across generations: Family transmission reexamined. *The Journal of Politics*, 71(3):782–799.

Kadushin, C. (1995). Friendship among the French financial elite. *American Sociological Review*, pages 202–221.

Kramarz, F. and Skans, O. N. (2014). When strong ties are strong: Networks and youth labour market entry. *Review of Economic Studies*, 81(3):1164–1200.

Kramarz, F. and Thesmar, D. (2013). Social networks in the boardroom. *Journal of the European Economic Association*, 11(4):780–807.

Laband, D. N. and Lentz, B. F. (1983). Like father, like son: Toward an economic theory of occupational following. *Southern Economic Journal*, pages 474–493.

Laband, D. N. and Lentz, B. F. (1985). Favorite sons: Intergenerational wealth transfers among politicians. *Economic Inquiry*, 23(3):395–414.

Laband, D. N. and Lentz, B. F. (1992). Self-recruitment in the legal profession. *Journal of Labor Economics*, 10(2):182–201.

Laferrere, A. and McEntee, P. (1996). *Self-employment and Intergenerational Transfers: Liquidity Constraints or Family Environment?* INSEE.

Lefranc, A. (2018). Intergenerational earnings persistence and economic inequality in the long run: Evidence from French cohorts, 1931–75. *Economica*, 85(340):808–845.

Lentz, B. F. and Laband, D. N. (1989). Why so many children of doctors become doctors: Nepotism vs. human capital transfers. *Journal of Human Resources*, pages 396–413.

Lentz, B. F. and Laband, D. N. (1990). Entrepreneurial success and occupational inheritance among proprietors. *Canadian Journal of Economics*, pages 563–579.

Lindquist, M. J., Sol, J., and Van Praag, M. (2015). Why do entrepreneurial parents have entrepreneurial children? *Journal of Labor Economics*, 33(2):269–296.

Mare, R. D. (1993). Educational stratification on observed and unobserved components of familiy background. aus: Blossfeld, hans-peter; shavit, yossi (eds.)(hrsg.): Persistent inequality. changing educational attainment in thirteen countries. In Shavit, Y. and Blossfeld, H.-P., editors, *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Westview Press.

Marmaros, D. and Sacerdote, B. (2006). How do friendships form? *The Quarterly Journal of Economics*, 121(1):79–119.

Mazuy, M., Barbieri, M., Breton, D., and d'Albis, H. (2015). L'évolution démographique récente de la France et ses tendances depuis 70 ans. *Population*, 70(3):417–486.

Meurs, D., Pailhé, A., and Simon, P. (2006). The persistence of intergenerational inequalities linked to immigration: Labour market outcomes for immigrants and their descendants in France. *Population*, 61(5):645–682.

Mocetti, S. (2016). Dynasties in professions and the role of rents and regulation: Evidence from Italian pharmacies. *Journal of Public Economics*, 133:1–10.

Mosca, G. (1896). *Elementi di scienza politica*. Fratelli Bocca.

Niess, A. (2012). Nepotism and family confiscation in the electoral system of the Third Republic. *French History*, 26(3):325–343.

Pérez-González, F. (2006). Inherited control and firm performance. *American Economic Review*, 96(5):1559–1588.

Piketty, T. (2014). *Capital in the twenty-first century*. Harvard University Press.

Putnam, R. (1976). *The comparative study of political elites*. Prentice-Hall.

Reeves, A., Friedman, S., Rahal, C., and Flemmen, M. (2017). The decline and persistence of the old boy: Private schools and elite recruitment 1897 to 2016. *American Sociological Review*, 82(6):1139–1166.

Rivera, L. (2015). Pedigree: How elite students get elite jobs.

Rivera, L. A. (2012). Hiring as cultural matching: The case of elite professional service firms. *American sociological review*, 77(6):999–1022.

Rossi, M. A. (2017). Self-perpetuation of political power. *The Economic Journal*, 127(605):455–473.

Sacerdote, B. (2011). Nature and nurture effects on children's outcomes: What have we learned from studies of twins and adoptees? In *Handbook of social economics*, volume 1, pages 1–30. Elsevier.

Savage, M. (2015). *Social class in the 21st century*. Penguin UK.

Sørensen, J. B. (2007). Closure and exposure: Mechanisms in the intergenerational transmission of self-employment. In Ruef, M. and Lounsbury, M., editors, *Research in the Sociology of Organizations. The sociology of entrepreneurship. Vol. 25*. Emerald Group Publishing Limited.

Sraer, D. and Thesmar, D. (2007). Performance and behavior of family firms: Evidence from the French stock market. *Journal of the european economic Association*, 5(4):709–751.

Suleiman, E. N. (1978). *Elites in French society: the politics of survival*. Princeton University Press.

Sullivan, A., Parsons, S., Green, F., Wiggins, R. D., and Ploubidis, G. (2018). The path from social origins to top jobs: social reproduction via education. *The British journal of sociology*, 69(3):776–798.

Torche, F. (2011). Is a college degree still the great equalizer? intergenerational mobility across levels of schooling in the United States. *American journal of sociology*, 117(3):763–807.

Torche, F. (2018). Intergenerational mobility at the top of the educational distribution. *Sociology of Education*, 91(4):266–289.

Turchi, M. (2009). Jean Sarkozy ravive les divisions de la droite dans les Hauts-de-Seine. *Mediapart.fr*. retrieved 24 August 2021.

Vallet, L.-A. (2004). Change in intergenerational class mobility in France from the 1970s to the 1990s and its explanation: an analysis following the CASMIN approach. In Breen, R., editor, *Social Mobility in Europe*. Oxford University Press.

van Aaken, D., Göbel, M., and Meindl, D. (2020). Monitor or advise? how family involvement affects supervisory board roles in family firms. *Schmalenbach Business Review*, 72(2):193–224.

Villalonga, B. and Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of financial Economics*, 80(2):385–417.

Vion, A., Joly, H., Grémont, É., and Dudouet, F.-X. (2014). Retour sur le champ du pouvoir économique en France: l'espace social des dirigeants du CAC 40. *Revue Française de Socio-Economie*, 1(13):23–48.

Wakeling, P. and Savage, M. (2015). Entry to elite positions and the stratification of higher education in Britain. *The Sociological Review*, 63(2):290–320.

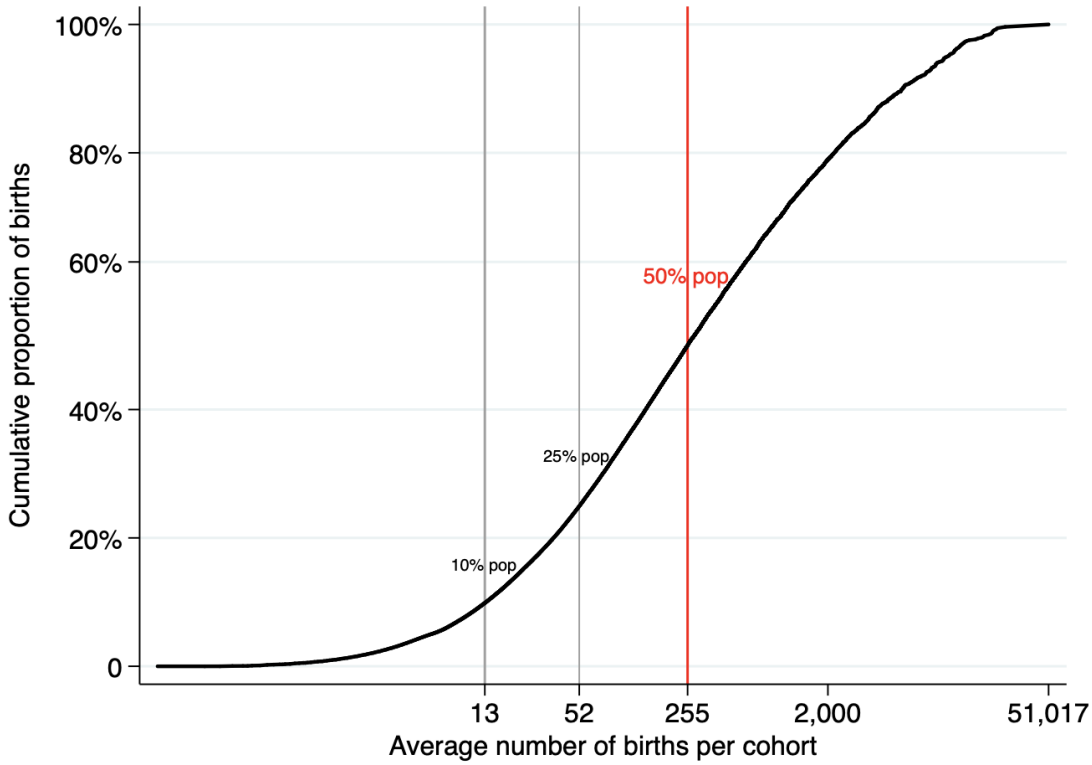
Weeden, K. A. and Grusky, D. B. (2005). The case for a new class map. *American Journal of Sociology*, 111(1):141–212.

Zimmerman, S. D. (2019). Elite colleges and upward mobility to top jobs and top incomes. *American Economic Review*, 109(1):1–47.

Appendices

A. Complementary figures

Figure A.1: Surnames' frequency in France (1901-1975).



Notes: The figure is based on the number of births by surname per generation of 21 years over the period 1901-1975. We use a logarithmic scale for the abscissa to emphasize the importance of rare surnames. While the number of births per cohort for a single surname goes up to 51,017 (*Martin*), the figure shows that surnames with less than 13 births per cohort account for 10% of all births over the period (*10% pop* vertical line). Surnames with at most 52 births per cohort account for 25% of the population(*25% pop* vertical line), whereas half of the population born between 1901 and 1975 had a surname with less than 255 births per cohort (*50% pop* vertical line). This only includes "native" surnames, as defined in section 4.1. Including all surnames, the 10%, 25% and 50% cut-offs would correspond to even rarer surnames, respectively an average of 11, 46 and 230 births per cohort.

B. Complementary tables

Table B.1: Number of students per *Grande École* per cohort.

birth cohort	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESCP	ESPCI	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom Paris	all schools
1931-1935	228	272	566	296	823	156	515	265	1,134	281	3,118	269	7,341
1936-1940	297	445	715	390	1,070	168	538	330	1,442	413	3,743	357	9,026
1941-1945	424	507	600	412	1,132	159	705	340	1,461	470	4,065	337	9,727
1946-1950	336	674	684	450	1,120	189	839	432	1,452	624	6,352	427	12,428
1951-1955	342	687	959	493	857	174	1,183	483	1,360	706	5,384	596	11,885
1956-1960	377	684	854	492	915	172	1,333	519	1,383	645	4,647	616	11,325
1961-1965	466	401	815	458	1,563	160	1,834	545	1,385	719	6,284	713	14,212
1966-1970	485	341	813	573	2,041	206	1,986	664	1,430	882	3,784	883	12,947
1971-1975	709	354	940	594	2,384	227	2,637	724	1,628	965	3,537	923	14,418
all cohorts	3,664	4,365	6,946	4,158	11,905	1,611	11,570	4,302	12,675	5,705	40,914	5,121	103,309

Notes: This table reports the number of masculine students in each of the 12 schools as well as in all schools together, by 5-year birth cohort as well as for all cohorts together. This restricts to "native" surnames as defined in section 4.1

Table B.2: Share of *Grandes Écoles*' graduates among those with an elite position, by cohort and school.

(a) All elite positions.

Birth cohort	all schools	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESCP	ESPCI	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom	Number of individuals
all cohorts	26.2%	1.1%	3.3%	0.3%	0.7%	2.7%	0.2%	3.6%	1.8%	6.1%	2.1%	10.5%	1.4%	17,822
1931-1935	26.6%	0.5%	5.5%	0.5%	0.7%	1.6%	0.0%	0.7%	1.2%	6.6%	1.6%	14.6%	1.4%	561
1936-1940	26.6%	1.0%	5.0%	0.2%	0.4%	1.0%	0.0%	1.1%	2.0%	8.1%	1.4%	14.7%	0.6%	906
1941-1945	25.8%	0.3%	5.3%	0.2%	0.7%	1.9%	0.1%	1.6%	1.9%	7.3%	1.6%	13.1%	0.4%	1,456
1946-1950	27.1%	0.5%	4.9%	0.4%	0.5%	1.7%	0.4%	2.4%	1.8%	5.6%	2.0%	14.2%	0.8%	2,275
1951-1955	26.8%	0.8%	4.3%	0.3%	0.6%	2.4%	0.3%	3.4%	2.2%	6.1%	2.5%	11.9%	1.5%	2,267
1956-1960	25.6%	1.2%	3.4%	0.5%	0.6%	2.0%	0.1%	4.4%	1.7%	6.3%	1.8%	10.3%	1.7%	2,853
1961-1965	25.7%	1.3%	1.9%	0.3%	0.7%	3.0%	0.3%	3.9%	1.8%	5.2%	1.7%	9.4%	1.8%	3,195
1966-1970	25.1%	1.0%	1.5%	0.2%	0.9%	4.4%	0.1%	4.6%	1.6%	6.0%	2.5%	6.9%	1.8%	2,552
1971-1975	27.5%	2.3%	1.5%	0.5%	1.0%	4.6%	0.2%	5.6%	1.8%	6.0%	2.9%	6.0%	1.3%	1,757

(b) Political elite.

Birth cohort	all schools	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESCP	ESPCI	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom	Number of individuals
all cohorts	16.0%	0.2%	4.9%	0.2%	0.6%	0.5%	0.0%	0.6%	0.3%	1.3%	0.5%	12.3%	0.0%	2,211
1931-1935	13.1%	0.4%	4.6%	1.1%	0.0%	0.0%	0.0%	0.4%	0.0%	1.1%	0.7%	8.5%	0.4%	283
1936-1940	13.0%	0.6%	3.7%	0.0%	0.8%	0.0%	0.0%	0.3%	0.8%	2.5%	0.0%	8.8%	0.0%	353
1941-1945	14.0%	0.2%	5.1%	0.0%	0.7%	0.7%	0.0%	0.2%	0.5%	1.7%	0.5%	10.4%	0.0%	415
1946-1950	17.7%	0.2%	5.3%	0.2%	0.5%	0.5%	0.0%	0.2%	0.2%	0.9%	0.7%	14.5%	0.0%	435
1951-1955	15.7%	0.0%	6.0%	0.0%	0.4%	1.1%	0.0%	0.7%	0.4%	0.7%	0.4%	12.4%	0.0%	267
1956-1960	22.1%	0.0%	8.3%	0.6%	0.6%	1.1%	0.0%	1.1%	0.0%	1.1%	0.0%	18.8%	0.0%	181
1961-1965	15.3%	0.0%	2.8%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	0.0%	144
1966-1970	19.5%	0.0%	2.6%	0.0%	1.3%	0.0%	0.0%	1.3%	0.0%	1.3%	1.3%	15.6%	0.0%	77
1971-1975	28.6%	0.0%	3.6%	0.0%	1.8%	1.8%	0.0%	7.1%	0.0%	0.0%	1.8%	21.4%	0.0%	56

(c) Business elite.

Birth cohort	all schools	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESCP	ESPCI	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom	Number of individuals
all cohorts	27.6%	1.2%	3.1%	0.3%	0.7%	3.0%	0.2%	4.0%	2.0%	6.8%	2.3%	10.3%	1.6%	15,670
1931-1935	40.0%	0.7%	6.4%	0.0%	1.4%	3.2%	0.0%	1.1%	2.5%	12.1%	2.5%	20.7%	2.5%	280
1936-1940	35.0%	1.2%	5.9%	0.4%	0.2%	1.6%	0.0%	1.6%	2.8%	11.5%	2.3%	18.3%	0.9%	563
1941-1945	30.6%	0.4%	5.5%	0.3%	0.7%	2.3%	0.2%	2.2%	2.4%	9.4%	2.1%	14.5%	0.6%	1,056
1946-1950	29.5%	0.5%	5.0%	0.4%	0.5%	2.1%	0.4%	2.9%	2.1%	6.7%	2.3%	14.4%	1.0%	1,852
1951-1955	28.4%	0.9%	4.1%	0.3%	0.6%	2.5%	0.3%	3.7%	2.5%	6.8%	2.7%	12.0%	1.7%	2,013
1956-1960	25.8%	1.2%	3.0%	0.4%	0.6%	2.0%	0.1%	4.6%	1.8%	6.6%	1.9%	9.7%	1.8%	2,674
1961-1965	26.2%	1.4%	1.9%	0.3%	0.7%	3.2%	0.3%	4.1%	1.9%	5.5%	1.8%	9.2%	1.9%	3,053
1966-1970	25.2%	1.0%	1.5%	0.2%	0.8%	4.6%	0.1%	4.7%	1.7%	6.2%	2.5%	6.6%	1.8%	2,477
1971-1975	27.5%	2.4%	1.5%	0.5%	0.9%	4.7%	0.2%	5.5%	1.8%	6.2%	2.9%	5.6%	1.4%	1,702

Notes: These tables report by cohort the number of individuals holding elite positions, as well as their share with a diploma from each of the 12 *Grande École* in our sample. Panel (a) relates to both political and business elites, while panel (b) relates to political elite only, and panel (c) to business elite only.

Table B.3: Descriptive statistics on the explanatory variables $FatherElite_{i,e}$.

(a) All elite positions.

	Average	Average (among positive)	Obs. Total	Obs. Null values	Obs. 0.00 to 0.01	Obs. 0.01 to 0.05	Obs. 0.05 to 0.10	Obs. 0.10 to 0.25	Obs. 0.25 to 0.50	Obs. 0.50 to 0.100
All	0.0027	0.0183	103,309	88,171	12,855	1,463	295	257	131	137
1931-1935	0.0002	0.0057	7,341	7,117	213	8	1	1	0	1
1936-1940	0.0003	0.0053	9,026	8,545	467	7	1	5	0	1
1941-1945	0.0007	0.0080	9,727	8,850	834	22	4	11	4	2
1946-1950	0.0016	0.0132	12,428	10,942	1,378	49	15	22	15	7
1951-1955	0.0029	0.0222	11,885	10,323	1,264	198	41	27	12	20
1956-1960	0.0012	0.0080	11,325	9,686	1,508	83	17	21	5	5
1961-1965	0.0041	0.0231	14,212	11,688	2,006	362	57	48	16	35
1966-1970	0.0027	0.0124	12,947	10,158	2,498	182	41	34	21	13
1971-1975	0.0074	0.0300	14,418	10,862	2,687	552	118	88	58	53

(b) Political elite.

	Average	Average among positive	Obs. Total	Obs. Null values	Obs. 0.00 to 0.01	Obs. 0.01 to 0.05	Obs. 0.05 to 0.10	Obs. 0.10 to 0.25	Obs. 0.25 to 0.50	Obs. 0.50 to 0.100
All	0.0010	0.0102	103,309	93,222	9,174	607	121	94	47	44
1931-1935	0.0002	0.0058	7,341	7,119	211	8	1	1	0	1
1936-1940	0.0003	0.0053	9,026	8,547	465	7	1	5	0	1
1941-1945	0.0006	0.0067	9,727	8,886	808	16	4	8	3	2
1946-1950	0.0012	0.0112	12,428	11,045	1,299	38	14	14	12	6
1951-1955	0.0021	0.0181	11,885	10,533	1,133	150	27	19	12	11
1956-1960	0.0005	0.0047	11,325	10,088	1,177	43	6	7	2	2
1961-1965	0.0017	0.0151	14,212	12,636	1,344	166	28	19	7	12
1966-1970	0.0003	0.0028	12,947	11,542	1,349	42	7	6	1	0
1971-1975	0.0014	0.0128	14,418	12,826	1,388	137	33	15	10	9

(c) Business elite.

	Average	Average among positive	Obs. Total	Obs. Null values	Obs. 0.00 to 0.01	Obs. 0.01 to 0.05	Obs. 0.05 to 0.10	Obs. 0.10 to 0.25	Obs. 0.25 to 0.50	Obs. 0.50 to 0.100
All	0.0017	0.0202	103,309	94,485	7,487	815	167	173	93	89
1931-1935	0.0000	0.0005	7,741	7,736	5	0	0	0	0	0
1936-1940	0.0000	0.0003	9,026	9,011	15	0	0	0	0	0
1941-1945	0.0002	0.0202	9,727	9,648	67	7	0	4	1	0
1946-1950	0.0004	0.0171	12,428	12,164	237	11	1	11	3	1
1951-1955	0.0010	0.0236	11,885	11,363	444	41	14	12	3	8
1956-1960	0.0007	0.0081	11,325	10,495	758	37	12	17	4	2
1961-1965	0.0025	0.0204	14,212	12,480	1,475	165	29	29	12	22
1966-1970	0.0024	0.0134	12,947	10,645	2,068	140	32	29	20	13
1971-1975	0.0060	0.0280	14,418	11,343	2,418	414	79	71	50	43

Notes: *Obs.* stands for number of observations. The upper panel (a) provides statistics for the explanatory variables related to having a father in both types of elite, while the central panel (b) relates to fathers in politics and the lower panel (c) to fathers in business. We provide statistics for all cohorts together, as well as for each five-year cohort. The *Average among positive* computes the average of the variable among non-null observations. We also report the number of observations, in total, with null values, as well as for different brackets.

Table B.4: Complementary results: detailed estimates for the baseline regression.

Dependent variable	Dummy variable for entering an elite position			
	(1)	(2)	(3)	(4)
Father in elite position	3.463***	3.182***	2.944***	2.408***
	(1.028)	(0.861)	(0.816)	(0.642)
School EM Lyon			1.636***	1.664***
			(0.222)	(0.247)
School ENA			4.503***	4.311***
			(0.617)	(0.578)
School ENPC ("Ponts")			1.427***	1.381***
			(0.0739)	(0.0713)
School ENS Cachan			0.267***	0.270***
			(0.0362)	(0.0378)
School ENS Ulm			0.849	0.848
			(0.0923)	(0.0937)
School ESCP			1.305***	1.350***
			(0.134)	(0.147)
School ESPCI			0.693*	0.726
			(0.137)	(0.146)
School ESSEC			1.831***	1.769***
			(0.0801)	(0.121)
School Mines Paris			2.028***	1.977***
			(0.127)	(0.0992)
School Polytechnique			2.455***	2.564***
			(0.138)	(0.128)
School Télécom			1.073	1.024
			(0.101)	(0.0881)
Cohort 1931-1935		0.343***		0.353***
		(0.000563)		(0.00492)
Cohort 1936-1940		0.517***		0.518***
		(0.000810)		(0.00489)
Cohort 1941-1945		0.738***		0.727***
		(0.00103)		(0.00580)
Cohort 1946-1950		0.870***		0.881***
		(0.000746)		(0.00242)
Cohort 1956-1960		1.079***		1.032***
		(0.00134)		(0.00182)
Cohort 1961-1965		1.065***		1.126***
		(0.000766)		(0.0195)
Cohort 1966-1970		0.859***		0.864***
		(0.000384)		(0.0226)
Cohort 1971-1975		0.606***		0.601***
		(0.00141)		(0.0171)
Constant	0.0431***	0.0548***	0.0283***	0.0360***
	(0.00470)	(9.45e-05)	(0.00308)	(0.000984)
Observations	103,309	103,309	103,309	103,309
Cohort weights	Yes	Yes	Yes	Yes
Cohort fixed effects		Yes		Yes
School fixed effects			Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. This table provides details estimates for the main analysis presented in section 5. See the notes to Table 2 for additional explanations on the regressions. Cohort fixed effects are dummy variables for each cohort, except cohort 1951-1955, which serves as a reference. School fixed effects are dummy variables for each school, except *Sciences Po Paris*, which serves as a reference.

Table B.5: Complementary results: Robustness analysis of our baseline regression to sample restrictions and alternative estimation methods.

Dependent variable	Dummy variable for entering an elite position			
Independent variable	Probability of having a father in an elite position			
	no control	cohorts controls	schools controls	cohorts and schools controls
No weighting scheme	3.102***	3.030***	2.748***	2.456***
	(0.823)	(0.753)	(0.670)	(0.550)
Excluding the first cohort	3.164***	3.194***	2.693***	2.414***
	(0.922)	(0.873)	(0.729)	(0.650)
Excluding the first two cohorts	2.978***	3.229***	2.584***	2.566***
	(0.888)	(0.900)	(0.715)	(0.634)
FatherElite only over 10%	3.352***	3.152***	2.859***	2.386***
	(0.925)	(0.815)	(0.750)	(0.650)
FatherElite only over 25%	2.925***	2.772***	2.579***	2.208***
	(0.829)	(0.720)	(0.693)	(0.562)
Not excluding "immigrant" surnames	3.418***	3.193***	2.903***	6.318***
	(1.045)	(0.838)	(0.910)	(1.816)

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. All cells display estimates from a separate regression. Estimates reported in the first line are computed with unweighted regressions, while the three others use the same weighting scheme as our baseline regression, which ensures that each 5-year cohort has the same weight whatever the number of observations. All regressions include cohort and school fixed effects, constructed as detailed in Table 2. The number of observations is as follows: still 103,309 in the absence of weighting scheme, 95,968 when we exclude the first cohort, 86,942 when we exclude the two first cohorts, 88,696 when $FatherElite_{i,e}$ is floored at 10%, 88,447 when it is floored at 25%, and 122,075 when we also include "immigrant surnames". When restricting $FatherElite_{i,e}$ to a certain threshold, we withdraw from the sample observations with non-null values that are below the threshold, rather than considering them as null values.

Table B.6: Complementary results: inclusion of cohort fixed effects for the heterogeneity analysis by school of graduation.

Dependent variable	Dummy variable for entering an elite position					
	EM Lyon	ENA	ENS Cachan	ENS Ulm	ESPCI	ESCP
	(1)	(2)	(3)	(4)	(5)	(6)
Father in elite position	5.301***	-	1.284	0.937	2.71e-10	1.757*
	(2.147)	-	(1.457)	(1.194)	(6.00e-09)	(0.560)
Observations	3,664	4,365	6,946	4,158	1,611	11,905
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
School fixed effects	N/A	N/A	N/A	N/A	N/A	N/A

	ESSEC	Mines Paris	Polytech -nique	Ponts et chaussées	Sciences Po Paris	Télécom
	(7)	(8)	(9)	(10)	(11)	(12)
Father in elite position	1.528	2.283	2.850**	11.75**	3.123***	0.00893**
	(1.450)	(2.534)	(1.380)	(11.26)	(1.111)	(0.0215)
Observations	11,570	4,302	12,675	5,705	40,914	5,121
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
School fixed effects	N/A	N/A	N/A	N/A	N/A	N/A

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. Each column from each sub-panel displays estimates from a separate regression. The log-binomial regression does not converge when restricting to *ENA*'s graduates and including cohort fixed effects. Results vary to a limited extent for other schools, with respect to those in Table 3, without the inclusion of cohort fixed effects.

Table B.7: Complementary results: detailed estimates for the regressions on the consequences of dynasties on education among the elite.

(a) For those acceding the political elite.

Dependent variable: graduated from	any of the 12 Grandes Ecoles		any engineering school		any business school		administration or research school	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Father in politics	3.404***		14.80***		0		2.986***	
	(1.082)		(11.45)		(0)		(0.925)	
Father in business		1.241		0		4.745		1.489
		(0.664)		(0)		(8.402)		(0.861)
Executive power	3.622***	3.594***	5.959***	5.852***	1.016	1.025	3.541***	3.517***
	(0.450)	(0.453)	(2.064)	(2.079)	(0.594)	(0.616)	(0.481)	(0.481)
Cohort 1931-1935	0.873***	0.854***	1.744***	1.527***	0.344***	0.386***	0.795***	0.783***
	(0.0101)	(0.00357)	(0.139)	(0.0111)	(0.00527)	(0.0166)	(0.00784)	(0.00410)
Cohort 1936-1940	0.892***	0.872***	2.519***	2.211***	0.416***	0.464***	0.757***	0.745***
	(0.0101)	(0.00355)	(0.202)	(0.0199)	(0.00546)	(0.0201)	(0.00751)	(0.00417)
Cohort 1941-1945	0.863***	0.851***	1.610***	1.477***	0.601***	0.657***	0.808***	0.801***
	(0.00728)	(0.00609)	(0.108)	(0.0468)	(0.00819)	(0.0263)	(0.00763)	(0.00647)
Cohort 1946-1950	1.136***	1.119***	1.148***	1.034***	0.460***	0.502***	1.176***	1.164***
	(0.0100)	(0.00520)	(0.0600)	(0.0120)	(0.00750)	(0.0243)	(0.00867)	(0.00628)
Cohort 1956-1960	1.234***	1.212***	0.914	0.816***	1.144***	1.203***	1.352***	1.335***
	(0.0230)	(0.0229)	(0.0899)	(0.0362)	(0.0372)	(0.0501)	(0.0311)	(0.0292)
Cohort 1961-1965	0.966***	0.962***					1.099***	1.097***
	(0.00404)	(0.00347)					(0.00656)	(0.00657)
Cohort 1966-1970	1.078***	1.056***	2.096***	1.878***	0.647***	0.708***	1.024	1.008
	(0.0170)	(0.0159)	(0.215)	(0.0924)	(0.0187)	(0.0298)	(0.0179)	(0.0156)
Cohort 1971-1975	1.955***	1.915***	1.579***	1.564***	4.622***	4.842***	1.571***	1.547***
	(0.0623)	(0.0646)	(0.0817)	(0.0510)	(0.0562)	(0.140)	(0.0230)	(0.0221)
Constant	0.116***	0.119***	0.00648***	0.00746***	0.0206***	0.0183***	0.103***	0.105***
	(0.00652)	(0.00632)	(0.000914)	(0.00115)	(0.00167)	(0.00177)	(0.00567)	(0.00572)
Observations	2,211	2,211	2,211	2,211	2,211	2,211	2,211	2,211
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Position controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. See second part of the table and details on the reading on the next page.

(b) For those acceding the business elite.

Dependent variable: graduated from	any of the 12 Grandes Ecoles		any engineering school		any business school		administration or research school	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Father in politics	1.120		0.186		0.311		2.397*	
	(0.558)		(0.293)		(0.311)		(1.172)	
Father in business		0.488***		0.145**		0.787		0.451
		(0.115)		(0.121)		(0.360)		(0.281)
Business executive	1.137**	1.139**	1.482***	1.485***	0.805**	0.805**	1.170*	1.172*
	(0.0697)	(0.0697)	(0.142)	(0.143)	(0.0685)	(0.0679)	(0.0970)	(0.0971)
Cohort 1931-1935	1.415***	1.411***	1.348***	1.347***	0.691***	0.693***	1.685***	1.672***
	(0.00431)	(0.00377)	(0.00809)	(0.00655)	(0.00307)	(0.00294)	(0.00936)	(0.00669)
Cohort 1936-1940	1.238***	1.235***	1.356***	1.356***	0.619***	0.620***	1.450***	1.439***
	(0.00254)	(0.000518)	(0.00257)	(0.00127)	(0.000944)	(0.000670)	(0.00636)	(0.00158)
Cohort 1941-1945	1.086***	1.084***	1.163***	1.163***	0.669***	0.670***	1.237***	1.228***
	(0.00301)	(0.00271)	(0.00569)	(0.00491)	(0.00238)	(0.00233)	(0.00622)	(0.00426)
Cohort 1946-1950	1.044***	1.043***	0.925***	0.925***	0.767***	0.768***	1.206***	1.200***
	(0.00171)	(0.000952)	(0.00238)	(0.00155)	(0.00140)	(0.00106)	(0.00413)	(0.00156)
Cohort 1956-1960	0.905***	0.904***	0.867***	0.867***	1.106***	1.107***	0.803***	0.799***
	(0.00176)	(0.00115)	(0.00175)	(0.00199)	(0.00130)	(0.00119)	(0.00305)	(0.00145)
Cohort 1961-1965	0.917***	0.918***	0.827***	0.831***	1.220***	1.223***	0.753***	0.751***
	(0.00263)	(0.00222)	(0.00304)	(0.00335)	(0.00281)	(0.00447)	(0.00373)	(0.00254)
Cohort 1966-1970	0.885***	0.887***	0.885***	0.892***	1.443***	1.448***	0.565***	0.565***
	(0.00191)	(0.00141)	(0.00194)	(0.00247)	(0.00162)	(0.00462)	(0.00232)	(0.00149)
Cohort 1971-1975	0.967***	0.973***	0.955***	0.971***	1.753***	1.760***	0.521***	0.522***
	(0.00116)	(0.00170)	(0.000590)	(0.00388)	(0.00132)	(0.00807)	(0.00156)	(0.00249)
Constant	0.275***	0.275***	0.0894***	0.0894***	0.0753***	0.0752***	0.131***	0.132***
	(0.00466)	(0.00473)	(0.00296)	(0.00288)	(0.00139)	(0.00137)	(0.00305)	(0.00308)
Observations	15,670	15,670	15,670	15,670	15,670	15,670	15,670	15,670
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Positions controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. See first part of the table on previous page. This table provides detailed estimates for all explanatory variables on the analysis of schooling. Summary results are presented in Table 7). Estimates report risk ratios from log-binomial regressions. Standard errors, clustered at the cohort level, are in parentheses. Each column displays estimates from a separate regression. Observations are individuals, who held at least one elite position. Each 5-year cohort has the same weight, whatever the number of members of the elite. Cohort fixed effects are dummy variables for each cohort, except cohort 1951-1955, which serves as a reference.

Table B.8: Complementary results: detailed estimates for the regressions on the consequences of dynasties on age at first position among the elite.

Dependent variable	Age of entry in politics			Age of entry in business			Age of entry in business (executive)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Father in politics	0.956			-5.665***			0.614		
	(2.753)			(1.594)			(4.501)		
Father in business		-9.335***			-5.407**			-7.739***	
		(2.227)			(1.747)			(2.074)	
Father in business (executive)			-11.22***			-7.982**			-9.003**
			(0.407)			(2.618)			(3.205)
School_em_lyon	-1.898	-1.899	-1.899	-0.960**	-0.897*	-0.969**	-2.128**	-1.962**	-2.147**
	(4.310)	(4.309)	(4.309)	(0.399)	(0.411)	(0.400)	(0.749)	(0.714)	(0.746)
School_ena	-5.919***	-5.918***	-5.923***	-3.256***	-3.292***	-3.289***	-1.659***	-1.686***	-1.669***
	(1.002)	(1.004)	(1.001)	(0.390)	(0.383)	(0.382)	(0.460)	(0.474)	(0.470)
School_enpc	1.351	1.387	1.390	0.506	0.510	0.521	0.680	0.698	0.725
	(1.808)	(1.722)	(1.722)	(0.517)	(0.519)	(0.518)	(0.748)	(0.760)	(0.761)
School_ens_cachan	1.403	1.403	1.403	0.738	0.732	0.736	-3.933*	-3.908*	-3.959*
	(0.855)	(0.854)	(0.855)	(1.352)	(1.347)	(1.350)	(1.964)	(1.993)	(1.954)
School_ens_ulm	-5.332***	-5.345***	-5.339***	-2.280***	-2.281***	-2.279***	-1.268	-1.316	-1.290
	(1.221)	(1.223)	(1.221)	(0.563)	(0.561)	(0.562)	(0.845)	(0.830)	(0.838)
School_escp	-0.465	-0.382	-0.422	-0.296	-0.286	-0.274	-0.585	-0.586	-0.576
	(1.925)	(1.973)	(1.960)	(0.464)	(0.462)	(0.463)	(0.835)	(0.828)	(0.843)
School_espci	-	-	-	-0.401	-0.417	-0.403	2.086	2.042	2.062
	-	-	-	(1.139)	(1.140)	(1.140)	(1.872)	(1.869)	(1.877)
School_essec	-1.158	-1.182	-1.175	-0.824	-0.844	-0.835	0.186	0.165	0.168
	(1.438)	(1.432)	(1.433)	(0.465)	(0.459)	(0.464)	(0.703)	(0.679)	(0.704)
School_mines	-1.979	-1.999	-1.999	-1.834**	-1.852***	-1.846**	-1.263	-1.291	-1.278
	(2.469)	(2.465)	(2.465)	(0.549)	(0.550)	(0.551)	(0.707)	(0.710)	(0.707)
School_polytechnique	0.0812	0.0946	0.0946	-2.205***	-2.210***	-2.199***	-0.855	-0.875	-0.857
	(0.823)	(0.797)	(0.797)	(0.273)	(0.274)	(0.276)	(0.505)	(0.502)	(0.502)
School_telecom	15.34***	15.32***	15.32***	0.00140	-0.0148	-0.00822	1.638	1.609	1.621
	(0.845)	(0.820)	(0.820)	(0.532)	(0.527)	(0.529)	(1.578)	(1.577)	(1.576)
Cohort_1931_1935	1.996***	1.919***	1.914***	12.14***	12.14***	12.15***	5.185***	5.117***	5.150***
	(0.0498)	(0.0263)	(0.0146)	(0.0290)	(0.0257)	(0.0260)	(0.0483)	(0.0383)	(0.0363)
Cohort_1936_1940	0.661***	0.585***	0.580***	9.112***	9.117***	9.124***	5.481***	5.419***	5.454***
	(0.0495)	(0.0313)	(0.0271)	(0.0285)	(0.0260)	(0.0258)	(0.0403)	(0.0272)	(0.0274)
Cohort_1941_1945	-0.467***	-0.539***	-0.544***	6.717***	6.721***	6.725***	2.671***	2.622***	2.636***
	(0.0344)	(0.0204)	(0.0159)	(0.0218)	(0.0193)	(0.0195)	(0.0481)	(0.0373)	(0.0402)
Cohort_1946_1950	0.0106	-0.0629**	-0.0674***	3.017***	3.026***	3.021***	0.456***	0.417***	0.422***
	(0.0389)	(0.0211)	(0.0130)	(0.0145)	(0.0129)	(0.0138)	(0.0416)	(0.0285)	(0.0265)
Cohort_1956_1960	-1.145***	-1.209***	-1.224***	-2.547***	-2.544***	-2.537***	-1.608***	-1.658***	-1.623***
	(0.0428)	(0.0373)	(0.0328)	(0.00959)	(0.0116)	(0.00997)	(0.0396)	(0.0344)	(0.0313)
Cohort_1961_1965	-3.503***	-3.563***	-3.575***	-6.368***	-6.337***	-6.350***	-3.620***	-3.654***	-3.631***
	(0.0404)	(0.0371)	(0.0356)	(0.0148)	(0.0111)	(0.0137)	(0.0511)	(0.0429)	(0.0409)
Cohort_1966_1970	-5.969***	-6.041***	-6.050***	-9.729***	-9.687***	-9.703***	-6.326***	-6.330***	-6.335***
	(0.0776)	(0.0563)	(0.0516)	(0.0164)	(0.0155)	(0.0153)	(0.0408)	(0.0285)	(0.0300)
Cohort_1971_1975	-7.303***	-7.307***	-7.355***	-13.26***	-13.19***	-13.23***	-10.02***	-9.963***	-10.02***
	(0.0733)	(0.0720)	(0.0732)	(0.0203)	(0.0241)	(0.0196)	(0.0354)	(0.0270)	(0.0347)
Constant	48.59***	48.66***	48.67***	53.48***	53.48***	53.47***	52.73***	52.81***	52.77***
	(0.0738)	(0.0592)	(0.0580)	(0.0544)	(0.0580)	(0.0564)	(0.115)	(0.102)	(0.0973)
R^2	0.062	0.063	0.063	0.535	0.536	0.535	0.259	0.261	0.260
Observations	2,206	2,206	2,206	13,920	13,920	13,920	3,734	3,734	3,734
Cohort weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
School fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors, clustered at the cohort level, are in parentheses. This table provides detailed estimates for all explanatory variables on the analysis of age at first position. Refer to notes to Table 8 for additional details.

C. Complementary information

C.1 Description of the identification of "foreign" surnames

This section is mostly common to Benveniste (2021), who completes this method, with an additional coefficient of variation, tracking especially immigration in the early 20$^{\text{th}}$ century. We identify foreign surnames in two ways. First, we use the evolution of births by surname in the national census. Then, we compare the frequency of surnames among students to their frequency in the French births' records.

Using the complete birth census with 25-year cohorts divides, we qualify as "foreign" the 490,565 surnames with only one birth in the births' registers over period 1891-1990. Out of the 786,531 remaining surnames, we classify as foreign those for which there is no birth on the timeframe of the two first generations (1891 to 1940). We also consider foreign the surnames, whose natality is 10 times higher in the last cohort (1966-1990), as compared to the mean of the first two cohorts (1891-1940), or whose natality is 10 times higher from one cohort to the previous one (e.g. in 1941-1965 compared to 1916-1940). Finally, we compute by surname S a coefficient of variation of the number of births per cohort. A surname for which the number of births experiences notable volatility between cohorts is understood as a process of immigration in a specific generation, followed by children born in France in the following generations. We compute $CV^s_{1891-1990}$ for the four generations between 1891 and 1990.[36] Surnames with an average number of births per cohort μ^s_t above 30 and a coefficient of variation above 0.6 over the period t are classified as immigrants. These choices are based on visual inspection at different potential thresholds. We complete these conditions using the *Grandes Écoles* data and classify a surname as foreign if there are more students than there are births in France bearing this surname in any given cohort.

[36] $CV^s_t = \frac{\mu^s_t}{\sigma^s_t}$ where μ^s_t stands for the average number of births of bearers of the surname s over the timeframe t—here either 3 or 4 cohorts—and σ^s_t for the standard deviation.