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## **Globalization and the Emergence of a Transnational Oligarchy**

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### **Abstract**

The aim of this paper is to examine the evolution of recruitment of elites due to globalization. In the last century, the main change that occurred in the way the Western world trained its elites is that meritocracy became the basis for their recruitment. Although meritocratic selection should result in the best being chosen, we show that meritocratic recruitment may actually lead to class stratification and auto-recruitment.

In this paper, I show that due to globalization, the stratification effect will be even stronger. Globalization will bring about the formation of an international technocratic elite with its own culture, norms, ethos, and identity, as well as its private clubs like the Davos World Economic Forum. We face the emergence of a transnational oligarchy.

Keywords: globalization, education, elites, meritocracy, recruitment, social mobility

JEL classification: I21, O15, O40

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Figures and table appear at the end of the document.

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## 1 Introduction

Over the recent past, globalization has been blamed for many negative externalities. These range from making the poor even poorer, to worsening working conditions, to the deterioration of the global environment, and even having brought about natural disasters.

As for its cultural impact, the demise of frontiers has led to the spread of knowledge, information and connections between peoples. Globalization also affects the way elites are recruited and trained. Over the centuries, there has been an evolution in the way the Western world has recruited its elite; globalization is one more process that has affected this evolution.

At the time of Plato and Aristotle, it was emphasized that the recruitment of the elite is a crucial element in finding the optimal political structure. Aristotle stressed that a city should be *ruled by the best* ('aristoi' in Greek), and government should be in the hands of the most able members of society. These men should be highly intelligent and educated, as well as brave and temperate citizens.

Despite this enlightened view, over the centuries, recruitment of the elite was actually carried out via heredity, nepotism, and violence, and the word 'aristocracy' came to describe the hereditary upper ruling class. Hereditary monarchy was for centuries considered the most legitimate means of the recruitment for rulers, based on the assumption that morality and intellectuality are hereditary, according to God's will.

The twentieth century witnessed a major change in the way the elites were recruited. Meritocracy became the basic factor for recruitment of elites, and education and success at exams have been used as prime criterion for recruitment. In consequence, post-World War II, elites are recruited through education in elite universities to which admission was conferred following success at meritocratic exams.

However, a new development has taken place over the past decade in the recruitment and training of elites, resulting from the world-wide phenomenon of globalization. The purpose of this paper is to focus on the changes in the recruitment of elites due to globalization.

Globalization has two main effects on the recruitment and training of elites. In its first phase, globalization, and especially globalization of education, creates a new collection of elites and elicits changes in the social structure accordingly.

Yet, later on, the unity and uniformity of the elite increases, not only at the national level but also at the global level. National elites are replaced by a worldwide elite, along with uniformity in culture and education. This paper will emphasize the dynamics of the emergence of transnational elites, and their effect on the economy.

The paper is divided in five parts. In the following part of the paper, I first present a brief survey of the recruitment and education of the elites. I show that there was a key shift at the turn of the nineteenth century, in the way the Western world viewed its elite.

In part III, I analyze the training and recruitment of national and transnational elites during the twentieth century and at present. I show the importance and impact of training in elite universities as regards the recruitment of the transnational elites.

In part IV, I analyze the effects of meritocratic recruitment on social mobility. I show that recruitment to a university via a meritocratic method based on entrance exams does not lead to enrollment from all classes of society according to distribution or ability, nor does it necessarily bring about the admission of the most talented.

I show that even a slight cultural bias can lead to more than half of students enrolled in elite universities coming from an elite background. This cultural bias has a magnification effect on class stratification. In other words, we show that an elite education leads to a ‘non-circulation of elites’.<sup>1</sup> In consequence, the fact that over time, individuals from the same background are accepted to elite universities is due not to cronyism, but to the system itself, despite the fact that it is meritocratic.

In Part V of the paper, I analyze the effects of globalization on recruitment of elites. I show that the stratification effect will be even stronger. Globalization will bring about the formation of an international technocratic elite with its own norms, ethos, and identity, as well as its private clubs like the Davos World Economic Forum. In other words, we may be observing the emergence of a transnational oligarchy. Part VI concludes.

## **2 An historical survey of the recruitment and training of elites in the Western world<sup>2</sup>**

### **2.1 Before the industrial revolution**

Despite some differences between countries, there are common elements throughout the Western world regarding recruitment and training of the elite. In traditional European societies – of which many characteristics survived well into the nineteenth century – membership in the elite was mainly hereditary; noble birth was the basic condition. Moreover, highly born people were also generally wealthy, even though their wealth was mainly landed. In consequence, the upper elite was made up of large landowners, an *état de fait* which was normal in agrarian societies.

Appointments to most state positions (including the armed forces and the Church) were made either by patronage or by purchase. Patronage was a matter of family connections, favour, and intrigue. Nevertheless, there were some channels through which new people emerged regularly into the elite: the favour of the sovereign or of some great lord, military prowess and exploits, amassing wealth through trade or, frequently, involvement in government finance (such as tax farming), and purchase of public offices.<sup>3</sup> Such upward channels involved some meritocratic elements; this was

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<sup>1</sup> ‘Circulation of the elite’ is an expression coined by Vilfredo Pareto in 1902, who claimed that the elite, in recruiting itself, chose subjects of increasingly mediocre caliber: ‘Merely a slowing down of this circulation may have the effect of considerably increasing the number of degenerate elements within the classes still possessing power, and – by contrast – of increasing the number of elements of superior quality within the subject classes... The decadence originates from the fact that the elite, in recruiting itself, chose subjects of increasingly mediocre calibre’ (Vol. 1, Introduction).

<sup>2</sup> This part is based on Brezis and Crouzet (2006).

<sup>3</sup> Such rises were generally crowned by ennoblement, thanks to which descendants of the ‘new men’ were – after a time – fully integrated into the elite.

particularly pronounced within the Catholic Church, where some rose as a result of sheer intellectual prowess.

Education was not a necessary element for entering the elite, and there was no specific education for the elite. Most sons of the nobility had private tutors; from the seventeenth century onwards, many of them – as well as many sons of the well-to-do bourgeois – were sent to ‘high schools’ such as the English public schools, or, in Catholic countries, colleges run by the Jesuits or the Oratorians. In these schools, the pupils received a purely classical education. Then a number of young men attended universities, but the latter only offered professional training for those who wanted to become clerics, lawyers, or doctors. For well-born young men, universities such as Oxford and Cambridge were merely finishing schools where they had a good time and made useful connections (what we now call ‘networking’). It is noteworthy, however, that in France, under the Third Republic, many politicians were lawyers, and that Parliament also included a sizeable number of doctors, as well as some teachers.

## **2.2 From the eighteenth to the twentieth century**

The Industrial and the French Revolutions, as well as economic growth, and the spread of democratic systems of government brought about a number of changes, but more gradually than one might expect. Changes in the recruitment and training of elites first took place in the late eighteenth century, arising from the needs of modern states, which were getting stronger and tried to become more efficient, particularly by adopting new technologies. States increasingly needed not only trained specialists and military officers, but also engineers, whom traditional schools and universities did not generally produce. As defence and war were the major function of states in the eighteenth century, and the ‘art of war’ was becoming more sophisticated, the earliest move was the establishment, by many European states, of schools for training officers. Military schools and colleges have not only survived to our own days, but they have been imitated in various other institutions, and are the origin of the French *grandes écoles*.

From the turn of the twentieth century, there was a gradual change in the recruitment and training of elites. The business elite started to become educated. Instead of receiving their training on the production floor, they began attending universities or engineering schools.

This evolution can be mainly explained by the change in the ownership of business, and the development of technology. The business elite before the nineteenth century was mainly made of heirs, and not only did training in universities not seem necessary, families were afraid that it could corrupt their heirs. They were therefore trained inside the firm. But when ownership and management increasingly became separated, the business elites were recruited via their education, which became a must. This is the managerial revolution, which involved the rise of the ‘corporate economy’ and of the Chandlerian managerial enterprise, where salaried senior management largely took over from capital owners and heirs of the founding families.

Another reason for the increase in education is the importance of technology in the development of firms. During the ‘second Industrial Revolution’, that is, the rise of new industries, like chemicals and electricity, which were science based, both engineers and managers needed specialized formal training. It becomes almost impossible to succeed in entering the elite without education. Even for heirs, they cannot manage the firm

without education. So there was a clear difference between the education of the leaders of the First and of the Second Industrial Revolutions, since the pioneers of industrialization and their heirs only had on-the-job training, that is, learning by doing.

An increasing number of large companies started to hire people who had received academic education. In the 1890s, the need for managers who had undergone serious and thorough training was felt, and graduates from the new business colleges, which had been recently established, were hired in large numbers.<sup>4</sup> The founding, in 1908, of the Harvard Business School, and the creation of the MBA, sanctioned this development. During the same period, graduate schools of law and medicine were established in the major American universities.

After the beginning of these changes in the pre-1914 era, the troubled inter-war period is not marked by any important development. The scene shifted again only after World War II.

### **3 Training and recruitment of national and transnational elites during the twentieth century**

The recruitment of elites changed dramatically after World War II.<sup>5</sup> In all countries, there was a desire on the part of politicians to ‘democratize’ the elite, and consequently, significant reforms were introduced in the way the elites were recruited, as well as in their education. At that time, society faced three main changes. The first was that the elites became educated; the second is that the elite started to be recruited mainly through elite schools; and the third that these elite schools selected their students using meritocratic exams.

#### **3.1 Education and training of national elites and transnational elites**

The first undeniable fact is that education became a must for the elites. It is therefore not surprising to observe a convergence in the per cent of business elite members who have university or equivalent degrees, to 100 per cent over time (Figure 1). However, there were differences between countries, which can be explained by different traditions. In countries wherein firms were usually not family-owned, but rather state-owned, or financed by stocks and run by CEOs, recruits will have gone through more training than in countries where most firms are family-owned enterprises. This explains that the UK elite had relatively less education than others.

This phenomenon is even stronger with regard to the transnational elites.<sup>6</sup> Business transnational elites are all educated, while the political elite is still comprised of some 3 per cent without higher education, but among those 55 or younger, are all educated

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<sup>4</sup> As early as the 1870s, an increase took place in the number of colleges and students. The number of undergraduates rose from 52,000 in 1870 to 238,000 in 1900, and that of graduate students in doctoral programmes from 50 to 6,000.

<sup>5</sup> See Brezis and Temin (1999; 2008).

<sup>6</sup> Since the transnational elites meet in Davos, the data on transnational elites refers to the people who attended the Davos meeting of 2009. The data on national elites refers to CEOs of top companies (for instance, Fortune 500 for the US, and CAC 40 for France).

(Figures 2-5). It is interesting to note that only 36 per cent of the business elites are younger than 55. This is not very different for the political elites, where only 39 per cent of them are 55 or younger.

Education, therefore, has become essential for belonging to the elite, and is the entry ticket into the business and political elite. Is there a clear specific training path that can be demarcated to become a member of the elite? It seems there is no clear pattern for the training of elites. In England, where business leaders come from economics, law, sciences, or the arts, it is not clear what ‘ticket’ is best for advancement; while in France, engineering was clearly the necessary training; and in Germany, it was either law or the sciences, although over time, we see some sort of convergence in the training of the elites (Figure 6).

In the recruitment of the national political elites, there is no doubt that networking leads to concentration of specific training. In the United States, the political elite are trained as lawyers (Obama, Clinton, Joe Biden, Leon Panetta). Moreover, over half of U.S. senators practise law. This is also the case in many other countries of Europe. For instance, in Germany, a third of the Bundestag’s members are lawyers, and in France, nine of 16 members of French cabinet of President Sarkozy were lawyers. It seems that in democracies, lawyers dominate. But, this is not the case in China: The Chinese political elite are mostly trained as engineers.

The training of the transnational elites presents a different pattern (Figure 7). The political elites are mostly trained in economics and law. It is quite striking that 38 per cent of them have a degree in economics. The business elite are trained mostly in Business and Management (39 per cent). An MBA seems to open the door to the top. However, it is not clear whether over time, there will be a clear pattern, and whether there is an optimal training path for the elites.

### **3.2 Education of national and transnational elites in elites schools**

The second point is that elites started to be educated in elite schools during the second half of the twentieth century. At the same time that a ‘democratization’ of higher education took place, reflected by an enormous increase in the number of university students, there was a concurrent emergence of two channels of education: one for the elite and the other for the rest.

To enter the elites in France, one needs to be an alumnus of a French *grande école*; in England to belong to an English public school or Oxbridge; and in the United States, to an ivy league university. This imbues a strong feeling of belonging to the elite and laid the foundations for vast networks of relationships.

Starting with the United States, the situation was emphasized by University of California President Clark Kerr, who set the stage for “university for all, but the elite university for the best”. This evolution was described by Temin for the United States: ‘I was able to identify the colleges attended by 454 CEOs of the Fortune 500 companies. All current business leaders on whom I could find information attended college and almost one-fifth graduated from the Ivy League’ (Temin 1999: 32).<sup>7</sup> By the early 1960s,

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<sup>7</sup> Of the 800 chief executives running the largest US public companies in 2003, 87 had MBAs from the three top business schools – Harvard, Stanford and Wharton (Forbes Global, 13 October 2003: 28).

those who had not attended college were precluded from becoming part of the business elite.

In France, despite a different system of recruitment, the situation is somewhat similar. The *grandes écoles* (GE) and especially the *école nationale d'administration* (ENA) play a role similar to the Ivy League universities in the United States: they are elite schools, and very selective. In the United States, university applicants take the SATs, and those who earn the highest scores are usually admitted to the elite universities. Of 2,000 colleges, 50 are considered elite colleges (including the 'Ivy League'). In contrast, in France, out of 450,000 students who obtain the *Baccalaureat*, only 36,000 enter the *classes préparatoires*, from which only 10,000 will reach the first rank of *grandes écoles* in the next couple of years. So in the United States, the relative numbers of such 'favourites of fortune' are higher than the graduates of the ENA and the *grandes écoles*.

It is striking that this selection is even stronger for the transnational elites. Among the political elites in the world, 35 per cent of them are recruited in elite universities, which we define as the 50 top universities in the world (the list is presented in Table 1). For the business elite, the recruitment is even tighter: 47 per cent of them have graduated from an elite university. Focusing only on OECD countries, we can observe that 50 per cent of the business elite come from elite universities (Figures 8-11).

This very thin recruitment base of elites is striking. It means that there is one obvious way to enter the elites, either political or business: that is by getting a degree from the top 50 universities in the world. However, *a priori*, this thin recruitment base does not *necessarily* lead to stratification. We could believe that these universities are recruiting in a meritocratic way, and therefore all the strata of the society are integrated in these elite universities. In the next section, I present the way elite schools select their students.

### 3.3 Recruitment by meritocracy

The change in the way elite universities pick their students took place first in the United States, mainly during the 1940s. Until then, there was a group of people who constituted the Establishment: they were male, white, and Protestant. They were the elite, their children attended the elite universities, and few others could attain any power.<sup>8</sup> Indeed, education at an Ivy League university was the entry ticket to elites of all kinds (except the political elite, which was more a melting pot), and before 1936, recruitment to universities was based on family and geography.

There was, therefore, a widespread desire to break the hold of this old elite and replace it with a new elite that would be made up of people from a broad range of backgrounds from all over the country, selected on the basis of intelligence and not birth. There was a need to replace the 'aristocratic' and non-democratic elite with a 'brainy' one that would lead the country. This desire was already expressed by Thomas Jefferson more than a century before: '...There is a natural aristocracy among men. The grounds of this are virtue and talents...while the artificial aristocracy is founded on wealth and birth'.<sup>9</sup>

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<sup>8</sup> See Miller (1949, 1950). Taussig and Joslyn (1932: 240) have shown that in 1930, 80 per cent of the business leaders came from the top 7 per cent of the population.

<sup>9</sup> A letter to John Adams in 1813 (Cappon 1959).



Indeed the term ‘aristocracy’ lost its innocence. The term ‘meritocracy’, a mixture of Latin and Greek, a kind of hybrid word meaning ‘rule by those who deserve it’ was coined by British sociologist Michael Young in 1958, instead of the word aristocracy, since the word ‘aristocracy’ had actually lost its literal Greek meaning of ‘rule by the best’; and instead had become pejorative; it had come to mean ‘rule by the rich’ and to be equivalent to ‘plutocracy’. Therefore those wishing for a ‘natural aristocracy’ started to use the term of meritocracy instead.

This wish to find the ‘natural aristocracy’ was not specific to the United States, and had equivalents in Europe, especially in France. However, the American meritocratic way of selecting the most intelligent in order to recruit the best public servants, and let them run the country is different from the French one. While France opted for the already existent system of the *grandes écoles*, which was based upon achievement exams, the United States adopted SAT exams.

The SAT, or Scholastic Aptitude Test (itself an adaptation of the army intelligence test called the Army Alpha) was developed at Princeton University, and placed the emphasis for university admissions on aptitude instead of achievement. The system was slowly adopted by all universities. It was adopted first by Harvard – run at the time by James Conant – who supported a selection process which would lead to the recruitment of his university elite from all social classes, and who felt that achievement tests were unfair to poor children because most did not attend good high schools. Therefore, he called for a system for choosing the meritocracy that was not based on achievement. Harvard thus adopted the SAT for use as a scholarship test during the 1930s; its use then spread as a scholarship test for all Ivy League schools, and soon afterwards to all universities. Standardized tests provided the basis for selection to elite universities.

However, despite the wish to democratize selection, over time, it became clear that SAT scores were correlated with family education and wealth.<sup>10</sup> Meritocracy did not mean democratization and opportunity for all. The unrealized dream of the virtue of meritocracy as opposed to aristocracy, has been emphasized by Temin. He has shown that the United States economic elite is still overwhelmingly made up of white Protestant males, a significant number of whom were educated at Ivy League institutions. The picture has not changed significantly from c. 1900: ‘The American business elite comes from elite families’, just like in France or Britain.<sup>11</sup> The fundamental irony of the American meritocracy is that the system finally favoured the elite’s children. The wish that America would become a classless society through the use of aptitude tests did not come true: meritocracy led to aristocracy.

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<sup>10</sup> Research on the variables affecting SAT results is numerous. See in particular Bouchard and McGue (1981), Neal and Johnson (1996), and also Herrnstein and Murray (1994).

<sup>11</sup> (Temin 1999: 33). Although the per cent of workers entering the elite class in the 1960s was double in the US as compared to Britain, France and Germany (Blau and Duncan 1967). As noted by Temin (1999: 32) and Kingston and Lewis (1990: 111): ‘Approximately one quarter of 1986 college freshmen at highly selective universities come from families with incomes over US\$100,000, that is, from the extreme upper tail of the income distribution’. It should be noted that this lack of change in the economic elite occurred despite the fact that the makeup of the political elite has markedly changed over the century.

In consequence, in order to reduce stratification, the United States has an elaborate selection system for minorities, trying to advance the best persons under an affirmative action system that can be seen as a ‘patch’ on meritocracy to make it run better. Meritocracy is a sort of particular system of picking people for the elite based on one set of abilities, while affirmative action is trying to twist the dials a bit to get more minority representation into the meritocratic elite.

In France, the system is different but the results are similar. In order to enter a *grande école*, there is a competitive exam (*concours*), and the number of candidates accepted every year is fixed.<sup>12</sup> Moreover, one does not sit for the *concours* just after high school; students first go to specialized schools (*classes préparatoires*) where they are only accepted if they have good grades in high school or at the *baccalauréat*. They study intensively at the *classes préparatoires* for one to four years, after which they take the entry exam for one or several of the *grandes écoles*.<sup>13</sup> Thus, of the half million people who succeed in the *baccalauréat* each year, 36,000 are accepted in the *classes préparatoires*, among whom only 25,000 will eventually enter a *grandes écoles* in the next few years, and only 10,000 an elite *grandes écoles*.

The *grandes écoles* have, over time, become increasingly important to the recruitment of the French business elite. From 1920 onwards, over 50 per cent of a sample among the leaders of French industry had graduated from engineering schools, and the percentage had reached 70 per cent in 1939. According to Lévy-Leboyer (1979, Table 6: 160-1), amongst a cohort of business leaders over the period 1912-79, 29 per cent of them graduated from *Polytechnique*.

A very specific *grandes écoles*, which has over time become the elitist of elite schools, is the ENA. This school is the main channel for recruiting the elite. In 1993, forty-seven per cent of the heads of the 200 largest French companies came from the civil service, and had attended ENA. In 1997, 55 per cent of the leaders of French CAC 40 firms came from the civil service.<sup>14</sup> It is also the entry to the political elite. Indeed, from 1980 onwards, 35 per cent of ministers had attended ENA.<sup>15</sup>

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<sup>12</sup> In all these schools, the number of entrants was, and is not large: the students admitted per year in the five biggest engineering schools were 320 in 1860, and 1176 over the period 1919-1932 (Lévy-Leboyer 1979: 152).

<sup>13</sup> Moreover, there is a hierarchy among GEs; the first rank schools are usually in Paris. There is a wide gap in prestige and also in job opportunities for graduates between GE of the first rank – Polytechnique, Centrale, HEC, and provincial commerce schools. There is also a hierarchy between *classes préparatoires* for the main GE. Actually four big high schools located on the Paris left bank supply the large majority of students who succeed at the exams for GE of the first rank. The fate of students who fail at the *concours* is to enter university, where they do well thanks to their intensive work in a *classe préparatoire*. Moreover, groups of engineers’ schools have a common exam, and candidates who do not well enough to be accepted to the top *grandes écoles* can enter the less prestigious ones.

<sup>14</sup> Baverez (1998). It includes the shares of the 40 most important firms in France, the French Dow-Jones.

<sup>15</sup> Presidents Giscard d’Estaing and Chirac, Prime Ministers Laurent Fabius, Michel Rocard, Alain Juppé and Lionel Jospin also went to ENA. But not President Nicolas Sarkozy!!

The main goal of ENA when it was created was to make changes in the recruitment of the French bureaucratic elites. Indeed, at the end of World War II, the government and, more precisely, General De Gaulle considered that there was a need to change the recruitment and training of civil servants. It was thought that since recruitment would be meritocratic, only the best would be selected. They would come from *all* classes, in contrast to the previous system for recruiting which was restrictive from a social point of view. So the goals of recruitment to ENA was social openness, diversification of intellectual origins, and developing a new elite that would be chosen for their talent rather than their link to the elite in power.

The selection for ENA is more drastic than the other *grandes écoles*: students have to take not only an entry exam but also a final exam, and the last one is decisive. The department in which an alumnus (*énarque*) begins his employment, from the most prestigious ministries to the least attractive, depends on his ranking in the final competitive exam at the end of the second and last year.

The entrance exam has two parts – a written exam, and the famous ‘Grand Oral de l’ENA’.<sup>16</sup> As for the written exam, it is largely a matter of broad general culture, though writing some papers on subjects like economics or international relations is required. At the oral exams, the ability to speak brilliantly about a subject one knows nothing about is crucial!

When comparing the recruitment of ENA with other *grandes écoles*, the ENA recruits approximately 100 students each year, while *Polytechnique* recruits almost 500. Although other *grandes écoles* have a specific technical curriculum, the ENA focuses more on recruiting than on training the elite.

As for the democratization of recruitment, after World War II the first few promotions were open to all classes and open to reform. At the time, the ENA was synonymous with innovation and new blood in the administration, and there was a feeling that only the best were chosen. Twenty years later, however, it was apparent that recruitment was sociologically and geographically narrow. The proportion of students in the ENA whose parents belonged to the elite (8 per cent of population) was 44 per cent in 1950, and rose to 63 per cent in 1980.<sup>17</sup> Thus, starting in the 1970s, an auto-recruitment of the ruling class has taken place, since 8 per cent of the population supplies 63 per cent of the ENA students, or the next generation of rulers.

Altogether, France has a system which is drastically selective, highly elitist and in which the selection becomes even more severe over time. Moreover, the number of *grandes écoles* students is very low compared to the total number of students in universities, and is stable while the number of students in universities has increased annually until recently.

In conclusion, from World War II onwards, the path to elite positions has required attendance at an exclusive school or university, in which recruitment is based on

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<sup>16</sup> See Jacquemelle (2005).

<sup>17</sup> See Gaillard (1995: 105-8). However, each graduating class includes a few persons from modest backgrounds, some of whom go on to brilliant careers.

meritocracy. When the idea of meritocracy made inroads after World War II, new blood entered Oxbridge in the UK, the *grandes écoles* and the ENA in France, and elite universities in the United States. Consequently, the first post-change elite was recruited in a diverse way by successful performance in exams. For the first generation after these changes in recruitment, elite schools not only enabled choosing the best, but also provided an opportunity for some who did not belong to the elite milieu to enter the best schools.

In succeeding generations, however, exams do not permit opportunity for all. In the second post-change generation, the children of the elite enter the elite schools in greater proportions due to a cultural bias. In other words, whenever a new system is introduced, the nascent class system is destroyed, yielding to a fluid, mobile society. However, from the second post-change generation on, the children of the elite again have an advantage. Meritocratic choice is therefore not equivalent to equal opportunity, and actually led to an auto-recruitment of elites, resulting in a stratification effect.

In the next section, we examine the reasons why elites are auto-recruited. And we show that recruitment to elite universities by meritocratic exams might be the cause of this stability of elites.

#### **4 The effects of meritocratic recruitment on social stratification**

In order to examine the effects of meritocratic exams on the intergenerational mobility of elites, I develop a model which incorporates elements specific to meritocratic recruitment of universities. These elements are mostly the tightness of recruitment and the type of exams.

I show that recruitment to a university via a meritocratic method based on entrance exams does not lead to enrollment from all classes of society according to distribution or ability, nor does it necessarily lead to the admission of the most talented. Recruitment by entrance exam still encompasses a bias in favour of elite candidates, because this type of exam requires a pattern of aptitude and thinking that favours candidates from an elite background.

Although meritocratic selection should result in the best being chosen to enter the top ranks of public service or business, the framework described herein allows us to show that elite schools and universities have a tendency to recruit in a non-diversified way, resulting in certain classes being over-represented. In other words, our model emphasizes that despite meritocratic recruitment, elite universities actually recruit from the ‘aristocracy’, and we get a resulting ‘stratification’ of recruitment which is much stronger due to globalization.

##### **4.1 The basic framework**

As we have shown in the section above, the *raison d’être* of elite schools is to recruit the most capable students. If information were perfect, the exact value of a given applicant would be known, and elite schools would then choose the best candidates. However, since the information available is imperfect, the best approximation is

performance in the entrance exams.<sup>18</sup> We will show that these meritocratic exams lead to class stratification.

Let us denote  $P_c$ , the population of students who have finished high school and would like to enter elite universities, and  $E_c$ , the population of students who belongs to the elite milieu, and wish to enter elite schools. We denote  $E_s$  as the population of students belonging to the elite milieu who entered the elite schools, and  $P_s$  the whole population of students who entered the elite schools. In consequence the ratio of potential students from elite milieu to the potential student population,  $P_{ep}$  is:

$$P_{ep} = E_c/P_c \quad (1)$$

and the ratio of students belonging to the elite milieu who entered the elite schools to the total student population, denoted  $P_{es}$  is:

$$P_{es} = E_s/P_s \quad (2)$$

Denoting as  $\beta$  the ratio of the percentage of the elite children in the elite school over the percentage of elite in the total population, then:

$$\beta = P_{es}/P_{ep} \quad (3)$$

$\beta$  is in fact the parameter which measures the amount of auto-recruitment and stratification in the economy. When  $\beta$  is 1, then the per cent of children from the elite milieu in these elite schools is equal to the percentage of the elite in the population, which means that there is no auto-recruitment and the system is totally democratic. When  $\beta$  is greater than 1, that is  $P_{es}$  is greater than  $P_{ep}$ , there is auto-recruitment; and the bigger  $\beta$ , the greater the stratification effect in this economy. We will now show, how meritocratic exams affect  $\beta$ .

We define  $I \in [0,1]$  as the minimum grade necessary to be accepted to the school. If the grade of student  $i$  is greater than  $I$  he is accepted to the elite school:

$$\alpha_i > I \quad (4)$$

The performance of a student on the test is based on two elements. The first is his ability; more able students get better grades at their exams. We assume that the ability  $a_i$  for all students is uniformly distributed on  $[0,1]$ , that is, whatever the social class, the ability is distributed uniformly.<sup>19</sup>

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<sup>18</sup> Moreover, tests also display a reliability problem, that is, that there is similarity in a given subject's exam scores on different runs of the exam. We discuss this problem below.

<sup>19</sup> As mentioned above, the bias is only due to cultural background. We are aware that some empirical results show that ability is not uniformly distributed (Herrnstein and Murray 1994), and some theoretical models explaining why effort, and therefore ability, would be different in the different social classes (see Durlauf 1999; Arrow et al. 2000). However, the assumption that ability is uniformly distributed is often adopted in models on mobility; see, for instance, Galor and Tsiddon (1997).

The second element takes into consideration that tests are not perfectly objective, but reflect a culture related to the milieu of the elite with which the examiners for a school are associated. Therefore, students with an equivalent ability, but who are born to the elite and raised in this milieu, will perform better on tests.

The grade of student  $i$  who is not part of the 'elite milieu' corresponds to his inherent ability, while the grade of a student from a family in the elite incorporates not only his ability, but also the cultural background from his family – the inside knowledge specific to the elite milieu, which we define as  $f$ .<sup>20</sup> Without loss of generality, we assume that the relation is linear, the grade the student receives is therefore:

$$\begin{aligned} \alpha_i &= a_i && \text{for student } i \text{ outside the elite system,} \\ a_i + f &&& \text{for student } i \text{ being raised in the milieu} \end{aligned} \quad (5)$$

Since for the whole population, the success is only due to ability, then the percentage of accepted students from the entire population denoted  $\gamma_p$  is 1-I:

$$\gamma_p = P_s / P_c = 1 - I = \lambda \quad (6)$$

where  $\lambda$  is defined as  $\lambda = 1 - I$ .  $\lambda$  is a factor that represents the tightness of enrolment. We will show that  $\lambda$  affects the size of the stratification effect.

For the students from the elites milieu,  $f$  affects the percentage of accepted students,  $\gamma_E$ , which is:

$$\gamma_E = E_s / E_c = 1 - I + f = \lambda + f \quad (7)$$

Recall that  $\beta$  is the ratio of the percentage of the elite children in the elite school over the percentage of elite in the total population, then:

$$\beta = P_{es} / P_{ep} = \gamma_E / \gamma_p \quad (8)$$

Therefore:

$$\beta = (1 - I + f) / (1 - I) = 1 + \frac{f}{\lambda} \quad (9)$$

Equation (9) shows that  $\beta$  is a function of  $f$  and  $\lambda$ . As explained earlier,  $\beta$  is the parameter which measures the amount of auto-recruitment and stratification in the economy; when  $\beta$  is greater than 1, we get a decrease in diversity of elites and an auto-

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<sup>20</sup> The problem of reliability of exams can be incorporated in the parameter  $f$ . Exams such as those in France are subject to reliability problems higher than the SAT, due to subjectivity problems. Moreover, students who are not 'great' but on this particular day felt well would be accepted, while some more brilliant were not, because it was not the subject in which they were good at, or it was not the right day. This problem is less acute in the US.

recruitment. This framework permits us to show that a very small cultural bias (small  $f$ ) will lead to a strong effect on class stratification, as underlined in the next proposition:

## 4.2 The results

### Proposition 1

A school for elites based on meritocracy leads to class stratification. A small cultural bias,  $f$ , brings about that the children born in the elite are represented in elite educational institution in much higher percentages than their ratio to the population: There is a magnification effect.

This proposition states that stratification is a consequence of the cultural background ( $f$ ) of students raised in the elite milieu. To give a sense of magnitude to our parameters: for  $f$  of 0.07, we get that  $\beta = 8$  (by assuming that  $I = 0.99$ , which is the case in most countries). An  $f$  of 0.07 means that the milieu gives an advantage of 7 per cent (which does not seem a large number). It seems very reasonable to assume that children raised in the elite get an advantage of around 10 per cent.

A stratification effect,  $\beta$ , of 8 means that the percentage of children from the elite milieu who are accepted in elite educational institutions is 8 times higher than the percentage of children from the total population. In other words, if the elite represents 8 per cent of the population ( $P_{ep}$ ), then the elite milieu will supply 64 per cent of the students in the elite schools ( $P_{es}$ ). This matches perfectly the facts found for France, since in part II we have shown that 8 per cent of the population supplies 63 per cent of the ENA students, which corresponds to a  $\beta$  of 8. So a small advantage for the elite milieu of 7 per cent leads to a major auto-recruitment effect as found for France.

No system can be perfect when there is imperfect information on the genuine talent of people. Recruitment by education and exams automatically advances those who are educated inside the system. Thus, with imperfect information, selection of students through tests leads to a bias, that is, for the same objective ability, students who are not part of the elite milieu will not be accepted, while a student from the milieu will be.

The main result of the model is that even a slight cultural bias can cause more than half of the students enrolled in elite universities to come from an elite background. This cultural bias, which can be included in the typology of environmental factors, has a magnification effect on class stratification.<sup>21</sup> Therefore the resulting student body is a mostly homogeneous group that is not as open as it should be to the non-elite public, despite the meritocratic selection method of the elite universities. In other words, we show that an elite education leads to a ‘non-circulation of elites’.

Could it be that globalization will decrease this auto-recruitment effect, since different countries have different culture, and therefore the cultural bias would decrease after globalization. In the next section, we examine the effect of globalization on stratification and economic growth.

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<sup>21</sup> In this paper, we do not include heredity (emphasized by Herrnstein and Murray 1994) as one of the factors leading to class stratification, but only environmental factors as cultural bias.

## 5 The effects of globalization on recruitment of elites

In the previous section, I showed that recruitment of elites through education in an elite university leads to social stratification and to thwarted social mobility. These were at the country-specific level, wherein each elite has been educated in their country's own elite universities.

Globalization generates and redeploys this stratification at the global level. One of the main factors in this process is elite universities becoming international. While after World War II, each country had its own elite universities, today, at the turn of the twentyfirst century, we are facing the creation of transnational elite universities.

In the past decade, we have seen the emergence of the ranking of all universities worldwide, which leads to a transition from elite national universities to top transnational universities. The two rankings that already exist are the Times Higher Education Supplement (THES) and Shanghai Jiao Tong University (SJTU). Table 1 shows the 50 top-ranked universities in the world.

Globalization leads not only to the creation of global elite universities, but to a clear path of uniformity among societies and cultures, for example, we all read the same books and see the same movies. Comparing Paris to London or to Prague, the cultural life has become similar. Of course the baguette is still French, and pizza is still Italian; Notre Dame is still in Paris and Ponte Vecchio is still in Italy; yet these are constructions of the past. The Bilbao Museum and the Pompidou Museum could be interchanged without a blink; culture today is transnational.

The past has left us a specific culture; the present proposes a unified one. There are therefore universities that transmit knowledge that is transnational. Whatever the country and nationality, the elite can be educated in a top international university in the United States, since there is no longer a specific and idiocratic behaviour, except for few minor norms.

So, the elites send their children to these top universities: The elites from Beijing to Calcutta; from Cairo to Tel Aviv, from Paris and Rome to Harvard, Stanford, or Princeton. There is now a unified, global elite.

In consequence of this interconnection of all elite, who are educated at the same institutions, on the one hand we get elites' interconnections throughout the world, and on the other hand we get the elite receiving uniform education. This section examines how these two phenomena affect the economy, focusing on the effects of a transnational, uniform elite on class stratification and economic growth.

There is already an entire literature that examines the effect of a unified elite on inequality. Some sociologists claim that a consensual elite might use its power for its own interests. For instance, Etzioni-Halevy (1997) claimed that a unified elite does not use its power to reduce inequality and promote the development of a more egalitarian society, due to common recruitment and common interests. In consequence, elite homogeneity might actually increase the gap between the elite and the masses.

A strong interconnection among elites also results in all sectors of the economy being ruled by a group that thinks in a monolithic way. Two channels connect a monolithic



group to economic growth. The first one underlines that a monolithic group leads to the stagnation of ideas and attitudes, which in turn may prevent the adoption of major technological breakthroughs (Bourdieu 1977). It may also be that belonging to an elite group has consequences for the behaviour of the chosen; it might perpetuate the role of their peers, place importance on hierarchy, and lead to conformist behaviour, rigidity, and archaism.

The second line of thought argues that the lack of competition in a monolithic, powerful group generates corruption, with harmful consequences for growth. Indeed, wealthy elites with enough political power to block changes will not accept adopting institutions that would enhance growth, since the latter might compromise their power (Acemoglu et al. 2001).

This paper focuses on the effect of uniform education on the stagnation of ideas and the prevention of the adoption of major technological breakthroughs. I show that uniform education for the elites has two opposing effects, yet at different periods of time. While networking is optimal at times of innovation, it slows down and impedes the adoption of revolutionary techniques, that is, inventions. Otherwise, a world with elite schools will more rapidly adopt new technologies and systems of production than would a world where the system of recruitment for key positions comes from differing types of education. On the other hand, it may be that elites will be less open to revolutions in thought and economy, and consequently, to inventions.

Regarding class stratification, there is no doubt that over time, top international universities will lead to tighter recruitment of transnational elites, as stressed in the next proposition.

### Proposition 2

The existence of international elite universities leads to a stronger effect of class stratification, and to a very narrow recruitment into the transnational elites.

#### *Proof*

This proposition is a direct consequence of Equation 9. Homogeneity and stratification is measured by  $\beta$ ; the greater  $\beta$ , the greater the stratification effect. When enrollment tightens – that is,  $I$  is greater – social stratification increases.

Globalization and the emergence of a small number of elite international universities leads to the number of students recruited to these 50 top elite universities to be very small. This means that  $I$  in our model increases.

This proposition means that the decline in social mobility resulting from the examination and selection process in elite universities will accelerate. The number of ‘happy few’ that will belong to the transnational elite will be small. They will have been recruited through the selection of the top elite transnational universities.

In consequence, a transnational oligarchy will be selected in a very thin way. They will be part of happy few in their own country, who will be admitted to these transnational universities, and will get a similar education. A transnational elite – uniform with regard to culture, education, and ethos – will thereby emerge.

## 6 Conclusion

This last century, globalization has not only affected the economic arena through an increase in international trade, and capital flows, but it has had a major impact on society. Globalization and the growing integration of markets has led to a homogenization of cultures around the world. We tend to wear the same brands, eat the same food, listen to the same music and see the same movies.

The purpose of this paper was to analyze the effects of globalization and the homogenization of culture on social mobility and the recruitment of elites. I have shown that globalization is leading to a main change in the recruitment of elites. Over the centuries, many changes took place in the way elites were recruited, and more specifically, from the twentieth century on, the ticket to set foot among the national elite was to enter a national elite university. Today, due to globalization, the elites are recruited through international elite universities, leading to homogenization of the elites.

This paper has shown that more than 40 per cent of the business and political elites of the developed countries have attended one of the top 50 universities in the world – the international elite universities. In consequence, we face today a scenario where the elite of the world become uniform. They obtain the same education, move in the same milieu, and imbibe the same culture. They use *the strategy of distinction*, as coined by P. Bourdieu, which permits them to enter the top elite universities, where they develop their own *habitus*.

In consequence, in the twentyfirst century, we face the formation of a transnational oligarchy with its own norms, ethos, and identity. As shown in this paper, it is not only harmful for social mobility, but is also not without negative effects on world economic growth.

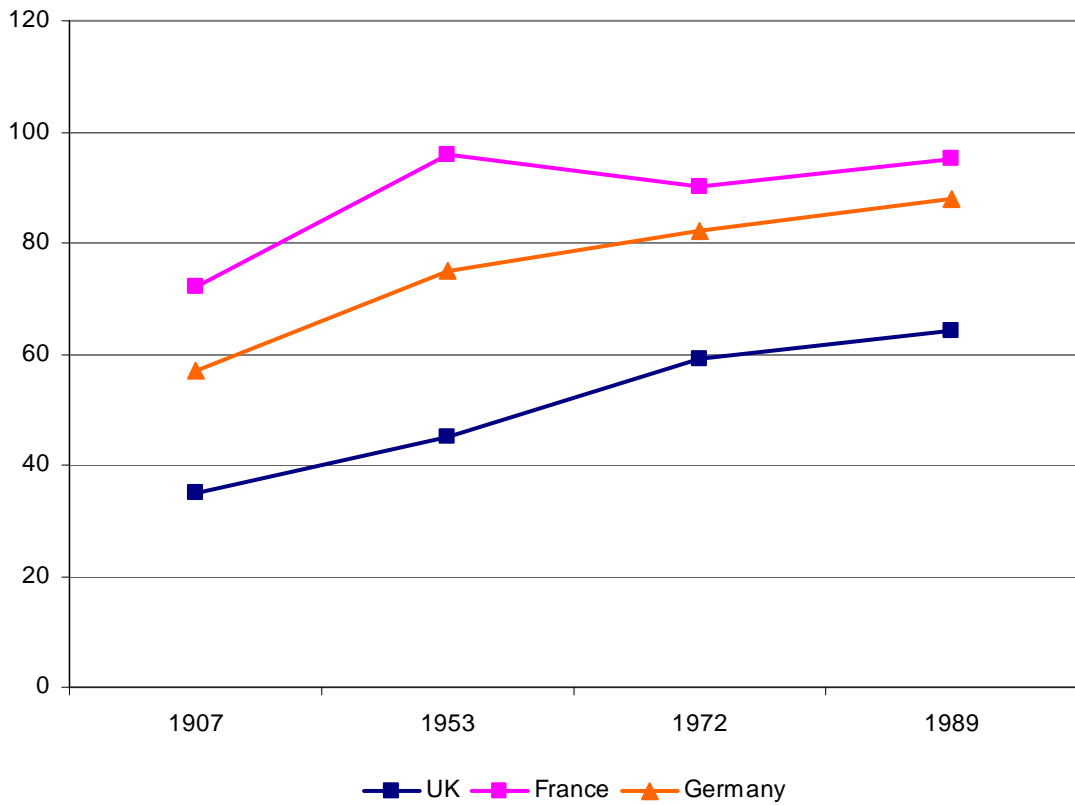
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Figure 1: University education of elites (per cent)



Source: Cassis (1997: 133).

Figure 2: Education of the political elite

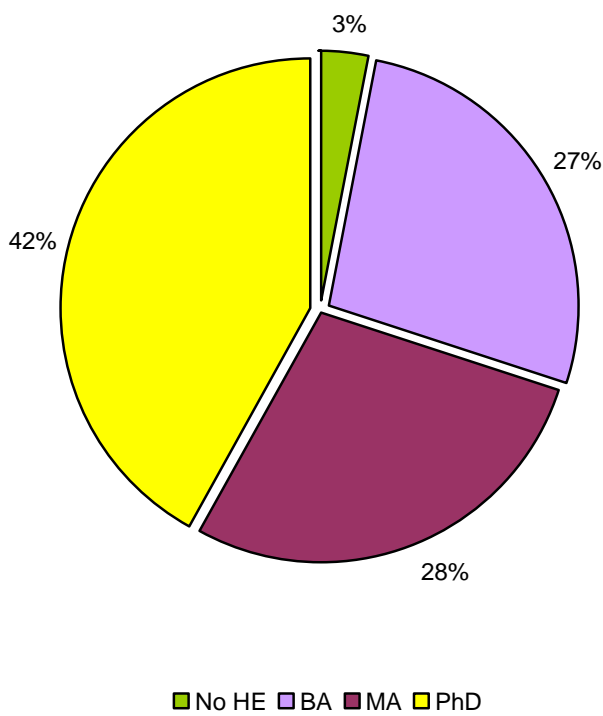
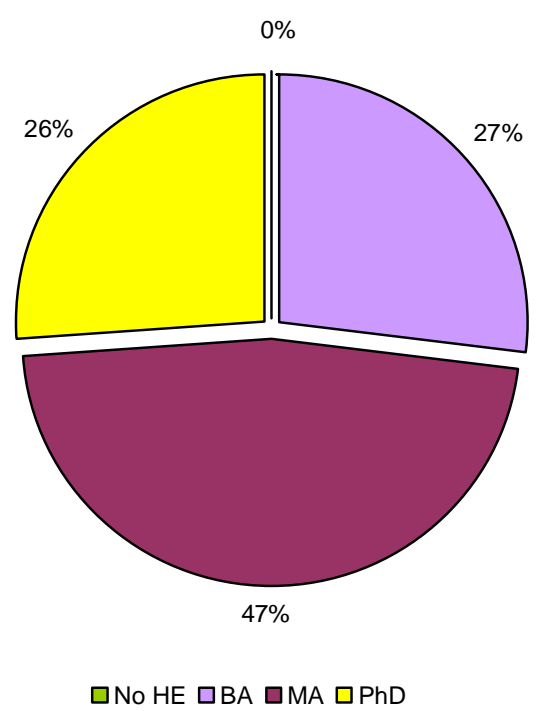


Figure 3: Education of the business elite



Source: Compiled by the Author.

Figure 4: Education of the political elite below the age of 55 yrs

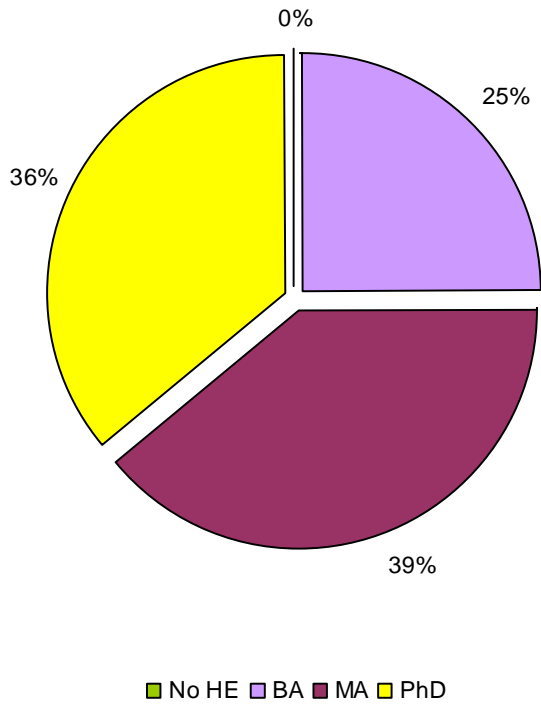
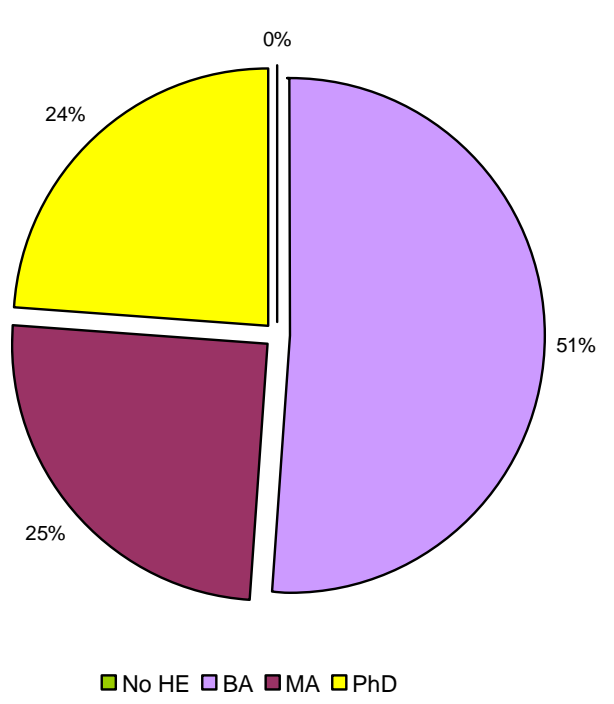
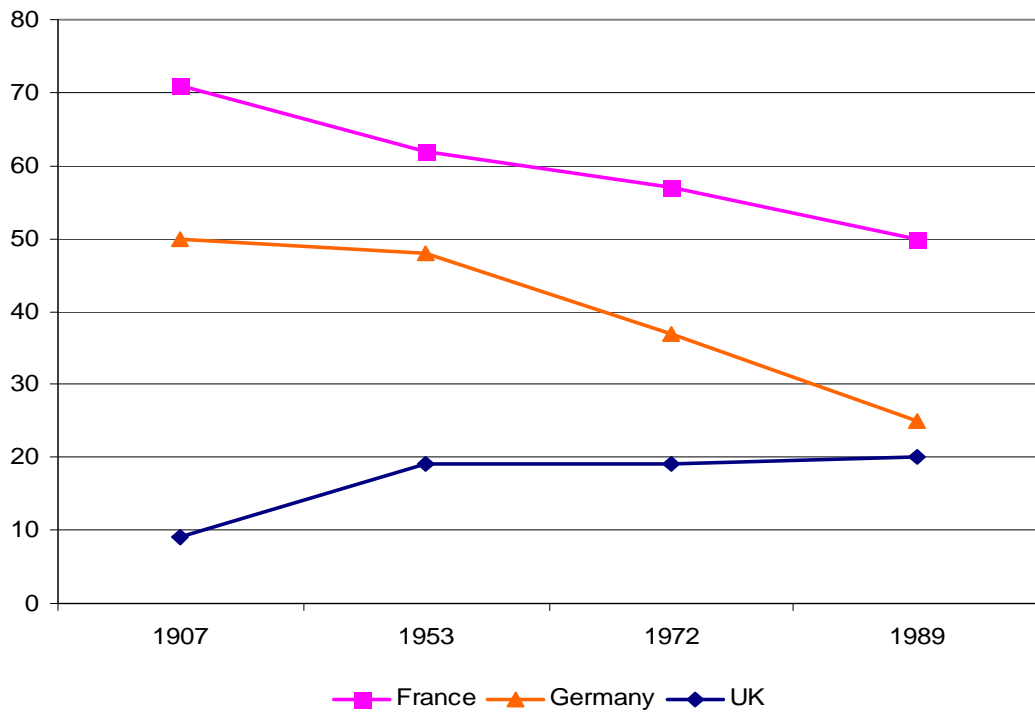


Figure 5: Education of the business elite below the age of 55 yrs



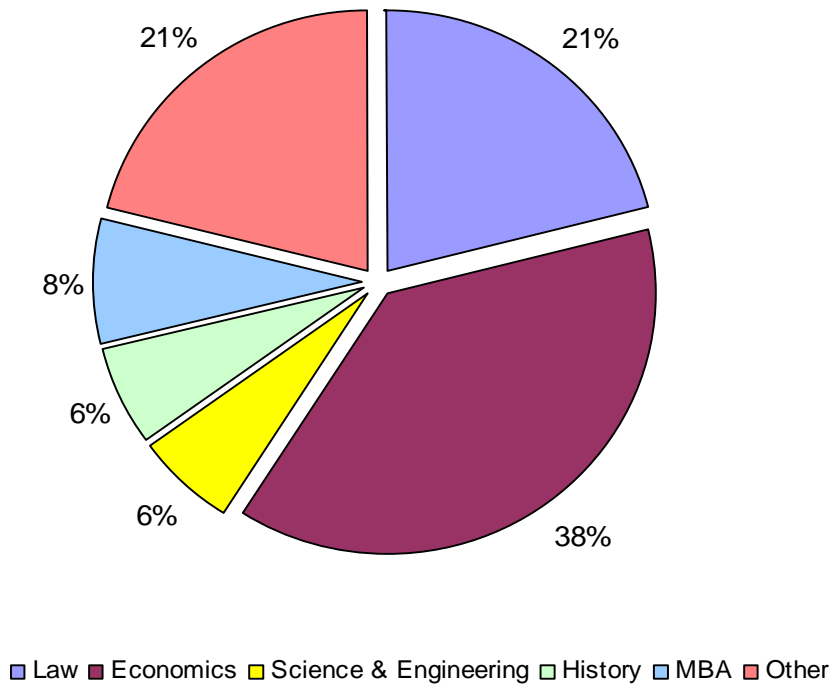
Source: Compiled by the Author.

Figure 6: Business elites trained in engineering (per cent)



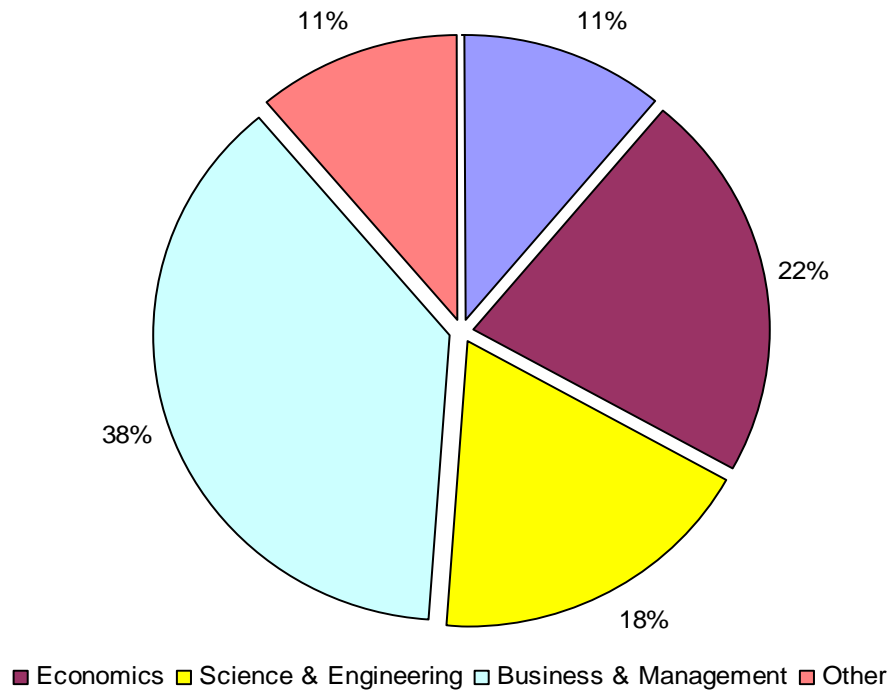
Source: Cassis (1997).

Figure 7: Training of the political elite



Source: Compiled by the Author.

Figure 8: Training of the business elite



Source: Compiled by the Author.

Figure 9: Recruitment of political elite

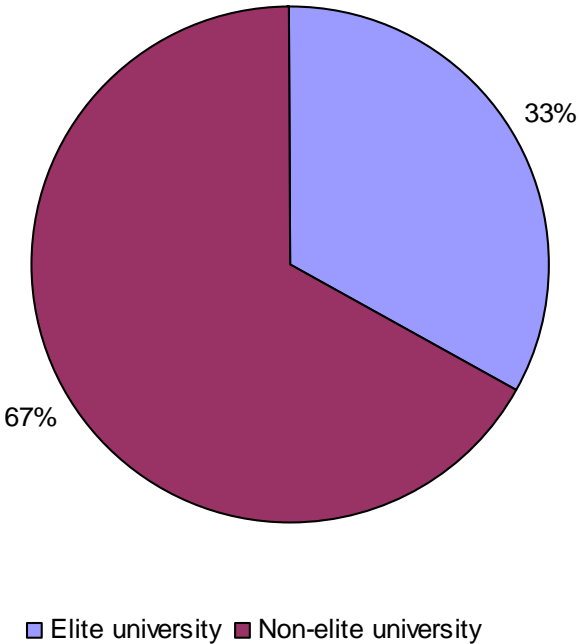


Figure 10: Figure of business elite

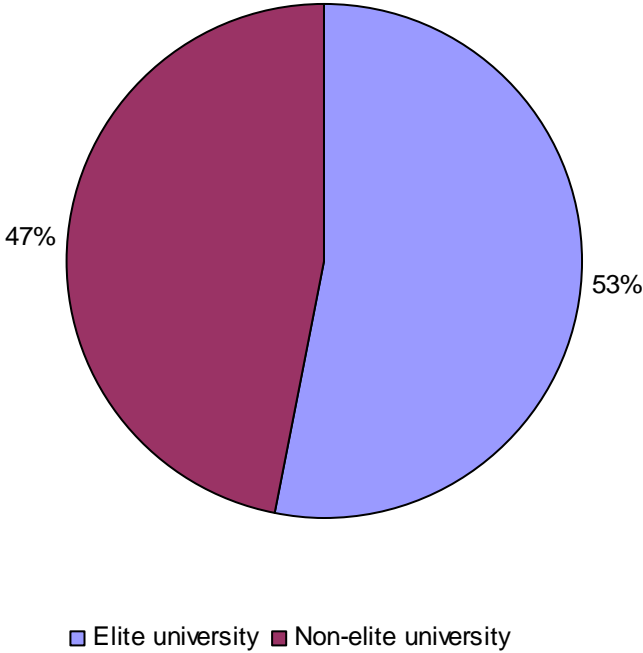


Figure 11: Recruitment of political elite in OECD countries

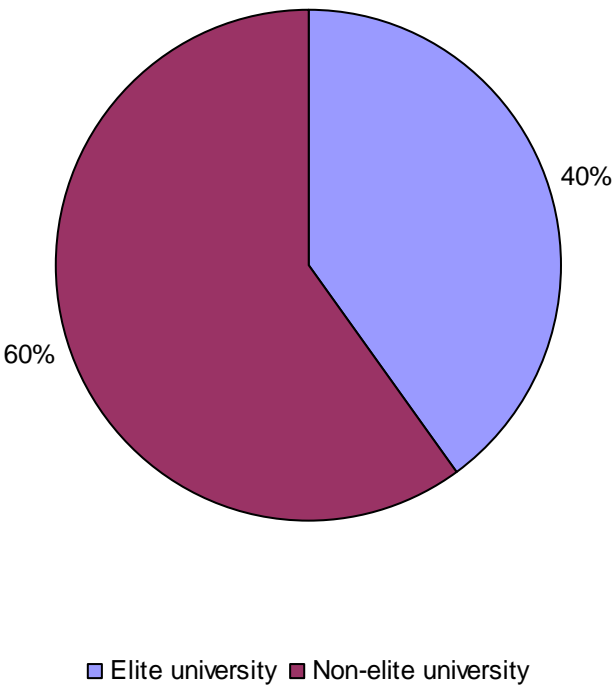
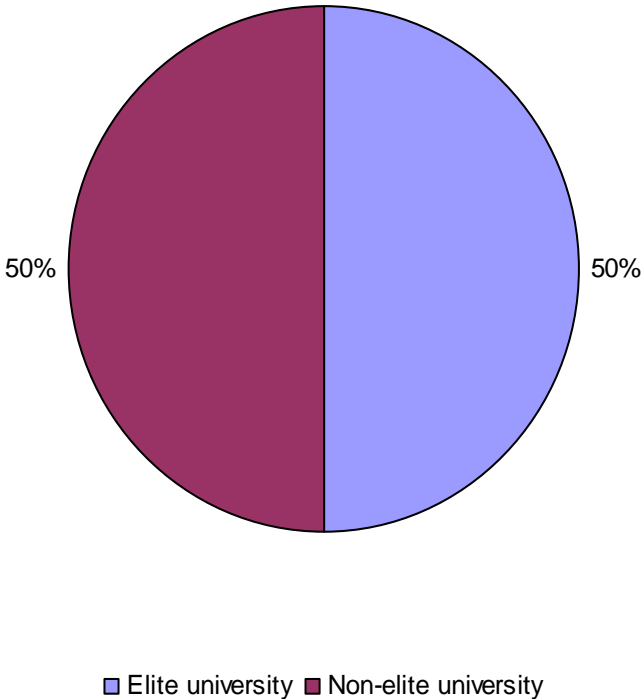


Figure 12: Recruitment of business elite in OECD countries



Source: Compiled by the Author.



Table 1: List of the top 50 universities in the world

Institution	World rank	Country	Institution	World rank	Country
Harvard University	1	USA	University of Illinois – Urbana Champaign	26	USA
Stanford University	2	USA	Imperial College of London	27	UK
University of California – Berkeley	3	USA	University of Minnesota – Twin Cities	28	USA
University of Cambridge	4	UK	Washington University – St. Louis	29	USA
Massachusetts Institute of Technology	5	USA	Northwestern University	30	USA
California Institute of Technology	6	USA	New York University	31	USA
Columbia University	7	USA	Rockefeller University	32	USA
Princeton University	8	USA	Duke University	33	USA
University of Chicago	9	USA	University of Colorado – Boulder	34	USA
University of Oxford	10	UK	University of British Columbia	35	Canada
Yale University	11	USA	University of California – Santa Barbara	36	USA
Cornell University	12	USA	University of Maryland – College Park	37	USA
University of California – Los Angeles	13	USA	University of North Carolina – Chapel Hill	38	USA
University of California – San Diego	14	USA	University of Texas – Austin	39	USA
University of Pennsylvania	15	USA	University of Manchester	40	UK
University of Washington – Seattle	16	USA	University of Texas Southwestern Medical Center	41	USA
University of Wisconsin – Madison	17	USA	Pennsylvania State University – University Park	42	USA
University of California – San Francisco	18	USA	Vanderbilt University	43	USA
Tokyo University	19	Japan	University of Paris 06	44	France
Johns Hopkins University	20	USA	University of Copenhagen	45	Denmark
University of Michigan – Ann Arbor	21	USA	University of California – Irvine	46	USA
University College London	22	UK	University of Utrecht	47	Netherlands
Kyoto University	23	Japan	University of California – Davis	48	USA
University of Toronto	24	Canada	University of Paris 11	49	France
Swiss Federal Institute of Technology – Zurich	25	Switzerland	University of Southern California	50	USA

Source: SJTU (2008).