

A School of Statistics Inside a Government Statistical Office : ENSAE, A French Example

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1. Introduction

The ENSAE (Ecole Nationale de la Statistique et de l'Administration Economique) was created in the 1940s as a part of the French Institute of Statistics (INSEE: Institut National de la Statistique et des Etudes Economiques) in order to train statisticians both for the public and private sectors.

After outlining the characteristics of ENSAE, the paper shows how the school has developed with the evolution of the "demand" for statisticians. Some advantages and disadvantages, resulting from the particular situation of ENSAE inside INSEE, are highlighted.

2. An historical point of view

The first school to train statisticians for the French public administration was created on the 23rd October 1942 and named "l'Ecole d'Application du Service National des Statistiques". Previously, official statisticians, with scientific and economic knowledge guaranteed by a difficult entrance examination, acquired professional competence in the course of their career by everyday experience and contacts with seniors.

The creation of INSEE in 1946 resulted in the "Service National des Statistiques" becoming the INSEE Training School (Ecole d'Application de l'INSEE). Its main function was then to turn out senior executives, specialists in economics and statistics, to work in the French government services: the Administrateurs and Attaches de l'INSEE. In addition to training two official statisticians of France, the school has, from the beginning, attracted two other categories of students wanting to take its

courses. First, some foreign officials were sent to France by their country to study in order to become the managerial staff of new or developing statistical offices.

Secondly, increasing numbers of "non-official students" had become interested. The important development of statistical and economic departments in private companies has created numerous career possibilities for young graduates in statistics and economics. The "Training School" was then becoming an educational establishment both for the private and public sectors.

In 1960 and 1971, two decrees took this evolution into account and changed the aim and organisation of the studies of the school as well as changing its name to ENSAE. Nowadays, ENSAE is a department of INSEE, placed under the responsibility of the Ministry of Economy, and has become, by its recruitment and its conception of teaching, a scientific Grande Ecole. (The French system of higher education is based on the university but also on schools called "Grandes Ecoles"; to enter these schools, one has to pass a highly selective entrance examination after a preparation in special classes called "Classes Préparatoires".)

In its statutes, ENSAE - and so INSEE - is commissioned to train statisticians for the private and public sectors, but also to "help to the diffusion of knowledge and techniques in the fields of statistical methodology, economic analysis and forecasting, econometrics, statistical processing, demography and quantitative sociology".

Since 1963, a school created by the European Economic Community has been associated closely with ENSAE, to train statisticians for the French-speaking developing countries: the CESD (Centre Européen de formation des statisticiens économistes des pays en voie de développement).

3. The organisation of studies within ENSAE

ENSAE has to turn out specialists in economics and statistics. In fact, ENSAE delivers two kinds of training that can be considered as separate schools.

- (i) The ENSAE-SEA, oriented towards economic analysis and econometrics, offers a three-year course and trains the senior staff of INSEE (the Administrateurs de l'INSEE) and of statistical departments of private companies (the Statisticiens-Economistes).
- (ii) The ENSAE-CGSA, oriented towards statistical processing and computer science, offers a two-year training course for staff in the public sector (Attachés de l'INSEE) and the private sector (Cadres de Gestion Statistique).

In both ENSAE-SEA and ENSAE-CGSA, the students come from very different origins. Because of these different origins, the first part of the course is devoted to preparatory training: graduates in economics are trained in mathematics and graduates in mathematics are trained in economics; both of them take lectures in probability. The second part of the course is devoted to fundamental training: statistics, applied statistics, econometrics, micro- and macro-economics etc. Finally, students can specialise during the third part of the training: a great number of optional courses are proposed. Figures 1 and 2 outline the curricula of ENSAE-SEA and ENSAE-CGSA.

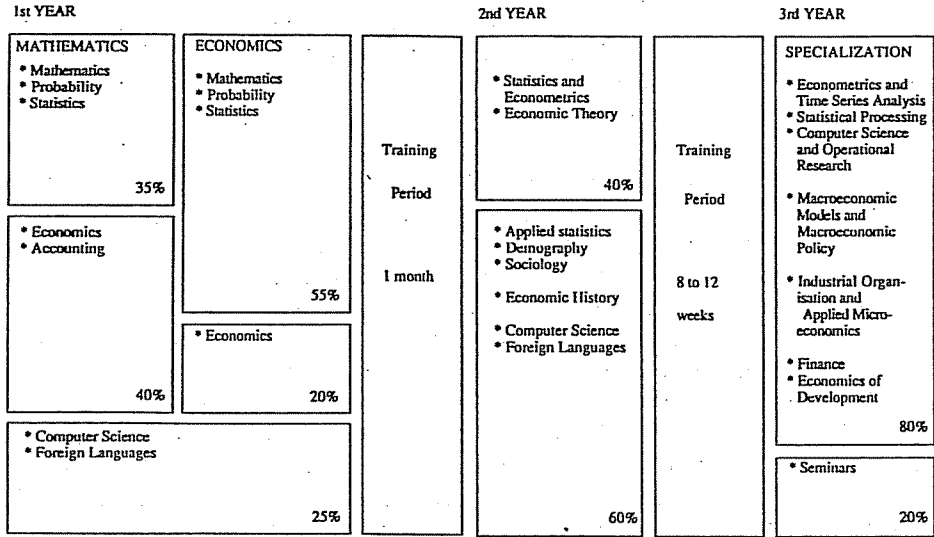


FIGURE 1
The cursus of ENSAE-SEA

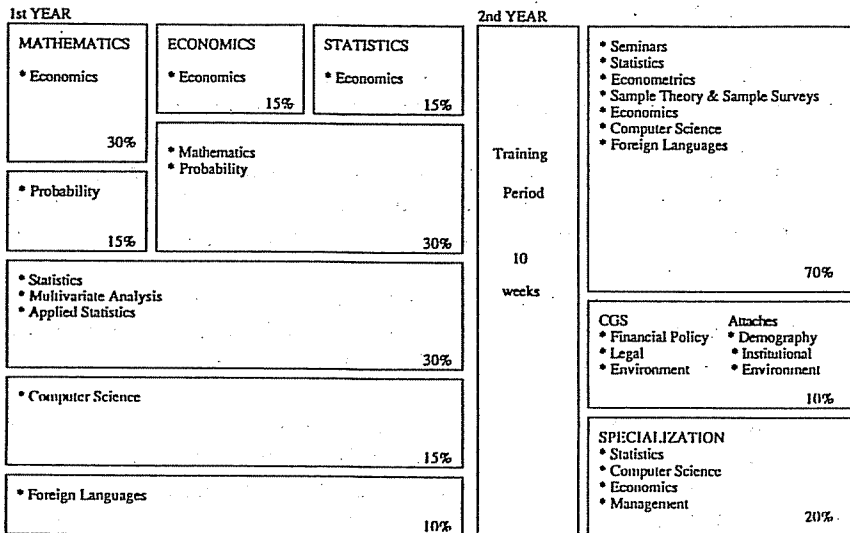


FIGURE 2
The cursus of ENSAE-CGSA

Some decisions have been taken in order to differentiate the two kinds of training more clearly and give a better value to ENSAE-CGSA. In particular, ENSAE-SEA and ENSAE-CGSA will have their own buildings. Different names and a three-year course for ENSAE-CGSA have been suggested and are still subject to discussion.

The distribution between "official" and "non-official" students has changed a lot since the 50s. The percentage of official students has decreased from more than 90% in 1950 to 25% in 1990 (Table 1) but in fact, three periods can be distinguished: before 1955, the school trained statisticians essentially for the public statistical system; from 1955 to 1985 the distribution between official and non-official students was almost identical; and since 1985, the part of non-official students has increased considerably. In fact, the situation depends largely on the curriculum. ENSAE-SEA began its evolution earlier and "non-official" students have been preponderant since 1965. It is only since 1985 that this occurred for ENSAE-CGSA.

TABLE 1
Evolution of ENSAE's graduates since 1950

Year	ENSAE-SEA			ENSAE-CGSA			ENSAE		
	Offic.	Non-Offic.	Total	Offic.	Non-Offic.	Total	Offic.	Non-Offic.	Total
1950 fq	5	1	6	6	0	6	11	1	12
%	83.3	16.7	100.0	100.0	0.0	100.0	91.7	8.3	100.0
1960 fq	9	8	17	12	16	28	21	24	45
%	52.9	47.1	100.0	42.9	57.1	100.0	46.7	53.3	100.0
1970 fq	19	40	59	36	9	45	55	49	104
%	32.2	67.8	100.0	80.0	20.0	100.0	52.9	47.1	100.0
1980 fq	21	64	85	70	17	87	91	81	172
%	24.7	75.3	100.0	80.5	19.5	100.0	52.9	47.1	100.0
1985 fq	18	53	71	67	26	93	85	79	164
%	25.4	74.6	100.0	72.0	28.0	100.0	51.8	48.2	100.0
1990 fq	15	78	93	26	39	65	41	117	158
%	16.1	83.9	100.0	40.0	60.0	100.0	25.9	74.1	100.0

Of course, INSEE wished this evolution and we will now consider why this situation benefits INSEE.

4. INSEE benefits from ENSAE ...

These advantages consist of three main points:

(i) ENSAE contributes to the unity of the French statistical system.

(a) The French public statistical system is rather decentralised - for instance, almost every ministry has its own statistical office - and INSEE has been

commissioned to coordinate this system. That's why you will find an official statistician from INSEE in each office.

ENSAE is an important element in this coordination in the sense that the training is the same for every statistician and so all statistical offices "speak the same language". Moreover, the actions of INSEE are easier to implement.

(b) In the same way, the training of "non-official" statisticians can have the same desirable effect on the French statistical system.

(ii) As the Training School of INSEE, ENSAE turns out official statisticians according to the precise needs - qualitative as well as quantitative - of the Institute.

Although the needs are different, private companies want statisticians with the same basic training and ENSAE contributes to the spreading of the "savoir-faire" of INSEE in the private sector.

(iii) ENSAE can be considered as a meeting place for the private and public statistical systems. Future officials can take lessons on subjects closely bound to the private sector (finance, accountancy, industrial organisation, ...). Those exchanges are essential for two main reasons. First, they give INSEE a good knowledge of the private sector so as to observe and study it. Second, new statistical techniques are developed for the particular needs of private sectors (pharmacy, finance, ...) so it is important that INSEE "keeps contact".

5. And ENSAE benefits from INSEE!

(i) The most obvious benefit ENSAE gets from being part of INSEE is that it can easily find a lot of very competent teachers inside the office, for applied topics and seminars, as well as fundamental topics.

Nevertheless, ENSAE has developed exchanges of teachers with the universities, especially for basic teaching (mathematics, probability, economics) and chooses teachers among the professionals from the private sector for topics with which INSEE is not familiar.

Table 2 shows the evolution of the distribution of teachers in ENSAE-CGSA between 1980 and 1990. We can observe a slight decrease on the part of the teachers coming from INSEE, and an increase on the part of the universities and of the private sector: more and more seminars are dealing with subjects proposed by teachers working in private companies.

(ii) Universities tend to develop more and more statistical training and the competition is strong. Inside INSEE, ENSAE benefits from the reputation and the know-how of the Institute, know-how that the universities do not have. That might help a lot in this challenge.

TABLE 2
Evolution of ENSAE-CGSA's teachers since 1980

Status	Year			
	1980		1990	
	Frequency	%	Frequency	%
Officials INSEE	45	47.9	78	38.8
University	11	11.7	35	17.4
Other Officials	21	22.4	28	13.9
Professionals	17	18.0	60	29.9
Total	94	100.0	201	100.0

In this presentation only the advantages of such a situation have been pointed out. Of course, disadvantages might exist.

If one considered ENSAE only as the Training School of INSEE, one would probably prefer a more professional and less expensive teaching. Obviously, it is a bad and restrictive interpretation of the missions of ENSAE where students must get general and practical knowledge simultaneously.