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ABSTRACT

The data system and its branches, computerized in 1970, provide information from the following: student records file, accountancy file, an experimental-stage personnel file, and a planning-stage facilities file. The files not only cope with the university's daily management duties but also supply the French Ministry with statistics. Two types of data are collected in the student records file: personal and sociological data and academic data. It is used primarily for day-to-day academic management. The accountancy file is primarily a management tool, administering 35 budgets representing teaching and research units and joint university and inter-university departments by recording the revenue and expenditure of over 700 teaching, research and miscellaneous departments. Problems associated with the data system in general are noted along with its overall effectiveness in meeting the original objective of helping to analyze the teaching system, evaluate costs, and ensure proper decision making. (LBH)

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**PROGRAMME ON INSTITUTIONAL  
MANAGEMENT IN HIGHER EDUCATION**

**PROGRAMME SUR LA GESTION  
DES ÉTABLISSEMENTS D'ENSEIGNEMENT SUPÉRIEUR**

**INTRODUCTION OF A DATA SYSTEM  
AT THE UNIVERSITÉ PAUL SABATIER,  
TOULOUSE (FRANCE)**

J.P. PRINEAU

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# INTRODUCTION OF A DATA SYSTEM AT THE UNIVERSITE

PAUL SABATIER, TOULOUSE (FRANCE)

J.P. PRINEAU - Secretary-General

## 1. A FEW DETAILS ABOUT THE UNIVERSITE PAUL SABATIER

Founded in August 1970, the Université Paul Sabatier which consists of a Faculty of Science, a Joint Faculty of Medicine and Pharmacy and a University Institute of Technology also administers the Pic du Midi Observatory.

It has more than 19,000 students, employs a staff of about 2,500 (teachers, research workers, technicians and administrative personnel) and its premises cover an area of 185,000 square metres. Its annual budget for teaching and research is over Frs.40 million and would even exceed Frs.120 million if most of its personnel were not directly remunerated by the state.

The size of its budget makes the Université Paul Sabatier the leading French provincial university.

## 2. THE DATA SYSTEM AND ITS BRANCHES

It was very soon realised that the management of a research and teaching unit of this size required a data system.

This is now being introduced, particularly with the aid of the experience acquired at the Faculty of Science.

In view of the large student population at this Faculty and the size of its budget the Faculty authorities decided as far back as 1965 to computerise its student and accountancy files not only to cope with its daily management duties but also to be able to supply the Ministry with statistics.

As soon as the Université Paul Sabatier was founded in August 1970 it was decided to extend these files to the whole of the university and to consider the possibility of compiling other files.

The data system now covers the following branches:

- a student records file
  - an accountancy file
- These two files are now operational;
- a personnel file: at the experimental stage
  - a facilities file: at the planning stage.

## 2.1 Student records file

This file was compiled at the request of the Ministry of National Education and was designed in the first instance to provide the Ministry with statistics, particularly necessary in the planning of higher education in France.

However, this file very soon began to be used at the Toulouse Faculty of Science for the day-to-day management of student records. It was originally an annual file but as one year was added to another it rapidly became a record of each student's academic performance.

### Composition of the file

Each student is registered under the 13-digit number which is used by the Social Security system and is likely to become the citizen's national registration number in France.

Two types of data are collected for each student:

- personal and sociological data
  - date and place of birth - sex - address - geographical origin - socio-professional category of parents - type of accommodation - occupation (where applicable);
- academic data
  - diplomas with which the student entered the university, showing the types, grade, date and place at which they were awarded;
  - institutions attended before the student entered the university;
  - courses (certificates, year of study, credit units, diplomas) for which the student registers each year and the results obtained at the end of the year.

### Utilisation of the file

The file is primarily used for day-to-day academic management:

- list of students registered for each subject used for the organisation of teaching (courses - exercises - practical work);
- material organisation of examinations (timetables, lists of examinees, examination reports);
- registration of results, automatic printout of successful candidates and issue of diplomas;

- automated management of university scholarships (awarded in consideration of students' resources and academic results - printout of accounting and payment documents).

The file is also used to compile statistics of the university population and annual results achieved by the teaching system.

For example it has been utilised for a survey of the behaviour in course of study of each generation of science students since October 1966 and has made it possible to calculate the output of the educational system per generation.

It is of course used, in conjunction with other files, for the current analysis of costs per student and for other surveys.

As an annex to the student file we are planning to set up a file of courses in which the timetables of each course and the main features of its academic organisation will be registered every year.

## 2.2 The accountancy file

This file is primarily a management tool.

It administers some 35 budgets representing teaching and research units and joint university and inter-university departments by recording the revenue and expenditure of over 700 teaching, research and miscellaneous departments. Each item of expenditure and revenue has a specific code number.

This file makes it possible to issue all the documents involved in expenditure commitments, disbursements, general accounting and management and financial accounts.

The file enables the holder of an account to receive a statement on his financial situation each month. (Towards the end of the financial year, this statement may be issued every week). In this way a watch is kept on the spending of the appropriations allocated to each department. A system of winking lights warns the administrators if they are in danger of exceeding the appropriations allotted to them.

As from 1st January, 1974 the administration of the university assets and an automatic inventory of the stocks acquired by each department will be computerised.

As each item of expenditure is recorded in each department and for each course under a very diversified registration code it is possible to carry out analytical accounting studies and to use the file in conjunction with the student records file in order to work out the detailed cost per student.

2.3 Personnel file

In French universities most of the staff (teachers - research workers - technicians - service and administrative personnel) is not paid from the university budget but directly from the national budget.

Similarly, the career records of these various staffs are not kept by the university but, in certain cases, by the Ministry of Education at national level and by the Recteur d'Académie who is the Ministry's representative at regional level.

It was therefore not necessary to compile a personnel file at university level for career purposes. However, it was considered worthwhile to maintain a file of this kind which although not designed for this administrative purpose can facilitate it and may be used to record the service of these various types of staff.

The file which was set up for experimental purposes records the personal data, administrative situation, diplomas, appointment held and service performed by all members of the university staff.

It can be updated at all times to record developments in the individual's personal status and administrative situation and is updated annually to show changes of appointment and service.

Each member of the staff is identified by his social security number and this gives access to the salary accounting file of the regional unit handling remunerations, so that personnel expenditure can be more effectively integrated into the student cost survey. The social security number also facilitates consultation with the national personnel administration file which the Ministry of Education is compiling.

In its present state our experimental file has made it possible to carry out surveys on student/teacher ratios and has been useful not only in calculating the optimum number of university personnel but also in reflecting new requirements.

This activity is still in its early stages and will be more fully investigated later.

2.4 Facilities file

The Université Paul Sabatier has an area of 185,000 square metres of teaching and research facilities furnished with considerable technical installations owing to its scientific and medical orientation.



The upkeep and cleaning of the premises and the maintenance of the installations are a heavy item in terms of staff and financial expenditure. The management of these operations necessitates multi-annual agreements with contractors. The need was therefore felt to compile a facilities file covering all technical characteristics i.e. floor space, total area for painting and glazing, types of flooring, fluid installations, lighting, heating, specific plants, etc.

In connection with cost analysis there are plans for recording all data regarding the use of these facilities i.e., general for research but very detailed for teaching. The objective is to charge all expenditure in respect of facilities to the specific activities concerned in order to achieve greater precision than with the use of cost allocation keys which are bound to be very general. The accommodation file is also designed to optimise the use of premises and ensure that they are more effectively allotted to the various departments. It should facilitate future re-allocation, a difficult but essential procedure, arising from fluctuations in the size of the student body or in research teams in the various disciplines.

### 3. THE VALUE OF THE PRESENT SYSTEM AND ITS PROSPECTS

The files which are described above were or will be compiled in the light of the data processing facilities which the University already possesses and the level of experience of the administrative staff.

The main defect of the present system is that it is not integrated, which slows down and complicates surveys where several files have to be consulted. This situation is due to the inadequate performances of the data-processing equipment previously used.

The current installation of a third-generation computer will ensure integration by setting up a basic core of data on which research is due to begin in the next few weeks.

However, now that the overall field of activities has been demarcated their total cost will be recorded and centralised in the very near future. This was the essential objective of the promoters of the system who hope to supply the University authorities with all the data they require to analyse the teaching system, evaluate costs, engage in medium- and long-term planning and ensure optimum use of existing facilities through the introduction of the P.P.B.S.

The introduction of this system has encountered difficulties which are traditional in this kind of operation, i.e. psychological resistance to the centralisation of detailed information, the need to prepare and train administrative personnel in the use of data processing methods and the lack of adequate facilities.