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**COMPUTER SERVICES IN FRANCE**

**RESULTS FOR 1989 PRESENTED WITHIN THE FRAMEWORK  
OF THE STANDARD SURVEY OF STATISTICS CANADA**

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## **COMPUTER SERVICES IN FRANCE**

### **RESULTS FOR 1989 PRESENTED WITHIN THE FRAMEWORK OF THE STANDARD SURVEY OF STATISTICS CANADA**

A standard questionnaire on computer services was presented by Statistics Canada to the fifth meeting of the Voorburg Group (Paris, October 1990)[1].

In the present paper, the results of the French survey on computer service industry (annual survey since 1982) are presented within the framework proposed by Statistics Canada. These results refer to year 1989. The survey was launched in March 1990, that is before the Canadian project was known; the questionnaire, created in 1982, could not thus take any accounts of the project. However, the French survey and the Canadian proposal are remarkably close to one another, at least as to modules 1 to 6, which constitute the hard core of the questionnaire. But it is also unavoidable that small divergences exist at the level of product classification.

The ongoing French survey, launched in March 1991 with reference to year 1990, was modified on some points (in particular as to product classification) in order to come closer to the Canadian proposal.

#### **THE SCOPE OF THE FRENCH SURVEY**

The results which are presented here refer to legal units (enterprises) the principal activities of which are computer services or custom made computer operations. Units the main activity of which are data base management services are excluded and considered (provisionnaly) to operate within the framework of telecommunication activities.

About 5,000 enterprises received a questionnaire: all enterprises with 10 or more wage earners were interrogated, a sample survey was carried out for smaller enterprises.

Globally, it is observed that 16,800 enterprises operate in the activities covered, and that they employ 143,000 wage earners; they have invested 4,300 millions francs (over 700 millions dollars) during the year 1989; their receipts amounted to 84 billions francs (over 14 billions dollars), their value added was 43 billions francs (over 7 billions dollars) and their operating surplus was 8,3 billions francs (around 1,4 billions dollars).

It should be noted that the "annual survey on enterprises in the market service sectors" is not limited to computer services but covers all market services except health and recreation services; approximately 100,000 enterprises are interrogated each year.

Last indication, the survey questionnaires are of two types, one general questionnaire sent out to enterprises with at least 20 wage earners, one simplified questionnaire for enterprises with less than 20 wage earners. For the latter enterprises, all elements for the calculation of the value added are available, but not its constituent parts, in particular "social benefits", "non commodity indirect taxes", "amortizations", ...[2]

## REMARKS ABOUT THE INTERPRETATION OF MODULES 1 TO 10

### MODULE 1 : REVENUES FROM THE SALE OF GOODS AND SERVICES

The classification used in the French survey is an *ad-hoc* classification articulated with the official classification of activities and products of 1973 (NAP73 = *nomenclature des activités et produits de 1973*). One should therefore not be astonished that there are divergences. For the survey launched in 1991, the classification has been further refined in order to take account of the proposals of the French "Commission on service accounts"[3] and of the synthesis made during the fifth meeting of the Voorburg Group between the proposals of Canada[1], France and Sweden[4].

#### Section 1 : Revenues from the provisions of computer services

##### A - Systems software products (of own design)

###### a) Systems and user tools software

This item is set to "zero" since it is a production by computer manufacturers, which are out of the processing scope.

###### b) Application software

No comment; strictly in conformity with the standard survey.

##### B - Professionnal computer services

###### a) Consultancy services related to the installation of hardware

There is an ambiguity already referred to in its paper by Statistics Canada.

There are two categories of services covered by "system engineering services" (besides pure trade service):

- the custom made conception (technical advice) of a computer set according to conditions in a contract, accompanied or not by a "turnkey system vendor". If there is one, the service provider is responsible, *vis-à-vis* the customer, of the application of the rules and requirements in the contract. In the survey, a separation is made between "conception" (which amounts in 1989 to 5,526 millions francs, cf. item Ba) and "materials and installation" purchased by the turnkey system vendor (their amount in 1989 is 6,423 millions francs, part of item H, "hardware sales"). It is always considered, whatever the ratio of sales to studies might be, that it is a computer service;

- the "system integrators" or "value added resellers"; if a part of advice is included in their value added, they are classified either as service providers or as traders, according to the relative "weight" of the two activities. But it may be considered as "normal" for a trader to provide minimal advices to customers especially for wholesale dealers who sell the same product to

many patrons. Indeed, in the survey, it is observed, in item H, that there are 1,402 millions francs of wholesale sales of main frames, equipments and micro-computers, and 395 millions francs of sales of documents and computer supplies.

**b) *Systems and technical consulting services***

No comment; in conformity with the standard survey.

**c) *Custom software development services***

No comment besides the fact that this item includes the following one.

**d) *Systems analysis and programming services***

This item does not exist in the French survey. It does not seem to be relevant.

**e) *Computer facilities management services***

In conformity; in the ongoing survey, a separation is made between "Computer facilities management services" and "Computer operations management services" (cf. [3]).

**f) *Systems maintenance services***

This item was not included in the previous surveys; it is now included in the ongoing survey.

**g) *Other professional computer services***

These computer services are not studied in detail in the responses.

**C - Computer processing services**

**a) *Data processing and tabulation services***

In conformity; one distinguished between:

- "provision of computer material and network"  
3,937 millions francs

- "custom made computer services"  
14,970 millions

**b) *Data entry services***

No comment; in conformity with the standard survey.

*c) Other computer processing services*

As for item Bg, the products are not further detailed.

**D - Data base services**

This refers to the management of data banks; the corresponding amount is small since it is only a secondary product (enterprises the principal activity of which are data base management services are out of the scope of the processing).

**E - Computer repairs and maintenance services**

In conformity; the corresponding amount may seem to be small but hardware maintenance is mainly provided by computer manufacturers who are out of the scope of this processing.

**F - Other computer services**

Badly specified products.

**Section 2 : Revenues from the sale of computer related goods and services.**

**G - Packaged software (resold)**

The French item is wider since it includes retail re-sales of "application softwares and personal computers".

**H - Hardware sales (purchases for resale)**

As indicated earlier, this item includes:

- purchase of materials and installation in the case of "system engineering services";
- wholesale sales of main frames, equipments and micro-computers;
- sales of documents and computer supplies.

**J - Computer hardware leasing and rental services**

No comment; in conformity with the standard survey.

Through the same survey, one knows the total rent for computers and peripherals by equipment renting enterprises (6,400 millions francs), and the total amount of investments on computer materials made through leasing enterprises (13,000 millions francs).

**K - Network services**

The meaning of this item has not been understood; it seems to be similar to item D (data base services).

**L - Computer related training services**

No comment; in conformity with the standard survey.

**Section 3 - Others****M - Royalties and patent fees received**

Available only for enterprises with 20 or more wage earners.

**N - Services to related parties not included above**

In conformity; the corresponding French item is called "ancillary services provided to enterprises in the group".

**O - Other goods and services**

Products are numerous; the two principal are:

- organization (938 millions francs);
- providance of personnel (530 millions francs).

**P - Operating subsidies**

This information is available only for enterprises with 20 or more wage earners. Their value added is approximately 3/4 of the total value added of the enterprises within the scope of the study. Two thirds of the subsidies concern enterprises with at least 100 wage earners. It was then assumed that enterprises with less than 20 wage earners did not receive any subsidy, and, similarly, in item M, it has been assumed that these enterprises did not receive any royalty.

**Remark on module 1**

From the French system of surveys on enterprises, it is possible to obtain an "aggregated" breakdown (as for module 6, exports) of computer services "sold" by enterprises the principal activity of which is an other one. For this purpose, the sectors-to-products transfer method is used. This method was presented during the fourth meeting of the Voorburg Group in Ottawa[4], and also during the third meeting of the Group in Wiesbaden[6].

As an illustration, the sectors-to-branch transfer is presented for management consulting service enterprises and for accounting firms

Millions of FF		
Branches	Sectors	
	Management consulting services	Accounting firms
A - Packaged software products	-	36
B - Professional computer services	6	282
C - Computer processing services	476	84
D - Data base services	-	1
E - Other computers services	-	14
TOTAL	482	417

These results show that, in France, "management consulting services" do not invoice many computer services (3% of their turnover) and that this is also true for accounting firms.

## MODULE 2 : GOODS AND SERVICES USED IN THE OPERATIONS

The results are perfectly in conformity with the project of Statistics Canada, but the detail is not the same. In France, there is no need for detail because of the existence of a general and standardized enterprise accounting framework which implies that there is no ambiguity as to the content of a given item; there is therefore no necessity to list the expenses exhaustively.

In the French survey, besides purchases for resales, one considers the following expenditure items:

- purchase of consumable materials;
- space and equipment rentals;
- space and equipment leasing;
- temporary personnel expenditures;
- other expenditures: computer, telecommunication, intermediary, advertising services, utilities, insurances.

Furthermore, wages and salaries are known for all enterprises; but social benefits, property and other non commodity indirect taxes, and amortizations are known for enterprises with 20 or more wage earners (they make 3/4 of the value added). It is then possible to make robust estimates and to fill up module 2.

### **MODULE 3 : PURCHASE OF GOODS AND SERVICES FOR RESALE**

#### **A - Computer hardware**

This corresponds to purchases by "turnkey system vendors" in the sole case of "systems engineering services".

#### **B - Packaged software products**

Software purchases are not isolated; they are included in item D below.

#### **C - Computer services**

They are not isolated and are included in item D below except for sub-contracting of services included in the products which are sold (8,175 millions francs).

#### **D - Other goods and services**

This item contains all other purchases for resale (6,012 millions francs).

### **MODULE 4: INVENTORIES**

Opening and closing inventories are not detailed in the questionnaire. Only variations are dealt with.

Items A (goods purchased for resale) and B (goods purchased for use in the operations) are in conformity with the Canadian questionnaire.

Item C (other inventories) concerns finished products which have not yet been invoiced (inventories related to production).

### **MODULE 6 : EXPORTS**

In order to ease the burden of the enterprises, exports are asked to be reported for their total and not in a detailed product breakdown.

This option is justified since the number of exporting enterprises is small (11%), the share of exports in the turnover is not important (3,5%), and there is a possibility to make a reasonable, if not robust, estimate of the repartition of total exports among the various products.

For the latter operation, exports are pro-rated according to the breakdown between (i) the principal product of the enterprise, (ii) the sales of material in the case of "system engineering services", and (iii) the retail sales of micro-computers and of standard softwares.

**MODULES 7 AND 8:** Not available.

**MODULE 9 : EMPLOYMENT NUMBERS**

The results are in conformity with the questionnaire of Statistics Canada, but they are incomplete.

However, a separation between computer and other personnel can be obtained from outside sources.

Similarly, the breakdown between men and women is obtained, at least for wage earners, from outside sources. For non wage earners, the estimate is fragile and will be reviewed at the end of 1991, on the basis of the results of the 1990 population census.

It seems however vain to try to cross all criteria altogether.

**MODULE 10 : FIXED ASSETS, ADDITIONS AND DISPOSALS**

Only annual investments are available, and with less detail than in the Canadian questionnaire. The classification of investments used in the French survey is 10 years old and is obviously outdated. It has to be reconsidered and refined in the sense proposed by Statistics Canada.

The breakdown of capital inventory by product does not appear to be applicable, since, in France, it is accounted for at purchase price without re-evaluation or depreciation. But, in the survey and for enterprises with 20 or more wage earners, capital inventory is available without breakdown by kind of product. The related question is posed only to check for the total amount of annual investments.

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# **MODULE 1 : REVENUES FROM THE SALE OF GOODS AND SERVICES**

millions of FF

## **SECTION 1 : REVENUES FROM THE PROVISION OF COMPUTER SERVICES**

	VALUE
<b>A - PACKAGED SOFTWARE PRODUCTS (OF OWN DESIGN)</b>	
a) Systems and user tools software	0
b) Application software	6071
<b>B - PROFESSIONAL COMPUTER SERVICES</b>	
a) Consultancy services related to the installation of hardware	5526
b) Systems and technical consulting services	14280
c) Custom software development services	11898
d) Systems analysis and programming services	?
e) Computer facilities management services	1793
f) (Systems maintenance services)	
g) Other professional computer services	2324
<b>C - COMPUTER PROCESSING SERVICES</b>	
a) Data processing and tabulation services	18907
b) Data entry services	2710
c) Other computer processing services	875
<b>D - DATA BASE SERVICES (Electronic information services)</b>	43
<b>E - COMPUTER REPAIR AND MAINTENANCE SERVICES</b>	790
<b>F - OTHER COMPUTER SERVICES</b>	785
<b>TOTAL - COMPUTER SERVICES (A to F)</b>	<b>66002</b>

**SECTION 2 : REVENUES FROM THE SALE OF COMPUTER RELATED  
GOODS AND SERVICES**

G - PACKAGED SOFTWARE (RESOLD)	3468
H - HARDWARE SALES (PURCHASED FOR RESALE)	8218
I - COMPUTER SERVICES (PURCHASED FOR RESALE)	
J - COMPUTER HARDWARE LEASING AND/OR RENTAL SERVICES	129
K - NETWORK SERVICES	?
L - COMPUTER RELATED TRAINING SERVICES	1403
<b>TOTAL - COMPUTER RELATED GOODS AND SERVICES (G to L)</b>	<b>13218</b>

**SECTION 3 : OTHERS**

M - ROYALTIES AND PATENT FEES RECEIVED	501
N - SERVICES TO RELATED PARTIES NOT INCLUDED ABOVE (Research and development charges, management fees, ...)	56
O - OTHER GOODS AND SERVICES	4163
<b>TOTAL - REVENUES FROM OTHER SOURCES (M to O)</b>	<b>4720</b>

P - OPERATING SUBSIDIES	181
<b>GRAND TOTAL - OPERATING REVENUES (A to P)</b>	<b>84121</b>

**MODULE 2 : GOODS AND SERVICES USED IN THE OPERATIONS**

millions of FF

<b>A - WAGES, SALARIES AND EMPLOYEE BENEFITS</b>	
a) Wages and salaries	23657
b) Employee benefits	9394
<b>C - RENTAL AND LEASING OF MACHINERY (CPC 83) and F - RENTAL AND LEASING OF LAND AND BUILDINGS (CPC 82)</b>	
	6319
<b>E - MATERIALS AND SUPPLIES FOR OWN USE</b>	1760
<b>G - PROPERTY AND OTHER NON COMMODITY INDIRECT TAXES</b>	1756
<b>H - ROYALTIES AND PATENT FEES PAID</b>	774
<b>J - DEPRECIATION</b>	3384
<b>K - OTHER OPERATING, ADMINISTRATION AND GENERAL EXPENSES: b.business services,d.telecommunications,fb.utilities</b>	13730
<b>TOTAL : CURRENT OPERATING, ADMINISTRATION AND GENERAL EXPENSES</b>	60774

**MODULE 3 : PURCHASES OF GOODS AND SERVICES FOR RESALE**

millions of FF

<b>A - COMPUTER HARDWARE (SYSTEMS ENGINEERING SERVICES)</b>	4952
<b>C - SUBCONTRACTING SERVICES</b>	8175
<b>D - OTHER GOODS FOR RESALE</b>	6012
<b>TOTAL : GOODS AND SERVICES FOR RESALE</b>	19139

**MODULE 4 : INVENTORIES**

millions of FF

a) Goods purchased for resale	201
b) Goods purchased for use in the operation	39
c) Other inventories : stocks related to production	209

**MODULE 5 : SUPPLEMENTARY QUESTION CONCERNING  
THE BASIS OF ACCOUNTING**

A - Did you report revenues (module 1) on an accrual or cash basis ?

**accrual basis**

**MODULE 6 : EXPORTS**

millions of FF

**COMPUTER SERVICES**

A - Packaged software products	230
B - Professional computer services	1654
C - Computer processing services	307
D - Data base services (Electron. information services)	-
E - Other computer services	65

**COMPUTER RELATED GOODS AND SERVICES**

F - Computer hardware	660
G - Computer hardware rental and/or leasing services	
H - Services to related parties not included above (research and develop.charges, management, fees, etc ...)	
I - Other goods and services	

**TOTAL EXPORTS (A to I)**

**2916**

**MODULE 9 : EMPLOYMENT NUMBERS AS OF 31 DECEMBER 1989**

	MALES	FEMALES	TOTAL
Working proprietors and partners			
- Full time			16320
- Part time**			136
<b>TOTAL</b>	<b>13000</b>	<b>3456</b>	<b>16456</b>
Paid Employees			
- Full time			135680
- Part time**			7123
<b>TOTAL</b>	<b>86650</b>	<b>56153</b>	<b>142803</b>
<b>TOTAL</b>	<b>99650</b>	<b>59609</b>	<b>159259</b>

**MODULE 10 : FIXED ASSET, ADDITIONS AND DISPOSALS**

millions of FF

	ADDITION DURING THE YEAR
Land	10
Building	48
Other construction	503
Motor vehicles and other transport equipment	211
Other plants, machinery and equipment	3518
<b>TOTAL</b>	<b>4290</b>

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