

SUMMARY

Section 1 The paper reports on a survey of computer usage in university social science departments which was undertaken by the S.S.R.C. Survey Unit for the Council's Panel on Computing and the Social Sciences.

It used a wide definition of social science, which includes some 20% or more of the staff and undergraduates and (if we exclude students on one-year teacher's courses) of the postgraduate students of British Universities. On the other hand it appears that they account for only about 5% of the total computer usage.

The enquiry was addressed to Heads of social science departments, and the unit of analysis is usually the department. Thus the report tends to indicate the breadth rather than the depth of computer usage. It relates to a period round about the middle of 1972.

Section 2 The study aimed at a complete coverage of all social science departments, widely defined. In the event, questionnaires were completed by 318 departments, representing at least 76% of those eligible, and a further 13 wrote to say that they did not use computers at all. The respondents appear satisfactorily representative of the total population, both by subject and by University.

Section 3 Data are presented on numbers of staff and students, by subject.

Section 4 About 85% of all social science departments make some use of computers. The proportion varies from 100% in Psychology and Statistics to only 26% (8 departments) in Economic History. The non-users do not appear to be clustered in particular universities, but they tend to have fewer than the average number of staff.

Only 35 departments have a computer themselves or in the same faculty, and 20 of these are Psychology departments.

The principal uses to which computers are put are, in broad terms, survey analysis and statistical analysis.

Section 5 The most commonly used high-level computer languages are FORTRAN and ALGOL.

General purpose programs and packages are fairly widely used, but no particular one is in general use; many of them are locally devised and implemented. The most generally used packages were BMD and SPSS, although the latter had been implemented at rather few centres at the time of the survey.

Section 6 About 2000 staff of social science departments (34% of the total) are said to have made use of a computer "however indirectly", with the highest proportions in Statistics (80%), Geography and Management (51%) and Psychology (46%), and the lowest in Economic History (5%) and Politics (18%).

Smaller numbers have used programs or packages or can write in high-level languages, but the pattern by subject is similar.

The proportions of postgraduate students who possess computer skills are usually lower than the corresponding proportions of staff, but Planning, Politics, Psychology and Statistics all have higher proportions who have made some use of a computer.

A similar pattern emerged from replies to a question whether departments had students or staff who had been interested in computing as such, but the differences between subjects were much more marked for postgraduate students than for staff.

Section 7 Two-thirds of all departments make some kind of formal provision for staff or students to learn to use computers. The provision is most common in Statistics (87%), Geography (85%) and Psychology (82%) and least common in Economic History (36%), Politics (50%) and Education (53%).

Nearly all Geography departments make at least a beginners' course available to their undergraduates, and more than half of them do this within the department.

Section 8 Most departments obtain time at the computer centre by batch processing without specific limitation on time or cost. Over a half have direct representation on a user's committee and another 22% have indirect representation (a few do not seem to know that such a committee exists).

Complaints of inadequate access to the university computer are few in number (45 departments) but tend to be clustered in particular universities and to be most common in Psychology and Management. Dissatisfaction centred around overloading and turnaround time.

Section 9 Only a quarter of the departments obtain programming advice from an adviser on their own staff, most use a general adviser in the computer centre and/or informal arrangements within the department. Geography and Psychology, which have the most staff with computer skills (apart from Statistics) are most likely to use these informal arrangements.

One hundred departments (out of 283 computer users) thought that the computing advice available to them was inadequate. Just over a half of these (particularly in Geography, Psychology and Economics) complained of general insufficiency of the advice. Politics and Sociology departments were more inclined to complain that it was insufficiently orientated toward the social sciences.

Section 10 Other problems, mentioned by about a fifth of all departments, concerned turnaround time, hardware, and administration and support (which includes problems concerning relations between the computer centre and the subject departments).

Among the developments hoped for are a number of advances in hardware of various kinds and the provision of remote terminals and time-sharing facilities, which appear to be seen mainly as a way of avoiding turnaround problems.

It appears, from the discussion of problems and developments, that it is the subjects which already make the most use of computers which are most aware of the problems and most specific about their hopes for the future.

Finally, it seems that expectations of future developments are relatively high. The few extreme pessimists include a number whose hopes were for human rather than mechanical developments.

Section 11 A study made in May 1969 by the Russell Sage Foundation enables us to make some broad comparisons with the situation in the United States at that time, although there are differences in the coverage of the surveys and in the wording of the relevant questions.

The proportions of social science departments in the two countries which actually use computers are rather similar. FORTRAN is the most usual high-level language in both countries, but COBOL is the second in the U.S.A. with ALGOL third (second in Britain), but the American question asked about availability of languages and we do not know about their actual use. A question on packages also referred to availability in the U.S. and this makes a high proportion of SSP suspect so far as use is concerned. It is evident that in both countries there is much use of minor, local packages which may be poorly documented and supported.

It appears that in the U.S. a higher proportion of postgraduate students than of staff have computer skills and use computers, whereas the position is reversed in Britain. There is a suggestion that higher American use of computers by both staff and postgraduates may be linked with much greater use of packages. On the other hand, the British staff who do have computer skills seem to be spread over a higher proportion of all departments than in America. Although more of the American departments make computer courses available to staff and students, the proportion of departments which have their own courses is about the same (30-35%) in both countries for postgraduate students, and higher in Britain (30% compared with 13%) for undergraduates.

## 1. INTRODUCTION

- 1.1 This paper reports the principal findings of a study undertaken by the Survey Unit of the Social Science Research Council at the request of the Council's Panel on Computing and the Social Sciences.
- 1.2 Council's decision to establish this panel was taken in October 1970. Its terms of reference included: "to review the use and potential use of computers by social scientists, and to advise Council accordingly." Following discussion at its first two meetings, the Panel invited the Survey Unit to make proposals for an enquiry among university social scientists to ascertain their use of computers and the problems which they encounter. The unit's proposals included an enquiry, to be addressed to the Heads of all university social science departments, about the use of computers by their own staff and students. These proposals were approved by the Panel in December 1971.
- 1.3 After further consideration by members of the Panel and a small pilot study, a questionnaire was agreed and despatched to the Heads of all identifiable social science departments during May 1972 (this is reproduced at Appendix C). Reminders to those who had not responded were sent out in June, but some replies were not received until the beginning of the new academic year in October 1972. The replies thus relate to a period around the middle of 1972, a fact which it is important to bear in mind at a time when there is rapid development in the computer facilities available to university departments.
- 1.4 As we explain in the next section, it was difficult to arrive at a definition of social science departments which would tie in exactly with the way the British Universities are organised. However, we aimed at a wide, rather than a narrower, coverage and relied upon departmental Heads to let us know if they did not consider themselves to be social science departments. We covered, broadly, the same groups of subjects as are included under the heading "Social, administrative and business studies" in the official Education Statistics (Vol. VI), with the addition of Education, Planning and some Statistics departments, but excluding many of the Law departments. It would appear from Education Statistics (Vol VI) 1970 (the latest available) that the subjects which we have included account for about 20% of full

time teaching and research staff, nearly 22% of undergraduates and about 38% of postgraduate students of universities in Great Britain. But the postgraduate total includes graduates taking one-year courses in Education to obtain a teaching qualification; if they are omitted, the postgraduate figure also drops to about 20%.

- 1.5 On the other hand, some rather incomplete information from university computer centres suggests that these departments account for something much more like 5% of the total computer usage in British universities. Although many departments appear to envisage increasing use of the computer in future, it would require a very great increase indeed to bring their usage up to a level which was in any way commensurate with their numbers.
- 1.6 The survey which we have undertaken is an attempt to explore this computer usage: to find out which departments use the computer and for what purposes, how many of their staff and postgraduate students have computer skills, what difficulties they encounter and what are their hopes and expectations for the future. The picture it presents is necessarily a general one. The unit of analysis is usually the department; we know that a department uses computing facilities, but we do not normally know much about the extent of its use. Thus the report tends to indicate the breadth of computing knowledge and usage rather than its depth, except in Section 6 where we are dealing with numbers of staff and postgraduate students. The findings are in some respects impressionistic, but there is so much consistency and unity among the different parts that they blend together to form a distinct overall picture.
- 1.7 The enquiry also obtained information about the use of desk calculators and punched card and tape equipment. This is peripheral to the main purposes of the study, but it is reported in Appendices A and B.

## 2. COVERAGE OF THE SURVEY

- 2.1 We tried to address our questionnaire to every social science department in each university in the United Kingdom. Thus our study attempted to be a census rather than a sample survey, and has become the latter only because some departments failed to respond. However, the respondents constitute a considerable majority in every subject, and we believe that they are representative of the total population (see paragraphs 2.3 to 2.7). Our list of departments was compiled mainly from the Commonwealth Universities Yearbook with additions from other sources. Unfortunately, the listing of subjects in the Yearbook does not always correspond to the internal organization of the University (e.g. in the University of Sussex) and this led to some problems in addressing the questionnaire; unless we had better information, we sent them to "The Head of the Department of....." at the university's address. We addressed separate questionnaires to sub-departments, institutes and centres when these appeared to be fairly independent, and our covering letter (see Appendix C) asked Heads to sort out problems of overlap between themselves.
- 2.2 Another problem springs from the difficulty of identifying social science departments unambiguously. To overcome this, we spread our net widely. We included History departments where there was no separate department of Economic or Social History, Statistics departments where there was no separate department of Social Statistics, departments of Social Medicine, and so on.
- 2.3 In all, we distributed 438 questionnaires. It appears that at least 6 of the "departments" to which we addressed them do not exist, another one sent a combined return with another department, and 11 replied that they were not social science departments. We also had 13 replies from departments which said that they did not use computers, but did not complete a questionnaire (or sent one which was virtually incomplete). Refusals and non-respondents accounted for another 89, and we have 318 completed returns which have been analysed. These figures may be summarised as follows:

Table 2.1 - Overall response

Total questionnaires despatched	438
No separate existence or made joint return	7
Not social science departments	11
Non respondents	89
Non-users of computers who did not complete forms	13
Completed questionnaires	<u>318</u>
	<u>438</u>

2.4 There were thus a maximum of 420 departments eligible for inclusion (the non-respondents may include others which were not eligible). We have received completed returns from 76% of them and (including the 13 who wrote letters) we have information about the computer usage of 79%. The 89 non-respondents are distributed by subject as follows:

Table 2.2 - Non-response by subject

<u>Subject</u>	<u>No. of depts included</u>	<u>Non-respondents</u>	
		<u>No.</u>	<u>%</u>
Economics	51	8	15
Econ. & Social history, History	43	12	28
Education	48	11	23
Geography	33	7	21
Management	28	4	14
Planning	14	2	14
Politics	36	10	28
Psychology	43	5	12
Sociology	32	7	22
Social Studies, mixed social science etc.	43	10	23
Statistics, Operational research	21	6	29
Miscellaneous social science	13	2	15
Remainder	<u>15</u>	<u>5</u>	<u>33</u>
TOTAL	<u>420</u>	<u>89</u>	<u>21</u>

2.5 The subject classification is normally based on the title of the department. Thus a Department of Economics which includes some sociologists in its staff is classified as "Economics" rather than as "mixed social science", whereas a Department of Social Science is classified as the latter. Some further points of explanation are:

Econ. & Social history, History includes all History departments on our original list, except one or two which said that they did not consider themselves to be social science departments.

Education includes both departments and institutes of education, when the latter were listed in the Commonwealth Universities Yearbook.



Psychology includes some departments which were mainly medical, unless they said that they did not consider themselves social science.

Social studies, mixed social science etc. includes social administration and social anthropology. This group also includes three large "departments" (with 50 or more staff) which cannot be subdivided into our other categories because of the way their universities are organised.

Statistics, Operations research excludes departments which wrote that they were not social science, but includes all others in our original listing.

Miscellaneous social science includes departments which, though classifiable as social science, do not fall under earlier headings (e.g. law, social medicine).

Remainder is a group which are only very marginally classifiable as social science (e.g. European or West African studies, architecture, war studies), a number of which made returns.

- 2.6 It will be seen from Table 2.2, that the non-response exceeded 25% in only four of the subject groups: History and Politics, which both have a high proportion of non-users of computers even among the respondents, and Statistics and Remainder which both contain many departments which may not consider themselves as social science departments.
- 2.7 The discussion which follows is based mainly on the 318 departments which returned completed forms, since we do not have any other information about the additional 13 who wrote that they did not use computers. We have a completed return from at least one department in every university and college we wrote to, so our coverage appears to be fairly representative, as well as about 76% complete.
- 2.8 The impression of adequate coverage is reinforced by an attempt to compare numbers of staff and students with those given in Education Statistics 1970. Our own survey is some 18 - 20 months (but only one academic year) later and its coverage is rather different, as explained in paragraph 1.3, so the comparison is only a rough one. The total number of staff (excluding Education) covered by our survey was 5194, with another 920 in Education; the official total of full-time

teaching and research staff at the end of 1970 in Social, Administrative and Business Studies was 5127, with 1518 in Education. Thus, excluding Education, our total slightly exceeds the official total for 1970, while the difference in Education is no doubt partially explained by the fact that the official total includes adult education and extra-mural staff.

2.9 On postgraduate students, our total excluding Education is 8043, compared with the official 1970 figure for Social, Administrative and Business studies of 7777. In Education we have only 5127 compared with an official total of 7606; but here we know that in their returns to us some departments omitted students on one-year teaching diploma courses (and, in any case, we cover only 77% of the Education departments we wrote to).

2.10 The two sets of figures for undergraduates are similarly close. Excluding Education we have 38,952 against the official figure for Social, Administrative and Business Studies of 38,624, while our total for Education is 1360 compared with an official total of 1554.

2.11 Thus, even allowing for our somewhat wider coverage than the official category of social, administrative and business studies, it seems likely that in terms of staff and student numbers our respondents account for substantially more than the 76% mentioned above.



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May 1972

## THE USE OF COMPUTERS IN THE SOCIAL SCIENCES

The SSRC Panel on Computers and the Social Sciences has asked the Survey Unit to make a study of the use of computers in university social science departments. It is hoped that such a survey of an area where changes have been, and still are, very rapid will assist the Panel to make recommendations about desirable lines for future development.

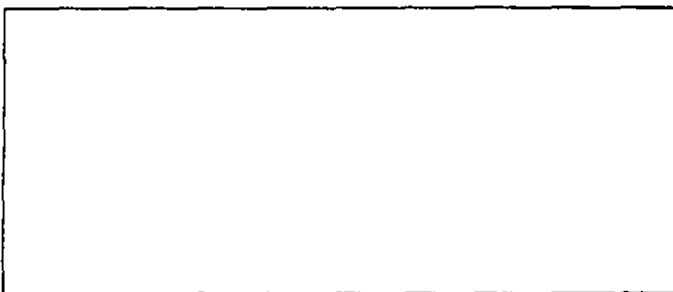
There are several points on which I feel that explanations – even apologies – are called for. This is one of two questionnaires which Heads of social science departments will receive from the Survey Unit within a very short period. I very much regret any inconvenience this may cause you. Unfortunately, the timing is rather important for both. As the other questionnaire (on the organisation of social science research) is going to a much wider group than this, may I offer our apologies here.

Because there is so much variation in the use of computers in the social sciences, in the availability of equipment and in the arrangements for its use, we have had to construct a fairly complex looking questionnaire. Departments which make only a limited use of computers will find this complexity reduced by the fact that a number of questions are not applicable to them. If we have failed to take adequate account of the circumstances of some departments, I shall be grateful if they will either add a full explanation on one of the blank sides of the questionnaire or contact the research fellow in charge of this study, Mr John Hall (extension 1271).

The considerable variation in the organisation of university schools, faculties and departments has posed problems of securing a full coverage without duplication. We have tried to send this to reasonably independent "departments". If your "department" includes other units, I shall be grateful if you will check whether they have also received a questionnaire and come to some arrangement among yourselves to avoid duplication. If additional questionnaires are required for any such sub-units please inform John Hall.

Although we do not think that much of the information we are seeking is confidential we want Heads to feel entirely free to make any comments which may be helpful. The only place on this questionnaire where the name of your department appears is at the foot of this page please remove the whole page before returning the questionnaire. There is of course a code number to enable the Unit to identify returned questionnaires, the list of these codes will be available only to the research worker in charge. No identifiable information about your department will be released to anyone else without your consent.

We shall be very grateful if you will complete the questionnaire and return it in the envelope provided by 31 May 1972.



John Utting

Deputy Director

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**1 DEPARTMENTAL COMPOSITION**

How many of each category of personnel are there in your Department? (excluding technical and clerical staff) (IF NONE WRITE 0)

Academic and Research Staff	(11)	Post graduate students	(12)	Undergraduate students (Full time equivalents)	(13)
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**2 PORTABLE DESK CALCULATORS**

Do members of your department use desk calculators in their work?	Yes	1
(IF NOT GO TO Q3)	No	2

(14)

**LOCATION OF EQUIPMENT**

		SOCIAL SCIENCE FACULTY		UNIVERSITY		ELSEWHERE		
		(a) your own department	(b) elsewhere in faculty	(c) another faculty	(d) university computer centre	(e) regional government or commercial	Where is that?	
A (IF YES) What type of machines are they and where are they located?  (FOR DEPT GIVE ACTUAL NUMBERS OF EACH TYPE IF NONE WRITE 0 FOR REST RING 1 OR 2 AS APPROPRIATE)	(i) Mechanical (manual/electric) (MADAS etc)	(15)	Yes 1 No 2	1 2	1 2	1 2		
	(ii) Electronic no program (FACIT 1129C ANITA HITACHI KK461 etc)	(21)	Yes 1 No 2	1 2	1 2	1 2		
	(iii) Electronic programmable (CANOLA 164P BUSICOM 166A etc)	(27)	Yes 1 No 2	1 2	1 2	1 2		
	B Do you have access to an adequate number of them?			Yes 1 No 2	(ii) at peak times		Yes 1 No 2	
			(33)				(34)	
	C Please give brief description of the kind of shortage you experience and the reasons for it							

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3 CARD & PAPER TAPE EQUIPMENT

LOCATION OF EQUIPMENT

Do members of your department use card and/or paper tape equipment in their work? Yes 1  
(IF NOT, GO TO Q4) No 2

(38)

		SOCIAL SCIENCE FACULTY		UNIVERSITY		ELSEWHERE	
		(a)	(b)	(c)	(d)	(e)	
		your own department	elsewhere in faculty	another faculty	university computer centre	regional, government or commercial	Where is that?
A (IF YES) How many of each of the following types of equipment are available to them? (FOR DEPT AND FACULTY GIVE ACTUAL NUMBERS IF NONE WRITE '0' FOR REST RING 1 OR 2 AS APPROPRIATE)	CARD PUNCH	(37)		Yes 1 No 2	1 2	1 2	
	CARD SORTER	(43)		Yes 1 No 2	1 2	1 2	
	CARD RE PRODUCER	(49)		Yes 1 No 2	1 2	1 2	
	TABULATOR	(55)		Yes 1 No 2	1 2	1 2	
	PAPER TAPE PUNCH	(61)		Yes 1 No 2	1 2	1 2	
	LISTING MACHINE (Cards or tape)	(67)		Yes 1 No 2	1 2	1 2	
B Does the Department have adequate access to equipment of the above kind?		(i) at normal times				(ii) at peak times	
		Yes 1 No 2				Yes 1 No 2	
		(73)				(74)	

Q4

(IF NO TO B (i) or (ii))  
C Please give a brief description of the kind of shortage you experience and the reasons for it

(75)

JOB No (77) 7 2 0 4

**4 COMPUTERS**

Do members of your department use computers in their work? (IF NOT GO TO Q16)	Yes	1
	No	2

(11)

**LOCATION OF EQUIPMENT**

SOCIAL SCIENCE FACULTY		UNIVERSITY		ELSEWHERE	
(a) your own department	(b) elsewhere in faculty	(c) another faculty	(d) university computer centre	(e) regional govt or commerical	Where is that?
(12)	(13)	(14)	(15)	(16)	----- ----- ----- -----

**A (IF YES)**  
Please indicate make and model of all computers used by your department For cols (a) (b) please give store size e.g. Elliott 920 8K IBM 1130 16K etc

**5 REMOTE TERMINAL FACILITIES**

**A** Please indicate the number and location of any remote terminal facilities used by your department and state to which computer they are normally linked

**SC** Please state briefly any limitations imposed (e.g. run time, lines output etc)

' Teletype (no interrupt)  
3 in Dept of Physics to 1906A Chilton, limited to 500 lines input and 1500 lines output max time 60 seconds

	Number (a)	Location (b)	Normal computer (c)	Limitations (d)
(i) Teletype without program interrupt	(17)			
(ii) Teletype with program interrupt	(18)			
(iii) Card and paper tape readers (for computer input)	(19)			
(iv) Card, paper tape punches (as computer output)	(20)			
(v) Lineprinter	(21)			
(vi) Other (state)	(22)			

**6** Please describe any firm plans to improve or extend the facilities referred to in Questions 2 5.

**7 APPLICATIONS**

If members of your dept use computers in their work, please describe briefly the kind of work done (e.g. Econometric modelling '3-dimensional mapping Survey analysis, Traffic simulation )

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(24)

(25)

(26)

**8 DEPARTMENTAL FACILITIES**

**A** If you have a departmental computer please state

(i) Nature of any backing store

(27)

(ii) Compilers currently in use

(28)

(iii) Nature of any special peripheral devices

(29)

**B** If you have in your department any of the equipment referred to in Questions 2-5, please indicate whether it is available for use by

		CALCULATORS			CARD/TAPE EQUIPMENT			COMPUTER(S)			REMOTE TERMINALS		
		Yes	No		Yes	No		Yes	No		Yes	No	
(i)	Staff	1	2	(30)	1	2	(35)	1	2	(40)	1	2	(45)
(ii)	Postgrad students	1	2	(31)	1	2	(36)	1	2	(41)	1	2	(46)
(iii)	Undergrad students	1	2	(32)	1	2	(37)	1	2	(42)	1	2	(47)
(iv)	Other departments	1	2	(33)	1	2	(38)	1	2	(43)	1	2	(48)
(v)	Other (specify)	1	2	(34)	1	2	(39)	1	2	(44)	1	2	(49)

**C** Please describe briefly any formal or informal arrangements for sharing time between different users

**9 HIGH LEVEL LANGUAGES**

Please tick all of the high level languages and/or compilers which are used by staff or post-graduate students of your department

ALGOL  (52)    APL  (53)    BASIC  (54)    COBOL  (55)

FORTRAN  (56)    PL/1  (57)    POP/2  (58)    OTHER  (59)  
(specify)

List-processing (e.g LISP, SNOBOL) (specify)  (60)

Simulation (e.g SOL, SIMULATE) (specify)  (61)

Other (specify function(s))  (62)

**10. GENERAL PROGRAMS AND PACKAGES**

Please indicate the nature of any general programs and packages used by staff or post-graduate students of your department and state which computer is normally used

Some commonly available are

- AID
- ASCOP
- BMD
- IBM-RPG/SSP
- MCA
- OSIRIS
- SALY
- SDTAB
- SPSS
- STATPAK
- XTAB

(a)	Mathematical programming	(63)
(b)	Data cleaning editing etc	(64)
(c)	Tabulation	(65)
(d)	Statistical testing	(66)
(e)	Multivariate statistics (PLEASE DESCRIBE KIND OF ANALYSIS)	(67)
(f)	Text-handling	(68)
(g)	Scaling	(69)
(h)	Simulation	(70)
(j)	Other	(71)

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11 COMPUTER PROGRAMMING

A How many of your staff (IF NONE WRITE '0') and post-graduate students (LEAVE BLANK IF NOT APPLICABLE TO YOUR DEPARTMENT)

	Staff	Post-graduate students		OUO
(i) can write programs in low level machine language (e.g. AUTOCODE, USERCODE, SIR, PLAN)?	(i) (11)	(12)	11	
(ii) can write programs in a high level language such as those listed in Q 8 (e.g. ALGOL, FORTRAN, etc)?	(ii) (13)	(14)	13	
(iii) can interpret diagnostics?	(iii) (15)	(16)	15	
(iv) have personally made use of an existing data processing or statistical program or package such as those listed in Q 9 (e.g. AID, BMD MVC, SPSS IBMSSP)?	(iv) (17)	(18)	17	
(v) have used a computer at all in their work however indirectly? (but excluding those enumerated in (iv))	(v) (19)	(20)	19	

B Have any of them

	Staff	P/G		OUO
(i) been interested in computing as such (not only as a research tool)?	Yes 1	1	(i) (21)	21
	No 2	2		22
(ii) undertaken research into computer techniques and methods (not just as a research tool)? (IF YES)	Yes 1	1	(ii) (23)	23
	No 2	2		24
(a) Please describe briefly any recent research of this kind			(25)	25

	Staff	P/G		OUO
(iii) developed general purpose programs similar to those listed in Q 9? (IF YES)	Yes 1	1	(iii) (26)	26
	No 2	2		27
(a) Please give references to any published documentation (e.g. A N Other Survey Analysis Package" New Sociology, April 1970)			(28)	28

**12. ASSISTANCE WITH COMPUTING**

A How do staff and students in your Department normally obtain assistance in their use of computers? (Tick as many as apply)

- (i) Programming adviser on Department staff
- (ii) Programming adviser in computer centre with specific responsibility to your Department or Faculty
- (iii) General programming adviser in computer centre
- (iv) Informal arrangements within Department
- (v) Informal contacts with other Departments
- (vi) Other (specify)

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B Please comment on the adequacy of these arrangements so far as your own Department is concerned

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**13. USE OF UNIVERSITY COMPUTER CENTRE**

A How does your Department get time at the computer centre? (e.g. Is it by batch queue, weekly time allocation, special priority etc.)

(36)

36

B Is there any kind of user representation and if so what form does it take, and how is your Department represented if at all?

(37)

37

C Does your Department obtain adequate access to the University computer? (IF NO)

Yes 1  
No 2 (38)

What are the main reasons for this?

(39)

38

39

D Is there any means of obtaining extra time (e.g. if paid for on a research contract)? Please explain briefly

(40)

40

E Do members of your Department have free access to the computer at night?

Yes 1  
No 2 (41)

41

14 OUTSIDE COMPUTERS

O U O

A Since October 1970 have staff or students of your Department used a computer *outside your University* (including Regional centres) Yes 1  
No 2

(42)

42

B (IF YES) Which computer(s)?

(43)

43

C Were there any special reasons for using an outside installation? Yes 1  
No 2

(44)

44

D (IF YES) Please outline briefly

(45)

45

E Was any of this outside computer time paid for? Yes 1  
No 2

(46)

46

F (IF YES) Approximately what proportion was paid for? (to nearest 5%)

(47)

47

15 COMPUTERS IN TEACHING

A Does your Department make any use of computers for teaching?

- (i) postgraduates
- (ii) undergraduates

	Yes	No
(48)	1	2
(49)	1	2

48

49



B (IF YES) About how much central processing unit time was used for teaching during the academic year 1970 1971?

(50)

(50)

50

C Which computer was used?

(51)

51

16 COMPUTER TRAINING

Is any FORMAL provision made for staff and students in your department to learn to use computers?	Yes	1
	No	2
IF NOT GO TO Q 17		

A IF YES

Is this at *beginners* level or *more advanced* or *both*?

(RING AS MANY AS APPLY)

		Staff	Post-graduate students	Undergraduate students	
(i) Course given in Department by Department staff	Beginners	1	1	1	12
	More advanced	2	2	2	13
	Both	(12) 3	(13) 3	(14) 3	14
(ii) Course given in Department by staff of another Department (specify )	Beginners	1	1	1	15
	More advanced	2	2	2	16
	Both	(15) 3	(16) 3	(17) 3	17
(iii) Course given in another Social Science Dept or at Faculty level (specify )	Beginners	1	1	1	18
	More advanced	2	2	2	19
	Both	(18) 3	(19) 3	(20) 3	20
(iv) Course given in computer centre or elsewhere in University (specify )	Beginners	1	1	1	21
	More advanced	2	2	2	22
	Both	(21) 3	(22) 3	(23) 3	23
(v) Other arrangement (specify )	Beginners	1	1	1	24
	More advanced	2	2	2	25
	Both	(24) 3	(25) 3	(26) 3	26

B If formal provision is made for what proportion of your students (to the nearest 5%) is it

		P/G	U/G	
(i) Required?	Beginners	(27)	(28)	27
	More advanced	(29)	(30)	28
	Both	(31)	(32)	29
(ii) Optional?	Beginners	(33)	(34)	30
	More advanced	(35)	(36)	31
	Optional	(37)	(38)	32

17 GENERAL COMMENTS

A Please give a brief outline of the most important problems you encounter in connection with the use of computers for research and teaching (e.g. coresize discspace, turnaround time, programming skill advice and support finance staffing organization and administration, conflicting priorities etc.)

B What in your opinion is the role of the computer in the work of your Department

C What developments do you (a) hope for, and (b) expect over the next few years

Thank you for your valuable help in completing the questionnaire. Your replies will remain absolutely confidential even within the Survey Unit

HAVE YOU REMOVED THE FACE SHEET?

JOB No (77)

7	2	0	4
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Please return to



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