## General

The data are held as a series of Bo-byte card inage records. There are five card types, which are distinguished by a digit card type identifier on coluens $10-11$ in the range 01-05. These are referred to in the docunentation as cards $1-5$, and individual field locations are referred to by the convention . card type $* 100+$ column nueber; e.g. 265 refers to card 2 coluen 65.

Coluens 1 -9 of every card are reserved for case identificataon
Colums 1-4 contan case number (= sample $15 s u e$ number) in the range 00012460 (with many gaps owing to unproductives.)

Colums 5-b contan person number mithin case from of
For the household level cards (1-2) thas field was originally set 00, but since each person record 15 now preceded by 1 ts own copy of the household data, this 15 now set 01 etc. as appropriate to atch the following diary.

Column 7 contains for the diary card (5) the day number. n.b. This 15 not day of week, which 15 coded elsewhere on the card 5 (see later), but the day mithin the diary (1-7) On the 1 day recall sample this 1 s almays set 1 . On both samples, the following codes are used where diary data 15 not present.
g=diary not required (i.e. person does not qualify) 9=diary expected but not present

In these cases only 1 card 5 will be present for the person.
On 1-day recall data all card 55 are 5 et to 1 (or 8 or 9 ).
On cards 1 -4 columen 7 set 0 .
Coluens 8-9 contain (for card 5s) the start tims slot in the range 01-96. On cards 1-4 this 15 always 00.

The data appear in ascending order of the whole sequence of coluans 1-11

Questionnare Data
The coding detall 3 g given alnly by the annotated questionnares attached. The N/A codes stated refer to cases where a value should have been present according to the IF condition governing the question. Where that condition was not net the fieid mill be blank.

The Batch Code (112-114) 15 a numeric code used solely for locating questionnares when $100 k 1 n g$ up questionnares following the computer er report.

A key to Reqion Code (115-116) and Area Code (117-119) is given by the List of Sanpling Points (attached).

The Occupation Code at $350-35415$ Registrar General $s$ Code (1980), but without the decimal point. The last digit 15 in gost cases blank, 50 the whole 5 digits cannot be treated numerically mithout giving false results. The first 3 digits are in fact the 161 kos codes.

355-356 contains employent status information:
01 self-employed (25+ employees)
02 self-eaployed (1-24 eaployees)
03 self-enployed (no enployees)
04 self-eaployed (NA how many esployees)
05 nanager (establisheent of 25+ employees)
06 manager (establishment of 1-24 enployees)
07 nanager (NA size of establishment)
08 forenan/supervisor
09 other employee
10 employee (NA if manager/foreman/other)
11 NA/ınsufficient information
357-358 contain 1980 Industry Code ito 2-digat level)
Fron the 1980 Occupation and Eaploynent Status codes we have derived SEG and Social Class data and set it on spare colums.

363-364 15 the standard SEG code (01-07)
Zo5 contanns the standard Social Class codes il-5, plus $8=n o t$ classified by the system and $9=i n s u f f i c i e n t$ information/NA.

366 indicates non-manual $\{=1$, and manual ( $=2$ ) $m$ th $\theta$ and 9 as for 305.
Note that the use made of $\mathbf{z 7 0 - 3 8 0}$ differs for the 7 -day dary and 1 -day recall cases

There are two formats of the self-completion questionnare (card 4), but the coluan $1 s$ identical except that the diary version (7 day, has 2 more itens at the end $\{453,454$, These will be blank on the 1 day version.

Diary Data
The use of 501-511 nas been described above.
512 contans the current day of week.

1=Monday<br>2=Tuesday<br>$3=$ Wednesday<br>4 =Thursday<br>5=Friday<br>$6=$ Saturday<br>$7=$ Sunday

The final code lists for Activaties, Persons Present and Location are attacneo

513-515 Hain Activity (999=NG)
516-518 2nd Activity (may be blank,
519-521 3rd Actıvity (may be blank)
522 contains a 1 if and only $1 f$ a 4 th activity was present.
523-524 1st Other Person Present $100=$ alone,99=NA)
525-526 2nd Other Person Fresent (ayy be blank)
527-528 3rd Other Person Fresent (may be blank)
529 contains a 1 if ana only if a 4th person was present
530-531 Location Code (99=NA)
532-5:3 Length of Time Slot in 15 oin. units (01-96)
In the case of partaally conolete diaries a single slot of start rime 01 and length 96 with Man Activity $=999$ has been inserted for each whole day missed, and slots of the appropriate length for part days missed.

The data records for p777 do not include any meights. Below are a few coneents relating to possible weightang of data.

1-day data set
(1) The sample was designed to include twice as many diaries on Saturday/Sunday as on weekdays. When analysing as a total data set weighting should be applied to account for this (day is given on col. 512).
(11) When looking at diary data reaember that the length of each slot 13 given on cols 532-533. Thas should be used as a weight when looking at tage related diary data.
(111) If the following weights are applied to records using the OPCS clusters (col 117-118) the diaries will be weighted to the proportions given by the 1982 British Electorate figures.

| OPCS Cluster | Hesght |
| :---: | :---: |
| 01 | 0.626 |
| 02 | 0.890 |
| 03 | 1.150 |
| 04 | 1.354 |
| 05 | 1.383 |
| 06 | 2.102 |
| 07 | 0.487 |
| 08 | 1.606 |
| 09 | 2.013 |
| 10 | 1.439 |
| 11 | 3.271 |
| 12 | 0.969 |
| 13 | 0.866 |
| 14 | 1.231 |
| 15 | 0.872 |
| 16 | 0.616 |
| 17 | 1.282 |
| 18 | 0.269 |
| 19 | 2.052 |
| 20 | 1.740 |
| 21 | 1.103 |
| 22 | 0.529 |
| 23 | 0.754 |
| 24 | 0.638 |
| 25 | 0.405 |
| 26 | 0.295 |
| 27 | 2.344 |
| 28 | 0.452 |
| 29 | 0.525 |
| 30 | 1.110 |

(1) When Jooking at diary data reaember that the length of each slot $1 s$ given on cols 532-533. This should be used as a weight when looking at tiee related dary data.
(1i) If the following weights are applied to records using the OPCS clusters (col 117-118) the diaries will be weighted to the proportions given by the 1982 British Electorate figures.

| OPCS Cluster | We1ght |
| :---: | :---: |
| 01 | 0.619 |
| 02 | 0.984 |
| 03 | 1.550 |
| 04 | 1.426 |
| 05 | 1.683 |
| 06 | 1.820 |
| 07 | 0.544 |
| 08 | 1.649 |
| 09 | 1.700 |
| 10 | 1.688 |
| 11 | 1.925 |
| 12 | 0.829 |
| 13 | 1.065 |
| 14 | 0.901 |
| 15 | 0.861 |
| 16 | 0.530 |
| 17 | 1.046 |
| 18 | 0.270 |
| 19 | 0.837 |
| 20 | 1.093 |
| 21 | 1.609 |
| 22 | 0.493 |
| 23 | 0.829 |
| 24 | 0.742 |
| 25 | 0.439 |
| 26 | 0.249 |
| 27 | 2.375 |
| $2 B$ | 0.665 |
| 29 | 0.287 |
| 30 | 0.855 |
|  |  |



Head Office: 35 Northamption Square London ECIV OAX. Yet: $01-250186$ Northern Field Office: Charazel House Gainford Daringion Co. Durham DL2 3EG. Tet: 0325730808
P.769/P1

TIME USE STUDY QUESTIONNAIRE

Area $\qquad$


1. I'd like to ask you about the area you live in.
a How long have you yourself lived at this address?
b And how long in this area?
less than 6 months

| $(a)$ | (b) |
| :---: | :---: |
| Address | Area |
| 1 | 1 |
| 2 | 2 |

1 year, less than 23

2 years, less than 5,4
5 years, less than 105
10 years, less than 206
20 years or longer 7
2.a Where does your household do most of its shopping for food and household goods?
b About how far away is that?(RECORD IN GRID)
c And how far away is the nearest... READ OUT IN TURN

| (b) <br> Household shopping |  | (c) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Post office | Public library | Cinema? | $\begin{aligned} & \text { Bus } \\ & \text { Stop? } \end{aligned}$ | Park or open space |
| Up to z mile | 1 | 1 | 1 | 1 | 1 | 1 |
| About $\frac{1}{2}$ mile | 2 | 2 | 2 | 2 | 2 | 2 |
| About $\frac{3}{4} \mathrm{mile}$ | 3 | 3 | 3 | 3 | 3 | 3 |
| About 1 mile | 4 | 4 | 4 | 4 | 4 | 4 |
| Over one, up to two miles | 5 | 5 | 5 | 5 | 5 | 5 |
| Over two miles | 6 | 6 | 6 | 6 | 6 | 6 |
| Don't know | 7 | 7 | 7 | 7 | 7 | 7 |


| 3.2 |  | Col. 1 | Skip |
| :---: | :---: | :---: | :---: |
|  | Is there a pub that you regard as your usual pub? | $\begin{aligned} & 1 \\ & 2 \\ & \hline \end{aligned}$ | Q. 4 |
|  | IF YES |  |  |
|  | b) About how far away is it? Up to $\frac{7}{\text { mile }}$ | 1 | Q. 4 |
|  | About $\frac{1}{2} \mathrm{mile}$ | 2 | Q. 4 |
|  | About $\frac{3}{4}$ mile | 3 | Q. 4 |
|  | About 1 mile | 4 | Q. 4 |
|  | Over 1, up to two miles | 5 | Q. 4 |
|  | Over two miles | 6 |  |
|  | Don't know | 7 |  |
|  | IF OVER TWO MILES (CODE 6) |  |  |
|  | c) Do you usually go there from here, or from somewhere else (such as from work)? | $\begin{aligned} & 1 \\ & 2 \\ & \hline \end{aligned}$ |  |
| 4.a | Do you yourself attend a place of religious worship regularly - say at least once a month? |  |  |
|  | Yes | 1 |  |
|  | No | 2 | Q. 5 |
|  | IF YES |  |  |
|  | b) How far away is the place of worship you <br> Up to $\frac{z}{\text { mile }}$ go to? | $1$ |  |
|  | About $\frac{1}{2}$ mile | $2$ |  |
|  | About $\frac{3}{4} \mathrm{mile}$ | 3 |  |
|  | : About 1 mile | 4 |  |
|  | Over l, up to two miles | 5 |  |
|  | Over two miles | 6 |  |
|  | Don't know | 7 |  |
| 5. | How far away is the Doctor's surgery you usually attend? | 1 |  |
|  | About $\frac{1}{2}$ mile | 2 |  |
|  | About $\frac{3}{3}$ mile | 3 |  |
|  | About 1 mile | 4 |  |
|  | Over 1, up to two miles | 5 |  |
|  | Over two miles | 6 |  |
|  | Don't know | 7 |  |
|  | . |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

6.a Do you, or does anyone else in your household, have the regular use of a car or van of any kind?

IF YES
b) Do you yourself drive it?
c) Is it available for you yourself to use any time you want it, most times, or only sometimes?

IF ONLY SOMETIMES
d) When can you use it?

IF DOES NOT DRIVE IT (NO AT b), OR IF NO CAR (NO AT a)
e) Do you yourself have a motorcycle?
f) Or a bicycle?

| Yes | 1 |
| ---: | :---: |
| No | 2 |
| Yes | 1 |
| No | 2 |




14.
Do you have the use of a garden or an allotment where you could grow vegetables?
15. Do you have somewhere you can use as a workroom, such as a spare room or garage?

16 SHOW CARD A
Do you, or does anyone else in your household, own
or have the use of any of these items?
PROBE Any others? TILL NO. CODE AS MANY AS APPLY

Does anyone come in regularly to help your household with... (READ OUT) FOR EACH "YES", ASK About how often?

Yes No | Several times | Once a | Once a | Less |
| :--- | :--- | :--- | :--- |
| week/everyday | week | fortnight | often |

Housework, cleaning or washing? Babysitting. childminding? Gardening? Nursing, care of adults?
Shopping?


1

IF Permanently sick/disabled
4

Other (SPECIFY) $\qquad$

IF IN FULL-TIME EDUCATION (CODE 3 AT R.6)
a) How far away from here is your place of education?
b) How do you usually get there from here? (CODE MAIN MODE ONLY)
$\square$
WRITE IN MILES

 Motorcycle Cycle Train

Bus Just walk Other (SPECIFY)
C) How long does it usually take to get there from here? (ONE-WAY)

IF IN A PAID JOB (CODE 1 AT Q.29)
a) Do you have a usual place of work?

## IF YES

b) How far is it from here?
c) How do you usually get there from here?

| re from here? <br> Car Motorcycle <br> Cycle <br> Train <br> Bus/works bus Just walk <br> Other (SPECIFY) $\qquad$ <br> take to get <br> WRITE IN MINS. $\square$ | 1 2 3 4 5 6 |
| :---: | :---: |
|  |  |

d) How long does it usually take to get there from here?
$\square$


What does the employer (IF SELF-EMPLOYED, do you)
make or do at the place you usually work at (or from)?
h Including yourself, how many people work at
the place you usually work at (or from)?
WRITE IN


How many hours a week do you normally work?

\begin{tabular}{|c|c|c|c|}
\hline 36. \& \begin{tabular}{l}
We are particularly interested in the way people spend their time. Will you help us by keeping this diary for us (SHOW DIARY)... for... (FOUR OR SEVEN) days? EXPLAIN TASK. WRITE IN IDENTIFICATION, DAYS, ETC. \\
Diary accepted Diary not accepted
\end{tabular} \& \begin{tabular}{l}
Col. 1 \\
Code. \\
1 \\
2
\end{tabular} \& Skip \\
\hline 37. \& \begin{tabular}{l}
IF DIARY ACCEPTED \\
What about other members of your household, aged 14 or over? I would like to leave diaries for them too. Please ask them to take part, and explain what they have to do. \\
Diary accepted for other members \\
WRITE IN IDENTIFICATION,DAYS, ETC. \\
Not accepted for others
\end{tabular} \& \[
\begin{aligned}
\& 1 \\
\& 2
\end{aligned}
\] \& \\
\hline \& \begin{tabular}{l}
I would like to fix a time to come back and see you to collect your diary (and that of the other household members). \\
Recall appointment: Date \(\qquad\) 1983 \\
Time \(\qquad\) \\
WRITE RECALL APPOINTMENT DATE IN RESPONDENT'S DIARY \\
Time now (24-hour clock) \(\square\)
\(\square\) \\
Length of interview (minutes) \(\square\) \\
Date \(\qquad\) 1983 \\
Interviewer's signature \(\qquad\) \\
Interviewer number \(\square\)
\end{tabular} \& \& 1

$\vdots$ <br>
\hline
\end{tabular}

| Var No. | Start Contents Col. |  |
| :---: | :---: | :---: |
|  | 1st Record |  |
|  | 1 | Household I.D. |
| 1 | 5 | No. of people in household (actually in file) |
| 2 | 7 | No. of people in household ( $N$ ) aged under 1 year old |
| 3 | 8 | $N$ aged 1-5 |
| 4 | 9 | $N$ aged 6-10 |
| 5 | 10 | $N$ aged 11-14 |
| 6 | 11 | $N$ aged 15-17 |
| 7 | 12 | $N$ aged 18-20 |
| 8 | 13 | $N$ aged $21-30$ |
| 9 | 14 | $N$ aged 31-40 |
| 10 | 15 | $N$ aged $41-50$ |
| 11 | 16 | $N$ aged 51-60 |
| 12 | 17 | $N$ aged 61-65 |
| 13 | 18 | $N$ aged 66-75 |
| 14 | 19 | $N$ aged $76-97+$ |
| 15 | 20 | $N$ of unknown age |
| 16 | 21 | $N$ of men (aged $18+O R$ aged $16+$ and no longer in $F / T$ education) |
| 17 | 22 | $N$ of women (same condition) |
| 18 | 23 | $N$ of boys |
| 19 | 24 | $N$ of girls |
| 20 | 25 | $N$ related to respondent as - respondent themselves |
| 21 | 26 | $N$ rel - spouse |
| 22 | 27 | N rel - parent |
| 23 | 28 | $N$ rel - parent-in-law |
| 24 | 29 | N rel - grandparent |
| 25 | 30 | N rel - son/daughter |
| 26 | 31 | N rel - son/daughter-in-law |
| 27 | 32 | $N$ rel - grandchild |
| 28 | 33 | N rel - brother/sister (inc.in-law) |
| 29 | 34 | N rel - other relative |
| 30 | 35 | N rel - non-relative |
| 31 | 36 | N rel - unknown |
| 32 | 37 | Household structure: |
|  |  | $1=$ one-generation household |
|  |  | $2=$ adult $(\mathrm{s})$ and (grand)parent(s) (+ other adults) |
|  |  | $3=$ single parent ( + other adults of same generation or not related) |
|  |  | $4=$. couple(s) + kid(s) (+ other adults of same |
|  |  | ```generation of not related): residual cateçory 5 = 3-generation household``` |
| 33 | 38 | $N$ going to playgroup, creche, childminder |
| 34 | 39 | $N$ of unknown marital status |
| 35 | 40 | $N$ married |
| 35 | 41 | N living as married |
| 37 | 42 | N sejuratectidivorced |
| 38 | 43 | $N$ widowed |



Var Start Contents
No. Col.
$8214 \quad N$ doing shift work
$83 \quad 15 \quad N$ self-empioyed
$8416 \quad N$ mid-term unemployed (i.e. who say they are unemployed and have been out of work for more than six months and not more than a year)
8517 N long-term unemployed (out of work for more than a year)
8618 N of unknown socio-economic group (including people who are not 'economically active')
$8719 \quad N$ in SEG 1
$8820 \quad N$ in SEG 2
$8921 \quad N$ in SEG 3
$90 \quad 22 \quad N$ in SEG 4
$91 \quad 23 \quad N$ in SEG
$9224 \quad N$ in SEG 6
$93 \quad 25 \quad N$ in SEG 7
$9426 \quad N$ in SEG 8
$9527 \quad N$ in SEG 9
$96 \quad 28 \quad N$ in SEG 10
$9729 \quad N$ in SEG 11
$98 \quad 30 \quad N$ in SEG 12
$9931 \quad N$ in SEG 13
$10032 \quad \mathrm{~N}$ in SEG 14
$101 \quad 33 \quad N$ in SEG 15
$10234 \quad \mathrm{~N}$ in SEG 16
$10335 \quad N$ in SEG 17
$10436 \quad N$ of unknown social class
$10537 \quad N$ in social class 1 (professional)
$10638 \quad N$ in social class 2 (managerial)
10739 N in social class 3 (clerical / skilled manual)
$10840 \quad \mathrm{~N}$ in social class 4 (semi-skilled manual)
10941 N in social class 5 (unskilled manual - or possibly these go into social class 4 and 5 is reserved for some residual categories)

11042 No. of kids aged $0-5$ who travel to creche etc. any distance
11143 No. of kids aged $6-15$ who travel 5 miles or more to school

SOcIAL SCIENCE RESEARCH COUNCIL.
SUSHI \UNIVERSITY
SOKIIAI AND COMMUNITY PLANNING RESCARCII
P. 777 ADDRESS RECORD FORM SSR TIME USE STUDY 1983



TAB IF BLANK

IF SAMPLE TYPE

CODES 1-3 af $122 / 1-3$ TAS IF GLANK (123) | Interviewer I | 1 |
| :--- | :--- | :--- |
| Interviewer II | 2 |

Interviewer
A. Interviewer Nine $\qquad$ umber

(125-128)

B Details of Calls (In the order you make them)


1


3


Project Nuder


Aldrazt 6, 1101 Natl! ! $\square$ INTLRVILN HOUSEHOLDER OR HOUSEHOLDER'S SPOUSE. AT MULTI-HOUSEHOLD ADDRESSES, SEAR IKISEHOLD OF SELECTED ELECTOR, OR HOUSEHOLD OCCUPYING ACCOMMODATION WHERE

## SELECTED ELECTOR

ADDRESS程

## STUDY OF ACTIVITIES AND TIME USE

## BEFORE STARTING INTERVIEW COMPLETE

A. ADDRESS SERIAL NUMBER |  |  |  |  |
| :--- | :--- | :--- | :--- |
| Check $101-104$ |  |  |  |

B. DIARY TYPE $\begin{aligned} & \text { 7-day } \\ & \text { I-day }\end{aligned} \begin{aligned} & \text { A } \\ & \text { B }\end{aligned}$


G. Name of MAIN Questionnarre Respondent

IF YOU HAVE SUCCESSFULLY CARRIED OU'T A MAIN INTERVIEW KEEP ALL DOCUMENTS UNITIL ALL CONTACTS AT ADDRESS COMPLETE (INCLUDING CALL BACK INTERVIEWS). WHEN COAPLETE CUT OFF THIS SLIP. ATTACH THE REST OF THE ARF TO THE MAIN QUESTIONNAIRE AND RETURN AI, THE DOCUMENTS TO THE OFFICE TOGETHER

SEND THIS ADDRESS SLIP BACK AT THE SAME TIML BUT NOT IN TIE SAME ENVLIOPE.




One cellum
$12 \begin{aligned} & \text { ENTER INITIALS } \\ & \text { (Except respondent }\end{aligned}$
$\xlongequal{\text { 14. AGE LAST BIRTHDAY }}$
(UNDER 1 YR $=00$,
97 OR OVER $=97$ )
15. SEX




| One whum - for sevel-parson <br> 12. ENTER INITIALS <br> (Except respondent's) | $\begin{gathered} \text { enutrear r lobl } \\ \text { RESPONDENT } \end{gathered}$ | - if more | Than 8-a.cicir |
| :---: | :---: | :---: | :---: |
| 13 RING PERSON NUMBER person N'o miked | $\begin{gathered} (305-306) \\ \text { ol } \end{gathered}$ | $\begin{gathered} (305-306) \\ 02 \end{gathered}$ | $\begin{gathered} (305-306) \\ 03 \end{gathered}$ |
| $0.00$ | 00003 (307-311) | 00003(307-311) | 00003 (307-311) |


| 4. At the present time, is $3.3 / 2-13 / 16$ in pard work, a full-time student, or doing something else? <br> 98 Dr <br> In pard work <br> 99 NA On a Government Scheme Waiting to start a job accepted Looking for work/unemployed Out of work as temporarily sick Full-time student (PRIORITY CODE Permanently sick or disabled Retured Keeping house Other | $\left.\begin{array}{l} (339-340) \\ 01 \\ 02 \\ 03 \\ 04 \\ 05 \\ 06 \\ 07 \\ 08 \\ 09 \\ 10 \end{array}\right\} \mathrm{Q} .25$ | $\left.\begin{array}{l}(339-340) \\ 01 \\ 02 \\ 03 \\ 04 \\ 05 \\ 06 \\ 07 \\ 08 \\ 09 \\ 10\end{array}\right\} Q 25$ | $\left.\begin{array}{l} \langle 339-340\rangle \\ 01 \\ 02 \\ 03 \\ 04 \\ 05 \\ 06 \\ 07 \\ 08 \\ 09 \\ 10 \end{array}\right\} \Omega .25$ |
| :---: | :---: | :---: | :---: |
|  |  | (341-342) <br> (343) $\left.\begin{array}{l} 1 \\ 2 \\ 3 \end{array}\right\} \& 27$ | (343) $\left.\begin{array}{l} 1 \\ 2 \\ 3 \end{array}\right\} \text { Q } 27$ |
| ; $\frac{\text { IF NOT IN WORK/ON GOVT. SCHEME }}{(\text { CODES O3-1O AT Q 24) J } 339-40 \mid 03}$ <br> a) Has . ever had a regular paid job of 10 or more hours a week? Yes <br> IF YES $g f_{1}-344 / 1$ <br> b) How long is it since. last had a pard job of 10 or more hours a week? | (344) <br> Sk.p mintimetion shat reind 428 <br> (345) $\left.\begin{array}{l} 1 \\ 2 \\ 3 \\ 4 \end{array}\right\} Q 27$ | (344) <br> (345) $\begin{aligned} & \left.\begin{array}{l} 1 \\ 2 \\ 3 \\ 4 \end{array}\right\} Q .27 \\ & 5 \rightarrow Q 28 \end{aligned}$ | (344) <br> $1+$ b) <br> $2 \rightarrow N E 2 C_{28}$ PESSON <br> (345) $\left.\begin{array}{l} 1 \\ 2 \\ 3 \\ 4 \end{array}\right\} Q 27$ |
|  |  | $\underset{\substack{\text { continued } \\ \text { c. }}}{ }$ | $\begin{gathered} \text { M........ } \\ \text { continued/ } \\ \text { い } \end{gathered}$ |



One colvumin for ecuch parson $\left|\begin{array}{c}\text { Entereed of } 166 f 167 \text { - if move } \\ \text { RESPONDENT }\end{array}\right|$ Then 8-adidia



| - sheets | ould be cattap | ched I |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} (305-306) \\ 04 \end{gathered}$ | $\begin{gathered} \left.(305-306)^{( }\right) \\ 05 \end{gathered}$ | $\begin{gathered} (305-306) \\ 06 \end{gathered}$ | $\begin{gathered} (305-306) \\ 07 \end{gathered}$ | $\begin{gathered} (305-306) \\ 08 \end{gathered}$ |
| 00003(307-311) | 00003 (307-311) | 00003(307-311) | 00003(307-311) | 00003 (307-311) |
| (346) | (346) | (346) | (346) | (346) |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| (347) | (347) | (347) | (347) | (347) |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| (348) | (348) | (348) | (348) | (348) |
| $1 \rightarrow \mathrm{~g})$ | $1 \rightarrow \mathrm{~g})$ | $1 \rightarrow \mathrm{~g})$ | $\underline{1}+\mathrm{g})$ | $1 \rightarrow \mathrm{~g})$ |
| $2 \rightarrow 2.20$ | $2+8.28$ | $2 \rightarrow 2.28$ | $2+2.28$ | $2 \rightarrow Q$ |
| (349) | (349) | (349) | (349) | (349) |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| . | . ... . . . | $\cdots$. . | . ${ }^{\text {a }}$. |  |
| $(350-354)$ | ${ }^{(350-354)^{\circ}} \cdot \cdots$ | $\cdots{ }^{\cdots}(350-354)$ | (350-354) | ${ }^{-}{ }^{(350-354)^{-}}$ |
| $\frac{1}{\square}$ | $(355-56)$  <br> $1357-58)$  |      <br> $(355-56)$     <br> $(357-58)$     |  |      <br> $(355-56)$     <br> $357-58)$     |
| $\square \square$ | $\square \square$ | $\square \square$ | $\square \square$ | $\square \square$ |
| (359) | (359) | (359) | (359) | (359) |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 |
| (360) | (360) | (360) | (360) | (360) |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | '3 | 3 | 3 |
| 4 | 4 | ${ }^{4}$ | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 |
| 8 | 8 | 8 | 8 | 8 |
| (361-362) | (361-362) | (361-362) | (361-362) | (361-362) 12 |
|  |  |  |  |  |


$\left.\begin{array}{l|c|c|c|c}\text { ENTER INITIALS } \\ \text { (Except respondent's) }\end{array}\right)$



SHOW CARD C. On this card are various categories of weekly and monthly income. Into which category does the total income of your household fall? That 15 , income after tax but including benefit, pensions or other income. Please just read out the number (in the middle of the card) that applies, not the income itself.
30. Do you, or does anyone else in your household, own or have the use of a freezer ${ }^{\text { }}$ repeat for each item. Code all that apply. 9

| HOUSEHOLD POSSESSION | CODE | HOUSEHOLD POSSESSION | CODE |
| :--- | :--- | :--- | :--- | :--- |

Freezer
Washing machine
Sewing machine
Electric drill
Typewriter
Home brewing/wine making gear
Workbench
Camping/caravanning equipment


Does anyone ever come in to help your household with housework, cleaning or washing ${ }^{\text {P }}$ CODE BELOW UNDER a)
IF 'YES' - CODE 1 AT a) of 229, 232 etc/ $/ 1$
b) How often do they come in to help ${ }^{2}$ CODE BELOW UNDER $h$

を) Are they paid for this work?
IF YES ASK Are they paid by you or by someone outside your household? CODE BELOW UNDER c)
REPEAT a) - c) FOR EACH ITEM
$\frac{\text { REPEAT a) - c) FOR EAC }}{\text { One cole for each }}$
-



P777/November 1983
Address No.


1


## STUDY OF ACTIVITIES AND TIME USE

INDIVIDUAL SELF-COMPLETION QUESTIONNAIRE

Some of these questions require you to tick a box and othere to write in your answex more fully. Eanh yuesticn shows you how to answer

Ale

$$
00004 \quad(40)--1,
$$

1. During the last week how much were you bothered by. (TICK ONE BOX IN EACH ROW)
$9 N / A$ Lace when

2.a) During the last week did you have any illness or 1 jury that made you cut down on the things you usually do?
(TICK CNS BOX)
b) IF YES. Did the illness or injury cause you to stay in bed for a week or more?
(TICK ONE BOX) $\square$
3.d) Do you suffer from any long-standing illness, disability or infirmity?
(TICK ONE BOX)
b) IF YES. Please write in the name of the illness, disability or infirmity Not beni coded
$\qquad$
c) Does this illness, disability or infirmity limit
your activities compared to people of a similar age?
(TICK ONE BOX)

$$
\begin{aligned}
& \text { YES } \square(1: 19) \\
& \text { NO } \square
\end{aligned}
$$

1 These two questions are concerned with your general feelings. If you are completely satisfied with things, you would tick the box numbered '10'; if you are completely dissatisfied, you would tick the box numbered ' $O$ '; and if you feel somewhere in between the two, you would tick a box between ' 0 ' and ' 10 '. The more satisfied you feel, the nearer box 'lo' you will be; the less satisfied, the nearer box ' $O$ '.
a) Generally, how satisfied do you feel with your level of health nowadays? 2 duget entry - enter servos will coder 0,1-9

b) Generally, how satisfied do you feel with your life nowadays?

${ }_{5}$ P等 often do you do each of the following things
(TICK ONE BOX IN EACH ROW)

sine
6 Here are a few more activities. Please record how often you do each of the following things. (TICK ONE BOX IN EACH ROW) $9 \mathrm{~N} / \mathrm{A}$ on fOCh


133 $-34)$ $1+35$ $+3 b$ ) $437)$

## Not being coded

427) 

$+30)$
b) IF YES In the space below, please state what kind of odd jobs or freelance work you do.

## of $453 / 1$

c) Do you do odd jobs or freelance work every week, most weeks or less often?
(TICK ONE BOX)

## NOT BEING CODED.

8 Do you have any major hobbies, activities or interests that are not covered at questions 5 and 6?

IF YËS. Please give details
 Stucly of ctivities and lime use

## DIARY

## THIS DIARY IS COMPLETELY CONFIDENTIAL

The information you give us will be treated as strictly conidential and will be used only lot cornpihng statistics No details telating to any identifiable individual or household will be revealed in any published report on the surver

[^0]
## HOW TO USE THE DIARY

1 Please record a// the things you do not just the most important ones

2 Complete for each quarter hour

- your main activity write in what you consider to be your main activity during each quarter hour period
- anything else you ware doing in the same quarter hour
- who alse was involved with you in the main activily We only need the relationship of that person to you - son daughter friend etc - not their name
- where you were during the main activity Tick one of the boxes to show il you were at home at your own workplace for school college etc) travelling between iwo places or elsewhere
3 Fill in your diary as often as possible
4 If an aclivity lasts for more than quarter of an hour - such as sleep or work - there is no need to write it again for every quarter hour Write il onice al the beginning of the acuivily and draw a straight line down the column until the activity stops (Please make sure your line ends in the right place)
5 Aiter completing the diary please answer the questions at the end of the booklet

PLEASE KEEP YOUR DIARY FOR 7 DAYS

Statt on $\qquad$
End on
Your diary will be collected on
$\qquad$

MORNING




Brung un codes alougside colsumes
BEFORE OUR INTERVIEWER COLLECTS THIS DIARY COULD YOU PLEASE ANSWER THESE FEW QUESTIONS BY PLACING A TICK $\sqrt{ })$ IN THE APPROPRIATE BOX IT WILL ONLY TAXE A FEW MINUTES IT WILL HELP US TO KNOW HOW TYPICAL YOUR LAST WEEK S ACTIVITIES WERE


## PLEASE ANSWER THESE QUESTIONS AFTER COMPLETING THE DIARY

1 During the last woek how much were you bothered by

| Itick one boxineach rowl | $\begin{array}{\|c} \text { NOT AT } \\ \text { ALL } \end{array}$ | $\mathrm{SLCO}^{(5145}$ | $\begin{aligned} & \text { OUITE } \\ & \text { ALOT } \end{aligned}$ | $\begin{aligned} & \text { A } \\ & \text { GREAT } \\ & \text { DEAL } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) COLDS ORFLU |  |  |  |  | (412) |
| b) HEADACHES |  |  |  |  | (413) |
| c) NERVOUSNESS OR |  |  |  |  | (4/4) |
| d) FEELING GENERALLY RUN DOWN |  |  |  |  | (4,5) |
| e) FEELING DOWN |  |  |  |  | (416) |
| f) UPSET STOMACH |  |  |  |  | (417) |
| g) $\begin{aligned} & \text { TROUBLE STAYING } \\ & \text { ASLEEP AT NIGHT }\end{aligned}$ |  |  |  |  | (418) |

a)
a) Ouring the last week were you suffering from any lliness or infury that made you cut down at all on the things you usually do?
(TICK ONE BOX)
b) If YES Did the illness or infury cause you to stay in bed for a week or more)

Do you suffer from any long standing iliness disability or infurmity?
(TICK ONE BOX)
b) If YES please wrile in the name of the illness disability or yes $\square$
no $\square$

These two questions are concerned with your general feelings If you are completely salished with things you would uck the box numbered 10 if you are completely dissalisfied you would tick the box number 0 and if you leel somewhere mbetween the iwo you would tick a box between 0 and 10 The more satislied you leel the nearer box 10 you will be the less satisfied the nearer box 0
al Generally how salusfied do you feelwith your level of health nowadays?



5 You have shown us your last week sacivities in your diary We would like to know how typical these are Your answers to the questions below will give us a clearer picture of your range of acivitues over a longer period than a week How often do you do each of the following things

ITICK ONE BOXIN EACH ROWI

| - | $\left\lvert\, \begin{gathered} \text { WEE OR } \\ \text { OORE } \\ \text { OFFEN } \end{gathered}\right.$ | ONCE 2 rort NIGH1 Nigm | about ONCEA MONIH | $\begin{gathered} \text { EVERY } \\ \text { FEWI } \\ \text { MONTHS } \end{gathered}$ | $\begin{aligned} & \text { CRNCEA } \\ & \text { reAROR } \\ & \text { OFSS } \end{aligned}$ | veven |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| USE A PUBLIC LIBRARY |  |  |  |  |  |  |  |
| DO CAR MAINTENANCE/REPAIR |  |  |  |  |  |  | (428) |
| DODIY/CARPENTRY |  |  |  |  |  |  | $(429)$ |
| PLAY ANY TEAM SPORTS LIKE FOOTBALL OR CRICKET |  |  |  |  |  |  | $(430)$ |
| PLAY OTHER ACTIVE GAMES OR SPORTS LIKETENNIS GOLFORFISHING |  |  |  |  |  |  | (431) |
| PLAY GAMES AT HOME LIKE CARDS OR BOARD GAMES |  |  |  |  |  |  | $(432)$ |
| PLAYPUB GAMES LIKE POOL OR DARTS |  |  |  |  |  |  | (4-33) |
| Play Bingo |  |  |  |  |  |  |  |
| DO GARDENING |  |  |  |  |  |  | 35) |
| PLAY A MUSICAL INSTRUMEN ${ }^{\top}$ |  |  |  |  |  |  | $(436)$ |
| GO OUT TO A PUB OR CLUB |  |  |  |  |  |  |  |
| GO TO MEETINGS OF POLITICAL/PRESSURE GROUPS |  |  |  |  |  |  | $1-38)$ |
| TALK OVER YOUR PROBLEMS WITH SOMEONE |  |  |  |  |  |  | $(439)$ |
| VISIT MUSEUMS ART GALLERIES HISTORIC BUILDINGS STATELY HOMES |  |  |  |  |  |  | (0) |
| GO TO FURTHER EDUCATION CLASSES OR NIGHT SCHOOL |  |  |  |  |  |  | $41)$ |
|  | (6) | (5) | (4) | 131 | (2) | (1) |  |

2

AU
6 Here are a few more activilues Please record how often you do each of the following things 9 a/s $n$ each entuen

| (TICK ONE BOX IN EACH ROW) | $\left\lvert\, \begin{gathered} \text { ONCEA } \\ \text { WWEXOR } \\ \text { MORE } \\ \text { OFTEN } \end{gathered}\right.$ |  | A日OU! ONCE A MONTH |  | ABONT <br> ONCE A <br> YEAR OA <br> OFTEN | never |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EAT OUT AT A RESTAURANT OR CAFE |  |  |  |  |  |  |
| EAT OUT AT SOMEONE ELSE S HOME |  |  |  |  |  |  |
| HAVE PEOPLE TO YOUR HOME FOR A MEAL |  |  |  |  |  |  |
| GO TO THE CINEMA |  |  |  |  |  |  |
| GO TO THE THEATRE/CONCERTS IINCLUDING ROCK AND POPI |  |  |  |  |  |  |
| DO ANY SEWING OR KNITTING |  |  |  |  |  |  |
| BREW BEER OR MAKE WINE |  |  |  |  |  |  |
| SEE YOUR DOCTOR |  |  |  |  |  |  |
| APPLY FOR A JOB OR NEW POSITION |  |  |  |  |  |  |
| GO TO CHUPCH OR OTHER PLACE OF WORSHIP |  |  |  |  |  |  |
| DO YOUR HOUSEHOLD SHOPPING |  |  |  |  |  |  |
|  | (6) | 151 | (4) | (3) | 121 | 11 |

7 al Do you do odd jobs or freelance work for money apart from any main job you may have?
(TICK ONE BOX)
b) If YES In the space below please state what kind of odd jobs or freelance work you do
 LESS OFTEN
qu/a evearweex most weeks
c) Do you do odd jobs or freelance work avery week most weeks or less often?

8 Do you have any major hobbies activities or interesis that are not covered at questions 5 and 6?

If YES Please give detalls
b) About how long on average did you spend filling in the diary each day?

9 a) How interesting did you find keeping ihis diary?
(TICK ONE BOX)


## CONSTITUENCY SAMPLES

```
OPCS cluster
(cols 117,118)
```


## Serial number within cluster

 (col 119)1
2

Manchester Withington
Greenwlch
South Hertfordshire Windsor and Maidenhead Leominster
Poole
Argyll
Hove
Gloucester
Colne Valley
Daventry
Gravesend
Welwyn and Hatfield
Heywood and Royton
St Helen's
West Bromwich East
Pontypool
Gower
Durham
Northampton North
Manchester Openshaw
Sunderland South
Manchester Wythenshawe
Kilmarnock
Edinburgh East
Glasgow Springburn
Lambeth Vauxhall
Nottingham East
Kensington and Chelsea
Kensington
Brent East

| Weekly | Code letter | Annual |
| :---: | :---: | :---: |
| Less than $£ 39$ | 05 | Less than $£ 2,00$ |
| ¢39-557 | 02 | £2,000-£2,909 |
| £58-£77 | 11 | £3,000-£3,909 |
| £78-£96 | 06 | £4,000-£4,999 |
| £97-£115 | 10 | £5,000- 55,999 |
| £116-£135 | 08 | £6,000-£6,999 |
| £136-E154 | 01 | £7,00) - £7,999 |
| £155-£192 | 09 | £8,000- 59.999 |
| £ 993 - £230 | 04 | £10,000-£11,999 |
| £231-£289 | 07 | £12,000-£14,999 |
| £290-£384 | 12 | £15,000-£19,099 |
| £385 or more | 03 | £20,000 or more |

SociAL AND


```
Code LOCATION CODING FRAME (continued)
    LEISURE FACILITIES
23 Pub, social and night clubs For hobby club locations code 24.
24 Hobby clubs and leisure day/evening class locatzons eg. flower
    arranging, pottery, chess club.
25 Indoor sports facilities, eg sports centre, skating rink.
26 Museum, gallery, historic burlding etc. For outdoor historlcal sltes,
    eg Stonehenge, Code 31.
27 Other entertalnment facilities, eg. canema, theatre
2e Restaurants, cafes and other eating places outside private households.
2Э Other indoor leısure facllitles not covered in codes 23-28 above.
30 Parks and public gardens.
31 Historic sites.
22 Beach, sea-side.
33 Countryside
3: Outdoor sports faciluties, eg. golf, salling.
35 Other outdoor leisure facilitzes not covered 2n codes 30-34 above
    IN TRANSIT
36 Car, motorcycle (includes taxi).
37 Bus.
35 Traln.
30 Brcycle.
4) Walked.
~1 Water transport
i= Alr transport.
4j Other transport.
44 Transport, not specified.
45 Other answers.
99 Not stated
```

TIME BUDGET STUDY P. 777
ACTIVITIES CODING FRAME

## Contents

| EVERYDAY PERSONAL NEEDS | (1-9) | 1 |
| :---: | :---: | :---: |
| TASKS IN AND AROUND THE HOME | (14-33) | 2-3 |
| CARE OF OTHERS | (37-55) | 4 |
| SHOPPING AND USE OF SERVICES | (56-66) | 5 |
| WORK ACTIVITIES AND BREAKS FROM WORR DURING WORK HOURS | (70-77) | 6 |
| JOBSEARCH ACTIVITIES | (80-83) | 7 |
| EDUCATION, COURSES AND INSTRUCTION | (86-90) | 8 |
| EVERYDAY LEISURE ACTIVITIES, USUALLY BASED AT HOME | (91-114) | 9-10 |
| LEISURE AND ENTERTAINMENT ACTIVITIES, OUTSIDE HOME | (118-136) | 11 |
| PARTICIPATION IN SPORT AND ACTIVE LEISURE ACTIVITIES | (138-161) | 12-13 |
| RELIGIOUS, POLITICAL, COMMUNITY, VOLUNTARY ACtivities | (166-176) | 14 |
| TRAVEL | (177-187) | 17 |

EVERYDAY PERSONAL NEEDS (Codes 1-9)

All these activities relate to the individual, if these activities are carried out for other people, such as dressing children, feeding babies or washing an adult look under the section on 'Care of others' If they are carried out by other people, such as having a haircut, look under the section on 'Shopping and use of services'.

## Code

1 Personal hygiene and self-care
Thas includes all toxlet and washing activities, such as baths or showers. Dressing, getting up, going to bed, preparing to go out. Puttang on make up Manicure and saunas at home.

Eating at home
Maln meals and snacks at home, not including entertaining friends or others to a meal at home (see code 91) For meals out see codes 12527 , or at work code 72.

3 Drinking non-alcoholic beverages
Tea, coffee, soft drinks and other non-alcoholic beverages
4 Main sleep
Remember that for shift workers this could equally be in the day as well as at night.

5 Short naps and snoozes
Include afternoon siestas and other short sleeps, different from the mann sleep.

6 Being sick, 111
Sick in bed or in hospital. Knocked unconscious, fainting. Involvement in an accident, cutting a finger, grazing knees, falling down, etc.

7 Personal medical care
Taking medicines, prescriptions. Tending to wounds
8 Other personal care/need activity - LIST
9 Personal care/need - not specified

```
    TASKS IN AND AROUND THE HOME (Codes 14-33)
    If these are paid work activitues, for example, doung office work at
    home, home catering for outside functzons, homeworkers and running a
    catalogue, see under section on work. When done for someone else not
    as a paid activity see under 'Care of others'.
Code
14 Food preparation, cooking
    Preparing any food or dranks. Includes serving the meal up
    Baking, freezing foods, making jams, plckles, preserves, dry2ng herbs
        Where d_stingulshable from above, involving baking or food preparation
        not for zmmediate consumption.
    Homebrewing, wlne making
17 Washing up, putting away dishes
    Include using the dishwasher and drying dishes.
18 Washing clothes, hanging washing out to dry, bringing it in
    Does not include going to the lawndry or launderette (see code 58).
    Ironing clothes
0 Repair, upkeep of clothes
    Mending socks, sewing on buttons. Cleaning shoes. Does not include
    knitting, sewing and dressmaking (see code 105).
21 Makıng, changing beds
22 Dusting, hoovering, vacuum cleaning
    Include general cleaning and cleaning windows.
23 Outdoor cleanlng
    This is cleaning done outside the house, such as washing out the
    porch, sweepang the drive and tadyıng the garage. It does not anclude
    work done in the garden (see code 29).
24 Other manual domestic work
    Includes watering indoor plants, tidying cupboards, lining shelves,
    layıng the table.
25 Housework elsewhere unspecified
26 Heat and water supply upkeep
    This includes stoking the boller, banking up fires, bleeding radators
27 DIY, decorating, household repaırs
    putting up shelves, fixing and mending, wiring up plugs, hammering
    down floor boards. laying carpets. Incl. mending bike.
28
    Car maintenance, car washing
    For taking a car to the garage or flilung it with petrol see code 58.
```


## Code

## 29 Gardening

30 Home paperwork
Keeping household accounts Filling in forms Shopping lists for paperwork activities connected with work, see under section on work, with looking for work see codes 80 for writing letters to friends, creatave writing etc. see code 109 and for voluntary political actlvities see code 172 Include shopping lusts

31 Pet care
Includes feeding, washang and general care of pets but not taking pets for walks or riding horses (see codes 150 , 153 respectively).

32 (Other) tasks in and around the home, unspecified

33 Tasks - unspecified

```
    CARE OF OTHERS (Codes 37-55)
Code
37 Feeding and food preparation for babies and children
    Where distinguishable from general food preparation.
    Feeding and food preparation for dependent adults
    Where distinguishable from general food preparation.
    Washing changing babies and children
    Washing, tollet needs of dependent adults
    Putting children and bables to bed or getting them up
    Babysitting
    Does not include chaldminding for other people's children as a paid
    activity (see code 74).
    Other care of babies
    Medical care
    Attending to medical needs of babies, children and adults. Putting
    plasters on wounds, giving medicine, washing cuts etc.
45 Reading to, or playing with
    Fabies, children and dependent adults.
    Helping children with homework
    (Incl. Open Evenings, etc.)
47 Supervising children
    At tea parties, in the garden, the park, at home, etc.
48 Accompanying adult or child
    To a doctor, dentıst, hospital or day centre, nursery, school. This
    Includes visiting someone in hospital.
    Shopping for others
    This does not include shopping for own household but shopping for a
    relative, neighbour or friend who lives elsewhere.
50 Fetching/carrying something
    This could be taking a cup of tea to a wife, taking a book to a
    friend.
51 Other care of children
    Refer to supervisor.
    Other care of adults - LIST
    Doing housework for someone else
```

55 Care of adults - unspecified

## Code

56 Everyday shopping, shopping unspecified
Where thas shopping $1 s$ done for sorebody else outside the ho=e see code 49. Include paying roundsmen.

57 Shopping for durable goods
Where these are distangurshable from above and covering goods t-at are not for mmediate consumption such as cars, furniture, cutlery.

58 Services for upkeep of possessions
These are not personal services but cover services such as launderettes, watch repairs, and duplicate key cutters, wrere a household possession actually recelves the service Repair of cars at garages, filling cars with petrol, and services of other mectanical equipment would be included here

59 Personal services
Including hairdressers, saunas, máicurists, beaúty pariours.
60 Medical, dental, paramedical services
This does not include accompanying someone to the doctor, de:=ist, physiotherapist, chiropidist etc. or visiting someone in hospita: (see code 48). The visit must be made by the individual concerned.

61 Welfare services, counselling
This may include visiting social services, marriage guzdance counselling, going to a refuge, or a citızen's advice bureau.

62 Legal services, dealing with police
Including belng arrested as well as reporting stolen property Jury servace, vasiting a legal advice centre or solicitor, attendaree at court.

63 Money services
Cashing cheques, buying stamps, plcking up pensiozs, talking to the bank manager

64 Services for animals
Vets, catteries, stables and other services for anyals
65 (Other) shopping and use of services
66 Services unspecified

## Code

Normal work
Main job, whether part-tume or full-time work. Includes overtue and time spent at workplace before starting and after finishing work. Work may be at home or outside the home. Those who are travelling most of the time, as part of their work, also came under here. Include business trips. For chuldmınding and running catalogues see codes 74-75 below.

71 Unscheduled break at work
Iny interruption or waiting in work time, where it can be specifically isolated from work Strikes, stoppages and breakdowns.

72 Scheduled break at work
Regular breaks and prescribed non-working periods during work ture, eg tea breaks. Meals at workplace in canteen, business lunch.

Second, third etc. job (for money)
Where this can be identified as additional to normal work, for example, window cleaning, bar work and selling double-glazing. If it is not clear whether the work was done for money, clues may be found in the location column, le at home/not at home, and the other people involved, ie clients, family. If not done for money, code under 'Tasks in and around the home' or 'Care of others'.

Childminding
Carıng for other people's chuldren as a job, not as a personal favour. For babysitting see code 42.

Munning a catalogue
This includes reading the catalogue, selling to friends from the catalogue and any other assoclated paperwork - associated with running
a catalogue.
Other informal economic activity
this includes scavenging, poaching, mugging and theft.
Other work-related activities

## Code

80 Jobseeking paperwork at home
Reading vacancy columns in the newspaper, writing job applications, making phone calls about vacancies Any other paperwork concerned with job application procedures

81 Jobseeking activities outside home
Golng to Jobcentre. Interviews Paperwork outside the home. Calling in on potential employers. For picking up giro see code 63.

82 (Other) Jobsearch activities

83 Jobsearch - unspecified
 under the section on leisure (see code 132). These actavities all relate to receiving education, le. learning oneself, rather than educating others which may be coded as work (see work section), or as voluntary activaty, such as literacy tutoring (see code 169)

## Code

86 Educational activities - unspecifxed
87 Lunch break at educational establıshment - school
88 Student at educational establishment
Full or part tame attendance at a college, school, further or adult education institute. Covers night school, lectures and courses.

89 Studying
Including reading educational books, writing essays and preparing for lectures.

90
Other educational activities

## EVERDAY LEISURE ACTIVITIES (91-114)

## Code

91 Entertaining at home
Having friends, relatives, colleagues round for a meal. A party Coffee mornings and friends (relatives etc.) dropping in for a chat

92
Talking, chatting, arouing, discussing
Where distinguishable from other activities.
93 Alcohol, tobacco (smoking) and drugs consumption
Not medical drugs (see code 7). For drinking in pubs see code 121.
Reading newspapers, Eagazines
95 Reading books
Include unspecified reading here. Reading mail.
96 Listening to radio
97 Listening to tapes, records etc.
Including listening to music etc. from unspecified source, here.
9B Watching broadcast TV
Include watching sport etc on $T V$ at home. Include watching an unspecified programme here.

99 Watching video tapes and discs
100 Watching home movies, slides
Include looking at photographs.
101 'Playıng'
If with babies, chzldren in the home or dependent adults see code 45 . Otherwise include all activities like fooling around (not sports or games see sections of leisure and sport). Includes playing at school.

102 Playing video/computer games
103 Playıng games, cards
Include doing crosswords, puzzles, competitions
football pools.
104 Artistic and music activities
Singing, playing instruments, drawing, paintang if being tutored or learning see code 132.

Knitting, sewang, dressmaking
Not repairs to clothes (see code 20).
Hobbies, collections not shown elsewhere

EVERYDAY LEISURE ACTIVITIES, USUALLY BASED AT HOME contd.

## Code

107 Computer activities
Home based computers, not computer games (see code 102).
108 Telephoning
Both making and receiving telephone calls.
109 Writing
Writing to friends/relatives. Creative writing. Does not include home paperwork (see code 30). Includes filling in diary.

110 Relaxing, pottering around
Including thinking, doing nothing, resting.
111 Sitting in garden, sunbathing
112 Kissing cuddling fonding
Sex, lovemaking.
113 Other leısure activities
114 Leisure - unspecified

## LEISURE AND ENTERTAINMENT ACTIVITIES (118-136)

For organisation of sport and coaching see under voluntary activities (code 170).

## Code

$118 \frac{\text { Watching sport live at the event }}{\text { Not on television or video. }}$

119 Watching films at the cinema
120 Watching live entertainment
At a theatre or concert for example.

121 At the pub
122 Playing pub games
Darts, dominoes and cards.
123 At a social or night club
Not a hobby club but where people meet socially to drank, dance, talk or eat, eg. the British Legion, a disco club.

124 At a party/dance
Where distingushable from above.
125 Eating out at restaurants, cafes etc
126 Eating out at a fast food or takeaway
Macdonalds and fish and chips, for example.
127 Eating out at a colleagues, relatives, friends' house
128 Visiting friends, relatives
129 Meeting friends, relatives outside respective homes
130 Gambling
Include going out to play bingo (for bingo at home see code 103) Betting shops and arcades must be included but not betting at a racecourse (see code 118).

131 Driving lessons
132 Night and privately tutored classes for hobbies
Including things like pottery, woodwork, textile design, etc.

133 Eating out not specified
134 Attending jumble sales, bazaars etc.
135 Other - Leisure \& entertainment activities
136 Leisure and Enterta inment - not specified

## Code

138 Outdoor team games
For example, footba:l, rugby, cricket, hockey, basketball.

139 Non-team ball hitting sports
For example, tennis, squash, badmanton, snooker
140 Running, jogging, cross-country, track and field Include athletics.

141 Golf
142 Fishing
143 Bowls
144 Martial arts
For example, karate, judo, Tal Chi.

145 Swimmang and other water sports
146 Keep fit, yoga, aerobics
147 Cycling
148 Other outdoor sports
149 Other indoor sports
150 Walks, rambles
Not short walks between two points (see travel codes), but walks by the sea, in the country etc. Include taking pets for walks.

Going for a drive

152 Dancing
353 Horse rides

154 Hunting, shooting etc.
Include range and clay pigeon shooting.

155 Camping, caravanning
156 Other outdoor hobbies
For example, birdwatching, mushroom picking, archaeology.

RELIGIOUS, POLITICAL, COMMUNITY, VOLUNTARY ACTIVITIES (166-176)

## Code

```
166 Religious practices
Including ceremonies, praying and meditation both at home and elsewhere. Sunday school. Organisation of church events should be coded elsewhere depending on the nature of the activity, eg running a bazaar (code 173)
167 Community/political meetings
Union, pressure groups, other politıcal groups. Includes attendance at meetings at home and elsewhere.
168 Activities as councillors, officials
For actuvities as union or other political/community group official, such as organising meetings and giving a speech This work ls voluntary in nature and unpaid, except for possible expense allowances.
169 Voluntary tutoring
Teaching luteracy, helpung out at a school voluntarily, teaching the next door nelghbour how to read (for own children see code 46). Teaching pottery.
170 Organzsing sports/coachang
Where this is not part of somebody's work, eg. a PE teacher at school would be coded under the section on work.
```

171 Providing meals/refreshments
Meals on wheels, bazaar refreshments.
172 Paperwork associated with voluntary activity
Sticking up posters, delivering leaflets, stuffing envelopes.
173 Other voluntary/organisational work
Funning a stall, canvassing, organisang other voluntary work.
174 Other political/community activities
Includes demonstrations, lobbyings, packets, non-violent drect action (NVDA), blockades, 'marching

Other religious, political community voluntary activities
incl. unspecified.
Religious, political, community, voluntary activities - unspecified

TRAVEL (177-187)
Driving lessons, bike rides, walks in the country, goung for a drive are not included here (see under leisure sections).

## Code

177 Fetching, picking up, dropping off
Either fetchung someone/something or picking somebody up as a durect activity, eg. going to pick someone up out of work. Thas refers to errand types of actavity eg. fetching a parcel from the station, and not care activities such as picking up children from school (code $\overline{182}$ ), or taking someone to the hospital. Walked someone to bus stop.

178 Work
To/from work, wherever it is based. To/from business meetings and durectly work related activithes. Durang work travel for other than work reasons should fall under one of the other categories.

179 Leisure
To/from leasure activities as shown in codes 91 to 159.
180 Religious, political, community, voluntary
A journey to or from any of these activaties.
181 Shopping/services
Travel to/from shopping/services.
182 Care of others
Travel in connection with care of others, eg. accompanying someone to hospital, picking children up from school.

183 Education
Travel to/from educatıonal activitıes
184 Arrived home, went out
If this forms a main actavity, first check there, are no secondary activaties, eg. put on coat. If there are, code these as mann
activities.
185 Jobsearch
To/from Jobcentre, interviews and other Jobsearch activities.
Other travel
187 Travel - not specified

```
    ADDITIONAL CODES
Code
710 Indeterminate home relaxation
    At home, and by inference resting or relaxing
711 Other home
    At home, no inference possible as to activity
712 Uninterpreted activities
    Activity is named, but name not understood
713 Indeterminate "in town", probably shopping
    "In town", and by inference shopping
714 Indetermnate "out of home" lelsure
    Not at home, not at work, not shopping
715 Indeterminate institutional
    Offices or other institutional setting other than work, school
    or public building
716 Waiting for someone or something
717 Suspicious blanks
    Possible inference of unrecorded ıllegal or unsocial activity
    Death
719 Meeting people, saying goodbye
720 Out of house - not sure where
995 Mlssing data ~ diary mlsprint
999 Not stated
```

| Class | AGRICULTURE FORESTRY \& FISHING | Class |  |
| :---: | :---: | :---: | :---: |
|  |  |  | CONSTRUCTION |
| 01 | Agriculture and Horticulture | 50 | Construction |
| 02 | Forestry |  | DISTRIBUTIGN, ILOTFISS A CATI RING, RIPAIRS |
| 03 | Fishing |  |  |
|  | LAELGCY a HATLR SUPPLY INDUSTRTLS | 61 | Wholesale dastabution (except dealing an serap of waste materials) |
| 11 | Coal extraction \& manufacture of solid fuels | 62 | Dealing in scrap \& waste materials |
| 12 | Coke ovens | 63 | Commission agents |
| 13 | Extraction of mineral oil a naturai gas | 64 | Retail distribution (incl 65 from book) |
| 14 | Mineral oil processing | 66 | Hotels \& catering |
| 15 | Nuclear fuel production | 67 | Repuar of consmmur goods o vehicles |
| 16 | Production a distribution of electricity, gas $\&$ other forms of energy |  | TRANSPORT \& COMMUNICATION |
| 17 | Watex supply industry | 71 | Raslways |
|  | EXTRACTION OF MINERALS \& CORES OTHER THAN FUELS | 72 | Other inland transport |
|  | MANUFACTURE OF METALS, MINERAL PRODUCTS \& CHEMICALS | 74 | Sea transport |
| 21 | Extraction \& preparation of metallıferous ores | 76 | Supporting services to transport |
| 22 | Metal manufacturing | 77 | Miscellaneous transport services \& storage N E.S |
| 23 | Extraction of minerals N.E.S | 79 | Postal services \& telecommunications |
| 24 | Manufacture of non-metallic maneral products |  | BANKING, FINANCE, INSURANCE, BUSINESS SERVICES \& LEASInc |
| 25 | Chemical industry |  | BANKING, FINANCE, INSURANCE, BUSINESS SERVICES \& LEASYNG |
| 26 | Production of man-made fibres | 81 | Banking \& finance |
|  | METAL GOODS, ENGINEERING \& VEHICLES INDUSTRIES | 82 | Insurance except for compuisory social security |
|  | METAL GOODS, ENGINEERING \& VEHICLES INDUSTRIES | 83 | Business services |
| 31 | Manufacture of metal goods N.E.S | 84 | Renting of movables |
| 32 | Mechanical engıneerıng | 85 | Owning \& dealing in real estate |
| 33 | Manufacture of office machınery $\&$ data processing equipment |  | OTher services |
| 34 | Electrical \& electronic engıneering |  | OMER SERVICES |
| 35 | Manufacture of motor vehicles $\&$ parts | 91 | Public administration, national defence \& compulsory |
| 36 | Manufacture of other transport equipment |  | social service |
| 37 | Instrument engineering | 92 | Samitary services |
|  |  | 93 | Lducation |
|  | OTIILR MANUFACTURING INDUSTRIES | 94 | Hescarch a divelopminal |
| 41 | rood, drink \& tobacco manufacturing industries (incl. 42 from book) | $\begin{aligned} & 95 \\ & 96 \end{aligned}$ | Medical \& other health seruices veterinary services Other services provided to the general public |
| 43 | Textile industry | 97 | Recreational services \& other cultural services |
| 44 | Manufacture of leather \& leather goods | 98 | Personal services |
| 45 | Footwear \& clothing industries | 99 | Domestic services |
| 46 | Timber \& wooden furniture industries | 00 | Diplomatic representation, international organisation: |
| 47 | Manufacture of paper \& paper products, printing \& publishing |  | allied armed services |
| $0_{48}$ | Processing of rubber \& plastics | 89 | Unable to classıfy/NA |
| 49 | Orher manufacturing industrıes |  |  |

## OCCUPATION CODING (Q.27h)

[See data documentation]

## OCCUFATION CODING


#### Abstract

The Occupation Coding scheae used by SCPR is based on the 1980 Classification of Dccupations as used for the ligi Census, referred to in the rest of this note as the Classification. Tro eleaents, 1980 Occupation Code and Eaployaent Status are coded, enabling S.E.G. and Social Class to be derived by reference to a loot-up table. These jatter itess are then added to the data fale.


## 1980 Occupation Code

In the Classification of Occupations 1980 the codes appear as the 161 categories of KOS (condensed form) followed by a full stop followed by a 1 or 2 digut suffix. SCPR record these codes with the full stop oamitted, left justified in a 5-digit field. As most codes have only a l-digit suffix, the last position in the 5-column field is usually blank.

The 1980 code should not be treated nuaeracally, since thas wall with cost packages lead to confounding of blanks and zeros in the suffixes. However this 15 rarely a problen in practace, sance it is usually only the farst 3 digits which are used in analysic directly, and these fora constant length nueric code an the range 001-16) (plus exceptions noted below). The suffixes are really only relevant to the derivation of S.E.G. and Social Class.

We have renumbered four codes in the Classification as follows:

| Classification of Dccupations | SCPR <br> Code | Description |
| :---: | :---: | :---: |
| -. 1 | 9981 | Foremen (enganeering allaed) |
| -. 2 | 9982 | Tramee craftsmen (ditto.) |
| -. 1 | 9991 | Inadequately described |
| -. 2 | 9992 | Not stated |

(As the classification notes on page vi these groups do not form part of the codensed $k D S$ structure.)

## Enployent Status

We have expanded the categories in the Classification of Dccupations to 11, introducing masing and partial anforeation codes. The latter enable the axamu intormation to be utalased when autoatically deriving S.E.G. and Social Class. The categories are as follows.

```
01 self-employed (25+ eaployees)
02 self-eneployed (1-24 eaployees)
03 self-employed (no eaployees)
O4 self-employed (NA hom aany eaployees)
05 manager (establishoent of 25+ eaployees)
O6 aanager (establashment of 1-24 esployees)
07 manager (NA ssze of establishment)
08 foresan/supervisor
09 other employee
10 employee (NA if manager/foreman/other)
11 NA/insufficient information to code more specifically.
```


## Derivation of S.E.G. and Social Class

The coaputer edit prograt accesses look-up table organased as a natrax of 1980 Occupation codes and the 11 Eafoyaent status codes above. The information is taken fron the tatle in Appendix Bl of the Classification. There are entries in each cell for S.E.G. and Social Class. Ablankentryindicates an invalid combinataon of Occupation and Employrent Status, so the table perforas an editang function as mell. At the end of the process the values for S.E.G. and Social Class are entered permanently on each record.

## Socio-Economic Group (S.E.G.)

The codes are the standard codes il-17 as noted an the Classifacation of Occupations.

## Social Class

There are two dastanct fields, each of one digit. The first is the Social Class category, with 1-5 corresponding to l-V and two additaonal codes : 8 meaning not classified by the systen and 9 aeaning insufficient information/NA.

The second digat andicates whether non-anual (1) or manual (2)
occupation wath 8 and 9 as for the first digit.
S.E. 2/8/84

Reference: Classification of Occupations 1980. OPCS/HMSD

## NATIONAL

## TIME-BUDGET STUDY

# Methodological report prepared for The Economic and Social Research Council 

by
Barry Hedges and Jenny Hyatt

## Page Number

SUMMARY ..... 1

1. INTRODUCTION
2. Outline of project ..... 4
3. Summary of design ..... 4
4. This report ..... 5
5. DESIGN ISSUES AND DEVELOPMENT WORK
6. The nature of the task of obtaining activity records ..... 6
7. Recording the involvement of other people ..... 8
8. Methodologies available ..... 8
9. SAMPLING
10. The overall design ..... 10
11. Weighting ..... 10
12. Numbers involved ..... 13
13. Seven-day diary response ..... 14
14. One-day recall response ..... 16
15. Non-response bias ..... 16
16. Other aspects of non-response ..... 17
17. THE DAYS WHOSE ACTIVITIES ARE RECORDED
18. The day on which the seven-day diary starts ..... 27
19. The design adopted ..... 27
20. The outcome ..... 28
21. The Activity Day of the one-day recall ..... 29
22. FIELDWORK PROCEDURES
23. Seven-day diary ..... 31
24. One-day recall ..... 32
25. Fieldwork period and fieldforce ..... 32
26. DATA PROCESSING AND CODING
27. Overall strategy and method ..... 33
28. Coding activities ..... 33
29. Coding locations ..... 33
30. Coding ..... 34
31. Questionnaire coding ..... 34
32. Editing the diaries ..... 34
33. LEVELS OF RECORDING
34. The recording of activities in the one-day recall ..... 36
35. The recording of activities on the seven-day diary ..... 36
36. Slot length ..... 38
37. Blank activities ..... 40
38. The level of recording of location ..... 43
39. The level of recording of persons involved ..... 43
40. ACTIVITY, LOCATION AND PERSON DISTRIBUTIONS
41. Main activities ..... 45
42. Secondary activity distributions ..... 45
43. Location distributions ..... 49
44. Person distributions ..... 51

APPENDICES

## SUMMARY

## The study

In late 1983 and early 1984, two parallel sets of time-budget data collection exercises were funded by SSRC's Social Affairs Committee after some initial piloting and development work.

The principal exercise involved the completion of seven-day diaries by a nationally-representative sample of adults aged 14 or over. Response rates are not usually high in diary operations of this type, and were reduced in this project by a number of additional constraints, of which the most significant was the attempt to get all members of the same household to complete diaries (starting on the same day) in consequence of the interest of the Social Affairs Committee in social interactions. An initial interview obtaining a wide variety of data about the household and its members was successfully carried out at over $70 \%$ of the initially selected sample, but diaries were obtained for only $52 \%$ of the adults in these households; the overall response rate for the diary was thus only about 40\%. However, as will be seen, remarkably
little bias seems attributable to this.
The parallel exercise involved the use of a one-day recall interview in place of a diary. An initial interview identical with that used for the diary sample again achieved a response rate of over $70 \%$. A higher proportion ( $80 \%$ ) of members of these households was successfully interviewed about their activities, and the net response rate for activity data (analogous to the diary's 40\%) was 60\%.

The number of diaries/activity records obtained was about 1600 for the seven-day operation and 500 for the one-day. Data was recorded for every quarter of an hour throughout the period studied, and the total number of quarter-hour units on the data file is about a million for the diaries and about 50,000 for the recall interviews.

## The outcome

The initial household interview, which achieved a good response, provided a range of data about the households and their eligible occupants, so that the extent of bias in terms of household, demographic or personal characteristics of those providing diary/activity data can be assessed. There is a definite tendency for women to be more likely to provide activity data than men, and for those in full-time paid work to be less likely to provide it than parttimers or those not in paid work (this activity-related bias may in fact explain much of the observed difference between the sexes). Apart from these, there do not seem to be any other major biases in the composition of the diary-providing sample. And because both the diary and the recall samples exhibit the same biases, they remain closely matched to each other in their characteristics.

Given the widely divergent response rates, and the low level of the diary response in particular, biases could easily have been more extensive than those observed. There may, of course, be undetected biases in terms of variables not measured (e.g. personality characteristics).

Because of the similarity between the two samples, they can be compared with each other as they stand. But for the making of absolute estimates, or comparison with other sources, some reweighting is needed.

Even more striking than the modesty of the levels of bias exhibited between the demographic and household characteristics of the two samples is the extraordinarily close match in respect of the activity data itself. Differences in this data could have resulted either from differences in the two samples or from differences in response patterns as a result of the different data collection methods used. Even if the samples are perfectly matched, the quite different stimuli offered in the data collection process, and the different contexts provided, could very easily lead to different results. But they do not. Activity distibution, location, and persons involved, are nearly identical for both samples. The recall method tends to elicit slightly more secondary activity (particularly for certain types of activity), but few other differences are to be seen.

This remarkable robustness is all the more surprising in that - as our development work showed - activity patterns are not tidy, clear-cut and well-defined. Quite apart from the problems of memory (to which even a diary operation is subject), the problem of validly accounting, within a rigid recording framework, for the kaleidoscopic variety of human activity would be a major one even for a hypothetical researcher directly observing it. The necessary intervention of intermediaries an interviewer given a few hours' briefing and a respondent given only a few minutes explanation - hardly seems a sufficient basis for overcoming the classificatory problems involved. Yet the recorded data has a robustness that appears to suggest that behaviour is much "harder" than a detailed examination of it might suggest. Or, perhaps, simply that people's mechanisms for coping with the task of categorising their behaviour are totally uncorrelated either with the type of behaviour in which they happen to engage or in their readiness to take part in a study of it.

## Implications

Although it does not resolve the underlying problems of classifying activities, the robustness of the data in the face of different data collection methods and response rates is clearly encouraging. Although it is not a proof of validity, it removes one important source of doubts about validity. In other methodological work, for example in interviewer variability or question-wording studies, it has often been shown that lack of robustness is a good indicator of inadequacy or invalidity in the questioning. If different methods yield different results, they cannot all be valid, and it often emerges that the reason
for variation is that what is being measured is too "soft" and imprecise: it is not the case that one technique is measuring validly and the others not, but rather that the variable being studied is insufficiently well-defined, so that there can be no single valid technique for measuring it. Different questions evoke responses that are coloured to different degrees by different aspects of the phenomenon under examination, or by different interpretations suggested to respondents' minds about what is intended by the question. The absence of such method-sensitive variation suggests, though it cannot demonstrate, that what is being measured is "real", though interpretation should not be pressed too far or too uncritically. Some of the possible limitations of the data are discussed in Section 2 of this report.

Diary methods have attracted doubt or criticism on account of their low response rates and the obvious magnitude of the task for respondents. This study provides powerful support for them, firstly by suggesting that low response rates do not introduce biases as large as might be expected, and then by indicating that the distribution and levels of responses approximate to those of the principal competing technique, the one-day recall.

A seven-day diary exercise must remain more cumbersome and expensive than a one-day recall study, but its cost-effectiveness is likely to be greater. Although day-on-day correlations with respondents reduce the marginal value of additional days, the marginal cost of these additional days is lower. We have not, however, computed the design effects. The seven-day diary also offers the undoubted bonus of allowing the week - the dominant cyclical factor in activity patterns within the larger cycle of the year - to be examined as a whole. Very little use, as yet, seems to have been made of this potential in sevenday diary studies.

The value of attempting to get all members of a household to complete a diary for precisely the same period of time is not yet clear. It is undoubtedly an important factor in reducing the response rate, and given that individual members within households may opt out, and that about a quarter of households have only one person anyway, the number of analysable cases of whole-household multi-person diary sets is not large.

It is doubtful whether, for example, the activity accounts of a sample of husband-and-wife couples could be usefully cross-analysed because of the possibility of the diaries not being properly synchronised (as an early SCPR study discovered). And if they are analysed as parallel samples of husbands and wives, the only gain over entirely independent samples is that they are matched by household. While that is an important gain, it may well be offset by the losses the procedure entails. It is true that the evidence suggests that the principal casualty - the response rate - does not lead to serious bias, but the risk of this can never be entirely set aside.

## 1. INTRODUCTION

### 1.1. Outline of project

In 1983, the Social Affairs Committee of the ESRC invited SCPR to conduct a national time-budget study. Its purpose was to provide a database resource available to a range of interests within the research community. SCPR, who had had previous experience of this type of work in several studies, drew the Committee's attention to the substantial methodological problems inherent in such work, and to the different options avilailable. A pilot study, on a substantial scale, was then undertaken. Though underlining some of the difficulties, its outcome was judged by the Committee to be sufficiently encouraging to justify undertaking the main study. At the same time, it was realised that the technical problems were sufficiently great to make it desirable to build in some methodological assessment material. This took three main forms. First, the principal technique chosen (the seven-day diary) was paralleled by a one-day recall study. Second, an interviewer variance study was set up, since it was realised that the completion of the self-completion document could be affected by interviewers' presentation of the task. Third, some qualitative work on diary completion and perceptions of time was undertaken.

Also involved in the project was a team from the Science Policy Research Unit (SPRU) at Sussex University, under the direction of J. I. Gershuny, now Professor of Sociology at Bath University. SPRU's role was to collaborate with SCPR in the design of the work; to undertake some substantive analyses; and to deposit the data in the Survey Archive at Essex with all necessary documentation to enable it to be used by the academic community. SCPR's role was to design the project in consultation with SPRU, to carry out the fieldwork; to code and edit the data, to provide SPRU with an edited data dape, and to write a methodological report.

### 1.2. Summary of design

A sample of 2040 addresses was selected from the Electoral Register in a sample of 60 constituencies. Introductory interviews (questionnaires appended) were conducted at 1402 of these. At each interviewed household, all persons aged 14 or over were asked to keep a seven-day activities diary (appended), at the end of which a self-completion questionnaire was included. 1601 did so, though not all of these were complete. Half the work was undertaken in November and December 1983, and half in January and February 1984.

In parallel, a sample of 420 addresses was selected from the Electoral Register in the same constiuencies. At 288 of these, the same introductory interview was carried out, but this time all persons aged 14 or over were invited to be interviewed about their activities on the preceding day, and also to complete a self-completion questionnaire identical with that in the back of the seven-day diary. A total of 497 co-operated. The day of week of interview was systematically
controlled to provide a larger sample of Saturday and Sunday dates than would be achieved by an even spread of interviews.

At a sub-sample of sampling points, an interviewer variability experiment was carried out. It is hoped that the results of this will be separately reported by the SCPR Methods Centre, although the data obtained exhibit a robustnesss that makes it unlikely that there will be major interviewer effects.

The introductory interview collected demographic and other basic information about the household and its members. The diary itself (and its one-day recall interview equivalent) requested information on a quarter-hour-by-quarter-hour basis throughout the week. The information sought for each period comprised main activity, any other (secondary) activity, other persons involved, and the location where it took place. The self-completion questionnaire requested more generalised data on frequency of participation in various activities, as well as questions on health and on satisfaction with life.

A constraint placed on the design was that all activity accounts obtained from the members of any given household should all relate to the same calendar week (or day).

Further details of the complex design will be found in Section 3 (Sampling), and specific aspects are detailed in other sections.

### 1.3. This report

This report describes the methods used, discusses the methodological issues, and presents evidence bearing on these.

## 2. DESIGN ISSUES AND DEVELOPMENT WORK

### 2.1. The nature of the task of obtaining activity records

The task of keeping a record of activities is considerably more difficult than might at first be supposed.

The principal problem is that of imposing the necessary structure on activities so that they can be recorded in a simple and uniform manner. This involves the diary-keeper in interpreting the purpose of the exercise in order, for example, to determine what degree of disaggregation of activities is required. Is it enough, for instance, to write "housework" across a large part of a morning, or is a breakdown needed? If so, then into what elements should it be broken down?

Is it sufficient, for example, to put "had lunch", subsuming all the ancillary tasks of food preparation and clearing away, or is it necessary to separate preparation, consumption and clearing up? or even to separate, say, washing dishes from drying them? Is "went to play football" a sufficient description, or should the main components be separated (travel to the ground, changing, playing, showering, changing, drinking in the bar, travel home again)? A visit to a friend's may involve conversation and then, at some point during the visit, some games of table-tennis. Should the whole activity be recorded as "visiting a friend", or should it be disaggregated into "conversation" and "sport"?

Clearly, human behaviour is capable of being described in almost infinite detail. Equally clearly, the activities record is intended to sumarise this mass of detail under broader headings. But how broad should these headings be? And how is the researcher's decision about this to be communicated to diary-keepers in such a way that consistent standards are maintained?

The answer to the first of these two questions - how broad should the headings be - must depend on the research aims. If the study's orientation is on activities other than paid work, it will be sufficient to treat paid work time as a single category, regardless of the specific work activities undertaken during it (though attention would need to be paid to lunch and, perhaps, tea-breaks within the overall period, and also to whether travel to and from work should be separately recorded). This was the approach adopted in the present project. But if the researcher's purpose is to study, for example, all interpersonal relationships regardless of context, then disaggregation of work activities would be needed.

A further illustration is provided by shopping. For many purposes, it might be sufficient to record a shopping trip as a single activity, from the time of leaving home to the time of returning. But the diary record would then no longer provide a complete account of types of behaviour that cut across this classification. Travel is an obvious example, since the journey to and from the shops gets lost in the
blanket description. The "shopping trip" could also include things such as visits to the library, or seeking advice at the CAB, which researchers with those particular interests might legitimately expect to be recorded in the diary and separately coded in the data file.

A researcher designing a time-budget study to provide focused information on a particular topic could take steps to ensure full coverage of that topic at the expense, if necessary, of others. But the present study was intended as a general-purpose resource to be quarried by researchers with as yet undefined interests. Decisions taken about levels and types of activities have thus to be taken on the basis of what might be called an "averaging" approach in which compromises are sought (implicitly if not explicitly) between the hypothetical competing claims of researchers who might want to interrogate the data for different purposes.

An appreciation of the fundamental difficulty of the task can be gained by imagining that the researcher possessed an absolutely complete record of the respondent's activities. This is, of course, not a practical possibility, but can be crudely conceived of as, for example, a continuous videotape. The researcher could then code the activities directly, without relying on any reporting by the diarist. The task of constructing a code frame, or of applying it reliably, would be a difficult one, since the range of possibilities would clearly be enormous. With such rich material, different resesarchers might well produce entirely different classification systems, some of which might bear little resemblance to the conventional type of activity classification, which dominates time budget studies partly because the apparently objective character of "activities" makes them (relatively) easy to report, and partly because its versatility matches the generalpurpose character of most time-budget data sets. Time-budget methods are cumbersome and expensive, and are rarely appropriate when a narrow facet of behaviour is being studied, since a structured questionnaire or a limited activity diary (such as a travel diary) is likely to prove more cost-effective. They thus tend to be deployed to provide general descriptions of behaviour, and this very generality limits the extent to which they can satisfactorily be interrogated to provide answers to specific questions that cut across the grain of the data. For example, an examination of the amount of time spent in child-care would be limited by the fact that while some child-care activities would be separately identified as such ("feeding the baby"), others would not. The respondent might well be looking after children while also engaging in some other activity; and it may well be this other activity that is recorded and subsequently coded. In principle, this type of difficulty could be overcome by having a multiple classification system, but timebudget studies generally adopt a monotonic approach in which each activity receives only one code, the sum of the time spent being additive to the total period studied.

Some studies - including the present one - record "secondary" as well as "main" activities, to cope with simultaneous activities - knitting and watching television. (It is left to the respondent to decide which activity is the "main" one, and criteria could include saliency or the amount of time spent on each within the recording period.) But this is
unlikely to cope with the type of difficulty that arises in relation to child-care, since this concept is not clearly defined and is unlikely to feature as a secondary activity.

This illustrates the extent to which the fundamental problem of activity classification is increased by the need for respondents to classify their own activities. (Although there is a final coding stage, the task of making a record inevitably involves a major classification exercise.) Child-care is a particularly difficult case, since even a complete audio-visual record of activities would not fully reveal its extent: it does not reveal whether an activity is constrained by child-care needs. Presence in a room with a child may or may not have child-care implications. But whatever difficulties may be inherent in the classification task even when the researcher has direct access to the behaviour, the fact that this classifying role has largely to be played by the respondent rather than the researcher adds greatly to the problem.

Some means of briefing respondents on their task is needed, but this has to be done at the same time as their co-operation is sought. Anything more than a brief and simple statement is likely to be counter-productive.

### 2.2. Recording the involvement of other people

The aims of the present project make it necessary to record not only activities but other persons involved in them. The notion of "involved" is not clear-cut. It means more than mere presence: for instance, if the diary-keeper is cooking a meal, while someone else in the room is reading the paper, the second person is not involved in the activity. If the diary keeper is washing up and the second person drying up, the "involvement" of the second person depends on how the activity is classified. On a narrow view of washing up as a distinct activity, the second person is not involved. On a broader view, in which it is recorded as "clearing up after the meal", the second person is involved.

It can happen that the diary keeper is engaged simultaneously in two (or more) activities, with other persons being involved in the secondary but not the main activity. Only involvement in the main activity was sought in the diary, but situations of this kind could give rise to confusion.

### 2.3. Methodologies available

The two principal methods used to collect time-budget data are the seven-day diary and the one-day recall, though there are variants of these.

The recall method depends on the respondent remembering the minor, as well as major, features of the specific day concerned. (Customarily, this is the day before the interview.) On a priori grounds, it seems
likely that there would be a deterioration in the quality of the record if the respondent were asked about earlier days as well, and the view is usually taken that this method must be restricted to one day only. To improve the record, it is possible to give respondents advance warning, so that they can make notes which will serve as aide-memoires when the interview is carried out. This is sometimes referred to as a "tomorrow" diary, as opposed to the "yesterday" diary approach described above, but the distinction is misleading, since both are seeking records of yesterday, and no actual diary is involved. Better terms might be one-day recall and one-day pre-notified recall.

The diary method may appear to overcome the limitations of memory, but it is known that in practice people complete them at (sometimes long) intervals, relying on their memory of the intervening period.

Once the investment has been made in providing diaries and briefing on their uses, the diary study does not have the same need to confine attention to a single day as does the recall study. Various time periods have been used, but the most common is a week. In view of the fact that many activities have a weekly cycle, this has obvious advantages. However, the longer the diary, the greater the risk of a low co-operation rate or of poor quality recording. Some studies have for this reason used periods of two or three days.

There are a variety of differences in methodology between time-budget studies over and above the basic recall versus diary option or the length of the diary period. These include:

1) Whether recording should be constrained by pre-set time periods, or left open. In the former case the diary is laid out as a sequence of fixed short periods; in the latter, activities are recorded in sequence, and their starting and finishing times noted.
2) Whether the fixed short periods, if used, should be five minutes, fifteen minutes, half-an-hour, an hour, or some other period.
3) Whether secondary activities are catered for.
4) Whether the involvement of other people is recorded and if so how.
5) Whether the recording of activities should be openended, or, as in a recent $B B C$ study, into precoded categories.

## 3. SAMPLING

### 3.1. The overall design

The population to be sampled comprised adults aged 14 or over living in private households in Great Britain. They were to be sampled in such a way that all such persons in any one household were included. It was therefore necessary to select an equal probability sample of households.

The design was a multi-stage one, with wards as PSU's.
The Social Affairs Committee requested a design in which each of the 30 OPCS clusters of Parliamentary Constituencies had an equally large sample, although their populations in fact vary and selection probabilities thus become unequal. A list of these clusters is given in Table 301.

Two constituencies were selected with probability proportionate to electorate (ppe) from among those in each cluster. One ward was then selected with ppe from each constituency, making a total of 60 wards. Within each ward a fixed number of addresses was selected. The number of different surnames was used as a proxy for number of households. If the address had one or two surnames it was treated as a whole, and the customary "firsting" procedure assured equal selection probabilities for all such addresses. If it had three or more surnames, each "surname block" within it was treated as a separate unit and "firsted". Thus, such addresses' chances of selection were proportionate to the number of surname blocks they contain. In the field, one household was then selected from among those at each address. At each selected household, all persons aged 14 or over were individually invited to participate in the survey, but the preliminary interview was carried out with any responsible adult.

### 3.2. Weighting

Various types of data weighting are possible.
The Social Affairs Committee's design for sampling constituencies yields unequal selection probabilities. There is thus scope for weighting the sample back to the actual proportions of the population lying in each OPCS cluster, using a weight proportional to $\mathrm{p}_{\mathrm{i}} / \mathrm{s}_{\mathrm{i}}$, where $p_{i}$ is the actual population of the $i^{\text {th }}$ cluster and $s_{i}$ the sample within it. There are various ways of implementing this, depending on whether the unit is the household or the individual, and on whether the values of $s_{i}$ are taken from the initial or the achieved sample. To investigate the effects, main activities were experimentally weighted on an individual basis, using the 1982 electorate as a proxy for $\mathrm{p}_{\mathrm{i}}$ and numbers returning usable diaries as the value of $s_{i}$. 1982 electorates for the clusters are shown in Table 302. Very little difference was found between the raw and area-weighted distributions. Some further evidence on this is presented in Section 8.1.

| Family | Cluster | Description | No. of constituencies | $\frac{8 \text { of } 1982}{\text { electorate }}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | Centres of learning | 18 | 2.52 |
|  | 2 | Service centres with single people | 23 | 3.58 |
|  | 3 | Outer London suburbs | 33 | 4.86 |
|  | 4 | Very high status areas | 31 | 5.72 |
| 2 | 5 | Areas extremely dependent on agriculture | 21 | 3.06 |
|  | 6 | Agricultural areas | 39 | 7.19 |
|  | 7 | Scottish rural areas | 19 | 2.35 |
|  | 8 | Resort and retirement areas | 30 | 5.17 |
| 3 | 9 | Areas of intermediate status and modern housing | 24 | 4.05 |
|  | 10 | East Midlands/North-West small industrial towns | 30 | 5.50 |
|  | 11 | South Midlands growth areas | 35 | 7.24 |
|  | 12 | West Midlands growth areas | 15 | 3.12 |
|  | 13 | Areas of rapid growth | 19 | 4.01 |
| 4 | 14 | Conurbation mining areas | 18 | 3.22 |
|  | 15 | Mining areas | 20 | 3.51 |
|  | 16 | The Black Country | 12 | 1.86 |
|  | 17 | Steel and chemical towns | 20 | 3.61 |
|  | 18 | South Wales Valleys | 9 | 1.03 |
|  | 19 | Poorer urban areas | 19 | 2.89 |
|  | 20 | Metropolitan inter-war suburbs | 21 | 3.15 |
|  | 21 | Textile areas | 40 | 5.55 |
| 5 | 22 | Maritime areas | 13 | 2.13 |
|  | 23 | Peripheral conurbation council estates | 11 | 1.82 |
|  | 24 | Scottish industrial areas | 20 | 3.21 |
|  | 25 | Scottish city constituencies | 13 | 1.79 |
|  | 26 | Clydeside | 10 | 0.95 |
| 6 | 27 | Low status inner London | 23 | 2.83 |
|  | 28 | Provincial inner areas | 19 | 2.00 |
|  | 29 | High status central London | 6 | 0.74 |
|  | 30 | Multi-occupied inner London | $\frac{12}{623}$ | 1.34 |
| Families | 1 S | urbs and service centres |  |  |
|  | 2 Rur | al areas and seaside resorts |  |  |
|  | 3 G | owth areas |  |  |
|  | 4 S | able industrial areas |  |  |
|  | 5 A | as dominated by local authority hou | using |  |
|  |  | ropolitan inner areas |  |  |

## Serial number within cluster (col 119)

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Glasgow Hillhead
Brighton Kemptown
Bexleyheath
Beaconsfield
Pembroke
Devon North
West Aberdeenshire
Harrogate
Feltham and Heston
Chorley
Banbury
Cannock
Havant and Waterloo
Bury and Radcliffe
Hemsworth
Coventry NE
East Flint
Ebbw Vale
Bishop Auckland
Coventry SW
Keighley
Bootle
Birmingham Northfield
Ayrshire South
Aberdeen North
Glasgow Garscadden
Lewisham Deptford
Kingston-upon-Hull Central
Camden Hampstead
Ealing Acton

2
Manchester Withington
Greenwich
South Hertfordshire
Windsor and Maidenhead
Leominster
Poole
Argyll
Hove
Gloucester
Colne Valley
Daventry
Gravesend
Welwyn and Hatfield
Heywood and Royton
St Helen's
West Bromwich East
Pontypool
Gower
Durham
Northampton North
Manchester Openshaw
Sunderland South
Manchester Wythenshawe
Kilmarnock
Edinburgh East
Glasgow Springburn
Lambeth Vauxhall
Nottingham East
Kensington and Chelsea Kensington
Brent East

NB Interviewing in each constituency was confined to one ward, selected with probability proportionate to electorate

A second type of weighting relates to the address/household selection mechanism. If there are one or two surnames at the address (which is recorded on columns 120 and 121 of the data file, from the Address Record Form), addresses are selected with equal probability but households with probability inversely proportional to the number of households at the address. The weight needed is thus equal to the number of households ( $h$ ). Where there are three or more surnames, the weight needed is $h / s$, where $s$ is the number of surnames.

Technically, both the above weights should be applied in order to remove unequal selection probabilities. But in view of their limited effects, and the difficulties weighting adds to the handing of the exceptionally complex data set, it may be judged better not to apply these weights. That is the view we have taken in this report.

A third type of weighting could be employed to correct observed response bias (notably against men) in the sample of diaries. This should certainly be considered as an ad hoc measure in constructing best estimates of overall time use, even if no set of corrective weights is systematically applied to all analyses.

A final weight relates to the one-day recall data only. The number of interviews was deliberately arranged so that there would be more interviews on Saturdays and Sundays than on other days of the week. If any aggregations are made to a weekly total, they must take account of this, and apply weights that equalise the number of observations per day. The distributions of "Activity days" was:

|  | Nos. | $\%$ |
| :--- | ---: | ---: |
|  |  |  |
| Monday | 44 | 9 |
| Tuesday | 53 | 11 |
| Wednesday | 71 | 14 |
| Thursday | 58 | 12 |
| Friday | 55 | 11 |
| Saturday | 107 | 22 |
| Sunday | 109 | 22 |
|  |  |  |
| TOTAL | 497 | 100 |

### 3.3. Numbers involved

The sample was divided into a number of component parts. There were three bases for this division:
into seven-day diary and one-day recall
into seven-day diary pre-Christmas (Wave I) and seven-day diary post-Christmas (Wave II)
into "A" sampling points and "B" sampling points: the "A" points were the vehicle for the interviewer variability

```
experiment, and also incorporated all the one-day recall
``` interviews

The division into "A" points and "B" points was made by randomly allocating the two wards selected within each OPCS cluster.

The other two divisions entailed systematic subdivision of the sample of addresses selected for each ward.

The plan was as follows:
```

Set A 58 selections per ward (30 x 58-1740)
of which }22\mathrm{ were allocated to seven-day Wave I
" " 22 " " n seven-day Wave II
" " " " " one-day Wave I only

```

Each of these three sets were further divided into two equal halves of which one half was assigned to one interviewer and the other half to another interviewer (as part of the interviewer variability experiment).
```

Set B 24 selections per ward (30 x 24 - 720)
of which }12\mathrm{ were allocated to seven-day Wave I
and 12 " " " seven-day Wave II

```

The total selected was thus 2460 , of which 420 related to the one-day recall interview and 2040 to the seven-day diary, these being split evenly between Wave I and Wave II but unevenly between Set A and Set B, the former having twice as many as the latter.

\subsection*{3.4. Seven-day diary response}

Of the 2040 issued addresses, 88 proved to be out-of-scope, leaving 1952. Interviews were successfully obtained at 1402 of these, or \(72 \%\). Details are shown in Table 303.

The number of eligible persons (aged 14+) in the 1402 households was 3106. Of these, 1900 personally accepted the diary, and it was accepted by proxy on behalf of a further 398, totalling 2298 acceptances (74\%). However, by no means all of these diaries were completed. When they were picked up, it was found that 1268 had been "fully" completed (i.e. were filled in for all seven days) and 333 "partially" (one to six days filled in).

The total number of fully or partially completed diaries was thus 1601 , or \(52 \%\) of the number of eligible persons in these households. This number was, however, reduced to 1597 at the editing stage. Both fully and partially completed diaries are referred to when the term "usable diaries" appears below.

To calculate the true overall response rate, an estimate has to be made of the number of persons in households where no interview could be carried out. If they had the same number of eligible persons, on

\section*{TABLE 303 RESPONSE RATES}

average, as interviewed households, the total number of eligible persons would be 4333. However, they are in fact likely to be smaller households. If an average of 1.9 persons is attributed to them (compared with 2.22 for interviewed households) the total number of persons is then 4151. On this basis, the proportion of all eligible persons who fully or partly completed diaries is \(39 \%\).

At 478 of the interviewed households, no usable diaries were completed. At 924 one or more were completed. In these 924 households, which between them completed 1601 usable diaries, there were 2104 eligible persons. The completion rate in these households is thus 76\%.

At a subset of 576 households, all eligible persons completed a usable diary. These 576 households included 1116 eligible persons, and thus accounted for \(70 \%\) of the total yield of 1601 usable diaries.

\subsection*{3.5 One-day recall response}

Of the 420 addresses issued for one-day recall, 16 were out-of-scope, leaving 404. The household interview was completed at 296 of these, or 73\%.

At 8 of these 296 households, no recall interviews were achieved, leaving 288 where one or more were obtained.

The 296 households contained 622 eligible persons (mean 2.10). Of these, 497 ( \(80 \%\) ) completed the recall interview.

If, analogously with the seven-day calculation above, it is assumed that the 108 households not interviewed contain an average of 1.9 eligible persons, the total number of eligible persons in the 404 in scope households would be 827 , of whom the 497 completing the recall interview comprise \(60 \%\). The response rate to the one-day recall is thus estimated to be about twenty percentage points higher than that to the seven-day diary.

\subsection*{3.6. Non-response bias}

Table 304 compares the interviewed seven-day and one-day household samples with each other and with households returning a full set of diary records.

At the household interview level, both the seven-day and one-day operations achieved a similar response. The one-day interviews were confined to the 30 "set A" points (see Section 3.3), with an average of 14 issued per point, while the seven-day interviews were spread over both the 30 "set A" points (at 44 per point) and the 30 "set \(B\) " points (at 24 per point). This may well account for the few differences that are found, such as the slight tendencies of the one-day interview households to be smaller, to live to a greater extent in terraced
houses, to have lower household income and fewer possessions, to engage in shift work, and to have to share the use of a kitchen.

Table 305 looks at the same variables, but this time on a person, racher than a househld, basis. Much the same pattern is found. Table 306 extends the person analysis to cover specifically personal variables such as sex, age and economic activity status, but again very few differences are found between seven and one-day samples.

Other types of comparison are provided by Tables 304-305. Households from which at least one usable seven-day diary was obtained, and households at which all eligible members contributed usable diaries ("complete" households), can be compared with the total to see if there are any notable biases in terms of demographic and similar characteristics. But here too differences are generally not great. In the sample of "complete" households, there is an expected bias towards smaller households, but not much else appears other than a slight bias towards owner-occupiers at the expense of council tenants and perhaps against those taking the more popular daily newspapers.

In Table 306 the personal characteristics of those completing usable seven-day diaries can be compared with those of all persons either in interviewed households or in the subset returning at least one usable diary. The most marked features of this comparison are the biases, among diary returners, towards women, towards householders, towards the married, towards those whose main activity is keeping house, and against those in paid work - particularly in full-time work. This suggests that willingness to complete the diary is to some degree (though not very much) activity-related. There is no evidence of any marked bias with regard to socio-economic group or educational level, except that persons in households returning one or more seven-day diaries are a little more likely to have qualifications than those in households not returning one.

An inspection of the one-day data follows the same pattern remarkably closely: the same biases are pesent for the most part, though there are minor differences (see, for instance, Section 3.7). As a result, the profiles of one-day and seven-day data providers are similar.

\subsection*{3.7. Other aspects of non-response}

Table 307 analyses outcomes in more detail by age. The personal refusal rate for seven-day diaries increases with age. Among younger people, the rate of partial completions is relatively high. Completions are low among the very old ( \(80+\) ), partly because of high refusals and partly because of senility or illness. An inspection of the one-day recall pattern shows a relatively low success rate among teenagers, but the small sample of the very old achieved more success than the corresponding seven-day sample.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{3}{|c|}{SEVEN-DAY} & \multicolumn{2}{|l|}{ONE-DAY} \\
\hline & Interviewed & Any usable diaries & \[
\begin{aligned}
& \text { Com- } \\
& \text { plete* }
\end{aligned}
\] & \begin{tabular}{l}
Inter- \\
viewed
\end{tabular} & Complete \\
\hline Base (households) & 1402 & 924 & 576 & 296 & 203 \\
\hline & \% & \% & \(\%\) & 8 & 8 \\
\hline \multicolumn{6}{|l|}{TIME AT ADDRESS (Qla)} \\
\hline less than six months & 5 & 5 & 6 & 5 & 4 \\
\hline six months, less than 1 year & 5 & 5 & 6 & 4 & 4 \\
\hline 1 , less than 2 years & 7 & 8 & 9 & 8 & 10 \\
\hline 2, " " 5 " & 18 & 19 & 19 & 19 & 20 \\
\hline 5, " " 10 " & 19 & 19 & 18 & 19 & 18 \\
\hline 10, " " 20 " & 25 & 24 & 21 & 18 & 16 \\
\hline \(20+\) years & 22 & 21 & 20 & 26 & 27 \\
\hline \multicolumn{6}{|l|}{TIME IN AREA (Q1b)} \\
\hline less than six months & 2 & 2 & 3 & 2 & 1 \\
\hline six months, less than 1 year & 2 & 2 & 2 & 2 & 1 \\
\hline 1 , less than 2 years & 3 & 3 & 4 & 2 & 3 \\
\hline 2, " \(\quad 5 \quad 1\) & 8 & 9 & 9 & 10 & 10 \\
\hline 5, " " 10 " & 11 & 13 & 13 & 12 & 12 \\
\hline 10, " " 20 " & 20 & 20 & 18 & 17 & 14 \\
\hline \(20+\) years & 53 & 51 & 51 & 55 & 58 \\
\hline \multicolumn{6}{|l|}{TYPE OF ACCOMMODATION (Q2)} \\
\hline Detached house & 12 & 13 & 12 & 13 & 13 \\
\hline Semi-detached & 27 & 29 & 26 & 26 & 27 \\
\hline Terrace & 29 & 30 & 30 & 33 & 30 \\
\hline Bungalow & 6 & 5 & 5 & 5 & 4 \\
\hline P/B maisonette/flat & 18 & 16 & 18 & 17 & 20 \\
\hline Room/flat in conversion & 4 & 5 & 5 & 2 & 2 \\
\hline Other & 3 & 3 & 3 & 3 & 3 \\
\hline \multicolumn{6}{|l|}{TENURE (Q3)} \\
\hline Own & 52 & 54 & 55 & 55 & 56 \\
\hline Council rent & 36 & 33 & 34 & 38 & 35 \\
\hline Other rent & 10 & 11 & 9 & 5 & 7 \\
\hline Rent free & 2 & 2 & 1 & 2 & 2 \\
\hline \multicolumn{6}{|l|}{NUMBER OF ROOMS (Q4)} \\
\hline 1 or 2 & 5 & 8 & 10 & 9 & 13 \\
\hline 3 & 23 & 22 & 24 & 25 & 26 \\
\hline 4 & 32 & 32 & 31 & 31 & 31 \\
\hline 5 & 25 & 25 & 24 & 25 & 21 \\
\hline 6 or more & 10 & 12 & 11 & 10 & 8 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{3}{|c|}{SEVEN-DAY} & \multicolumn{2}{|l|}{ONE - DAY} \\
\hline & Interviewed & Any usable diaries & \[
\begin{aligned}
& \text { Com- } \\
& \text { plete }
\end{aligned}
\] & Interviewed & Complete \\
\hline \multicolumn{6}{|l|}{AMENITIES} \\
\hline Shared or no kitchen (Q5) & 2 & 2 & 2 & 5 & 6 \\
\hline Use of telephone (Q6) & 76 & 78 & 75 & 74 & 72 \\
\hline \multicolumn{6}{|l|}{Room/garage usable as} \\
\hline Garden/allotment (Q8) & 73 & 75 & 72 & 73 & 73 \\
\hline \multicolumn{6}{|l|}{PETS (Q10)} \\
\hline Cat & 19 & 21 & 19 & 19 & 19 \\
\hline Dog & 27 & 27 & 25 & 25 & 23 \\
\hline Bird & 8 & 8 & 8 & 9 & 7 \\
\hline Fish & 9 & 10 & 9 & 9 & 8 \\
\hline Other & 6 & 8 & 7 & 5 & 3 \\
\hline None & 50 & 48 & 51 & 51 & 55 \\
\hline \multicolumn{6}{|l|}{HOUSEHOLD SIZE (MEAN) (Q11)} \\
\hline All persons & 2.8 & 2.8 & 2.6 & 2.6 & 2.3 \\
\hline Persons 14+ & 2.2 & 2.3 & 1.9 & 2.1 & 1.8 \\
\hline \multicolumn{6}{|l|}{POSSESSIONS (Q30)} \\
\hline Freezer & 59 & 61 & 59 & 56 & 53 \\
\hline Washing machine & 81 & 85 & 83 & 80 & 77 \\
\hline Sewing machine & 51 & 57 & 55 & 47 & 46 \\
\hline Electric drill & 49 & 54 & 50 & 47 & 43 \\
\hline Typewriter & 27 & 31 & 30 & 25 & 28 \\
\hline Home brewing/wine eq. & 20 & 23 & 23 & 17 & 15 \\
\hline Workbench & 28 & 31 & 29 & 27 & 25 \\
\hline Camping/caravan eq. & 15 & 19 & 18 & 18 & 18 \\
\hline Video recorder & 25 & 27 & 24 & 25 & 21 \\
\hline Stero/hi-fi & 61 & 66 & 61 & 61 & 57 \\
\hline Home computer & 8 & 9 & 7 & 6 & 4 \\
\hline Microwave overn & 6 & 6 & 6 & 4 & 4 \\
\hline Dishwasher & 4 & 5 & 6 & 2 & - \\
\hline Gardening - hand tools & 74 & 76 & 74 & 76 & 73 \\
\hline Gardening - power tools & 45 & 48 & 45 & 44 & 43 \\
\hline \multicolumn{6}{|l|}{HOUSEHOLD HELP (Q31)} \\
\hline Housework & 10 & 7 & 9 & 11 & 15 \\
\hline Babysitting & 10 & 12 & 13 & 9 & 10 \\
\hline Gardening & 6 & 6 & 7 & 8 & 10 \\
\hline Care of adults & 1 & 1 & 1 & 2 & 2 \\
\hline Shopping & 6 & 3 & 4 & 6 & 9 \\
\hline None of these & 75 & 76 & 74 & 72 & 67 \\
\hline
\end{tabular}

TABLE 304 (continued)
\begin{tabular}{lcr}
\multicolumn{2}{c}{ SEVEN-DAY } & \multicolumn{2}{c}{ ONE-DAY } \\
Inter- & & \\
viewed & Com- & Inter- Com- \\
& diaries plete & \\
& viewed plete
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{6}{|l|}{HOUSEHOLD INCOME (Q29)} \\
\hline less than £ 2000 & 8 & 7 & 11 & 11 & 14 \\
\hline \(£ 2000\), less than \(£ 3000\) & 11 & 11 & 13 & 12 & 15 \\
\hline £3000, " \(£ 4000\) & 8 & 10 & 10 & 9 & 10 \\
\hline £4000, " \(£ 5000\) & 9 & 9 & 9 & 8 & 10 \\
\hline £5000, " " £6000 & 8 & 8 & 9 & 8 & 7 \\
\hline £6000, " " £7000 & 7 & 8 & 7 & 5 & 4 \\
\hline £7000, " \(£ 8000\) & 4 & 5 & 5 & 5 & 3 \\
\hline £8000, " " £10000 & 6 & 8 & 8 & 7 & 7 \\
\hline £10000, " " £12000 & 3 & 4 & 4 & 5 & 3 \\
\hline £12000 or more & 9 & 10 & 9 & 5 & 3 \\
\hline Refused/don't know & 26 & 20 & 14 & 24 & 22 \\
\hline \multicolumn{6}{|l|}{DAILY NEWSPAPER REGULARLY} \\
\hline \multicolumn{6}{|l|}{BOUGHT OR DELIVERED (Q9)} \\
\hline Express & 11 & 11 & 10 & 10 & 11 \\
\hline Mail & 8 & 7 & 8 & 9 & 8 \\
\hline Mirror/Record & 23 & 22 & 19 & 21 & 21 \\
\hline Star & 6 & 6 & 6 & 4 & 2 \\
\hline Sun & 19 & 18 & 16 & 19 & 16 \\
\hline Telegraph & 5 & 5 & 5 & 5 & 4 \\
\hline Financial Times & * & * & * & - & - \\
\hline Guardian & 3 & 4 & 4 & 2 & 2 \\
\hline Times & 1 & 2 & 1 & * & * \\
\hline Scotsman & * & * & * & * & * \\
\hline Other & 7 & 8 & 9 & 7 & 8 \\
\hline No daily paper & 28 & 27 & 30 & 29 & 30 \\
\hline
\end{tabular}

TABLE 305 HOUSEHOLD CHARACTERISTICS (PERSON-BASED DATA)

TABLE 305 (continued)

TABLE 306 PERSON CHARACTERISTICS

\section*{TABLE 307 OUTCOMES, BY AGE}
\(\begin{array}{llllllll}14-19 & 20-29 & 30-39 & 40-49 & 50-59 & 60-69 & 70-79 & 80+\end{array}\)
(a) Seven-day
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline Base (persons) & 406 & 555 & 579 & 440 & 403 & 369 & 251 & 103 \\
\hline & \(\%\) & 8 & \(\%\) & \% & \% & \% & \(\%\) & \% \\
\hline Fully completed & 35 & 42 & 44 & 43 & 39 & 47 & 42 & 13 \\
\hline Partially completed & 14 & 12 & 13 & 8 & 8 & 9 & 11 & 6 \\
\hline (TOTAL COMPLETIONS) & (49) & (54) & (57) & (51) & (47) & (56) & (53) & (19) \\
\hline Placed, not completed & 26 & 27 & 20 & 21 & 27 & 17 & 16 & 24 \\
\hline \multicolumn{9}{|l|}{Not placed:-} \\
\hline personal refusal & 9 & 9 & 13 & 17 & 16 & 18 & 21 & 29 \\
\hline proxy refusal & 14 & 7 & 7 & 9 & 5 & 6 & 3 & 5 \\
\hline other & 2 & 4 & 3 & 3 & 4 & 3 & 6 & 23 \\
\hline
\end{tabular}
(b) One-day
\begin{tabular}{lllllllll} 
Base (persons) & 71 & 132 & 92 & 98 & 65 & 83 & 64 & 17 \\
& \(\%\) & \(\%\) & \(\%\) & \(\%\) & \(\%\) & \(\%\) & \(\%\) & \(\%\) \\
Recall interview obtained & 65 & 77 & 78 & 80 & 82 & 90 & 91 & 88
\end{tabular}

\subsection*{4.1. The days on which the seven-day diary starts}

It is important to arrange diary starts so that they are spread evenly - and preferably randomly - over the week. Any patterning in the results, such as a tendency for reporting to become sparser on each successive diary day, could produce spurious differences between days of the week if this is not done.

A constraint that has to be satisfied in any fieldwork plan is that there must be only a short interval between the placement interview, at which co-operation is sought and explanations given, and the start of the diary week. If this were not the case, randomised start dates could be allocated to respondents regardless of the day on which they were actually interviewed. The need to have only a short interval is due partly to the risk that explanations will not be recalled and partly to the possiblity that the respondent's likelihood of starting at all will decrease as the interval increases - through either forgetfulness or loss of motivation.

In the present survey, difficulties were compounded by the fact that all persons aged \(14+\) in the household were intended to co-operate, and to start their diaries on the same day. The interviewer might call and find some at home but not others.

It is well known from surveys such as the National Readership Surveys and National Travel Survey that randomising interviews between days of the week is very difficult. This is partly due to the difficulty interviewers have in scheduling interviews appropriately, given that a proportion of respondents will be out at any particular call (and some persistently), but is enhanced by the fact that some people are particularly hard, perhaps impossible, to contact on particular days (for example, because of regular commitments).

\subsection*{4.2. The design adopted}

The design adopted thus had to represent a compromise between rigour and flexibility.

The principal rule adopted was that the diary start could not be later than two days after placement, and should normally be the day after placement. A corollary of this was that household members away at placement, and not returning till three or more days later, were deemed ineligible. Those absent at placement but returning within two days were called back on by the interviewer, but proxy placements with them were allowed as a last resort.

Interviewers who were also working on the one-day recall interviews, where a day-of-week control element was built in, were simply asked to intersperse their seven-day diary placements in between the one-day
interviews as a means of achieving a reasonably even spread: it was felt that further control was impractical.

Those who did not have one-day recall interviews to undertake were given a quota sheet, saying how many of their diary start days should be Saturdays; how many Sundays; and how many Mondays-Fridays (undifferentiated). The quota sheet contained twelve boxes corresponding to the twelve addresses issued as the assignment. Each box was labelled with a start day, the distribution of start days being in appropriate proportions. As they dealt with each sampled address, they ticked a box labelled with the starting date they had allocated to that address. As the boxes were used up the interviewer's choice became more coñtrained. Because of noñ-respoñe, not all boxes would be finally used. To minimise bias that might arise from interviewers exercising their personal choice among the remaining boxes, they were told to treat the order in which the boxes were listed as a priority order. (The orderings were systematically rotated between interviewers.)

This system of control proved very unpopular, and it was thought that it might have contributed to the low response rate. It was therefore abandoned at Wave II (interviewing done after Christmas 1983).

\subsection*{4.3. The outcome}

The day on which people started was not ultimately within the interviewer's contol, since arrangements correctly made might not be adhered to. There was thus inevitably some deviation from the plan.

The eventual distribution of start days for the seven-day diary was:-
\begin{tabular}{ll} 
Monday & 11 \\
Tuesday & 17 \\
Wednesday & 16 \\
Thursday & 16 \\
Friday & 10 \\
Saturday & 14 \\
Sunday & 16
\end{tabular}

If starting days are evenly spread, the average position of each day within the week will be fourth. The table below shows small deviations from this:-

Mean order within the diary week
\begin{tabular}{ll} 
Monday & 4.2 \\
Tuesday & 4.0 \\
Wednesday & 3.9 \\
Thursday & 3.8 \\
Friday & 4.0 \\
Saturday & 4.1 \\
Sunday & 4.0
\end{tabular}

Thursdays thus occur slightly earlier in the week than they should, and Mondays later. If recording levels decline through the week, Thursday's activities would be slightly over-represented and Monday's under-represented. But the deviation in the day distribution is not great enough to have a major effect.

\subsection*{4.4. The Activity Day of the one-day recall}

As even a spread as possible of the days covered by the one-day recall (the "Activity Days") was clearly desirable, subject to obtaining sufficient records of Saturday and Sunday, which are known to have different activity patterns. Whereas the seven-day diary covers a full week, so that the starting day has importance only if there are orderrelated patterns in the difference between responses and the facts they are intended to represent, in the case of the one-day diary it is the balance of the available data between days that is affected.

To achieve a balance, a quota was set. As each interviewer's assignment was only seven interviews, and a completely even spread was not wanted, a quota system was adopted. Each interviewer was given a quota distributing the seven interviews over four different days of the week. Quotas were systematically varied between interviewers to achieve the required overall distribution.

Since non-response might lead to one or more of the quota of seven not being achieved, two of the days were designated as priority days: only after these were dealt with could the others be used. This helped to stabilise the pattern across the week, since the priority days were rotated between interviewers.

As with the seven-day diary, the Activity Day had to be the same for all household members. The interview was normally to be carried out on the day following the Activity Day, except where this was Saturday, when both Sunday and Monday were accepted as suitable interview days. One day's grace was allowed, to get interviews with people missing at the first call: thus the interview could be up to two days after the Activity Day.

As in the case of the seven-day diary, there were some departures from the plan. The final outcome was as follows:-
Activity day:
    Monday \(9 \quad 11\)
    Tuesday 1114
    Wednesday 1418
    Thursday 1215
    Friday \(11 \quad 14\)
    Saturday \(22 \quad 14\)
    Sunday 2214

There is thus an over-proportion of Wednesdays relative to Mondays, but day-to-day differences in activity patterns through the week are not great enough for a further adjustment to make any appreciable difference.

\subsection*{5.1. Seven-day diary}

All interviewers were given full written instructions as well as attending a one-day personal briefing. The first step at each household was to carry out, with the householder or sponsor, an interview to collect information about the household as a whole ("main questionnaire").

The interviewer then placed diaries with all persons aged 14 or over. The timing constraints about interviewing and diary start dates have been discussed above.

The placement of diaries was to be in person wherever possible, even if it meant a personal call back later the same day, or next day, to get hold of people who were out at the time of the household interview. But because of the shortage of time, placement by proxy had to be accepted in a proportion of cases.

The explanation had to be brief. The salient features were printed on the front of the diary, and an example of a complete diary page was given to illustrate the level of detail needed.

The interviewer then made an appointment to call back and pick up the diaries not earlier than the evening of the day after the seventh and last diary day. If that was not possible, the pick-up was to be made during the day following that evening.

It was not necessary to see each individual when calling back: diaries were collected via one person (usually the respondent) with whom the call-back appointment was made. Only as a fall-back procedure where no-one could be contacted at call-back were interviewers permitted to request that the diaries should be sent back by post.

Each diary contains a record of activities, quarter-hour by quarterhour, over seven days (starting at \(4.0 \mathrm{a} . \mathrm{m}\). , as being a better division than midnight between one day's cycle of activity and the next). The information requested, for each quarter hour, was:-
```

Main activity
Secondary activity
Other people involved in main activity
Location

```

At the end of the diary there was a self-completion questionnaire asking for more generalised information about activities. Copies of diary pages and of the self-completion questionnaire are appended.

\subsection*{5.2. One-day recall}

The one-day strategy adopted involved asking people, not warned in advance, about what they did on the day before or, in some circumstances, on the previous day or even the day before that, as described above).

As with the seven-day diary, the first step at each household was to carry out an interview to collect information about the household as a whole ("main questionnaire"). Exactly the same questionnaire was used. Either the householder or spouse was accepted as the informant.

The Activities interview was then carried out with all persons aged 14 or over, starting with the person giving the household interview. The method of conducting it is described below. The controls on day of week, and on Activity Days, have already been considered above. A maximun of four Activity interviews at any one household was imposed, to prevent the load on any one household becoming too burdensome.

The period covered ran, like the seven-day diary period, from 4 a.m. to 4 a.m. The interviewer began by asking what the respondent was doing at \(4 \mathrm{a} . \mathrm{m}\). and if (as usually the case) sleeping, at what time they got up. They then checked that nothing else had been done between 4 a.m. and getting-up time (e.g. reading a book, drinking tea). Thereafter, the interviewer proceeded by quarter-hours through the day, establishing the main activity for each quarter-hour, what secondary activities were being undertaken, who else was involved in the main activity, and where it took place.

To brief the interviewers on how to proceed and how much detail was needed, they were (a) shown the example given out with the seven-day diary, (b) asked to listen to a tape-recorded demonstration interview that was played at the briefing.

After the Activity Day interview, each person was asked to complete a self-completion form at the back of the seven-day diary.

All the interviewers carrying out the Activities interview were also placing diaries at other households, according to the fieldwork plan described above.

\subsection*{5.3. Fieldwork period and fieldforce}

Personal briefings of interviewers began on November 10 1983, and fieldwork started immediately afterwards. Wave I occupied the period up till Christmas, though a few unsuccessful cases were reissued to interviewers to tackle early in 1984. Wave II ran from January 91984 to the end of February.

A total of 88 interviewers and 8 supervisors worked on the project.

\subsection*{6.1. Overall strategy and method}

Individual diaries frequently appear to be incomplete or inconsistent, and decisions have to be taken about the best ways of dealing with the problems that arise. For example, the diarist may explicitly refer to the spouse as participating in an activity, yet may tick the column headed "alone" in the "who was involved..." section. Or the record may show "bus journey to shops"/"shopping"/"watching TV" (at home), without a journey back from the shops. Sometimes, more than one main activity is given within the space of a single quarter-hour unit, obliging the coder to reclassify all but one of these as secondary activities. There are also frequent problems over continuations. To avoid tedious repetition, diarists were asked to carry a continuation line down the page to show the duration of an activity. Sometimes there is a blank instead of a line; or the line is itself followed by a blank. In such cases the coder has to judge the likelihood that the blank represents a further continuation of the activity, or time spent in uncoded activities.

To some extent, it is thus inevitable that the coder's job is not merely to classify but to intepret the diary record.

Different researchers might differ in the amount of intepretation they considered legitimate. The strategy adopted in this study was to adopt only a moderate level of interpretation and imputation, confining it to situations where there was a reasonably strong inference as to the "true" reading. As far as possible, diaries were coded as they stood, inconsistencies being eliminated and gaps filled only if the evidence for doing so seemed reasonably good.

The coding was done on optical mark reading sheets specially designed for the project (copy appended).

\subsection*{6.2. Coding activities}

The activity code frame was devised jointly by SCPR and SPRU. The same frame was used for main and for secondary activities. It was based on that used in Szalai's multi-national time-budget study, but incorporated many modifications. It comprised 165 activity codes, grouped under twelve main groups (see copy appended). Several further codes were assigned later to cope with various situations (see below, "editing").

\subsection*{6.3. Coding Iocations}

The frame for coding locations (appended) comprised 45 locations grouped under six main headings.

The location of the activity was often not recorded, but could usually be confidently inferred from the description of the activity itself.

\subsection*{6.4. Coding}

The frame for coding persons (appended) comprised 37 categories. These were, in effect, precoded on the diary, as columns were provided for the diarist to tick if alone, if with spouse, or if with "own children". Other persons were recorded by writing in their relationship to the diarist, and were coded accordingly.

One inherent limitation of the data is that it does not clearly distinguish between household members and others. A particular difficulty arises in relation to children, since this term sometimes denotes a relationship and sometimes an age-group. It is possible to interpret coded references to children in either sense: some entries may imply one, others the other.

There is no way of validating the "persons involved" data. Except for cases where an obvious inconsistency arises (as when no-one else is said to be involved in an activity - such as playing tennis - that clearly does involve someone), there is no direct check on what is recorded.

The respondent's task is not an easy one. In real life, activities may be subject to changes of personnel, and the diarist is asked, for instance, to record not only that she was watching TV from 8.00 to 9.30 but also that her husband was watching from 8.15 till 8.45 , and that the children came in at 8.30 to watch, and went out again at 9.15 turning a single activity spell into five "slots" (alone, with husband, with husband and children, with children, alone). It is therefore not surprising that the data on persons involved seems to be the weakest part of the data set. This statement is based partly on the substantial proportion of time for which involvement is simply not recorded, and partly from the close examination of individual diaries which suggests a strong probability of deficiencies of various kinds.

\subsection*{6.5. Questionnaire coding}

The household questionnaire completed by the interviewer on first making contact was coded and edited in accordance with SCPR's standard practice, as was the self-completion questonnaire annexed to the diary.

\subsection*{6.6. Editing the diaries}

Apart from checking the structure of each record and ensuring that it accounted for the correct amount of time, only a limited amount of editing was possible. For a few activities, there was a logical relationship with specific locations (or a range of locations), and it was possible to check that this was being maintained. But for the
majority no cross-check was possible. Even a code such as shopping, which seems to imply that the respondent was out of the home, does not in fact carry such an implication because it could cover visits by the milkman, mobile shops or other deliverymen.

After the data tape had been compiled, there was concern about the proportion of time for which one or other data element was missing. Much of this was accounted for by totally blank days in incomplete diaries, but it was decided to re-examine all cases of "not stated" both for activities and locations (but not for persons, where the task would have been far larger, and where there was comparatively little chance of making a correct inference about the missing entry).

This inspection enabled the proportion of cases with unstated locations or activities to be significantly reduced without departing from the basic principle of accepting only strong inferences. However, it was felt desirable to create another eleven codes (of which only nine were, in the event, used) to cope with various situations of uncertainty (codes 710-720). But these, together, account for only half a percent of total time, and thus do not significantly modify the original frame.

\subsection*{7.1. The recording of activities on the one-day diary}

As already explained, the basic recording unit of time was the quarterhour.

If a number of successive quarter-hours had identical patterns not only of activities but of participants and locations, they were grouped into a "slot" - a continuous sequence of quarter-hour periods.

The number of slots is thus related to the amount of detail in the recording - the more detail given, the greater is the likelihood of change between two consecutive quarter-hour periods, and the greater the number of slots is likely to become.

Main activities change less frequently than slots: while a main activity change always implies a slot change, not all slot changes imply a main activity change (for example, the change could be merely in those involved). In practice, the number of different activity spells recorded is not very much greater than the number of slots, implying that people tend not to record changes in persons involved.

In counting the number of activity spells, no account is taken of whether the same activity has been undertaken at another time - it is the number of activity spells, rather than the number of different activities, that is tabulated here.

The mean number of slots and activity spells per day in the one-day recall was:-
\[
\begin{array}{ll}
\text { slots } & 23.9 \\
\text { activity spells } & 22.0
\end{array}
\]

\subsection*{7.2. The recording of activities on the seven-day diary}

Not all the 1597 usable diaries were filled in for all seven days.
\begin{tabular}{lr} 
& \% \\
Proportion blank on: & \\
No days & 80 \\
One day & 2 \\
Two days & 2 \\
Three days & 3 \\
Four days & 3 \\
Five days & 4 \\
Six days & 6
\end{tabular}

As would be expected, the general tendency is for the diaries with blank days to be completed up to a certain point and blank thereafter, though there are occasional cases of missing days within a series of
complete days. If for simplicity the existence of such cases is disregarded, the above figures imply the following.
\begin{tabular}{cr} 
& \multicolumn{1}{c}{ \% } \\
Completed as far as: \\
day 1 & 100 \\
2 & 94 \\
3 & 90 \\
4 & 87 \\
5 & 84 \\
6 & 82 \\
7 & 80
\end{tabular}

After completing the first day, \(6 \%\) do not continue. After that, the average rate of loss is a little over \(3 \%\) per day.

A comparison between these and the figures presented in 7.4 reveals the extent of irregular omissions that do not fit this model. For example \(81 \%\) have a completed day seven, whereas the figures below show only \(80 \%\) completing the diary up to and including day seven.

Since start days are varied through the sample, the days completed by those stopping after one, or several, days, will form a cross-section of days and thus provide usable data.

The \(80 \%\) of diaries with no blank days account for \(91 \%\) of usable days. Thus a decision to confine analysis to these only would reject \(9 \%\) of the data. The effective loss might in fact be greater than this, since these are observations of additional sample members. If there is a tendency for daily activity patterns to be correlated within individuals, the marginal value of a single day's record will be greater if it is obtained from a different individual rather than from one alreay represented in the sample by one or more other days' activity. It thus seems desirable to use all usable diaries for daybased analyses, and to confine the analysis of complete diaries to matters where the weekly cycle is of importance.

The average number of slots per usable day was 23.2 in the seven-day diaries. This is very close to the 23.9 recorded for one-day diaries.

The comparison should, however, take account of the following. In the one-day study, "main sleep" usually occurred both at the beginning and end of the day, and thus accounted for two activity spells per day. In the seven-day diary, which was treated as a continuous record, there will typically be eight main sleep occasions over seven days (and thus. 1.1 activity spells). Making the simplifying assumption that a main sleep activity spell comprises one slot, the mean number of slots on the one-day should be reduced by 0.9 , to 23.0 , to make it comparable with the 23.2 from the seven-day.

It is remarkable that these estimates are so close, given the widely different response rates and, more particularly, the different modes of data collection.

The mean number of activities is of the same general order of magnitude as reported in other studies.

\subsection*{7.3. Slot length}

The slot length distributions are shown in Table 701. Not surprisingly, in view of the correspondence of mean slots per day, the distributions from one day and seven day are similar.

Such differences as there are probably reflect the different treatments of sleep (see above).

It is interesting to note that almost half the entries are slots of a single quarter of an hour - but only about \(10 \%\) of total time is thus accounted for. About a third of all time on the seven-day diaries is accounted for by slots of four or more hours - almost all of these being sleep. If main sleep is excluded the average number of slots per day is approximately 22 , and since non-sleep time averages 16 hours, the average slot length during waking time is about three-quarters of an hour.

The distributions of number of slots and activity spells per day is given below, for one-day data only. It shows the number of activity spells to be mostly in the range 16-40, with a minority fewer and one greater.
\begin{tabular}{ccc} 
& Slots \begin{tabular}{c} 
ONE-DAY \\
Activity \\
spells
\end{tabular} \\
& \(\%\) & \(\%\) \\
Number per day: & & \\
Up to 5 & - & - \\
\(6-10\) & 1 & 2 \\
\(11-15\) & 10 & 15 \\
\(16-20\) & 24 & 26 \\
\(21-25\) & 27 & 30 \\
\(26-30\) & 22 & 18 \\
\(31-40\) & 15 & 10 \\
\(40-96\) & 1 & -
\end{tabular}

\section*{TABLE 701 SLOT LENGTH DISTRIBUTION}
\begin{tabular}{|c|c|c|c|c|}
\hline & \multicolumn{2}{|r|}{SEVEN-DAY} & \multicolumn{2}{|r|}{ONE-DAY} \\
\hline & 8 of slots & \% of quarter-hour units & \% of slots & \% of quarter-hour units \\
\hline & 8 & \(\%\) & \% & \(\%\) \\
\hline \multicolumn{5}{|l|}{Slot length (quarter-hour units)} \\
\hline 1 & 45 & 11 & 44 & 11 \\
\hline 2 & 18 & 9 & 18 & 9 \\
\hline 3 & 10 & 7 & 9 & 6 \\
\hline 4 (-1 hour) & 6 & 6 & 7 & 7 \\
\hline 5 & 4 & 4 & 3 & 4 \\
\hline 6 & 3 & 4 & 3 & 4 \\
\hline 7 & 2 & 2 & 2 & 4 \\
\hline 8 (- 2 hours) & 2 & 3 & 2 & 4 \\
\hline 9 & 1 & 2 & 2 & 4 \\
\hline 10 & 1 & 2 & 1 & 3 \\
\hline 11 & 1 & 2 & 1 & 3 \\
\hline 12 (-3 hours) & 1 & 2 & 1 & 4 \\
\hline 13 & 1 & 2 & 1 & 3 \\
\hline 14 & 1 & 2 & 1 & 3 \\
\hline 15 & * & 1 & 1 & 3 \\
\hline 16+ (- 4 or more hours) & 5 & 39 & 6 & 29 \\
\hline
\end{tabular}

\subsection*{7.4. Blank activities}

By "blank" activities is meant slots for which no main activity is specified (even after reasonable imputation at the coding stage).

It has already been noted that some days are entirely blank on the seven-day diary. Not surprisingly, the tendency for a day to be blank increases with successive days throughout the diary week, though there are also occasional blank days lying within complete day series:-
\begin{tabular}{cc} 
Blank & Not blank \\
\(\%\) & \(\%\) \\
\(*\) & 100 \\
6 & 94 \\
11 & 89 \\
14 & 86 \\
16 & 84 \\
17 & 83 \\
19 & 81
\end{tabular}

The following table shows the number of days per diary for which there is at least one blank main activity:-

All diaries
1597
\%
\begin{tabular}{llr} 
No blanks on any day & 75 \\
One day with blanks & 5 \\
Two days " & " & 2 \\
Three " " & \("\) & 2 \\
Four " " & " & 2 \\
Five " " & " & 3 \\
Six " " & " & 5 \\
Seven " " & " & 5
\end{tabular}

Most blank main activities are, however, accounted for by completely blank days. If these are removed, then quarter-hour units with blank main activities account for only \(1.7 \%\) of units on usable (i.e. nonblank) days. (On the one-day recall blank main activities are virtually zero.)

As will be seen in Section 8, the blanks in the seven-day diary do not appear to have had an appreciable biasing effect.

Table 702 shows, for one-day data, levels of recording by various subgroups within the sample. The impression is one of considerable uniformity. Even with the small one-day sample ( \(n=497\) in total), the mean number of slots lies in almost all cases within the range 22-26. Men (and young people) are at the lower end of this range, women at the upper end. The most marked deviation is that of employment status, where part-timers record many slots (28) and shift-workers few (19).

\section*{ONE-DAY}
\begin{tabular}{lcc} 
& Mean slots & Mean activity \\
spells
\end{tabular}

TABLE 702 continued

\section*{ONE-DAY}

Mean slots

Mean activity spells

\section*{CAR}
Drives regularly
Does not
23.4
21.9
-s not
24.2
22.3

\section*{EMPLOYMENT}
\begin{tabular}{ccc} 
Full-time & 21.7 & 20.1 \\
Shifts & 19.1 & 18.0 \\
No shifts & 22.3 & 20.8 \\
Part-time & 27.9 & 25.5
\end{tabular}

SEG
Professional/management
Other non-manual
Skilled manual
Semi or unskilled manual
23.7
24.8
22.1
21.7
24.5
20. 6
22.5

The level of recording of "secondary activities" (i.e. second and third activities) is shown in the table below. Completely blank days have been removed. It will be noted that there was a distinct tendency to elicit more secondary activities in the one-day recall than the sevenday diary:-
\begin{tabular}{ccc} 
& \begin{tabular}{c} 
Seven-day \\
\(\%\)
\end{tabular} & \begin{tabular}{c} 
One-day \\
\(\%\)
\end{tabular} \\
Proportion of quarter-hours with: & & \\
Main activity only & 89 & 81 \\
Main + second & 10 & 16 \\
Main + second + third & 1 & 2 \\
Ratio of total activities & & 1.14
\end{tabular}

This understates the effective presence of secondary activities, since a large proportion of time is devoted to sleep (which is a main activity only). If the table is represented in terms of non-sleep time, the following is found:-
\begin{tabular}{lcc} 
& \begin{tabular}{c} 
Seven-day \\
\(\%\)
\end{tabular} & \begin{tabular}{c} 
One-day \\
\(\%\)
\end{tabular} \\
NON-SLEEP TIME & & \\
Proportion of quarter-hours with: & & \\
Main activity only & 81 & 72 \\
Main + second & 17 & 24 \\
Main + second + third & 2 & 4 \\
Ratio of total activities & & \\
\(\quad\) to main activities & 1.21 & 1.32
\end{tabular}

The recording of activities other than the main one is thus extensive. While the additive monotonic analysis of time is convenient and useful for many purposes, it does not give a sufficient account of time use.

\subsection*{7.5. The level of recording of location}

The presence or absence of a location code largely reflects that of the main activity. If completely blank days are excluded, location is blank for \(2 \%\) of quarter-hour units. In the one-day recall data, it is blank for only \(0.1 \%\) of cases. It must be noted throughout this discussion that "blank" refers to the presence or absence of a code rather than to an entry, and thus reflects the state of the data after a process of reasonable imputation. In the one-day data, for example, location was not explicitly recorded for about \(8 \%\) of time, but it could be readily inferred in almost all cases from the activity description.

\subsection*{7.6. The level of recording of persons involved}

Again eliminating completely blank days, \(17 \%\) of time on the seven-day diaries has no coding of persons involved in the main activity.

This is a far higher level than for the activity itself or for it location. It may, however, be due to the inconsistent treatment of "main sleep" (see section 8.4).

For the one-day recall, the corresponding figure was 5\% - again appreciably higher than for activity or location, both of which are virtually zero, but very much lower than for the seven-day diary.

The coding of persons involved was by categories, rather than by individuals. Three pre-coded categories were provided (alone, with spouse, with own children), plus an open category. Thus either "alone" was coded, or spouse/children (or both) with or without others. A maximum of three categories were coded, in order of recording, so if both spouse and children were involved plus two other types of person, only one of these other types (the first mentioned) was coded.

Bearing this in mind, the number of categories coded was as follows:
\begin{tabular}{cc} 
Seven-day & One-day \\
\(\%\) & \(\%\) \\
93 & 91 \\
6 & 7 \\
1 & 2 \\
1.09 & 1.11
\end{tabular}

Completely blank days have been excluded. However, the substantial difference (in blanks specific to persons involved) between the two operations makes it preferable to exclude these too, basing the comparison only on cases where there is a positive coding for persons:-
\begin{tabular}{lcc} 
& \begin{tabular}{c} 
Seven-day \\
\(\%\)
\end{tabular} & \begin{tabular}{c} 
One-day \\
\(\%\)
\end{tabular} \\
One only (including alone) & 89 & 90 \\
Two & 9 & 8 \\
Three & 2 & 2 \\
Average per 15 minute unit & 1.13 & 1.12
\end{tabular}

This adjustment makes the figures very similar. Thus, the seven-day diary is less likely to elicit a response, but, if it does, the response appears to be not less complete than with one-day recall.

\subsection*{8.1. Main activities}

Sleep accounts for about a third of time recorded, and is by far the largest activity category. A substantial part of the analysis is therefore based on non-sleep time.

The number of activities coded was very large (165), but about a score of them account for about three-quarters of non-sleep time, so that analysis is largely confined to this short-list and a residual category. The exact make-up of the list depends on whether the one-day or seven-day data are used. Including main sleep, the top six categories appear in the same order in both lists. Thereafter, as the proportions engaging in successive activities become more even (they are about \(1 \%\) or less after the first dozen), there is an increasing tendency for chance variations to affect the order. The set used comprises those in the top twenty (excluding sleep) of either list - a total of 23.

It has already been noted that the majority of the \(13.3 \%\) of time for which no activity is coded on the seven-day diaries is accounted for by entirely blank days (11.9\%). In Table 801 all those uncoded have been removed (the implicit assumption being that their distribution, if known, would follow that of the other cases).

The figures are given for both seven and one-day operations, for total time and for non-sleep time. The close correspondence is remarkable. It is also exhibited by the fact that the proportion of total non-sleep time accounted for by the top twenty (listed under each method separately) differs by only one per cent, being very close to \(75 \%\) in both cases.

It is of interest that television accounts for marginally more of the sample's time than paid work. It is important, when looking at these figures, to bear in mind that some reweighting would be necessary to bring both data sets into balanced national estimates: swch reweighting would increase the proportion of males and full-time workers.

Table 802 is included merely to demonstrate the small effect that would be made by area reweighting (see Section 3.2). The seven-day data it shows this time include blank days.

\subsection*{8.2. Secondary activity distributions}

Table 803 shows the distribution obtained by adding secondary activities to main activities to produce a "total activity" picture. Because the volume of secondary activity is not nearly as large (equivalent to about \(14 \%\) of main activities in the seven-day diary, and 21\% in the one-day recall), the distribution of the total closely follows that of main activity alone (shown on Table 803 for comparison). Even so, a few marked differences are found. The TV
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{2}{|l|}{OF TOTAL TIME} & \multicolumn{2}{|l|}{OF NON-SLEEP TIME} \\
\hline & & 7-day & 1-day & 1-day & 1-day \\
\hline Code & Main activity: & \(\%\) & \% & \% & \(\%\) \\
\hline 004 & Main sleep & 33 & 33 & N/A & N/A \\
\hline 098 & TV & 10 & 11 & 15 & 16 \\
\hline 070 & Normal work & 10 & 9 & 14 & 14 \\
\hline 001 & Personal hygiene & 4 & 4 & 6 & 6 \\
\hline 002 & Eating at home & 4 & 4 & 6 & 6 \\
\hline 014 & Food preparation & 4 & 3 & 5 & 5 \\
\hline 056 & Everyday shopping & 2 & 2 & 3 & 3 \\
\hline 128 & Visits to friends and relations & 2 & 2 & 2 & 2 \\
\hline 003 & Drinking (non-alcoholic) & 2 & 1 & 2 & 2 \\
\hline 017 & Washing up & 1 & 1 & 2 & 2 \\
\hline 022 & Dusting/hoovering & 1 & 1 & 2 & 2 \\
\hline 088 & Study at educ. estab. & 1 & 1 & 2 & 1 \\
\hline 110 & Relaxing & 1 & 2 & 2 & 3 \\
\hline 178 & Work travel & 1 & 1 & 2 & 2 \\
\hline 095 & Reading books & 1 & 1 & 2 & 2 \\
\hline 179 & Leisure travel & 1 & 2 & 2 & 2 \\
\hline 092 & Talking & 1 & 1 & 2 & 2 \\
\hline 094 & Reading newspapers & 1 & 1 & 2 & 1 \\
\hline 072 & Work break & 1 & 1 & 1 & 1 \\
\hline 091 & Entertaining & 1 & 1 & 1 & 2 \\
\hline 121 & Pub-going & 1 & 1 & 1 & 1 \\
\hline 024 & Other domestic work & 1 & 1 & 1 & 2 \\
\hline 181 & Shopping travel & 1 & 1 & 1 & 2 \\
\hline 005 & Short naps & * & 1 & 1 & 2 \\
\hline
\end{tabular}

Note: Time for which main activity could not be coded has been excluded from the percentage base.


Code
004
098
070
001
002
014
128
003
017

\section*{022}

088
110
178
095
179
092
094
072
091
121 005

Main activity: \% 024 Other domestic work 181 Shopping travel

Main sleep
\(\%\) \%
\begin{tabular}{rrr} 
\% & \% & \% \\
29 & 33 & 32 \\
9 & 11 & 11 \\
8 & 9 & 8 \\
4 & 4 & 5 \\
4 & 4 & 4 \\
3 & 3 & 4 \\
2 & 2 & 2 \\
& 2 & 1 \\
1 & 1 & \\
& 1 & 1 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & 2 & 1 \\
1 & 1 & 2 \\
1 & 1 & 1 \\
1 & 2 & 1 \\
1 & 1 & 2 \\
1 & 1 & 2 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & 1 & 1 \\
1 & & 1
\end{tabular}
+ Wholly blank days are included in the seven-day data in this table.
+ The reweighting to restore the balance between days (see section 3.2) has been undertaken in both columns but the area weighting in the second column only.
\begin{tabular}{lll}
\multicolumn{2}{c}{ SEVEN-DAY } & ONE-DAY \\
Main "Total Ratio Main "Total Ratio \\
only \begin{tabular}{l} 
activ- \\
ities"
\end{tabular} & \begin{tabular}{l} 
only \\
activ- \\
itites"
\end{tabular}
\end{tabular}
\begin{tabular}{llllllll} 
Code & Activity: & \% & \% & \(\%\) & \(\%\) & \(\%\) & \(\%\) \\
\cline { 1 - 1 } & Main sleep & 33 & 34 & 1.0 & 33 & 33 & 1.0 \\
004 & TV & 10 & 11 & 1.1 & 11 & 14 & 1.3 \\
070 & Normal work & 10 & 10 & 1.0 & 9 & 9 & 1.0 \\
001 & Personal hygiene & 4 & 5 & 1.3 & 4 & 4 & 1.1 \\
002 & Eating at home & 4 & 5 & 1.1 & 4 & 5 & 1.2 \\
014 & Food preparation & 4 & 4 & 1.1 & 3 & 4 & 1.1 \\
056 & Everyday shopping & 2 & 2 & 1.1 & 2 & 2 & 1.1 \\
128 & Visits to friends and & & & & & & \\
& relatives & 2 & 2 & 1.0 & 2 & 2 & 1.0 \\
003 & Drinking (non-alcoholic) & 2 & 3 & 1.8 & 1 & 3 & 2.0 \\
017 & Washing up & 1 & 2 & 1.1 & 1 & 1 & 1.3 \\
022 & Dusting/hoovering & 1 & 2 & 1.1 & 1 & 1 & 1.0 \\
088 & Study at educ. estab. & 1 & 1 & 1.0 & 1 & 1 & 1.0 \\
110 & Relaxing & 1 & 1 & 1.1 & 2 & 2 & 1.1 \\
178 & Work travel & 1 & 1 & 1.0 & 1 & 1 & 1.0 \\
095 & Reading books & 1 & 2 & 1.4 & 1 & 2 & 1.6 \\
179 & Leisure travel & 1 & 1 & 1.0 & 2 & 2 & 1.0 \\
092 & Talking & 1 & 4 & 3.7 & 1 & 7 & 5.6 \\
094 & Reading newspapers & 1 & 1 & 1.5 & 1 & 2 & 1.8 \\
072 & Work break & 1 & 1 & 1.0 & 1 & 1 & 1.1 \\
091 & Entertaining & 1 & 1 & 1.1 & 1 & 1 & 1.1 \\
121 & Pub-going & 1 & 1 & 1.0 & 1 & 1 & 1.0 \\
024 & Other domestic work & 1 & 1 & 1.3 & 1 & 1 & 1.2 \\
181 & Shopping travel & 1 & 1 & 1.0 & 1 & 1 & 1.0 \\
005 & Short naps & \(*\) & 1 & 1.1 & 1 & 1 & 1.1
\end{tabular}

Note: Main activities (which are additive to total time) and secondary activities have been added to produce a "total activities" figure. This is not additive to total time, and perhaps would take more than \(100 \%\) if all activities were shown.

The "ratio" for each activity is that of its total activity occurrence to its main activity occurrence.
percentage rises (particularly in the one-day data) because it is a common activity. Much more marked is the change in "talking", which accounts for only \(1 \%\) in the main activity column, but \(4 \%\) and \(7 \%\) respectively in the diary and recall columns. The implication is that most references to talking give it as a secondary activity. The ratio of secondary to main references for talking is 3.7 for the diary and 5.6 for the recall. These ratios will be found in the third and sixth columns of Table 803.

The two sets of ratios have a strong positive correlation. Where they differ, it is usually the recall ratio that is higher. The fact already noted that the recall method produced higher - though not dramatically higher - levels of recording of secondary activity thus appears to be not so much an overall tendency as the reflection of its ability to elicit specific activities more fully - talking (092), TV (098), having non-alcoholic drinks (003), washing up, reading books (095) or newspapers (094). The only one on the table to show what might be a significant difference in the opposite direction is personal hygiene (001).

Ratios of 1.3 or above are found for a number of activities that do not figure as main activities sufficiently often to meet the criterion of inclusion in the tables. Using the seven-day data, these include: drinking (alcoholic drinks) (093), listening to the radio (096), listening to tapes or records (097), playing games (103), knitting or sewing (105), telephoning (108), and writing (109). Two of these reach total activity figures of \(1.5 \%\) (radio listening) and \(1.1 \%\) (knitting or sewing) that would put them comfortably into the set of activities on Tables 801-803, if they were shortlisted on this basis rather than on that of their main activity figure alone (those listed have a main activity figure of about \(0.6 \%\) or above). The same is true for the oneday recall data, where the total activity figure for listening to the radio is \(2.7 \%\) and for knitting/sewing 1.5\%.

\subsection*{8.3 Location distributions}

Table 804 gives the distribution of location (i.e. where the respondent was) both for diaries and for recall. Only 19 of the 45 coded categories are shown: those accounting for \(0.1 \%\) or less of time are omitted.

The correspondence between the two columns is again remarkably close, and there is no conspicuous divergence.

Almost three-quarters of the sample's time was spent at home. The next largest location was school or work (a little over ten per cent).

Since most (though not all) sleep takes place at home, the distribution of location during waking hours would be somewhat different. This analysis has not done, but if it is for simiplicity assumed that all main sleep is at home, then about three-fifths of waking time is spent at home, and about a sixth at school or work.

Code Location:
01 At home ..... 74 ..... 73
05 School/college/work ..... 11 ..... 11
Shop/shopping centre22
02 Relative's house ..... 2 ..... 3
03 Friend's house ..... 1
35 Outdoor leisure facility ..... 11
29 Indoor leisure facility ..... * ..... *
Outdoor sports facility ..... * ..... *
25 Indoor sports facility ..... * ..... *
Restaurant ..... *
16 Hospital
17 Night school etc.
18 Church*
*
In transit: ..... 2

Travelling by car

Travelling by car 36211
Travelling by bus 37Walking1Others1
Travelling (mode not stated) ..... 1 ..... 1
4421

As was noted in relation to activities, these figures should not be taken as national estimates, since some adjustment of the sample is desirable to compensate for the over-proportion of (for example) women and those not in full-time paid work.

\subsection*{8.4. Person distributions}

As with activities, several categories of person can be involved at the same time. But here there is no distinction between main and other, since the identity of the first group of persons coded is an artefact of the ordering of the precoded columns on the record.

On the seven-day diary, \(41 \%\) of time was reported as spent alone, compared with \(46 \%\) on the one-day diary.

It is convenient to group the 37 person codes into five groups, in addition to alone. On this basis, persons involved were as follows:-
\begin{tabular}{lcc} 
& \begin{tabular}{c} 
Seven-day \\
diary \\
\(\%\)
\end{tabular} & \begin{tabular}{c} 
One-day \\
recall \\
\(\%\)
\end{tabular} \\
Alone & 41 & 46 \\
Spouse & 35 & 31 \\
Children & 11 & 10 \\
Other relations & 8 & 8 \\
Friends & 9 & 7 \\
People at work & 7 & 7 \\
Others & 1 & 1 \\
& & \((112)\)
\end{tabular}

These are again very similar, and the only notable discrepancy - in the first two categories - may simply reflect different treatment of main sleep. In its strict physiological sense, other people cannot be "involved in" an individual's sleep; and the survey was not concrned to investigate what other persons were involved in the more colloquial sense of "sleeping with". Respondents thus varied in the extent to which they recorded other people involved - but the general tendency ws to record "alone" for sleep. The recall interviewers were in fact briefed to do this, which probably accounts for the difference in the above tables. A further analysis is required to put sleep into a separate category of its own in the person analysis, so that unwanted variation is eliminated.```


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