

Block 3: Analysing two variables 3.3 Multiple response

3.3.3 Multiple response questions in the 1986 British Social Attitudes survey

[Last updated: 23 Feb 2012]

Previous tutorials: [3.3.1 Analysing multiple response with SPSS - an introduction](#)
[3.3.2a \[SPSS 15\] First exercise in multiple response](#)

Exemplar: British Social Attitudes survey (1986 wave)

There are several questions in the 1986 survey which allow for multiple response and can legitimately have more than one answer. Some of these are pre-coded (either read out from the questionnaire itself or using show-cards): others are open-ended questions for which up to three, up to five or even more (recorded verbatim) answers have been post-coded.

The coding schemes and data layout vary. In some questions each of the possible response codes has been allocated a separate data field, so that a particular code will always appear in the same field. In others, there may be many codes, but only a few fields allocated: codes can appear in any field and in any order. Some questions use lists of responses in which the (pre-) codes run from 1 to 7 and then start again at 1 so that some recoding of values is necessary.

The data for a single case are spread over 23 x 80-column records, eg:

```

102050101031072187061      020512      02
1020502210322023112111121321  31225112112211113442113  05
1020503
1020504      12  012  2004  3121
1020505      030113121255111112  21221221  2113501  111111
10205060102051113111111  2111113102001  010400  1111122  411 2  5
1020507  5  11111833124225  2211121222222  23668656531112221230801030722
1020508222111 2  2  1 2  2  2  6  312
  09
1020510
1020511
1020512
1020513
1020514      02  2  2
102051502115212501      22  011
1020516      9721  063010807327408  001010131  112112  103
1020517136010808323408  01981015102021  4  03  11  11310501870300486111
1020518
1020519
10205203332322343123443212222223323233211112212221222422244112111121222212212
102052133333342312322222441332232212111112232222222212222241422244222
1020522222224244222313222
1020523  00.6666 04 4 1 02 2 4 06 2 07 08 6 5 4 4 4 4 2 1 08 04 3 6 1 1 1 5
    
```

The questionnaire has two versions, A and B, each comprising a set of core questions asked of all respondents, plus a separate set of questions asked only of each of two sub-samples (totals for sample A = 1552, sample B = 1548). The core questions are numbered differently in each version of the questionnaire and the variable labels for some questions in the main SPSS saved file have dual question numbers at the beginning to reflect this: the questionnaire extracts which follow are from version B of the questionnaire.

1a: Single (fixed) field allocated for each code [Single question]

AQ109/BQ117 a) Have you passed exams or got any other qualifications?

[Filter question] [codes 1 or 2 in col 65 of record 15]

b) [If YES] Educational qualifications obtained

[precoded with showcard] 16 possible codes of which 15 valid (01-15) each in fixed location, one field per code (cols 66-67, 68-69 ... 78-79 of record 15 and columns 08-09,10-11 ... 22-23 of record 16) plus **one only** of missing codes 97,98 or 99 in cols 24-25 of record 16. Total of 16 fields, 32 columns.

<u>ASK ALL</u>		(1565)	
<u>CARD CC</u>			
117.a)	Have you passed any exams or got any of the qualifications on this card?	Yes No, none	1 2
			b) Q.118
	<u>IF YES (CODE 1 AT a)</u>		
	b) Which ones? Any others?	CSE Grades 2-5	01 (1566-7)
	<u>CODE ALL THAT APPLY</u>	CSE Grade 1 GCE 'O' level School certificate Scottish (SCE) Ordinary	02 (1568-9)
		GCE 'A' level/'S' level Higher certificate Matriculation Scottish (SCE) Higher	03 (1570-1)
		Overseas School Leaving Exam/Certificate	04 (1572-3)
		Recognised trade apprenticeship completed	05 (1574-5)
		RSA/other clerical, commercial qualification	06 (1576-7)
		City & Guilds Certificate - Craft/Intermediate/Ordinary/Part I	07 (1578-9)
		City & Guilds Certificate - Advanced/Final/Part II or Part III	08 (1608-9)
		City & Guilds Certificate - Full technological	09 (1610-1)
		BEC/TEC General/Ordinary National Certificate (ONC) or Diploma (OND)	10 (1612-3)
		BEC/TEC Higher/Higher National Certificate (HNC) or Diploma (HND)	11 (1614-5)
		Teachers training qualification	12 (1616-7)
		Nursing qualification	13 (1618-9)
		Other technical or business qualification/certificate	14 (1620-1)
		University or CNA degree or diploma	15 (1622-3)
	Other (SPECIFY)		97 (1624-5)

[Extract of 3 cases from raw data: records 15 and 16]

10192150312601163111362						222012	
1019216	1	999021117998999	99999	933			07
10203150142801					2	032	
1020316		999021117998999	99999	933			
100801505123191371	1022	1032	2102			222021	0102
1008016	1	1	045040805318302	0005101132222222			05

1b: Single (fixed) field allocated per code [Double question]

Q53 Priorities for Government spending [precoded with show-card H]

<u>CARD H</u>			
53.	Here are some items of government spending. Which of them, if any, would be your highest priority for <u>extra</u> spending? And which next? Please read through the whole list before deciding.	1st <u>Priority</u>	2nd <u>Priority</u>
		(531-32)	(533-34)
	<u>ONE CODE ONLY IN EACH COL.</u>		
	Education	01	01
	Defence	02	02
	Health	03	03
	Housing	04	04
	Public transport	05	05
	Roads	06	06
	Police and prisons	07	07
	Social security benefits	08	08
	Help for industry	09	09
	Overseas aid	10	10
	(NONE OF THESE)	11	11
	(Don't know)	98	98

[Two replies only, 11 valid codes (01 to 11) 2 missing (98,99) two fields, cols 31-32 and 33-34 of record 5]

[Extract of 3 cases from raw data: record 05, two reply codes entered in 31-2 and 33-4]

1019205203	2	443	0703	13221222222222	11311213	113220707111113
1020305203	2	443	0904	14112322222332	31811123	233220401111111
1020505			0301	13121255111112	21221221	2113501 111111

2: More codes used than fields allocated:

Q70e How prejudiced against other races?

[Filter question]

e)	How would you describe yourself: ... <u>READ OUT</u> ...	(575)	
	... as very prejudiced against people of other races,	1	f)
	a little prejudiced,	2	
	or - not prejudiced at all?	3	
	Other answer (SPECIFY) _____	7	Q.71

Q70f Groups prejudiced against

[Post-coded: asked only if code 1 or 2 at Q70e]

	IF 'VERY' OR 'A LITTLE' PREJUDICED	(576-80)	SPARE
		CARD 06	(606-07)
f)	Against any race in particular? PROBE FOR RACES AND RECORD. IF 'BLACK' OR 'COLOURED' MENTIONED, PROBE FOR WHETHER WEST INDIAN, ASIAN, GENERAL, ETC. RECORD VERBATIM EVERYTHING MENTIONED	(608-09)	
		(610-11)	
		(612-13)	

Up to three verbatim replies, post-coded, 13 possible codes of which 10 valid (01 – 10) and three missing (97 - 99) but only three fields (cols 08-09, 10-11, 12-13 of record 6)

g)	How would you describe yourself: ... <u>READ OUT</u> ...	(575)	
	... as very prejudiced against people of other races,	1	f)
	a little prejudiced,	2	
	or - not prejudiced at all?	3	
	Other answer (SPECIFY) _____	7	Q.71
	(If 575/1 or 2) IF 'VERY' OR 'A LITTLE' PREJUDICED	(576-80)	SPARE
		CARD 06	(606-07)
f)	Against any race in particular? PROBE FOR RACES AND RECORD. IF 'BLACK' OR 'COLOURED' MENTIONED, PROBE FOR WHETHER WEST INDIAN, ASIAN, GENERAL, ETC. RECORD VERBATIM EVERYTHING MENTIONED	(608-09)	
	UP TO 3 ANSWERS MAY BE CODED.	(610-11)	
	01 - ASIANS		
	02 - BLACKS		
	03 - COLOURED		
	04 - PAKISTANIS		
	05 - INDIANS		
	06 - SIKHS		
	07 - WEST INDIANS		
	08 - AFRICANS		
	09 - OTHER SPECIFIED RACES/NATIONALITIES/COUNTRIES		
	10 - AGAINST ALL RACES (OTHER THAN WHITE) NO RACE IN PARTICULAR (INCLUDES NO)		
	97 - OTHER ANSWER NOT FALLING INTO 01-10 (FINAL LIST WITH 9/10) *		
	98 - DONT KNOW		
	99 - N/A		
	* FINAL LISTINGS OF ALL ANSWERS WHERE REASONS ONLY WERE RECORDED		
	** ALSO LIST VERBATIM ANSWERS WHERE MORE THAN JUST RACE WAS MENTIONED (WITH CODES USED)		

[Extract of 3 cases from raw data: record 06]

1019206	3323122111	1112211801501	007800	1111222	511	
102030603	8813112311	1332111100601	003120	3222222	21212	5
1020506010205	1113111111	2111113102001	010400	1111122	411 2	5

3a: One (fixed) field allocated for each code, but codes are repeated:

- BQ86a Action would take }
 } to stop or change an unjust law [precoded with showcard P]
- BQ86b Action ever taken }

[9 possible substantive replies, but only 7 codes allocated!!]

CARD P		Col./Code	Skip to
86.a)	Suppose a law was being considered by Parliament which you thought was really unjust and harmful. Which, if any, of the things on this card do you think you would do? Any others? <u>RECORD IN COL a) BELOW, THEN ASK b).</u> <u>MORE THAN ONE CODE MAY BE RINGED</u>		
b)	And have you ever done any of the things on this card about a government action which you thought was unjust or harmful? Which ones? Any others? <u>RECORD IN COL b) BELOW.</u> <u>MORE THAN ONE CODE MAY BE RINGED</u>		CARD 07 (706-7)
		(a) Would do	(b) Ever done
	Contact my MP	1 (671)	1 (708)
	Speak to influential person	2 (672)	2 (709)
	Contact a government department	3 (673)	3 (710)
	Contact radio, TV or newspaper	4 (674)	4 (711)
	Sign a petition	5 (675)	5 (712)
	Raise the issue in an organisation I already belong to	6 (676)	6 (713)
	Go on a protest or demonstration	7 (677)	7 (714)
	Form a group of like-minded people	1 (678)	1 (715)
	(NO - NONE OF THESE)	2 (679)	2 (716)

This is a complex one for multiple response. Columns 71 to 79 of record 6 and columns 08 to 16 of record 7 (2 x 9 = 18 columns) are allocated as fixed fields. Codes **1** and **2** are repeated at cols 6/78-79 and 7/15-16, but refer to different replies from the list: **they need changing!** Be careful if you're thinking of changing them to codes 8 and 9 which are used for denoting missing values! (8 = DK, 9 = NA on 6/79 and 7/16) You need to change the missing values 8 and 9 to 88 and 99 inside SPSS first. There's only 1 digit allowed in a single column in the raw data, but values inside SPSS are not limited like this.

[Extract from raw data: records 06 and 07]

1019206	3323122111	1112211801501	007800	1111222	511	21
10192071	34444444123555	2132132212223	52655616541233333330104010211			
102030603	8813112311	1332111100601	003120	3222222	21212	5
1020307	222222888121776	2112112122451	23636666343111131180107030411			
10205060102051113111111	2111113102001	010400	1111122	411	2	5
1020507	5	11111833124225	2211121222222	23668656531112221230801030722		

3b: One (fixed) field allocated for each code, but codes are repeated:

AQ117/BQ125 Welfare benefits received [showcard GG]

125.	ASK ALL		
	CARD GG		
	Have you or anyone in this household been in receipt of any of the benefits on this card during the last five years?		
	IF YES: Which ones? Any others? Child benefit (family allowance)	1	(1739)
	CODE ALL THAT APPLY Maternity benefit or allowance	2	(1740)
	One parent benefit	3	(1741)
	Family Income Supplement	4	(1742)
	State retirement or widow's pension	5	(1743)
	Supplementary pension	6	(1744)
	Invalidity or disabled pension or benefit	1	(1745)
	Attendance/Invalid care/Mobility allowance	2	(1746)
	Sickness or injury benefit	3	(1747)
	Unemployment benefit	4	(1748)
	Supplementary benefit	5	(1749)
	Rate or rent rebate or allowance	6	(1750)
Other benefit(s) volunteered (SPECIFY) _____	7	(1751)	
	NO, NONE	0	(1752)

117	ASK ALL ✓		
	CARD GG		
	Have you or anyone in this household been in receipt of any of the benefits on this card during the last five years?		
	IF YES: Which ones? Any others? Child benefit (family allowance)	1	(1739)
	CODE ALL THAT APPLY Maternity benefit or allowance	2	(1740)
	One parent benefit	3	(1741)
	Family Income Supplement	4	(1742)
	State retirement or widow's pension	5	(1743)
	Supplementary pension	6	(1744)
	Invalidity or disabled pension or benefit	1	(1745)
	Attendance/Invalid care/Mobility allowance	2	(1746)
	Sickness or injury benefit	3	(1747)
	Unemployment benefit	4	(1748)
	Supplementary benefit	5	(1749)
	Rate or rent rebate or allowance	6	(1750)
Other benefit(s) volunteered (SPECIFY) <u>RECODE IF POSSIBLE OTHERWISE</u>	7	(1751)	
	NO, NONE	0	(1752)

8 = DK ON COL 1752
9 = N/A ON COL 1752
N.B. IF BENEFIT IS PRIVATE e.g. PRIVATE PENSION, ALIMONY, OR LOCAL EDUCATION AUTHORITY BENEFIT e.g. MILK TOKENS DELETE CODES - IF NECESSARY RECODE TO 1752/0
HOUSING BOND /
FINAL LIST WITH S.No.
* NEW CODE 1752/1 = GRADUATED, SUPERANNUATION WHERE NOT CLEAR IF PRIVATE OR STATE

This is another complex one for multiple response. There were 12 possible precoded replies, but only 6 substantive codes (2 x 1 – 6) allocated! 12 columns (39-50) of record 17 Code 7 for "other" in col 51 codes 1-6 repeated from col 17/45 to 17/50 and **need changing**

[Extract of 3 cases from raw data: record 17]

1019217	003010501213601	00051025198981	3	98	2111310551870030586131
1020317		03031	5	03	1111290601870300486231
1020517	136010808323408	01981015102021	4	03	1111310501870300486111

5: Binary variables (dichotomous)

Sets of questions with only two response categories (Yes, No) can be analysed as a block by treating them as multiple response questions. Indeed, any variable can be dichotomised and thus treated. An example in this data set is:

AQ112/BQ120a Actions as Trade Union member (Yes, No – precoded)

		Col./ Code	Skip to
120.a)	<u>ASK ALL</u> Are you <u>now</u> a member of a trade union or staff association?	(1657) 1 } 2 }	c)
	Yes: trade union		
	Yes: staff association		
	No	3	b)
	<u>IF NO AT a)</u>	(1658)	
b)	Have you <u>ever</u> been a member of a trade union or staff association?	1 } 2 }	c)
	Yes: trade union		
	Yes: staff association		
	No	3	Q.121
	<u>IF NOW OR EVER A MEMBER (CODES 1 OR 2 AT a OR b)</u>		
c)	Have you ever ... <u>READ OUT</u> ... (RING ONE CODE FOR EACH)	<u>YES</u>	<u>NO</u>
	... attended a union or staff association meeting?	1	2 (1659)
	... voted in a union or staff association election or meeting?	1	2 (1660)
	... put forward a proposal or motion at a union or staff association meeting?	1	2 (1661)
	... gone on strike?	1	2 (1662)
	... stood in a picket line?	1	2 (1663)
	... served as a lay representative such as a shop steward or branch committee member?	1	2 (1664)

cols 59-64 of record 16 (codes 1, 2)

[Extract of 3 cases from raw data: record 16]

1019216	1	999021117998999	99999	933	07
1020316		999021117998999	99999	933	
1020516	9721	063010807327408	001010131	112112	103

End of note: These examples will be used in the next set of tutorials.

Next tutorial: 3.3.3.1 Analysing multiple response in the 1986 British Social Attitudes survey [in preparation].