

SPSS files for British Social Attitudes 32 (2011): a cautionary tale for the unwary

John F Hall: 31 August 2017

Abstract

Data and documentation for the British Social Attitudes Survey (BSAS) are routinely deposited with, and distributed by, the UK Data Service (UKDS). Available waves of the survey are listed in the UKDS catalogue for the series [British Social Attitudes Survey](#).

Wave 32¹ (2011) of the BSAS (data and documentation downloadable from [British Social Attitudes Survey, 2011](#)²) carries several batteries of questions to measure social and political attitudes³.

Three⁴ such scales (see [User Guide for 2011 \(revised 2014\)](#) pp 19-21) are:

Scale	Items	Name
Welfarism scale	8 items	welfare2
Left-right scale	5 items	leftrigh
Libertarian- authoritarian scale	6 items	libauth

[NB: The technical comments in this note apply equally to SPSS files for other waves.]

In the first release of the SPSS saved file for this survey, value **-1** = "Skip: not returned" was specified as a missing value for the items used to construct the above attitude scales: value **9** = "Missing" was not. Consequently the scores constructed from them for **welfare2**, **leftrigh** and **libauth** had all been wrongly calculated and had values outside the correct range.

The current release of the file specifies a range of negative missing values (**-9 thru -1**) but positive value **9** has not been recoded, so the scores for **welfare2**, **leftrigh** and **libauth** are still not correct.

The constituent items and the derived variables **welfare2**, **leftrigh** and **libauth** are examined and recalculated to give the correct scores. Improved SPSS syntax is suggested and the results compared with the distributed file.

¹ See Natcen site [British Social Attitudes 32](#) for 2011 contents.

^{2 3} NatCen Social Research. (2014). *British Social Attitudes Survey, 2011*. [data collection]. 2nd Edition. UK Data Service. SN: 7237, <http://doi.org/10.5255/UKDA-SN-7237-2>

⁴ This example uses wave 32 (2011). The questions are in this order in the questionnaire, but in the SPSS file the sequence of scales is **leftrigh**, **libauth** and **welfare2**. The wording in items used for **leftrigh** and **libauth** are all loaded towards "right-wing" and "authoritarian": wording in items for "**welfare2**" have mixed loadings, but the values for positively worded items in the SPSS file have been modified to indicate high anti-welfare attitudes. This could be confusing.

Welfarism scale

Self-completion questionnaire A: Q.47 (a) – (h)^{5 6}

22

OFFICE
USE
ONLY
SPARE
1403-
1906

Q47 Please tick one box for each statement to show how much you agree or disagree with it.

PLEASE TICK **ONE** BOX
ON EACH LINE

	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	
a. The welfare state encourages people to stop helping each other	<input checked="" type="checkbox"/> WelfHelp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1907
b. The government should spend more money on welfare benefits for the poor, even if it leads to higher taxes	<input checked="" type="checkbox"/> MoreWelf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1908
c. Around here, most unemployed people could find a job if they really wanted one	<input checked="" type="checkbox"/> UnempJob	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1909
d. Many people who get social security don't really deserve any help	<input checked="" type="checkbox"/> SocHelp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1910
e. Most people on the dole are fiddling in one way or another	<input checked="" type="checkbox"/> DoleFidl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1911
f. If welfare benefits weren't so generous, people would learn to stand on their own two feet	<input checked="" type="checkbox"/> WelfFeet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1912
g. Cutting welfare benefits would damage too many people's lives	<input checked="" type="checkbox"/> DamLives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1913
h. The creation of the welfare state is one of Britain's proudest achievements	<input checked="" type="checkbox"/> ProudWlf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1914
	1	2	3	4	5	

Missing values for all items are declared as (-9 thru -1)

	Name	...	...	...	Label	...	Missing
833	WelfHelp	...	2	0	The welfare state encourages people to stop helping each other A2.47aB2.24aC2.23a.	...	-9 - -1
834	MoreWelf	...	2	0	The government should spend more money on welfare benefits for the poor A2.47bB2.24bC2.23b.	...	-9 - -1
835	UnempJob	...	2	0	Around here, most unemployed people could find a job if they really wanted one A2.47cB2.24cC2.23c.	...	-9 - -1
836	SocHelp	...	2	0	Many people who get social security don't really deserve any help A2.47dB2.24dC2.23d.	...	-9 - -1
837	DoleFidl	...	2	0	Most people on the dole are fiddling in one way or another A2.47eB2.24eC2.23e.	...	-9 - -1
838	WelfFeet	...	2	0	If welfare benefits weren't so generous, people would learn to stand on own feet A2.47fB2.24fC2.23f.	...	-9 - -1
839	DamLives	...	2	0	Cutting benefits would damage too many people's lives A2.47gB2.24gC2.23g.	...	-9 - -1
840	ProudWlf	...	2	0	The creation of the welfare state is one of Britain's proudest achievements A2.47hB2.24hC2.23h.	...	-9 - -1

Value 9 has **not been recoded** and remains a **valid value** for all items, eg:

WelfHelp					
Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	Not answered (9)
Count	Count	Count	Count	Count	Count
140	815	1066	697	64	63

⁵ The pdf file for the questionnaire displays, for each item, the associated SPSS **variable name**

⁶ **morewelf**, **damlives** and **sochelp** (but not **welfare2**) are included in:
Taylor E and Taylor-Gooby P [Benefits and Welfare: Long-term trends or short-term reactions?](#),

Left - right scale

Self-completion questionnaire A: Q.48 (a) – (e)

23

OFFICE
USE
ONLY

Q48 Please tick one box for each statement to show how much you agree or disagree with it.

**PLEASE TICK ONE BOX
ON EACH LINE**

	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	
a. Government should redistribute income from the better-off to those who are less well off	<input checked="" type="checkbox"/> Redistrb	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1915
b. Big business benefits owners at the expense of workers	<input checked="" type="checkbox"/> BigBusnN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1916
c. Ordinary working people do not get their fair share of the nation's wealth	<input checked="" type="checkbox"/> Wealth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1917
d. There is one law for the rich and one for the poor	<input checked="" type="checkbox"/> RichLaw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1918
e. Management will always try to get the better of employees if it gets the chance	<input checked="" type="checkbox"/> Indust4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1919
	1	2	3	4	5	

Missing values for all items are declared as **(-9 thru -1)**

Name	...	...	...	Label	...	Missing
841 Redistrb	...	2	0	Government should redistribute income from the better-off to less well-off A2.48aB2.25aC2.24a.	...	-9 - -1
842 BigBusnN	...	2	0	Big business benefits owners at the expense of workers A2.48bB2.25bC2.24b.	...	-9 - -1
843 Wealth	...	2	0	Ordinary working people do not get their fair share of the nation's wealth A2.48cB2.25cC2.24c.	...	-9 - -1
844 RichLaw	...	2	0	There is one law for the rich and one for the poor A2.48dB2.25dC2.24d.	...	-9 - -1
845 Indust4	...	2	0	Management will always try to get the better of employees if gets chance A2.48eB2.25eC2.24e.	...	-9 - -1

Value **9** has **not been recoded** and remains a **valid value** for all items, e.g:

Redistrb					
Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	Not answered (9)
Count	Count	Count	Count	Count	Count
218	830	797	775	173	52

Libertarian - authoritarian scale

Self-completion questionnaire A: Q.49 (a) – (f)

Q49 Please tick one box for each statement to show how much you agree or disagree with it.

PLEASE TICK **ONE** BOX
ON EACH LINE

	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	
a. Young people today don't have enough respect for traditional British values	<input type="checkbox"/> TradVals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SPARE 1920 1921
b. People who break the law should be given stiffer sentences	<input type="checkbox"/> StifSent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1922
c. For some crimes, the death penalty is the most appropriate sentence	<input type="checkbox"/> DeathApp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1923
d. Schools should teach children to obey authority	<input type="checkbox"/> Obey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1924
e. The law should always be obeyed, even if a particular law is wrong	<input type="checkbox"/> WrongLaw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1925
f. Censorship of films and magazines is necessary to uphold moral standards	<input type="checkbox"/> Censor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1926
	1	2	3	4	5	

Missing values for all items are declared as **(-9 thru -1)**

	Name	...	...	...	Label	...	Missing
846	TradVals	...	2	0	Young people today don't have enough respect for traditional British values A2.49aB2.26aC2.2...	...	-9 --1
847	StifSent	...	2	0	People who break the law should be given stiffer sentences A2.49bB2.26bC2.25b.	...	-9 --1
848	DeathApp	...	2	0	For some crimes, the death penalty is the most appropriate sentence A2.49cB2.26cC2.25c.	...	-9 --1
849	Obey	...	2	0	Schools should teach children to obey authority A2.49dB2.26dC2.25d.	...	-9 --1
850	WrongLaw	...	2	0	The law should always be obeyed, even if a particular law is wrong A2.49eB2.26eC2.25e.	...	-9 --1
851	Censor	...	2	0	Censorship of films and magazines is necessary to uphold moral standards A2.49fB2.26fC2.25f.	...	-9 --1

Value **9** has **not been recoded** and remains a **valid value** for all items, e.g:

TradVals					
Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	Not answered (9)
Count	Count	Count	Count	Count	Count
784	1419	413	182	13	34

Because they fall within the specified range of **(-9 thru -1)** the item values **-1** = "Skip: not returned" and **-9** = "Missing" will be treated as **missing values**.

The coding for the **Agree-Disagree** items is:

-1 = "No self-completion"
 1 = "Agree strongly"
 2 = "Agree"
 3 = "Neither agree nor disagree"
 4 = "Disagree"
 5 = "Disagree strongly"
 9 = "Not answered (9)"

However, value **9** = "Not answered" **has not been declared as missing**.

This drastically affects the number of cases processed during statistical analysis and also any statistics produced. When calculating indices based on items contained in these batteries, the missing value **9** needs to be taken into account, otherwise it will be treated as a **valid value**, as illustrated in the following tables

N of cases

File as received

Statistics			
	DamLives	MoreWelf	SocHelp
N Valid	1896	1893	1898
Missing	322	325	320

File as modified

Statistics			
	DamLives	MoreWelf	SocHelp
N Valid	2845	2845	2845
Missing	466	466	466

Cumulative mother file (2011 only) ⁷

Statistics			
	damlives:	morewelf	sochelp
N Valid	2792	2789	2795
Missing	519	522	516

Means

File as received

Report			
	leftrigh	libauth	welfare2
Mean	2.63	3.76	3.07
N	1902	1907	1900

File as modified

Report			
	leftrigh	libauth	welfare2
Mean	2.68	3.84	3.17
N	2845	2845	2845

Cumulative mother file (2011 only)

Report			
	leftrigh	libauth	welfare2
Mean	2.58	3.78	3.07
N	2799	2813	2798

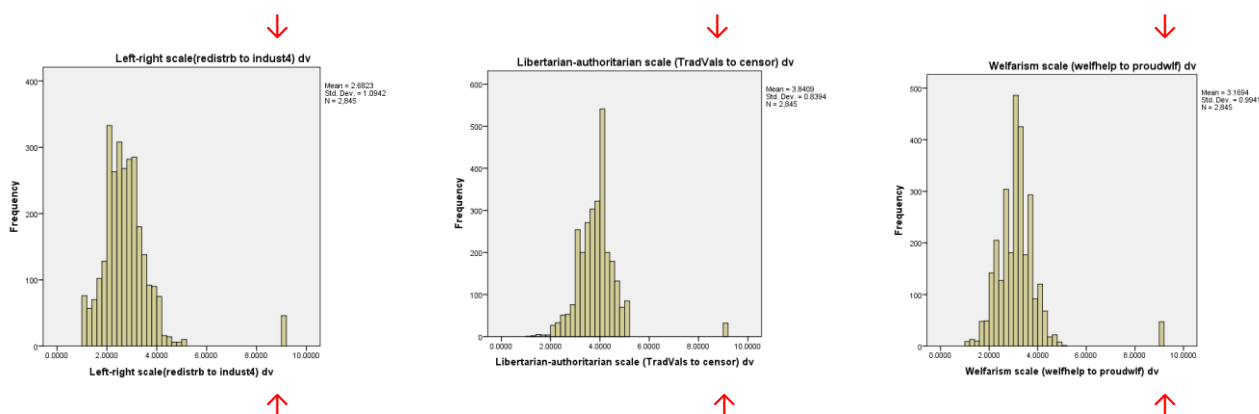
⁷ These figures are from the cumulative SPSS "mother" file for years 1983 to 2014 in which further adjustments have been made. See: [British Social Attitudes 1983 to 2014: Cumulative SPSS file](#)

The three derived variables:

leftrigh "Left-right scale"
libauth "Libertarian-authoritarian scale"
welfare2 "Welfarism scale"

. . were calculated by adding together the valid values of all items in the associated question and then dividing by the number of items, to yield an average score in the range 1 – 5 in which 5 indicates high support for welfare. For **welfare2** the scores on the three positively worded items first needed to be reversed.

Because value **9** has not been recoded to **-9**, all three derived variables include the value **9** (clearly visible as outliers in the charts below) when scores should only be between **1** and **5**.



Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
leftrigh	2845	1.0000	9.0000	2.682308	1.0941584
libauth	2845	1.0000	9.0000	3.840890	0.8393912
welfare2	2845	1.0000	9.0000	3.169354	0.9940814
Valid N (listwise)	2845				

The value labels in the SPSS file are:

leftrigh

-1.0000 = "No self-completion"
1.0000 = "left"
5.0000 = "right"
9.0000 = "Missing values"

Libauth

-1.0000 = "No self-completion"
1.0000 = "libertarian"
5.0000 = "authoritarian"
9.0000 = "Missing values"

welfare2

-1.0000 = "No self-completion"
1.0000 = "sympathetic"
5.0000 = "poor dont deserve"
9.0000 = "missing values"

For variables **leftrigh**, **libauth** and **welfare2** missing values have been declared as **(-9 thru -1)**

	Name	...	...	...	Label	...	Missing
852	leftrigh	...	6	4	Left-right scale(redistrib to indust4) dv	...	-9.0000 - -1.0000
853	libauth	...	6	4	Libertarian-authoritarian scale (TradVals to censor) dv	...	-9.0000 - -1.0000
854	welfare2	...	6	4	Welfarism scale (welfhelp to proudwlf) dv	...	-9.0000 - -1.0000

Because value **9** was not recoded to **-9** in the constituent items, it was included in the calculation of scores for all three scales.

One solution would be to declare **9** as a missing value, in addition to **-1 -9** e.g:

missing values leftrigh to welfare (-9 thru -1, 9) .

However, although the missing values specification for all items have now been modified to **(-9 thru -1)** value **9** = "Missing" still needs recoding to **-9** in all the constituent items.

recode welfhelp to censor (9 = -9) .

recode leftrigh to welfare2 (9 = -9) .⁸

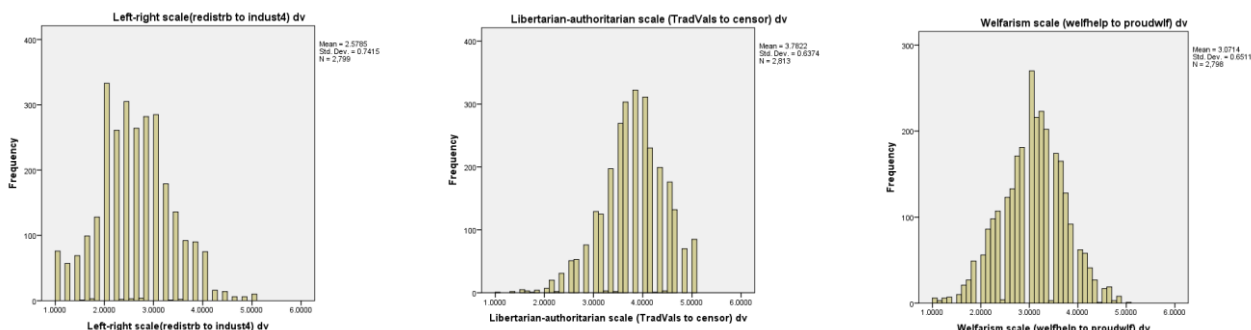
add value labels leftrigh to welfare2 -9 "Missing values" .⁹

A useful convention, which can be applied across all variables in the file, and can also be used in other SPSS files, is to recode all positive missing values to negative and declare them as **(lo thru -1)** **before** calculating any scale scores. This convention allows many more (negative) user-missing values than the normal SPSS limit of three **discrete** values. In the unlikely event that one is needed, it also leaves a spare missing value, for example **(lo thru -1, 99)**.

When missing value **9** is taken into account, the values for the derived variables are in the correct range between **1** and **5**:

	N	Min	Max	Mean
libauth Libertarian-authoritarian scale (TradVals to censor) dv	2813	1.0000	5.0000	3.782202
leftrigh Left-right scale(redistrb to indust4) dv	2799	1.0000	5.0000	2.578480
welfare2 Welfarism scale (welfhelp to proudwlf) dv	2798	1.0000	5.0000	3.071413

However, because of the resultant fractional values between **1** and **5**, the histograms are interspersed with sparsely populated bins:



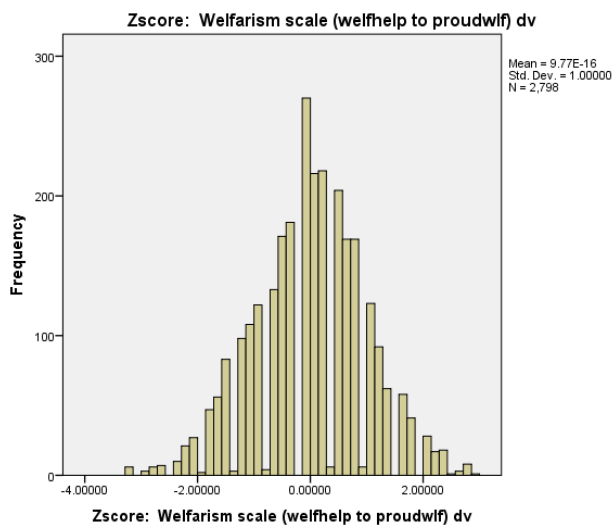
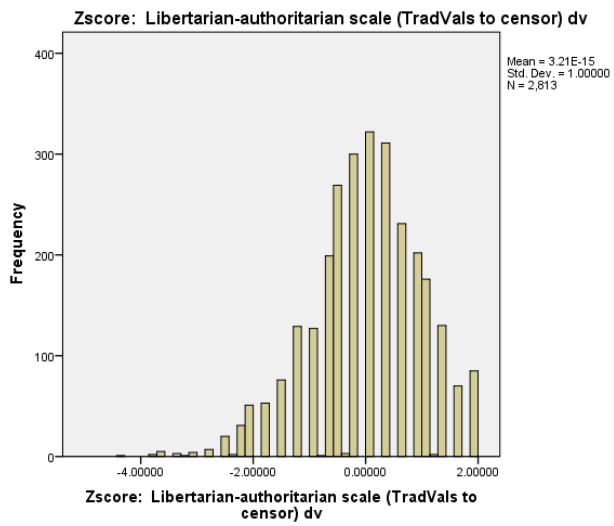
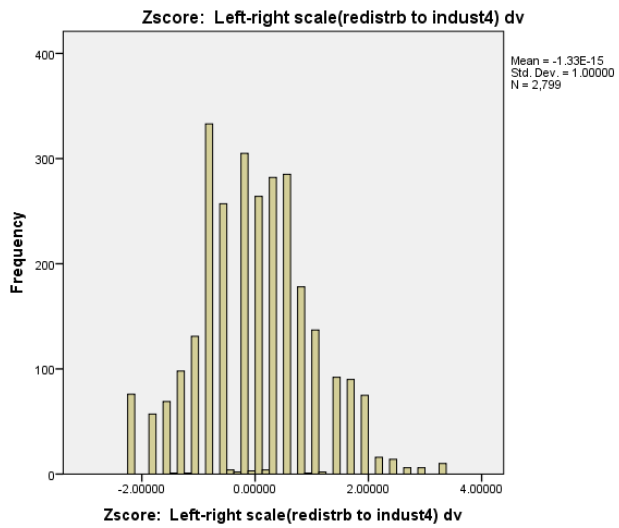
An alternative to using the original 1 – 5 scores would be to use z-scores:

descriptives leftrigh libauth welfare2
/save .

That still leaves bins containing fractions, but the z-scores can then be used to decide cutting points to group the scores into categories.

⁸ The **recode** statement does not affect value labels: "ghost" labels remain for all the old positive values. They can only be removed by re-specifying the full value labels without the recoded values or by complex Python code/ Excel procedures beyond the scope of this paper.

⁹ **add value labels** is necessary here: **value labels** would over-write the existing labels.



Neater histograms can be produced if the scores are left as integer totals, but adjusted to yield a true zero point (by subtracting the number of items in the scale).

***Reset missing values for all items in three batteries.**

recode welhelp to censor (9=-9).

missing values welhelp to censor (-1,-9) .

***Reverse code pro-welfare items by subtracting from 6, creating new variables with **r_** prefix.**

do repeat

x = morewelf damlives proudwlf

/y = **r_**morewelf **r_**damlives **r_**proudwlf.

compute y = 6 - x.

end repeat.

formats r_morewelf r_damlives r_proudwlf (f2.0) .

variable level r_morewelf r_damlives r_proudwlf (**ordinal**) .

variable labels

r_morewelf 'Reverse scored morewelf'

/r_damlives 'Reverse scored damlives'

/r_proudwlf 'Reverse scored proudwlf'.

value labels

r_morewelf r_damlives r_proudwlf

1 'Disagree strongly' 2 'Disagree '

3 'Neither agree nor disagree' 4 'Agree' 5 'Agree strongly'

-1 'No self-completion form' -9 'Missing'.

***Check.**

crosstabs morewelf **by** r_morewelf

/damlives **by** r_damlives

/proudwlf **by** r_proudwlf .

MoreWelf * r_morewelf Crosstabulation

Count

		r_morewelf					Total
		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly	
MoreWelf	Agree strongly	0	0	0	0	120	120
	Agree	0	0	0	701	0	701
	Neither agree nor disagree	0	0	899	0	0	899
	Disagree	0	916	0	0	0	916
	Disagree strongly	153	0	0	0	0	153
Total		153	916	899	701	120	2789

DamLives * r_damlives Crosstabulation

Count

		r_damlives					Total
		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly	
DamLives	Agree strongly	0	0	0	0	225	225
	Agree	0	0	0	983	0	983
	Neither agree nor disagree	0	0	930	0	0	930
	Disagree	0	596	0	0	0	596
	Disagree strongly	58	0	0	0	0	58
Total		58	596	930	983	225	2792

ProudWlf * r_proudwlf Crosstabulation

Count

		r_proudwlf					Total
		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly	
ProudWlf	Agree strongly	0	0	0	0	464	464
	Agree	0	0	0	1026	0	1026
	Neither agree nor disagree	0	0	902	0	0	902
	Disagree	0	316	0	0	0	316
	Disagree strongly	87	0	0	0	0	87
Total		87	316	902	1026	464	2795

*Recalculate derived variables to yield scores with true zero.

compute xleftrigh = sum.5

(redistrb, bigbusnn, wealth, richlaw, indust4) -5.

compute xlibauth = sum.6

(tradvals, stifsent, deathapp, obey, wronglaw, censor) - 6.

compute xwelfare2= sum.8

(welfhelp, r_morewelf, unempjob, sochelp, dolefidl, elffeet, r_damlives, r_proudwlf) -8.

formats xleftrigh to xwelfare2 (f3.0).

variable level xleftrigh to xwelfare2 (scale).

variable labels

xleftrigh 'Recalculated left-right score: 0-20'

/ xlibauth 'Recalculated authoritarian score: 0-24'

/ xwelfare2 'Recalculated anti-welfare score: 0-32'.

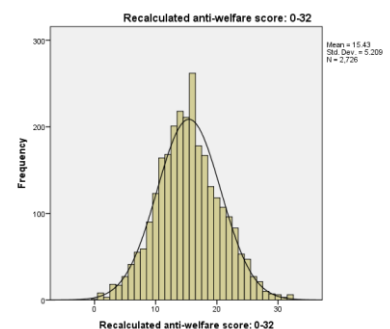
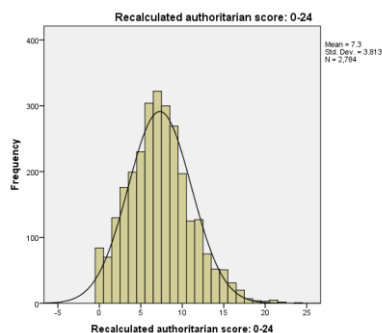
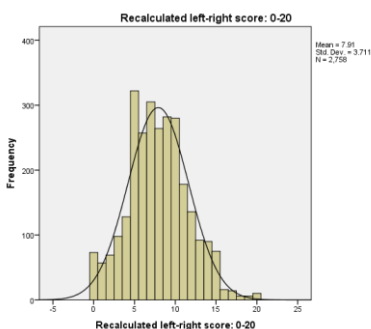
*Check.

descriptives xleftrigh to xwelfare2.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
xleftrigh	2758	0	20	7.91	3.711
xlibauth	2784	0	24	7.30	3.813
xwelfare2	2726	0	32	15.43	5.209
Valid N (listwise)	2680				

frequencies xleftrigh to xwelfare2 /format notable /histogram normal.



The calculations for the derived variable are now correct, but the same errors are present in SPSS for files other waves of the BSAS. You have been warned!