

SPSS 13.0 HELP SHEET: Spearman Correlation

CONTENTS

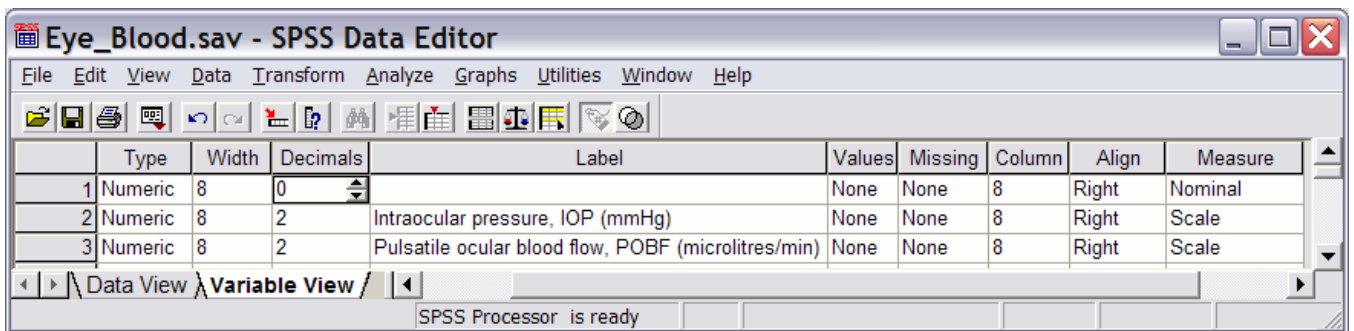
1. How to enter data to do a Spearman correlation.
2. How to do a Spearman correlation.

1. How to enter data to do a Spearman correlation.

For general advice on data entry see the “How to enter data into SPSS” help sheet.

Data used in correlations are related: Data from the one variable goes in one column and data for the other variable in another column: Related data points must be in the same case (i.e., row). In this example, one variable is *eye* and the other variable is *blood*. *Eye* (variable label = Intraocular pressure) is measured as the number of mammalian species and is a scale level of measurement. *Blood* (variable label = Pulsatile ocular blood flow) is measured in microlitres per minute. *ID* indicates the identity of the person from whom the data were collected.

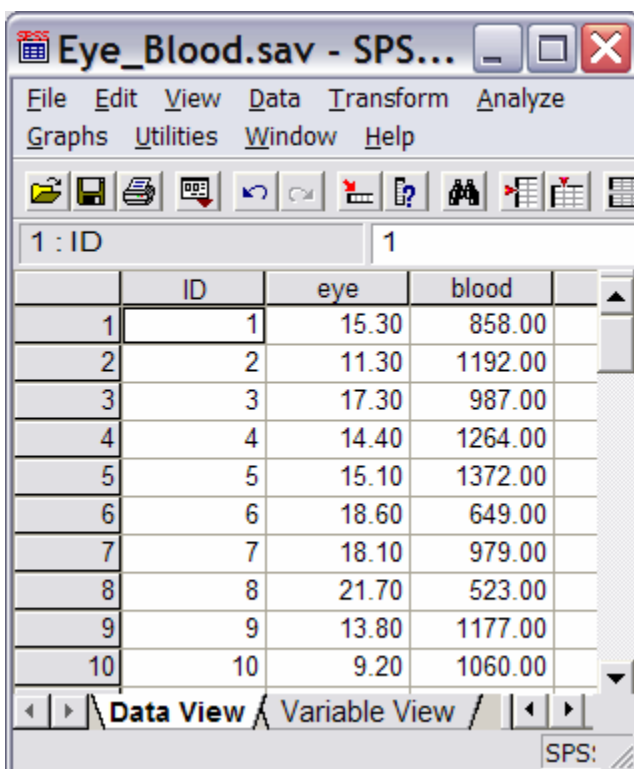
Variable View:



	Type	Width	Decimals	Label	Values	Missing	Column	Align	Measure
1	Numeric	8	0		None	None	8	Right	Nominal
2	Numeric	8	2	Intraocular pressure, IOP (mmHg)	None	None	8	Right	Scale
3	Numeric	8	2	Pulsatile ocular blood flow, POBF (microlitres/min)	None	None	8	Right	Scale

SPSS Processor is ready

Data View



1 : ID	ID	eye	blood
1	1	15.30	858.00
2	2	11.30	1192.00
3	3	17.30	987.00
4	4	14.40	1264.00
5	5	15.10	1372.00
6	6	18.60	649.00
7	7	18.10	979.00
8	8	21.70	523.00
9	9	13.80	1177.00
10	10	9.20	1060.00

SPS:

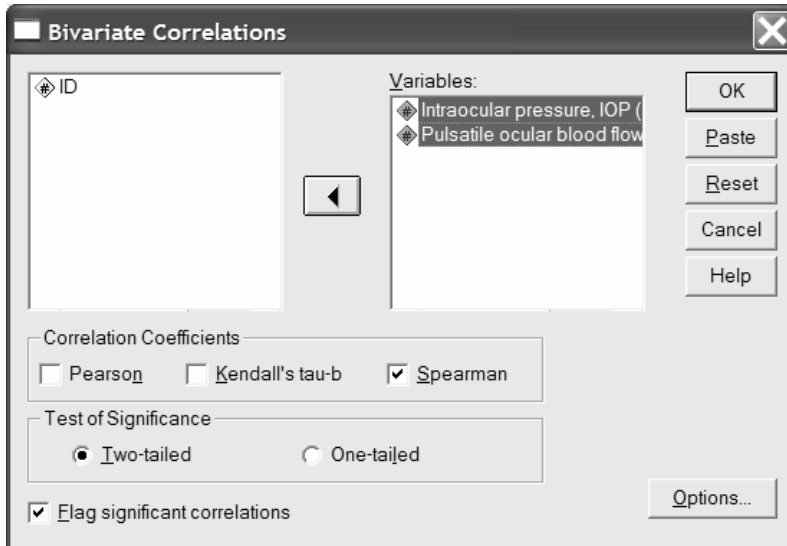
2. How to do a Spearman Correlation.

To get SPSS to conduct a Spearman correlation:

Open your data file.

Select: Analyze – Correlate – Bivariate...

This will bring up the Bivariate Correlations window:



Select the variables that you want to analyse, and send them to the **Variables** box (in the example above this is *Intraocular Pressure* and *Pulsatile ocular blood flow*). Make sure that the **Spearman** option is selected. (NB: You can do a Pearson and/or Kendal's correlation at the same time by also selecting these options). Click OK.

The key elements of the output are:

Correlations

			Intraocular pressure, IOP (mmHg)	Pulsatile ocular blood flow, POBF (microlitres/min)
Spearman's rho	Intraocular pressure, IOP (mmHg)	Correlation Coefficient	1.000	-.576**
		Sig. (2-tailed)	.	.008
		N	20	20
	Pulsatile ocular blood flow, POBF (microlitres/min)	Correlation Coefficient	-.576**	1.000
		Sig. (2-tailed)	.008	.
		N	20	20

← STATISTIC (r_s)
← P
← N

** . Correlation is significant at the 0.01 level (2-tailed).