

SPSS 13.0 HELP SHEET: Paired *t*-test

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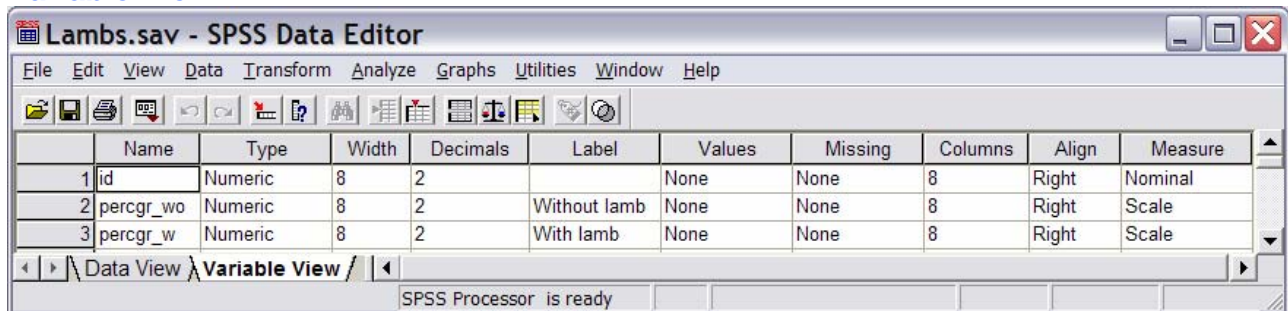
1. How to enter data to do a paired *t*-test.
2. How to do a paired *t*-test.

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

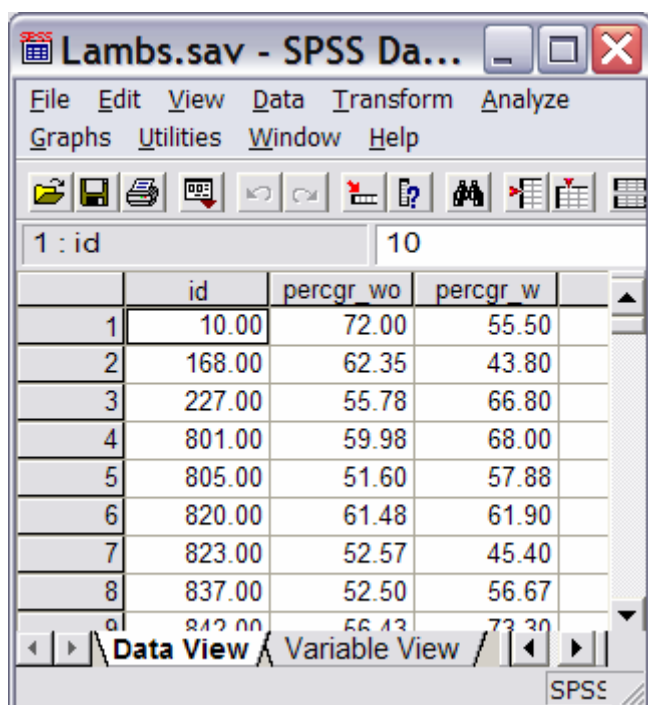
Data for a paired *t*-test are related so data from one sample goes in one column and for the other sample in another column: Related data points in the two samples must be in the same case (i.e., row). The samples/columns are identified by which category of the independent variable they are from. In this example, the dependent variable is *Time spent grazing* and the independent variable is *Reproductive status of the ewe*. *Time spent grazing* is given as a percentage and is a scale level of measurement. *Reproductive status of the ewe* is measured at the nominal level: percgr_wo (variable label = Without lamb) or percgr_w (variable label = With lamb). *ID* indicates the identity of the ewe and is not involved directly in the analysis.

Variable View:



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	id	Numeric	8	2		None	None	8	Right	Nominal
2	percgr_wo	Numeric	8	2	Without lamb	None	None	8	Right	Scale
3	percgr_w	Numeric	8	2	With lamb	None	None	8	Right	Scale

Data View



	id	percgr_wo	percgr_w
1	10.00	72.00	55.50
2	168.00	62.35	43.80
3	227.00	55.78	66.80
4	801.00	59.98	68.00
5	805.00	51.60	57.88
6	820.00	61.48	61.90
7	823.00	52.57	45.40
8	837.00	52.50	56.67
9	842.00	56.13	73.30

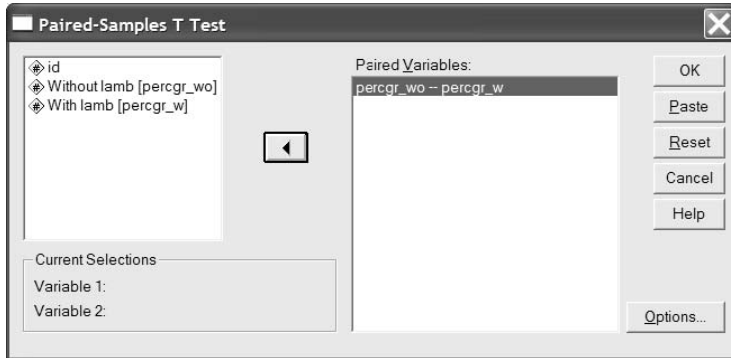
2. How to do a Paired *t*-test.

To get SPSS to conduct a Paired *t*-test:

Open your data file.

Select: Analyze – Compare Means – Paired-Sample T-test...

This will bring up the Paired-Samples T Test window:



Select the variables that you want to analyse, and send them to the **Test Pair(s) List** box (in the example above this is *With Lamb* and *Without Lamb*). Click OK.

The key elements of the output are:

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Without lamb	56.0880	16	7.99046	1.99761
	With lamb	62.9448	16	11.95437	2.98859

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Without lamb & With lamb	16	.288	.280

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Without lamb - With lamb	-6.85677	12.31948	3.07987	13.42136	-.29219	-2.226	15	.042

STATISTIC →
DEGREES OF FREEDOM →
P →