

## SPSS PC Version 10: Correlations<sup>1</sup>

The following uses a set of variables from the “1995 National Survey of Family Growth” to demonstrate how to use some procedures available in SPSS PC Version 10.

To investigate a relationship between two interval-ratio level variables, you may want to look at bivariate correlation coefficients. These are computed in SPSS by selecting *Analyze*, then *Correlate*, and then *Bivariate*. In the dialogue box that pops up, you simply need to specify two or more variables you want to look at. You can choose as many as you like and SPSS will produce correlation coefficients for all possible pairs of variables. By default, SPSS computes Pearson correlation coefficients and excludes cases with missing values on either of the two variables being examined. Just hit *OK* and you will get a table containing all of the correlations you requested. For this example, we will choose the variables age, education, father’s education, and mothers education. (Values of 95 for *daded* and *momed* have been set to missing.) The syntax for this point and click sequence is:

```
CORRELATIONS
/VARIABLES=age educ daded momed
/PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE .
```

Because the resulting table is set up with each variable along the top *and* along the side, each correlation is actually presented twice -- once above the diagonal and once below it. Note that the correlation of each variable with itself is also reported along the diagonal. It should not be surprising to you that these correlations of variables with themselves are all equal to 1.0.

**Correlations**

			AGE Age in Years	EDUC Education in Years	DADED Father's Education in Years	MOMED Mother's Education in Years
AGE Age in Years	Pearson Correlation		1.000	.239**	-.205**	-.177**
	Sig. (2-tailed)		.	.000	.000	.000
	N		10847	10847	10193	10775
EDUC Education in Years	Pearson Correlation		.239**	1.000	.360**	.375**
	Sig. (2-tailed)		.000	.	.000	.000
	N		10847	10847	10193	10775
DADED Father's Education in Years	Pearson Correlation		-.205**	.360**	1.000	.612**
	Sig. (2-tailed)		.000	.000	.	.000
	N		10193	10193	10193	10141
MOMED Mother's Education in Years	Pearson Correlation		-.177**	.375**	.612**	1.000
	Sig. (2-tailed)		.000	.000	.000	.
	N		10775	10775	10141	10775

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

<sup>1</sup>Prepared by Kyle Crowder of the Sociology Department of Western Washington University, and modified by Patty Glynn, University of Washington.  
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