Multicollinearity, the existence of strong correlation among independent variables in a regression, hinders estimation and interpretation of the partial regression coefficients of the model. Methods have been developed to assist in the detection of multicollinearity. Methods to alleviate the effects of multicollinearity are also available.

This tutorial uses an example to illustrate the multicollinearity detection options in PROC REG. This is followed by illustrating the most popular remedial tool: variable selection using PROC STEPWISE and PROC RSQUARE.

Finally a different alternative, principal component regression is illustrated using PROC PRINCOMP.

The tutorial is in the form of a set of transparencies which are not reproduced here. Full size copies which can be used to create the transparencies are available from the author.