THE POWER — AND EASE — OF EXAMPLES AND EXERCISES USING A MULTIVARIATE LEAST SQUARES COMPUTER PROGRAM

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A half century ago, the GLM was introduced and shown to include ANOVA and regression as special cases. Teaching from the GLM has, however, been difficult as the common statistical packages still either require ANOAA / regression runs or jargon, has a difficult-to-use GLM subroutine, or requires crafting a set of canonical analyses. A new approach is being developed, programmed from the ground up as a multivariate generalized least squares processor, including both univariate and multivariate general-ization of GLM (Harris, 2001; Heese, 2011) as well as contingency tables. One advantage of the model is the inclusion of nominal variables as both independent and dependent variables separately or mixed with non-nominal variables. Examples of how the program works are given for teaching statistics, including classroom demonstrations and homework exercises.

REFERENCES

Harris, R. J. (1985, 2001). A Primer of multivariate statistics. Orlando (Fla.), Academic Press.
Heese, Richard F. (2011) *Multivariate Linear Models*. Los Angles, Sage.

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