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Regression anatomy, revealed

Valerio Filoso
Department of Economics
University of Naples "Federico II"
Naples, Italy
filoso@unina.it

Abstract. The regression anatomy theorem (Angrist and Pischke, 2009, *Mostly Harmless Econometrics: An Empiricist's Companion* [Princeton University Press]) is an alternative formulation of the Frisch–Waugh–Lovell theorem (Frisch and Waugh, 1933, *Econometrica* 1: 387–401; Lovell, 1963, *Journal of the American Statistical Association* 58: 993–1010), a key finding in the algebra of ordinary least-squares multiple regression models. In this article, I present a command, **reganat**, to implement graphically the method of regression anatomy. This addition complements the built-in Stata command **avplot** in the validation of linear models, producing bidimensional scatterplots and regression lines obtained by controlling for the other covariates, along with several fine-tuning options. Moreover, I provide 1) a fully worked-out proof of the regression anatomy theorem and 2) an explanation of how the regression anatomy and the Frisch–Waugh–Lovell theorems relate to partial and semipartial correlations, whose coefficients are informative when evaluating relevant variables in a linear regression model.

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