Bayesian analysis in Stata with WinBUGS

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Abstract. WinBUGS is a program for Bayesian model fitting by Gibbs sampling. WinBUGS has limited facilities for data handling, whereas Stata has no routines for Bayesian analysis; therefore, much can be gained by running Stata and WinBUGS together. We present a set of ado-files that enable data to be processed in Stata and then passed to WinBUGS for model fitting; finally, the results are read back into Stata for further processing.

Keywords: st0115, wbarray, wbdata, wbscalar, wbstructure, wbvector, wbrun, wbscript, wbcoda, wbac, wbbgr, wbgeweke, wbintervals, wbsection, wbtrace, wbstats, wbdensity, wbdic, wbbull, wbdecode, Bayesian methods, MCMC, Gibbs sampling, WinBUGS