

Table 1: Input for Monte Carlo simulation of the Heckman selection model

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TITLE:           Selection modeling: Muthén-Jöreskog (1983), p. 146 with
                  data generated similar to Model 1, p. 158 y missing if u=0
MONTECARLO:     NAMES = y u x;
                  NOBSERVATIONS = 4000;
                  NREPS = 500;
                  CATEGORICAL = u; ! u = 1 if y observed
                  GENERATE = u(1 p);
                  MISSING = y;
MODEL POPULATION:
                  x@1;
                  y ON x*1;
                  [y*0];
                  y*1;
                  f BY y*-1 u@1; ! gives residual corr = -0.5
                  f@1;
                  u ON x*-1;
ANALYSIS:       ESTIMATOR = MLR;
                  LINK = PROBIT;
                  PROCESSORS = 8;
                  MCONVERGENCE = 0.00001;
                  INTEGRATION = 30;
MODEL:          y ON x*1;
                  [y*0];
                  y*1 (v);
                  f BY y*-1 (lam)
                  u@1; ! gives -0.5 res. correlation
                  f@1;
                  u ON x*-1 (slope);
                  [u$1] (thresh);
MODEL MISSING:
                  ! binary y = 1 denotes missing on continuous y
                  ! logit regression for y with [y] denoting intercept
                  [y@15]; ! probability one of missing on y if u = 0
                  y ON u@-30; ! probability zero of missing on y if u=1
MODEL CONSTRAINT:
                  NEW (rescorr*-.5 probint*0 probslop*-.707107);
                  rescorr = lam/(SQRT(lam*lam+v)*SQRT(1+1));
                  probint = -thresh/SQRT(1+1);
                  probslop = slope/SQRT(1+1);
OUTPUT:        TECH9;

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