1. Introduction to Linear Regression

Linear Regression

The command regress is used to perform linear regressions. The first variable after the regress command is always the dependent variable (left-hand-side variable), and the list of the independent variables that we chose to include in the estimation model follows (right-hand-side variables).

Linear Regression

```
. clear
. use hs1, clear
. regress write read female
```

```
      Source |       SS       df       MS              Number of obs =     200
-------------+------------------------------           F(  2,   197) =   77.21
       Model |  7856.32118     2  3928.16059            Prob > F      =  0.0000
    Residual |  10022.5538   197  50.8759077            R-squared     =  0.4394
-------------+------------------------------           Adj R-squared =  0.4337
       Total |   17878.875   199   89.843593            Root MSE      =  7.1327

------------------------------------------------------------------------------
       write |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        read |   .5658869   .0493849    11.46   0.000      .468496    .6632778
      female |   5.486894   1.014261     5.41   0.000      3.48669    7.487098
       _cons |   20.22837   2.713756     7.45   0.000     14.87663    25.58011
------------------------------------------------------------------------------
```