Simple Regression Model (Exercises)

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Example 1

1. Open the data file `ceosal1.dta` in Stata
   - salary = CEO salary (in thousands)
   - roe = return on equity (in percentages)
2. Use the `sum` command to compute the average, maximum, and minimum values of the salary and roe variables
3. Type `reg salary roe` to estimate $\hat{\beta}_1$ and $\hat{\beta}_2$
4. How much does CEO salary increase (in thousands) if ROE increases by one percentage point?
5. Use the estimates $\hat{\beta}_1$ and $\hat{\beta}_2$ to predict CEO income if ROE=30. (Answer is number and unit)

Example 2

1. Open the data file `wage1.dta` in Stata
   - wage = education (in dollars per hour)
   - educ = years of schooling
2. How much does an hourly wage increase with each year of education? (Answer is number and unit)
3. What is the predicted wage for a person with zero years of education? (Answer is number and unit) Interpret the estimate. Does it make sense? Why or why not?
4. What is the predicted wage for a person with years of education equal to the mean years of education in the sample? (Answer is number and unit)