

Additional Empirical Exercise 5.1

Using the data set CPS12 described in Empirical Exercise AEE5.1, run a regression of average hourly earnings (*AHE*) on *Age* and carry out the following exercises.

- a. Is the estimated regression slope coefficient statistically significant? That is, can you reject the null hypothesis $H_0: \beta_1 = 0$ versus a two-sided alternative at the 10%, 5%, or 1% significance level? What is the p -value associated with coefficient's t -statistic?
- b. Construct a 95% confidence interval for the slope coefficient.
- c. Repeat (a) using only the data for high school graduates.
- d. Repeat (a) using only the data for college graduates.
- e. Is the effect of age on earnings different for high school graduates than for college graduates? Explain. (*Hint*: See Exercise 5.15.)