


Lecture 4c: Practice Problems: John McGready



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Example: Wages and Education Level

1. Recall equation of regression line relating estimated mean hourly wages (U.S. \$, 1985) to years of education: from Stata . . .

$$\hat{y} = -0.75 + 0.75x$$

a) What is the estimated mean hourly wage (in 1985) for persons with 12 years of education?

b) What is the estimated difference in hourly wages (in 1985) for persons with 16 years of education versus 12 years of education?

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Example: Arm Circumference and Sex

2. Recall the regression relating arm circumference to child's sex for the random sample of 150 Nepali children less than 12 months old

$$\hat{y} = 12.5 + -0.13x$$

— In this example, x is the binary variable for sex, coded as a 1 for female children and 0 for male children; suppose x was coded as 1 for male children and 0 for female children

a) What would the resulting slope estimate be?

b) What would the resulting intercept estimate be?

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