

Lab2__PSTAT126

TA: Nhan Huynh

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Reminder

Homework 1 is posted on Gauchospace. **Due date: 04/19/2017.**

- You should turn in hard copies of the assignment.
- You can use Word to display your work. Copy and paste the code, or take screenshots of the code and the output is acceptable.
- Make sure your printouts compact (reduce size of figures from R) and easy for the grader (your TA) to read.
- Include your name, perm ID, lab section, and date in your work.
- You can work together on the homework, but each will need to turn in your own homework.
- Late homework submission is not acceptable.

Lab 2

1. Explore the simple linear regression of BMI (**bmi**) as an predictor and diastolic blood pressure (**diastolic**) as an outcome variable in the **pima** dataset in the **faraway** package.
 - Are there outliers on either variables? How can we remove them from the analysis?
 - Are the data skewed?
 - What does the scatterplot tell us? Does it make sense for body mass to affect blood pressure?
 - What does the intercept of 55 tell us? Can someone really have a BMI of zero?
 - What does the slope of 0.52 tell us?
 - What statistic can we use to judge the fit of the regression?
2. Explore the simple linear regression of weekly wages, in dollars (**wage**) as an outcome and Years of Education (**educ**) in the **uswages** dataset in the **faraway** package.
 - Are there outliers on either variables?
 - Are the data skewed, and is that a problem?
 - What does the scatterplot tell us?
 - Does it make sense for education to affect wages?
 - What does the intercept of \$110 mean? Can someone really have zero years of education?
 - What does the slope of \$38 per week mean?
 - What statistic can we use to judge the fit of the regression?