

ACTIVITY 5

PART B – Thursday, July 12, 2018

Week 4, Day 4

Due: Thursday, July 19

Instructions: A digital copy of the final version of Activity #5 is due on Thursday, July 19 (Week 5). You will be given the activity in parts, but it is your responsibility to keep track of all questions on one master document for each respective activity.

For the following questions, consider the following hypothesis: Class standing (1 = Freshman; 2 = Sophomore; 3 = Junior; 4 = Senior) are likely to **positively** affect a voter's feeling thermometer score on President Donald Trump (0 to 100 where a low score is a cold feeling and a high score is a warm feeling). **Questions 1-3 do not require the use of SPSS.**

- (1) What is your independent variable?
- (2) What is your dependent variable?
- (3) Let's say you run a regression for the above hypothesis and get the following results:

Beta coefficient: -14.03
Constant: 34.02
R-square: .432
Significance of beta: 0.03

- (a) Using the beta coefficient, explain how your independent variable affects your dependent variable. Use full and complete sentences.
 - (b) Do you confirm or reject the hypothesis?
 - (c) Interpret the constant in full, complete sentences.
 - (d) Interpret the r-square in full, complete sentences.
- (4) Interpret the following results with the same hypothesis used for Question 3:

Beta coefficient: 33.78
Constant: 13.12
R-square: .841
Significance of beta: 0.00

- (a) Using the beta coefficient, explain how your independent variable affects your dependent variable. Use full and complete sentences.
- (b) Do you confirm or reject the hypothesis?
- (c) Interpret the constant in full, complete sentences.
- (d) Interpret the r-square in full, complete sentences.

Using the midterm dataset, evaluate the following hypotheses using regression.

- (5) Evaluate the hypothesis: A respondent becomes older (info_age) they are more likely to feeling positively about Hillary Clinton (score_clinton).
- (a) Copy and paste the “Coefficients” output box onto your document.
 - (b) For every additional year that someone ages, how do we expect to see the thermometer score for Donald Trump to change?
 - (c) When a respondent is born (age 0), what value is likely to be their thermometer score for Donald Trump?
 - (d) What is the probability that this relationship is due to chance?
 - (e) Do we accept or reject the hypothesis?
 - (f) Copy and paste the “Model Summary” output box onto your document.
 - (g) What is the r-square value for this hypothesis?
 - (h) This model explains how much of the variation in the dependent variable?
- (6) Evaluate the hypothesis: A respondent’s need to evaluate (evaluationscore) **negatively** affects a respondent’s political knowledge score (knowledgescore).
- (a) Copy and paste the “Coefficients” output box onto your document.
 - (b) For every one-unit increase in the evaluation score, how do we expect to see a respondent’s knowledge score change?
 - (c) When a respondent has no need to evaluate and has a score 0, what value is likely to be their knowledge score?
 - (d) What is the probability that this relationship is due to chance?
 - (e) Do we accept or reject the hypothesis?
 - (f) Copy and paste the “Model Summary” output box onto your document.
 - (g) What is the r-square value for this hypothesis?
 - (h) This model explains how much of the variation in the dependent variable?
- (7) Evaluate the hypothesis: Being white (info_white) affects the likelihood that someone will vote in the 2016 presidential election (willvote2016), while controlling for gender (info_gender).
- (a) Copy and paste the “Coefficients” output box onto your document.
 - (b) How much more likely is a white person to vote in 2016 than a non-white person?
 - (c) How much more likely is a male to vote in 2016 than a female?
 - (d) When all independent variables and control variables are 0, what likely is a person to vote?
 - (e) In this model, what is the probability that the relationship between being white and the likelihood to vote is due to chance?
 - (f) In this model, what is the probability that the relationship between gender and the likelihood to vote is due to chance?
 - (g) Copy and paste the “Model Summary” output box onto your document.
 - (h) What is the r-square value for this hypothesis?
 - (i) This model explains how much of the variation in the dependent variable?