

## ACTIVITY 5

PART B – November 8, 2017

Week 7, Day 2

**Due:** Wednesday, November 29

**Instructions:** A digital copy of the final version of Activity #5 is due on Wednesday, November 29 (Week 10). 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: 29.31

Constant: 2.49

R-square: .231

- (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: -19.19

Constant: 61.29

R-square: .719

- (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's feelings about President Obama (score\_obama) affect a respondent's feelings about President Trump (score\_trump).
  - (a) Copy and paste the "Coefficients" output box onto your document.
  - (b) For every one-unit increase in the thermometer score for President Obama, how do we expect to see the thermometer score for President Trump to change?
  - (c) When a respondent feels very coldly toward Obama and scores him as a 0, what value is likely to be their thermometer score for 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) 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), party identification (info\_pid), education (info\_educ), gender (info\_gender), marital status (info\_married), income (info\_income), and age (info\_age) affect the likelihood that someone will vote in the 2016 presidential election (willvote2016).
  - (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) What is the probability that this relationship is due to chance?
  - (f) Do we accept or reject the hypothesis?
  - (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?