

ACTIVITY 5

PART D – Tuesday, April 9

Due: Tuesday, April 23

A hard copy of Activity #5 is due on Tuesday, April 23 (Week 13).

Consider the following hypothesis: Age is 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).

- (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: -5.33
Constant: 4.35
R-square: .681
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.

Consider the following hypothesis: A person's score on a political knowledge test (with 10 questions, scored from 0 to 10) is likely to **positively** affect the number of political activities they participate in.

- (4) What is your independent variable?
- (5) What is your dependent variable?

- (6) Interpret the following results with the same hypothesis used for Question 3:

Beta coefficient: 2.09
Constant: 0.34
R-square: .771
Significance of beta: 0.04

- (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.

(continued on back)

Consider the following hypothesis: A person's thermometer score on African-Americans (0 to 100 where a low score is a cold feeling and a high score is a warm feeling) is likely to **negatively** affect their thermometer score on police (measure in the same way).

(7) What is your independent variable?

(8) What is your dependent variable?

(9) Interpret the following results with the same hypothesis used for Question 3:

Beta coefficient: 1.99

Constant: 2.33

R-square: .034

Significance of beta: 0.50

(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.