

## ACTIVITY 5

### PART C – Thursday, March 28

**Due:** Tuesday, April 23

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

- (1) Draw a scatterplot with the age of the participant (info\_age) as the independent variable and the thermometer score for Hillary Clinton (score\_clinton) as the dependent variable. Is this a positive relationship or a negative relationship? Include the scatterplot on your document.
- (2) Draw a scatterplot with the age of the participant (info\_age) as the independent variable and the feelings about gays and lesbians (score\_gay) as the dependent variable. Is this a positive or negative relationship? Include the scatterplot on your document.
- (3) Draw a scatterplot with the age of the participant (info\_age) as the independent variable and a respondent's cognitive ability (cognitivescore) as the dependent variable. Is this a positive or negative relationship? Include the scatterplot on your document.

Using the midterm dataset, evaluate the following hypotheses using a Pearson correlation test.

- (4) Evaluate the hypothesis: A respondent's political knowledge score (knowledgescore) is **positively** correlated with a respondent's levels of political participation (actionindex).
  - (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's political knowledge score increases, what happens to their political participation (increases or decreases)?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on the direction *and* significance, do we accept or reject the hypothesis?
- (5) Evaluate the hypothesis: A respondent's age (info\_age) is **positively** correlated with a respondent's feelings about police (score\_police).
  - (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's age increases, what happens to their feelings about police?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?
- (6) Evaluate the hypothesis: A respondent's feelings about Hispanics (score\_hisp) are **negatively** correlated with their feelings about Trump (score\_trump).
  - (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's feels more warmly towards Hispanics, what happens to their feelings about Trump?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?

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- (7) Evaluate the hypothesis: A respondent's feelings about gays/lesbians (score\_gay) are **positively** correlated with feelings about transgender people (score\_trans).
- (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's feels more warmly towards gays/lesbians, what happens to their feelings about transgender people?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?
- (8) Evaluate the hypothesis: A respondent's animus toward other races (resentmentscore) is **positively** correlated with the likelihood that they would vote in the 2016 presidential election (willvote2016).
- (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's resentment toward other races increases, what happens to their chances of voting in 2016?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?
- (9) Evaluate the hypothesis: A respondent's age (info\_age) is **negatively** correlated with their political knowledge (knowledgescore).
- (a) Report the Pearson correlation value for this hypothesis.
  - (b) As age increases, what happens to their political knowledge?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?
- (10) Evaluate the hypothesis: A respondent's age (info\_age) is **negatively** correlated with their feelings toward Barack Obama (score\_obama).
- (a) Report the Pearson correlation value for this hypothesis.
  - (b) As a respondent's age increases, what happens to their feelings about Barack Obama?
  - (c) Is this a weak, moderate, or strong relationship?
  - (d) What is the probability that this relationship is due to chance?
  - (e) Based on direction and significance, do we accept or reject the hypothesis?