

ACTIVITY 4**PART B** – November 1, 2017

Week 6, Wednesday

Due: Monday, November 6

Instructions: A hard copy of the final version of Activity #4 is due on Monday, November 6 (Week 7). 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 this data, calculate the chi-square and turn in this sheet (with work) with your activity:

Observed Values

| | | Dependent variable | | Total |
|----------------------|---------|--------------------|-------------|-------|
| | | Democrats | Republicans | |
| Independent variable | Males | 3 | 1 | 4 |
| | Females | 1 | 3 | 4 |
| Total | | 4 | 4 | 8 |

Expected Values

| | | Independent variable | | Total |
|--------------------|--|----------------------|--|-------|
| | | | | |
| Dependent variable | | | | |
| | | | | |
| Total | | | | |

Chi-Square Calculation:

| | Observed | Expected | (O-E) | (O-E) ² | (O-E) ² /E |
|-----------|----------|----------|-------|--------------------|-----------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Total/Sum | | | | | |

Answer the following questions using the midterm dataset. You'll have to perform chi-squares for each of these questions.

- (1) Evaluate the hypothesis: The categories of beliefs about God (info_god) are significantly related to the opinions people have on the death penalty (death_penalty).
 - (a) Copy and paste the "Chi Squares Test" output box onto your document.
 - (b) What is the Pearson Chi-Square for this test statistic?
 - (c) What is the probability that this relationship is due to chance?
 - (d) Do we accept or reject the hypothesis?

- (2) Evaluate the hypothesis: The categories of a respondent being African-American (info_black) are significantly related to how often the respondent has been stopped or questioned by police (police12_stop).
 - (a) Copy and paste the crosstabulation onto your document.
 - (b) What percentage of non-black respondents have been stopped or questioned by police?
 - (c) Copy and paste the "Chi Squares Test" output box onto your document.
 - (d) What is the Pearson Chi-Square for this test statistic?
 - (e) What is the probability that this relationship is due to chance?
 - (f) Do we accept or reject the hypothesis?

- (3) Evaluate the hypothesis: The categories of a respondent being African-American (info_black) are significantly related to whether or not the respondent has spent one night in jail (police12_jail).
 - (a) Copy and paste the crosstabulation onto your document.
 - (b) What percentage of black respondents has spent the night in jail?
 - (c) Copy and paste the "Chi Squares Test" output box onto your document.
 - (d) What is the Pearson Chi-Square for this test statistic?
 - (e) What is the probability that this relationship is due to chance?
 - (f) Do we accept or reject the hypothesis?

- (4) Evaluate the hypothesis: The categories of gender (info_gender) are related to the opinions people have about equal pay (equal_pay).
 - (a) Copy and paste the "Chi Squares Test" output box onto your document.
 - (b) What is the Pearson Chi-Square for this test statistic?
 - (c) What is the probability that this relationship is due to chance?
 - (d) Do we accept or reject the hypothesis?

- (5) Evaluate the hypothesis: The categories party identification (info_pid) are related to the opinions people have about legal immigration being good (immig_good).
 - (a) Copy and paste the "Chi Squares Test" output box onto your document.
 - (b) What is the Pearson Chi-Square for this test statistic?
 - (c) What is the probability that this relationship is due to chance?
 - (d) Do we accept or reject the hypothesis?