

**ACTIVITY 4**

**PART B** – Tuesday, July 10

Week 4, Tuesday

**Due:** Wednesday, July 11

**Instructions:** A hard copy of the final version of Activity #4 is due tomorrow in class (Week 4). 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) <sup>2</sup>	(O-E) <sup>2</sup> /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 categories of party identification (info\_pid).
  - (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 of education (info\_educ) are related to the categories of income (info\_income).
  - (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?