

Case Study, In-Class Exercise

Please submit this sheet to Dr. Kassar at the end of the Lab Session.

1 The Case Study

1. Read the case study posted on blackboard. In your own words, what question must Marion Volero address?
2. Based on your reading of the case study, list two different null hypotheses and their corresponding alternative hypotheses, that could be used to address Marion's question.

	H_0	H_1
1.		
2.		

2 The Data

1. Open the file "StudentData_RegionEx_(2010-9-22).xlsx", that is posted on Blackboard.
2. Use the descriptions in the Appendix of the case study to familiarize yourself with the variables in the dataset.
3. Use the data to fill in the following table¹:

	RegionEx	MDA
Total Number of Flights		
Number of Flights Delayed (Using FAA Definition of Delay)		
Number of Flights On-Time		
Number of Flights Canceled		
Percent of Flights Delayed		
Percent of Flights On-Time		
Mean Minutes of Arrival Delay (Exclude Canceled Flights)		
Median Minutes of Arrival Delay		
Standard Deviation of Minutes of Arrival Delay		

¹Hint: You may find it helpful to separate the data into two worksheets – one for RegionEx and one for MDA.

NAME: _____,

4. Build a histogram² for the minutes of arrival delay of RegionEx.
5. Build a histogram, with the same bins, for the minutes of arrival delay of MDA.

3 Preliminary Analysis

1. Given the basic descriptive statistics performed above, can Marion refute Jane's claims that RegionEx is worse than MDA in terms of the percent of delayed flights and the average minutes of arrival delay?
2. Email your answer to this question, along with your histograms, to fjsrour+QBA301@gmail.com.

²Use the bins ≤ -1 , $[0, 4]$, $[5, 9]$, $[10, 14]$, \dots , $[40, 44]$, ≥ 45 .