

PMgt 630, Statistical Analysis

HW # 5

Fall 2008

**Note:** Please turn in electronically ([reese@stat.byu.edu](mailto:reese@stat.byu.edu)) by 7:30pm on 29 October.

## Complete The Following Problems:

### Questions

A presidential candidate in an Eastern European nation claims that the average number of forcible rapes in major US cities is 300. You suspect that this presidential candidate's quoted figure is too high. Using the Community Indicators data included on the Berman CD complete the following:

1. State  $H_O$  : and  $H_A$  :.
2. Test the candidate's claim at  $\alpha = 0.05$  (treat the communities selected in the data as a Simple Random Sample).
3. Make an appropriate conclusion about the candidate's claim.
4. Compute a 95% Confidence Interval for  $\mu$ , the population (US) mean number of forcible rapes in the United States.
5. Is there agreement between the conclusion in part 3 and part 4? Please comment.