Week 1 Day 3

Stat140-04

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Part I: An example of admission Consider the following table of counts, based on data from the University of California at Berkeley's graduate admissions process in 1973:

	Men	Women
Accepted	533	113
Denied	663	336
Total	1198	449

Answer the following questions with your group members. Write in complete sentences.

Questions

(1) Why is it not reasonable to simply consider the counts 533 and 113 in order to compare admissions decisions of men and women?

(2) Calculate the proportion of male applicants who were accepted. Also calculate the proportion of female applicants who were accepted.

(3) Comment on how these proportions compare. Does this difference appear to be substantial?

Part II: Let's proceed to dig a little deeper. The counts in the table above came from combining data from two programs that we'll call A and F. The following tables show the counts for these two programs separately:

	Men(accepted)	Men(denied)	Women(accepted)	Women(denied)
ProgA	511	314	89	19
ProgF	22	351	24	317
Total	533	665	113	336

Before analyzing these data, first convince yourself that there's no cheating here: The bottom row reveals that counts for programs A and F really do add up to the counts given earlier

Answer the following questions with your group members. Write in complete sentences.

Questions

(1) Within each program, calculate the proportion of male applicants who were accepted and the proportion of female applicants who were accepted. Comment on how the proportions compare within each program.

(2) Based on this more in-depth analysis, is there evidence of discrimination against women in the graduate admissions process?

(3) What's odd about your calculations? Explain, based on the data provided, how this oddity occurs.

Part III: the Simmson's paradox With your group, search for `the Simpson's paradox` on the internet. Summarize what this paradox is about, and explain how does this relate to Part I and Part II. Write in complete sentences.