




Bookmarks

- ▶ Important Pre-Course Survey
- ▶ Contact Us
- ▶ How To Navigate the Course
- ▶ Discussion Board
- ▶ Office Hours
- ▶ Week 0: Introduction to Data (Optional Review)
- ▶ Week 1: Sampling
- ▶ Week 2: Hypothesis Testing (One Group Means)
- ▶ Week 3: Hypothesis Testing (Two Group Means)
- ▼ Week 4: Hypothesis Testing (Categorical Data)

Readings

Reading Check due May 03, 2016 at 17:00 UTC 

Week 4: Hypothesis Testing (Categorical Data) > Lecture Videos > Chi-Square Test-of-Independence



Bookmark

Chi-Square Test-of-Independence



0:00 / 10:09



1.0x

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.srt

1. Here is the data from a research study on the relationship between sex and fear of heights.


	Men	Women
Expressed a Fear of Heights	68	109
Did Not Express a Fear of Heights	94	89

$$\chi^2 = 6.09, p < 0.01$$


Lecture Videos

Comprehension Check
due May 03, 2016 at
17:00 UTC 


R Tutorial Videos**Pre-Lab**

Pre-Lab due May 03,
2016 at 17:00 UTC 

Lab

Lab due May 03, 2016
at 17:00 UTC 

Problem Set

Problem Set due May
03, 2016 at 17:00 UTC 

(4/4 points)

1a. What are the expected values for each of the following groups?

Men who expressed a fear of heights: *(Round to 2 decimal places.)*

79.65



Answer: 79.65

79.65

Women who expressed a fear of heights: *(Round to 2 decimal places.)*

97.35



Answer: 97.35

97.35

Men who did not express a fear of heights: *(Round to 2 decimal places.)*

82.35



Answer: 82.35

82.35

Women who did not express a fear of heights: *(Round to 2 decimal places.)*

100.65



Answer: 100.65

100.65

(1/1 point)

1b. Which of the following best summarizes how the observed values compare to the expected values?




There were more women afraid of heights than men.



Men and women both appear to be less afraid of heights than would be expected.



Fewer men expressed a fear of height than expected, and more women expected a fear of heights than expected. 

(3/3 points)

1c. The researchers found a significant difference between men and women. It appears that sex is related to a fear of heights. We should see that difference reflected in the conditional probabilities. Fill in those values below.

Proportion of the entire sample that has a fear of heights: (Round to 3 decimal places.)



Answer: 0.492

Proportion of the men that have a fear of heights: (Round to 3 decimal places.)



Answer: 0.420

Proportion of the women that have a fear of heights: (Round to 3 decimal places.)



Answer: .551

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