

## UTAustinX: UT.7.20x Foundations of Data Analysis - Part 2



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Readings

Week 4: Hypothesis Testing (Categorical Data) > Problem Set > Question 1

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# Question 1

You want to know if the proportion of female performers on Austin City Limits Live has changed in the past two years.

- 1. Create a new variable in the dataset called "Recent" that is equal to a 1 for rows from years 2012 or 2013 and is equal to 0 for all other rows.
- 2. Make a table that shows the number of male and female performers in "recent" and nonrecent years.
- 3. Use this data to answer the following questions.

Use the "AustinCityLimits.csv" dataset to answer the following questions. Instructions for installing "AustinCityLimits.csv" can be found under the **Examine the Data** unit in this week's **Pre-Lab** section.

You'll need to use the following code to help: acl\$Recent[acl\$Year < 2012] <- 0 aclRecent[aclRear >= 2012] <- 1

(1/1 point)

1a. How many **female** performers have been on the show in the past two years (2012 and 2013)?

Reading Check due May 03, 2016 at 17:00

#### **Lecture Videos**

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

## **R Tutorial Videos**

#### Pre-Lab

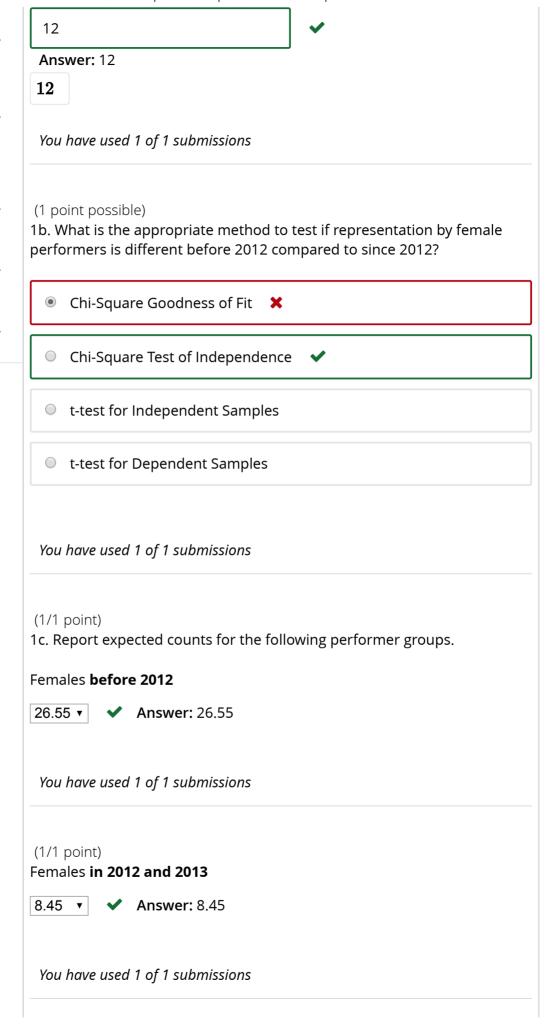
Pre-Lab due May 03, 2016 at 17:00 UTC

#### Lab

Lab due May 03, 2016 at 17:00 UTC

### **Problem Set**

Problem Set due May 03, 2016 at 17:00 UT @



(1/1 point) Males <b>before 2012</b>
61.45 ▼
You have used 1 of 1 submissions
(1/1 point) Males <b>in 2012 and 2013</b>
19.55 ▼
You have used 1 of 1 submissions
(1/1 point) 1d. What is the <b>Chi Square statistic</b> ? (Round to 2 decimal places.)
2.82
Answer: 2.82
2.82
You have used 1 of 1 submissions
(1/1 point)  1e. What is the <b>p-value</b> for the test? (Round to 2 decimal places.)
0.09
Answer: 0.09
0.09
You have used 1 of 1 submissions
(1/1 point)  1f. What is the appropriate conclusion for this test, assuming a = 0.05?
● We fail to reject the null hypothesis; gender is independent of performance before or after 2012. ✔

• We reject the null hypothesis; gender is not independent of performance before or after 2012

You have used 1 of 1 submissions

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