

### UTAustinX: UT.7.10x Foundations of Data Analysis - Part 1



Week 4: Bivariate Distributions (Categorical Data) > Lecture Videos > Independence & Conditional Probability

■ Bookmark

- Important Pre-Course Survey
- Independence & Conditional Probability
- Contact Us
- How To Navigate the Course
- DiscussionBoard
- Office Hours
- Week 1: Introduction to Data
- Week 2: Univariate
   Descriptive
   Statistics
- Week 3: Bivariate Distributions
- ▼ Week 4:
   Bivariate
   Distributions
   (Categorical
   Data)

## Readings

Reading Check due Mar 15, 2016 at 18:00 UTC

## **Lecture Videos**

Comprehension Check due Mar 15, 2016 at 18:00 UTC



► 0:00 / 6:20 ► 1.0x ◄ 🛣 🚾 66 SPEAKER: MICHAEL J. MAHOMETA, Ph.D.

We know that using a contingency table is

the first step in determining if there is

a relationship between two categorical variables.

And then, that the Row or Column percentages

# Comprehension Check

Download transcript

Below is a contingency table showing data from a University of Texas Southwestern Medical Center study on Hepatitis C.

	Tattoo in Commercial Parlor	Tattoo Done Elsewhere	No Tatto o	To tal
Has Hepatitis C	17	8	18	43
Does Not Have	35	53	495	58

## **R Tutorial Videos**

#### Pre-Lab

Pre-Lab due Mar 15, 2016 at 18:00 UTC

#### Lab

Lab due Mar 15, 2016 at 18:00 UTC

#### Problem Set

Problem Set due Mar 15, 2016 at 18:00 UT

Week 5: Linear Functions

Hepatitis C				3
Total	52	61	513	62 6

(6/6 points)

1) How many simple events (outcomes) were possible for participants in this study?

Three

Six ▼

Nine

Twelve

2) What was the total number of participants in this study?

0 513

583

626

0 1113

3) What was the marginal distribution for Hepatitis status in this study?

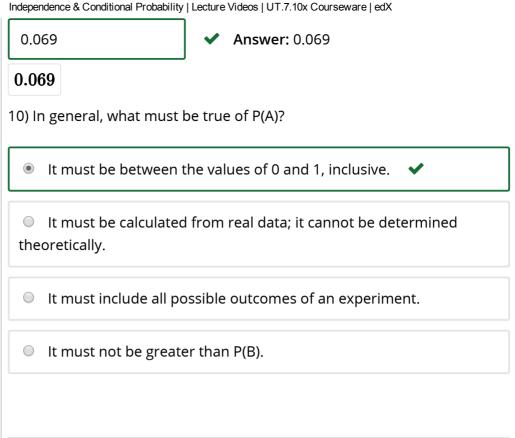
25 had tattoos, and 18 did not.

626 participants had Hepatitis.

Of the 513 participants with no tattoo, most did not have hepatitis.

• 43 had Hepatitis; 583 did not have Hepatitis.

18.1	<b>✓ Answer:</b> 18.1
18.1	
	of those participants with Hepatitis C had a tattoo al parlor? ( <i>Round to 1 decimal and do not include</i> %
39.5	<b>✓ Answer:</b> 39.5
39.5	
	of those who had a tattoo done in a commercial s C? (Round to 1 decimal and do not include % sign.)
32.7	<b>✓</b> Answer: 32.7
32.7	
Calculate the proba study would have H	Folility that a randomly selected participant from the epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$
Study would have High $P\left(Hepatitis\right)$ (4/4 points)	epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$
Calculate the probastudy would have H $P\left(Hepatitis ight)$ (4/4 points)	epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$
Calculate the probastudy would have High $P\left(Hepatitis\right)$ (4/4 points) What is the value	epatitis C: $ = \frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C $ of <b>A</b> ?
Calculate the probactudy would have Horizontal Parties (4/4 points)  7) What is the value 43	epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$ of <b>A</b> ?  Answer: 43
Calculate the probastudy would have H $P\left(Hepatitis\right)$ (4/4 points) 7) What is the value	epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$ of <b>A</b> ?  Answer: 43
Calculate the probastudy would have H $P\left(Hepatitis\right)$ (4/4 points) 7) What is the value 43 43 3) What is the value	epatitis C: $\frac{outcomes\ with\ Hepatitis}{total\ outcomes\ in\ sample\ space} = \frac{A}{B} = C$ of A?  Answer: 43



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