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Textbook type problem

A nutrition laboratory test 40 “reduced sodium” hot dogs, finding that the mean sodium content is 310 mg with a standard deviation of 36 mg. Find a 95% confidence interval for the mean sodium content of this brand of hot dog.

Stats: Modeling the World – Bock, Velleman, DeVeaux pg 463:13

C.I. for Proportions

In an Associated Press article, it was reported that 442 individuals in a random sample of 1005 U.S. adults said it wouldn't make a difference which party is in power. Construct a 90% confidence interval for the proportion of U.S. adults who believe that it wouldn't make a difference which party is in power.

Introduction to Statistical Data Analysis – Peck, Olsen, Devore pg 454:9.23

Tests of Hypothesis - Means

Social psychologists at UC Berkeley timed how long it took each driver to proceed from the stop sign to a mark on the other side of the intersection with the following results:

No stare: $n=14$; $\bar{x} = 6.63$; $s = 1.36$

Stare : $n=13$; $\bar{x} = 5.592$; $s = .822$

Test the hypothesis that the stare would speed up the crossing times.

Mind on Statistics – Utts, Heckard pg 412, 432, 450

Tests for Proportions

A study compared 62 children enrolled in a Michigan preschool in the late 1960s to a control group of 61 similar children who were not enrolled. At 27 years of age, 61% of the preschool group and 80% of the control group had required the help of a social service agency in the previous 10 years. Is this significant evidence that preschool for poor children reduces later use of social services?

The Practice of Statistics – Yates, Moore, Starnes pg 685: 12.2

Chi-Square Test

A study from UT Southwestern Medical Center examined whether the risk of hepatitis C was related to whether people had tattoos and to where they got their tattoos.

	Hepatitis C	No Hepatitis C
Tattoo, parlor	17	35
Tattoo, elsewhere	8	53
None	22	491

Stats – Modeling the World – Bock, Velleman, DeVeaux – pg 530

Useful links

- TI education site
<http://education.ti.com/educationportal/>
 - online guidebook
 - link to camera ready activities
 - complete product line listed
- TI magazine on-line and print: TI-Time:Maths
<http://education.ti.com/downloads/pdf/uk/TI-TimeSummer2003.pdf>
- Amazon and google for other resources

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Goodness of Fit

On a typical day the proportion of students who drive to campus is .3, who bike is .6, and the remaining come some other way. On “spare the air” day, a random sample of 300 students showed 80 drove, 200 biked, and 20 came some other way. Did the proportions using each mode of transportation on that day differ from the norm?

Mind on Statistics – Utts, Heckard – pg 554:15.26

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<http://education.ti.com/downloads/pdf/uk/TI-TimeSummer2003.pdf>

More links

- Direct link to the TI guidebook for statistics application:
<http://education.ti.com/downloads/guidebooks/eng/statsle.pdf>
- Amazon and google for other resources