

The Pew Research Center recently polled $n = 1048$ drivers and found 69% enjoyed driving their automobiles.

(a) Construct a 95% confidence interval for the proportion of U.S. drivers who enjoy driving.

(b) In 1991, A Gallup Poll reported this percent to be 70%. Using the data from this poll, test the claim that the percent of drivers who enjoy driving their cars has declined since 1991. Report the large-sample z-statistic and its P-value.

In a published report on binge drinking, survey results from 1993 and 1999 are presented. Using the table below, test whether the proportions of frequent binge drinkers are different at the 5% level. Also construct a 95% confidence interval for the difference.

Year	n	X
1993	14995	2973
1999	13819	3140

To what extent do syntax textbooks, which analyze the structure of sentences, illustrate gender bias? A study of this question samples sentences from 10 texts. One part of the study examined the use of the words “girl”, “boy”, “man”, and “woman.” We will call the first two words juvenile and the last two adult. Is the proportion of female references that are juvenile equal to the proportion of male references that are juvenile? Here are the data from one of the texts:

gender	n	X (juvenile)
Female	60	48
Male	132	52