

8-49. A U.S. Travel Data Center survey conducted for *Better Homes and Gardens* of 1500 adults found that 39% said that they would take more vacations this year than last year. Find the 95% confidence interval of the true proportion of adults who said that they will travel more this year.

Source: *USA Today*, April 20, 1995.

8-50. In a recent study of 100 people, 85 said that they were satisfied with their present home. Find the 90% confidence interval of the true proportion of individuals who are satisfied with their present home.

8-51. An employment counselor found that in a sample of 100 unemployed workers, 65% were not interested in returning to work. Find the 95% confidence interval of the true proportion of workers who do not wish to return to work.

8-52. A *Today/CNN/Gallup* Poll of 1015 adults found that 13% approved of the job Congress was doing in 1995. Find the 95% confidence interval of the true proportion of adults who feel this way.

Source: *USA Today*, March 31, 1995.

8-53. A nutritionist found that in a sample of 80 families, 22% said they ate apples at least once a week. Find the 90% confidence interval of the true proportion of families who eat apples at least once a week.

8-54. A survey of 120 female freshmen showed that 18 did not wish to work after marriage. Find the 95% confidence interval of the true proportion of females who do not wish to work after marriage.

8-55. A study by the University of Michigan found that one in five 13- and 14-year-olds is a sometime smoker. To see how the smoking rate of the students at a large school district compared to the national rate, the superintendent surveyed 200 13- and 14-year-old students and found that 23% said they were sometime smokers. Find the 99% confidence interval of the true proportion and compare this with the University of Michigan's study.

Source: *USA Today*, July 20, 1995.

8-56. A survey of 80 recent fatal traffic accidents showed that 46 were alcohol-related. Find the 95% confidence interval of the true proportion of people who die in alcohol-related accidents.

8-57. A survey of 90 families showed that 40 owned at least one gun. Find the 95% confidence interval of the true proportion of families who own at least one gun.

8-58. In a certain state, a survey of 500 workers showed that 45% belonged to a union. Find the 90% confidence interval of the true proportion of workers who belong to a union.