

You may work with one partner on this assignment, submitting one report with both names, provided that both students contribute substantially to the work. Word-processed reports are preferred to hand-written ones. Please copy/paste relevant computer output into your report as appropriate.

Abolishing Pennies? (cont.)

In June of 2004, the Harris organization asked a random sample of 2136 adult Americans: “Would you favor or oppose abolishing the penny so that the nickel would be the lowest-denomination coin?” It turned out that 41% responded in favor of abolishing the penny.

- a) Verify the conditions for using the Wald (z -) procedure to determine a 95% confidence interval for the population proportion who favor abolishing the penny.
- b) Calculate this 95% confidence interval.
- c) Interpret what this interval reveals: We are 95% confident that ...
- d) Repeat b) for a 99% confidence interval.
- e) Describe how these two intervals compare, in terms of both their midpoints and widths.
- f) Do these intervals suggest that fewer than half of all adult Americans favor abolishing the penny? Explain.
- g) Suppose that the sample size had been half as large (1068 adult Americans), and the result had been the same (41% favor abolishing the penny). Determine a 95% confidence interval in this case, and comment on how it compares to the interval in (b).