

Confidence Interval for Population Proportion

Name:



Oct 30, 2008 KCCI poll shows Iowans in favor of Obama

The Research 2000 Iowa Poll was conducted from October 27 through October 29, 2008. A total of 600 likely voters who vote regularly in state elections were interviewed statewide by telephone.

Those interviewed were selected by the random variation of the last four digits of telephone numbers. A cross-section of exchanges was utilized in order to ensure an accurate reflection of the state. Quotas were assigned to reflect the voter registration of distribution by county.

The margin for error, according to standards customarily used by statisticians, is no more than plus or minus 4% percentage points.

QUESTION: If the election for President were held today, would you vote for the Democratic ticket of Barack Obama and Joe Biden, the Republican ticket of John McCain and Sarah Palin, or another candidate?

OBAMA	MCCAIN	OTHER	UNDECIDED
53%	39%	3%	5%

1. Compute a 95% confidence interval for the proportion of people in Iowa who will vote for Obama. (Note that $z^* = 1.96$.)
2. Compute a 95% confidence interval for the proportion of people in Iowa who will vote for McCain.
3. Do you think that Obama has a statistically significant lead over McCain in Iowa? Use your confidence intervals to answer this.