

District Complex Site selection results

The following information was determined through the survey that was performed. The survey involved a pre-postage paid postcard being sent in the newsletter.

Mailer data

Number of postcards mailed out: 350
Number of postcards returned: 57
Percent returned: 16.3%

District Complex Site Selection Findings from Community Survey

<u>Site selected</u>	<u>Number</u>	<u>Percent</u>
Site A– current site of gov’t offices	30	52.6%
Site B– Campus Drive location	16	28.1%
Site C– Interstate-19 & San Xavier Road	9	15.8%
Site D- Other site	1	1.7%
No selection	1	1.7%

** The site specified under Site D was a location at Drexel and Mission Rds.*

Survey appeared in April 2001 edition of Wa:K Newsletter.
Survey results were collected for approximately 45 days.

DISTRICT COMPLEX SITE SELECTION COMMUNITY SURVEY

Margin of Error computations and results

For starters; in the case of the survey for the District Complex site selection, we are working with a single set of households, which simplifies matters due to the fact that there is *no relationship to be tested* in the survey. In other words, we are working with a determined single population set, which the survey returns came from.

The following formula is the nuts and bolts of determining confidence intervals around the number of returns on each site selection. If we take the Two Tail formula provided in the textbook example, we can apply the percentages for each site selection to determine the Margin of Error. See the example below.

FORMULA EXAMPLE (Using Site A)

If we take the returns from Site A (which were 52.6%), and plug the numbers into the formula, it would equate as follows:

*** Note: A_1 = Site A response, including the Margin of Error ***

$$A_1 = \pi_0 \pm z_{\alpha/2} \sqrt{\frac{\pi_0(1-\pi_0)}{N}}$$

$$A_1 = 0.5263 \pm 2.004 \sqrt{\frac{0.5263(1-0.5263)}{57}}$$

$$A_1 = 0.5263 \pm (2.004)(0.066)$$

$$A_1 = 0.5263 \pm 0.1325$$

$$A_1 = 52.63\% \text{ response with a Margin of Error of } \pm 13.25\%.$$

The equation above is basically stating that if one takes the percentage of returns for Site A, which was 52.63%, then the appropriate Margin of Error, $\pm 13.25\%$, would be added to that number.

This same formula to determine Margin of Error could be applied to all the other returns for the survey. The following page shows the percentage of returns, with their margins of error for each. Configuring these numbers for the survey results will determine its confidence levels.

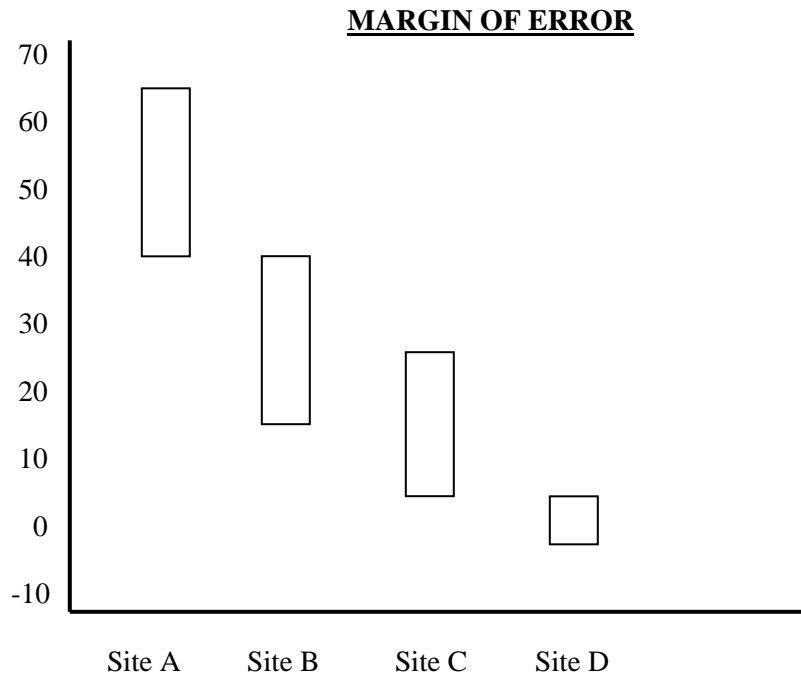
DISTRICT COMPLEX SITE SELECTION COMMUNITY SURVEY

Margin of Error Determination

The following indicates the numerical breakdown for each response:

<u>Site</u>	<u>Return</u>	<u>Margin of Error</u>
A:	52.6%	13.2%
B:	28.1%	11.9%
C:	15.8%	9.7%
D:	1.7%	3.4%

A final comparison of all this information is illustrated on the following chart:



In the case of this graph, one wants to focus on the areas where the Margin of Error overlaps between the sites. Increased overlap in the margin of error decreases confidence in the results.