

STATISTICAL ANALYSIS

CLAIM: Less than 5% of my respondents are unhappy with CALU and would not recommend it to a student looking to attend a college.

Pre-calculation figures:

5=NO

25=YES

$$\hat{p} = \frac{5}{25} = 0.20, 16.7$$

1. $H_0 : p \geq .05$

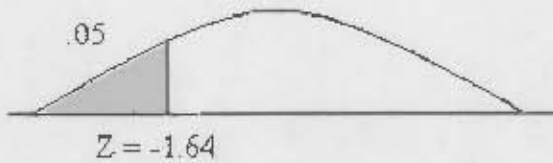
$H_1 : p < .05$

2. $n = 30$ $\alpha = .05$

3. test statistic

$$Z = \frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}} = \frac{\hat{p} - .05}{\sqrt{\frac{.05(1-.05)}{30}}}$$

4.



5.

$$Z = \frac{\frac{.167}{.20} - .05}{\sqrt{\frac{.05(1-.05)}{30}}} = 3.778$$

$$\frac{.117}{.0475} = 2.463$$

$$\frac{.117}{.040} = 2.925$$

$$\frac{.0475}{30} = \sqrt{.00158}$$

$$\frac{.117}{.040} = 2.925$$

6. Fail to reject the fact that $H_0 \geq .05$