Big Brother Big Sister Project: A Study of Ethnicity

By: Michelle Snodgrass
Research Question:

- Does the ethnicity of the volunteer and child effect the length of the relationship?
I chose to examine the volunteer and child ethnicity. I was interested in determining if the relationship lasts longer if the volunteer and child are matched with the same ethnicity.
Child Ethnicity

- Black: 53.70%
- Hispanic: 17.36%
- Multiracial: 9.65%
- Native American: 15.76%

Other: 0.64%
Volunteer Ethnicity

- White: 73.95%
- Black: 17.04%
- Hispanic: 4.50%
- Other: 1.29%
- Asian: 2.89%
- Multi: 0.00%
Variables:

- Independent Variable is the volunteer/child ethnicity relationship. (Same or Different ethnicity)
- Dependent Variable is the length of time of the relationship at BBBS.
Count vs Ethnicity Relationship

![Bar chart showing the count vs ethnicity relationship. The chart indicates a significantly higher count for different ethnicity compared to the same ethnicity.](chart.png)
Volunteer/Child Ethnicity:

- Notice the relationship that the number of different ethnicity pairings is much higher than those pairings of the same ethnicity.
Comparing Two Independent Variables:

- I chose to examine if the relationship of the volunteer and child lasts longer if they are of the same ethnicity.
Statistical Test:

- I performed an Independent-Samples T test. I chose this test because I am comparing the quantitative data of length of time and volunteer/child ethnicity relationship.
Match Length vs Ethnicity Relationship
Side-By-Side Box Plot:

- The box plot shows that the median for the different ethnicity is slightly higher than the median for the same ethnicity.
- The variability is much higher in the same ethnicity relationship than in the different ethnicity relationship.
- Both have many outliers.
Information After Running The Test

- **t-Test statistic**: -.320
- **P-Value**: .750
- **Df**: 309

Because the p-value is greater than 0.05 we fail to reject the null hypothesis.

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<th>Mean</th>
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Conclusion:

- There is insufficient evidence at the $\alpha = 0.05$ level of significance to reject the null hypothesis that the relationship between the volunteer and child lasts longer if they have the same ethnicity.
- Therefore, the length of the relationship is not effected by the ethnicity relationship of the volunteer and child whether they are the same or different.
Future Analysis

- The same test could be performed a year or two later to see if the number of the same or different ethnicity relationships has changed in any way.