**Project 3**

Null hypothesis: The number of best picture wins is independent of nominations for other categories.

Expected and observed frequencies are the same.

Alternative hypothesis: The number of best picture wins differs by category

 : Expected and observed frequencies are different.





We have rejected our null hypothesis. The difference found between the number of best picture wins and the number of nominations for specific categories was found to be statistically significant at the .001 level. Our p-value is less than .00001, indicating that there is a very small chance that we could have achieved these differences by chance. The results would lead us to believe that movies are more likely to be nominated for certain categories and go on to win best picture.

Null hypothesis: The number of best picture wins is independent of nominations for specific well-known categories.

Expected and observed frequencies are the same.

Alternative hypothesis: The number of best picture wins differs by category

 : Expected and observed frequencies are different.



We have not rejected our null hypothesis. In this case, when looking at specific other major categories, the differences found between the observed and expected frequencies were not found to be statistically significant at the .05 level. Our p-value is .0874, indicating that there is an 8.7% chance that these differences could have occurred by chance. The results would lead us to believe that Film Editing is not more likely to predict a best picture win than certain other categories. Furthermore, the number of nominations for awards in directing and film editing was identical, with the movie nominated for a directing award having a slightly higher number of best picture wins.