Final Project Write-Up

Our approach to the problem consisted of first, observing the SQL database. This was an essential part because we had to familiarize ourselves with the data before being able to create key performance indicators. Based on our observation, we proceeded to create KPI’s that were actionable as well as relatable to the given attributes. After identifying the KPI’s, we proceeded to create graphs, queries, and models to predict likely donors. The five KPI’s that we created are as listed:

1) The real value of the total funds donated over the past twenty years has increased by at least ten percent.

2) The amount of money donated per person in a city is at least twenty percent more than the average money donated by a resident of Champaign.

3) The trend of the number of event attendees has increased by at least fifty percent over the past twenty years.

4) The number of volunteers volunteering for event correlates to increasing trend in donation amount.

5) The age groups of people donating for the project and the type of transactions have changed or have remained the same since 1995.

One assumption that we had in the beginning of the project was that an increase in the amount of transactions directly correlated to an increase in total funds donated. Another assumption that we made prior to the project was that married people would donate more money. Hence, married couples typically have access to two incomes, whereas single people don’t. In addition, we projected that younger people would both attend more evens as well donate more money because millennials are usually considered pretty out-going, and generous.

It is important to note, that our assumptions were constructed under the basis of generalizations made by society. Therefore, our assumptions were not supported by scientific evidence. With that being said, we were able to address our assumptions after our project was complete. We were able to conclude that only one of our assumptions was met. An increase in the amount of transactions did not necessarily mean that more total funds were donated. This assumption was quickly proven wrong. On the other hand, the assumption that was met was the one pertaining towards married people donating more money. Our last assumption was not met; hence younger people did not attend more events as well as donate more money.

We found various things to be easy about this assignment. The first one being the drag and drop function found within Tableau. This allowed us to easily visualize the different attributes, and see how each one affects one another. We also found the examples given in the lecture slides about SQL to be fairly helpful when we were creating our own queries.

Unfortunately, there were more difficulties associated within this assignment. The first one being in R. We had issues formulating a logistic regression model. After multiple tries we were successfully able to fit two logistic regression models to predict the donor. As far as difficulties within Tableau, we were constantly confused by what column or row to include given attributes. This was an issue because it later created a problem when trying to interpret the data. Lastly, we were having issues attempting to publish the dashboard on the server.

Tableau dashboard URL:

<https://tableau.admin.uillinois.edu/#/views/DashboardofgroupmembersThiaguCarreonandWagh/Dashboardshowingtrends?:iid=3>