Speed Dating

Background and Motivation

Much to our dismay, a large proportion of the general populace are single. Amidst our hapless and woebegone plight, we all yearn for the dream of a rose colored daily life replete with raven-haired maidens and starry-eyed gentlemen. In a desperate ploy to escape the lovelorn monotony of an unfulfilling personal life, we sought guidance from the perennial bachelor's haven that is speed dating.

We found this data set while browsing for interesting trends in dating. According to Fisman's paper *Gender Differences in Mate Selection: Evidence from a Speed Dating Experiment*,

> "Women put greater weight on the intelligence and the race of partner, while men respond more to physical attractiveness. Moreover, men do not value women's intelligence or ambition when it exceeds their own. Also, we find that women exhibit a preference for men who grew up in affluent neighborhoods. Finally, male selectivity is invariant to group size, while female selectivity is strongly increasing in group size."

Thus, we hope to explore these relationships through a visualization of the data in Fisman's study.

Project Objectives

The purpose of our visualization is to see if there are patterns regarding the preferences of what we look for in a partner during speed dating, and whether such choices made during the speed dating event lead to worthwhile relationships. For example, some questions to look into include:

- What do women look for in men and vice versa?
- Is income an important factor in choosing one's partner?
- Does field of study/career influence preferences in a partner?
- Does similarity in hobbies/interests play an important role in choosing a partner?
- Do people find partners with the same level of attractiveness as they rate themselves?
- What is the goal of individuals at the speed dating event?

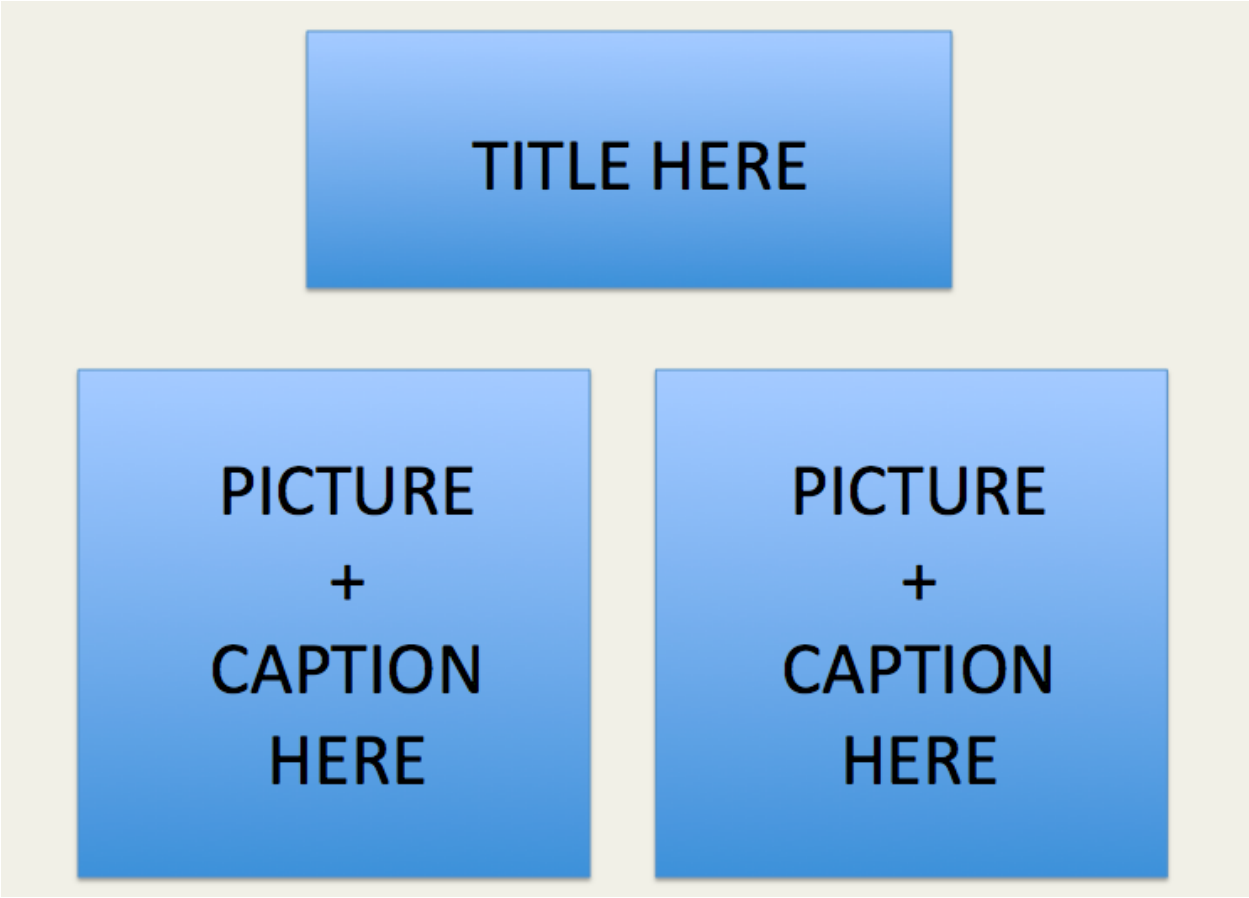
We would like to learn more about speed dating behaviors and generate visualizations to elucidate any patterns. This is targeted to individuals who are interested in speed dating to find their other half (...or next one night stand). Individuals will be better prepared to know who to focus their attention on at their next speed dating event so that they will have a higher probability of getting a match.

Data

We are getting our data from:
http://www.stat.columbia.edu/~gelman/arm/examples/speed.dating/

Data Processing
Our data is a .csv file. We do not expect to do substantial data cleanup, but we do plan on removing empty columns and columns that we will not be including in our visualization. Some quantities that we plan to derive from our data include average number of matches, average age, total number of people of a certain field of study/career, total number of each goal, etc. For data processing, we are looking into http://www.speqmath.com/tutorials/csv2array/ or using Papa Parse (http://papaparse.com/ , http://www.joyofdata.de/blog/parsing-local-csv-file-with-javascript-papa-parse/).

Visualization
The top of our visualization will include a fancy title and related pictures.

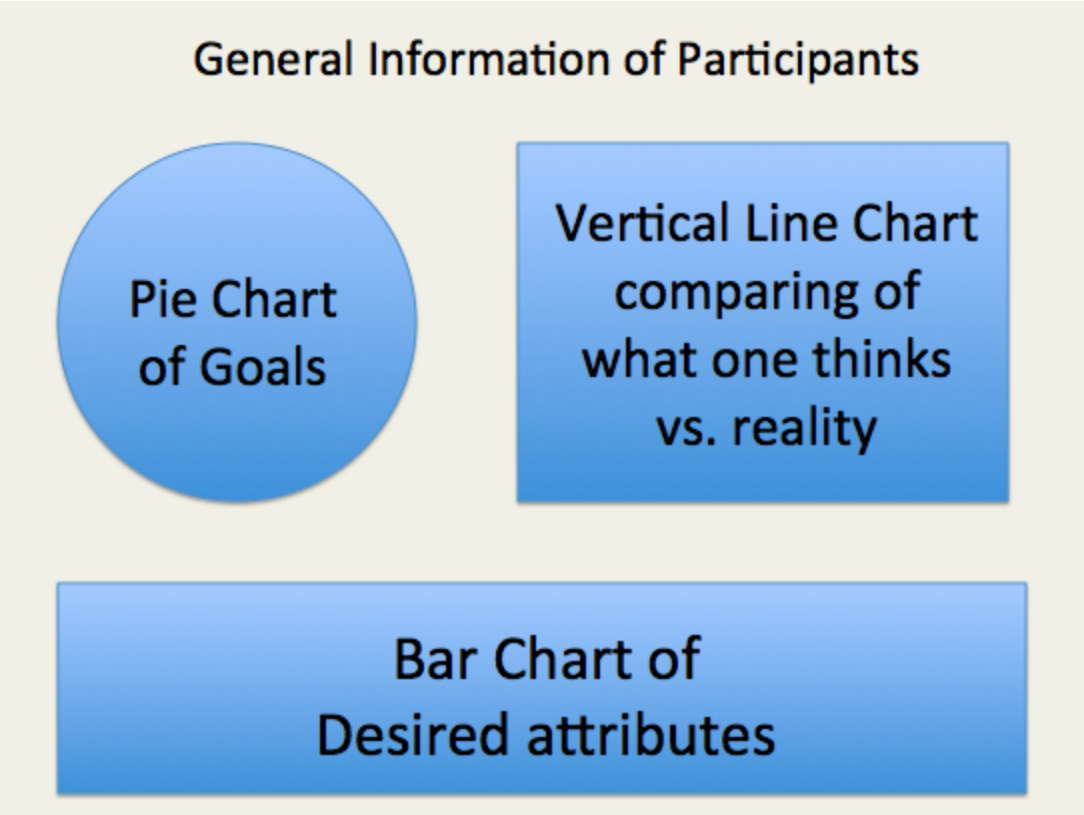


We plan to separate our visualization into three sections: (1) general information of participants (2) how participants rated each other and (3) the outcome of the speed dating . This will be done either by putting them on different webpages or in different areas on the same webpage. We plan on having multiple visualizations that can all be filtered by demographic group (gender, academic background, age, income, etc…).

Our ideas...

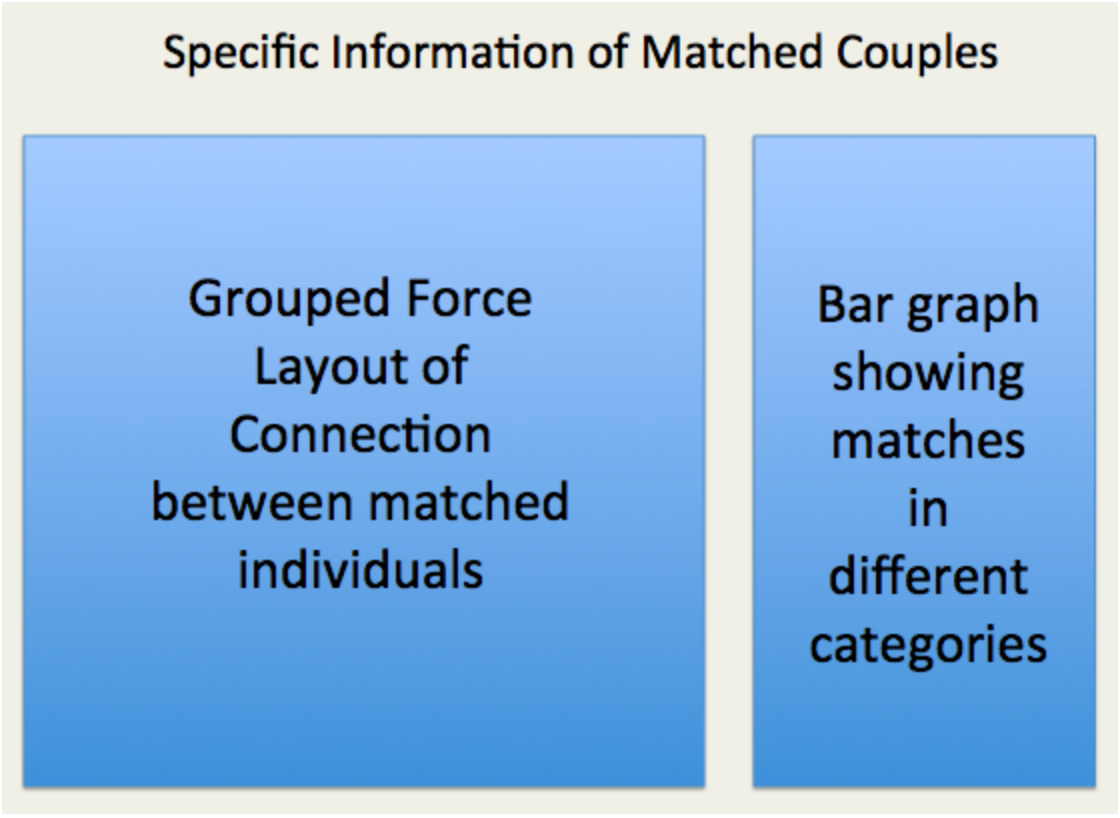
To visualize the general information about participants:

(1) Bar chart showing each demographic groups' desired partner attributes
    (a) should be filterable by demographic type
(2) Pie chart of primary goals in attending the event
(3) Vertical line chart/bar chart comparing what one thinks their fellow men/women look for and what the men/women actually look for



To visualize the specific information about matched couples:

(1) Grouped force layout showing connection between all matched individuals.
(2) Bar graph showing number of matches in each race, academic background, or age



To visualize the outcomes:

(1) Bar chart of which groups had most amount of successful pairings

Must-Have Features

(1) Comparison between what one thinks their fellow men/women look for and what the men/women actually look for. Since the participants distribute 100 points among 6 attributes, we plan to average the total points for each attribute and then compare the values for the two categories using either a grouped bar chart or vertical line chart.
(2) Pie chart of the primary goals in attending the event.
(3) Grouped circular layout/bundle layout showing connection between all matched individuals.

Optional Features

(1) Grouped bar chart showing the importance that a person one dates be of the same race/religion for each gender
(2) Parallel coordinates showing the career/field of study for the matched pair

Project Schedule

April 6-12: Finalize visualization ideas (everyone) and clean data set (everyone)
April 13-19: Begin implementing visualizations (Fanney → general information; Dylan → information of matched couples; Jack → outcomes)

April 20-26: Finish implementing visualizations (everyone)
April 27-May 3: Debugging and coordinating visualizations (everyone)