SOMOS Social Network Analyzer Manual:

Quick Start:

1. Install program executable and Java SE Runtime (link)
2. Save the social network graph to be analyzed as a CSV file denoted by the .csv file extension
3. Launch Program
4. After entering the number of nodes (same as number of people or number of rows in chart) choose the CSV file to analyze
5. Select the calculations you would like performed on the social network and choose a location and name to save the output text file

Glossary:

- **Node:** A vertex or, in SOMOS' case, an individual (could also be a household).
- **Tie:** Sometimes called an edge, arc, or a line refers to a connection between two nodes.
- **Simple Digraph:** In contrast to a multigraph or pseudograph, does not have loops or parallel edges
- **Degree** of a vertex of a graph is the number of edges incident to the vertex (number of ties that a node has)
    - **Average Degree:** Mean degree of all nodes in the graph
- **Density:** Number of ties divided by number of possible ties.
- **Freeman Centralization:** A type of centralization measure that measures how much variation there is in the centrality scores among nodes.
    - A high freeman score means there is high variation
    - A perfect star network would have a 1 or 100% score
    - https://en.wikipedia.org/wiki/Centrality#Freeman_centralization
- **Average Geodesic Distance:** Average number of edges in the shortest path between two vertices (geodesic refers to shortest)
-
- **Component:** Portion of a network that is disconnected from another
-
- **Component Ratio:** Number of components divided by the number of nodes.
-
- **Diameter:** Maximum distance between any pair of vertices in the network