The Not-so Small World of Donald Trump

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Introduction

Rarely are US Presidents as connected both in the public and private sectors as was Donald Trump. When leaders have this many friends in high places, it can potentially lead to a world run with tendencies leaning more towards oligarchy than democracy. It also leaves an administration open to corruption and deceit when small numbers of connected officials run the government. If a US President is closely tied with the private sector, whose interests are truly served? The purpose of this project is to analyze Trump's political and business relationships. The goal is to get a better understanding of how far his connections go and what kinds of organization him and his associates are tied to.

Data

The data set came from Buzzfeed News and was built from news articles, public records, and other public sources that detailed Trump's connections and contacts. Included in the data set are various connections between organizations and people, all related to the former President.
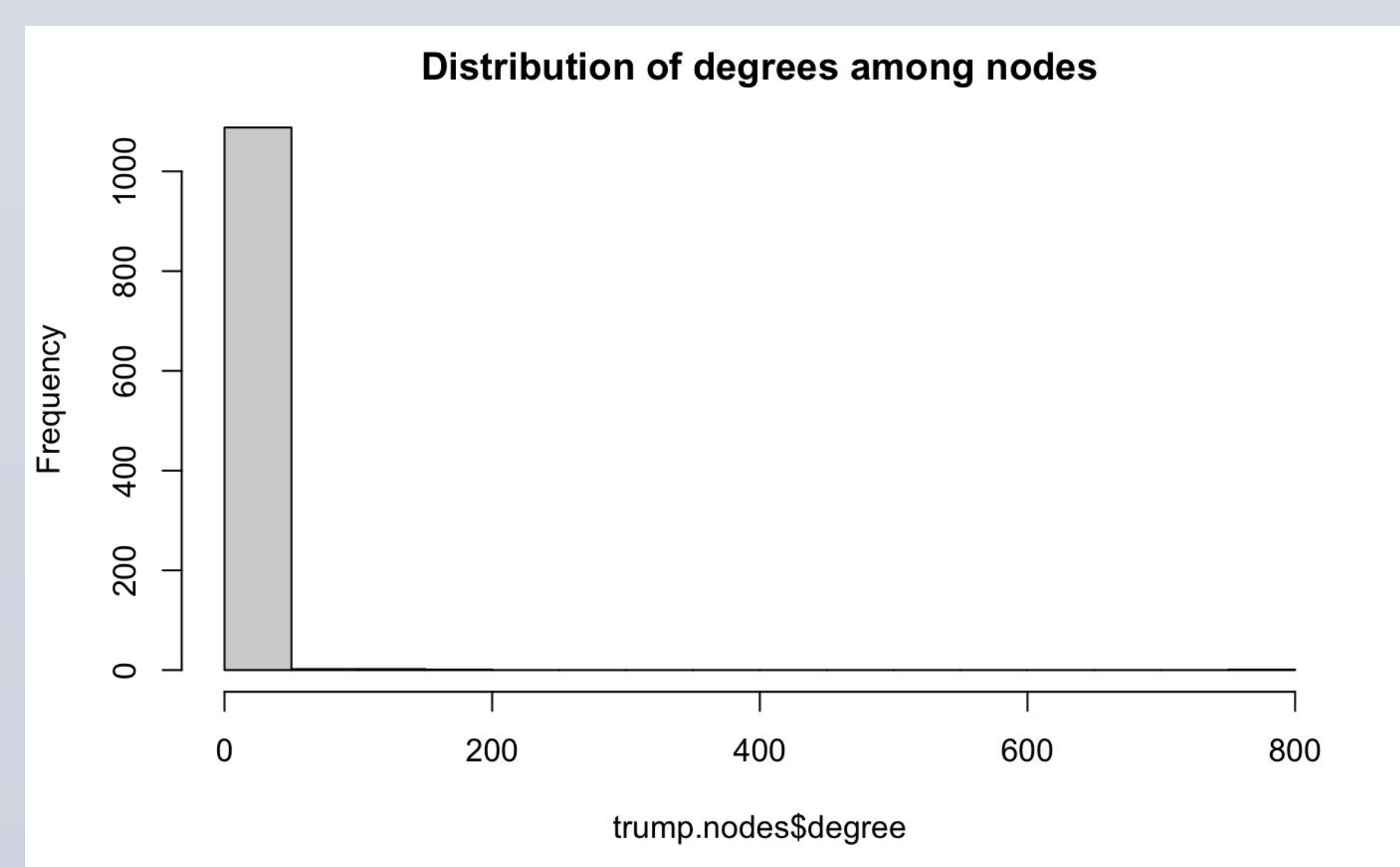
For network analysis, a node is a person or organization and a tie in the network mostly consists of a business connection like ownership or membership of a company. There are also familial ties and donor ties. The business ties vary greatly with consultant, ex CEO, subsidiary, etc.

Methods

I used the packages "igraph" and "statnet" in R to obtain various social network metrics. Before any manipulation occurred, I renamed columns to make further reference easier and then reordered columns to a "to" and "from" format.. The entire data set was converted to a matrix, then converted to igraph and statnet objects for further analysis.
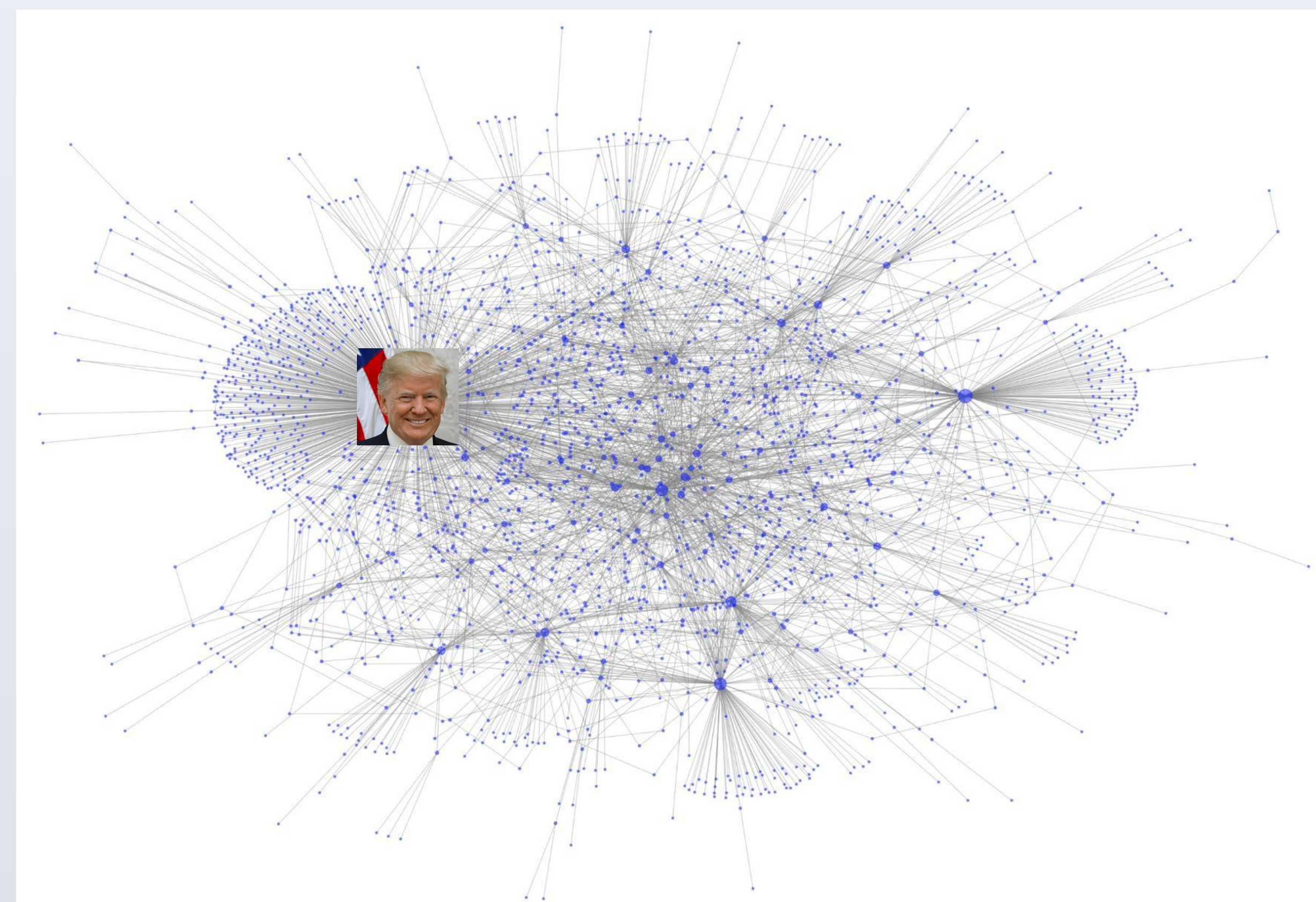
Network Structure

According to igraph, the network has a node count of 2669 with 3380 edges, or connections. The network is undirected because when discussing business relationships, they tend to be mutual unless money/payments are involved. The transitivity score for the network is 0.005 which indicates a highly fragmented network with low probability of individuals with mutual connections being directly connected with one another. This is corroborated with a network density level of 0.0009.

Distribution of degrees among nodes

Trump's Network

Most nodes in the network only have a degree of 1 with very few possessing 50 plus. When the degree is 1, that node is typically connected to Trump or another high level official.
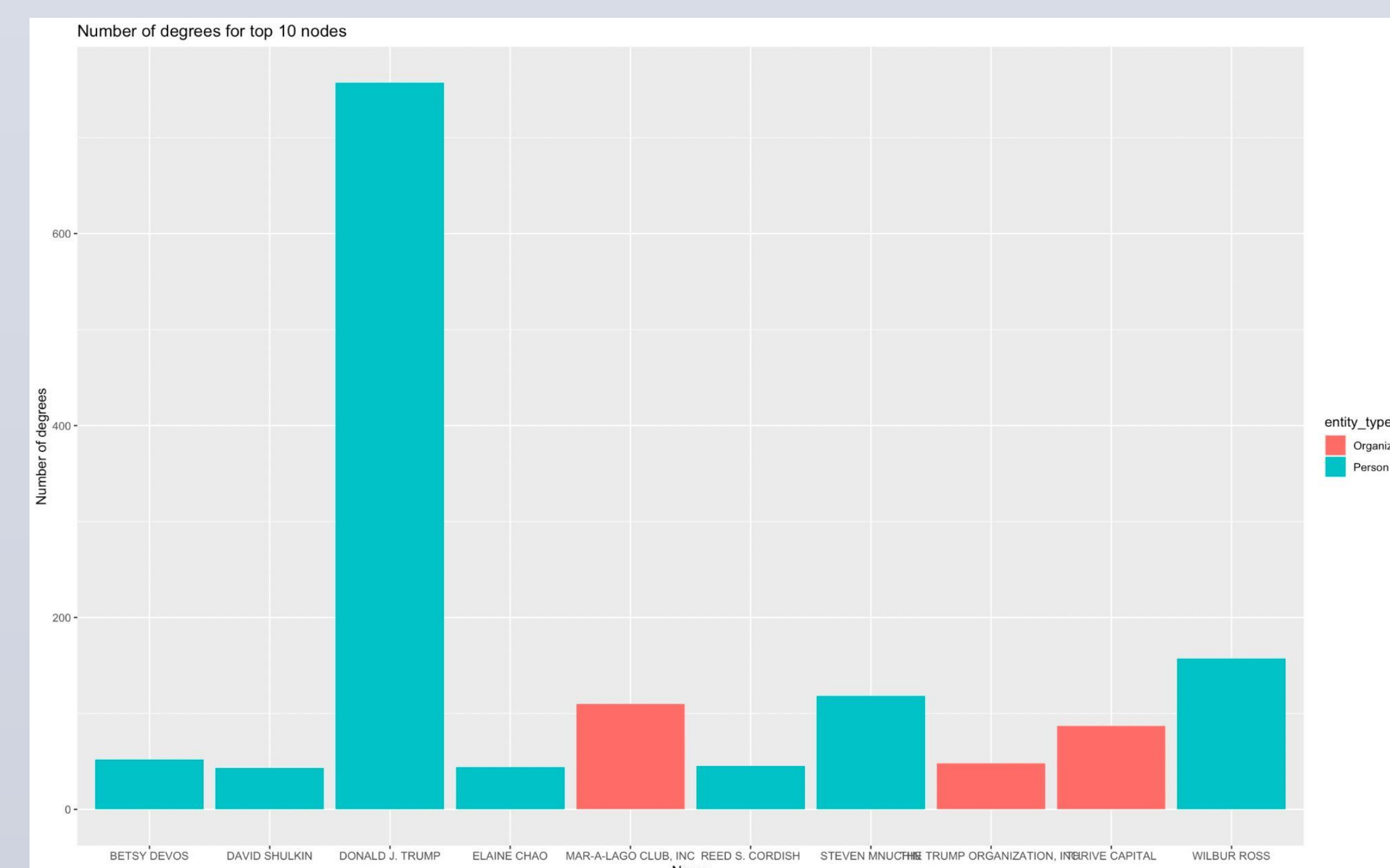
Sized by the number of ties, the largest node is Donald Trump with few of his cabinet members as the other larger nodes in the graph. From here, I can see the network is riddled with pendants and one off ties. While not a bad thing, it would explain the low network density.

Main Players

Seven out of the top ten nodes are individual people, but Mar-a-Lago Club Inc., The Trump Organization, and Thrive Capital have a high level of degree. All three organizations are closely related to Donald Trump or his immediate family, Thrive Capital owned by Jared Kushner's brother Joshua.

Number of degrees for top 10 nodes

Discussion

Most of the nodes in the network have some sort of business or family tie with Trump or the senior members of his group. Through igraph I can take a closer look at not-so obvious connections between Donald Trump and other organizations/individuals.

For example, Trump is connected with Cambridge Analytica in more ways than one. Through direct connections with the three main founders of the firm Robert Mercer, Steve Bannon, and Alexander Nix, as well as Kellyanne Conway, Trump is associated with Cambridge Analytica.

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+ 3/2669 vertices, named, from 085e92f:
[1] DONALD J. TRUMP    STEPHEN BANNON    CAMBRIDGE ANALYTICA

$res[[2]]
+ 3/2669 vertices, named, from 085e92f:
[1] DONALD J. TRUMP    ROBERT MERCER    CAMBRIDGE ANALYTICA

$res[[3]]
+ 3/2669 vertices, named, from 085e92f:
[1] DONALD J. TRUMP    KELLYANNE CONWAY    CAMBRIDGE ANALYTICA

$res[[4]]
+ 3/2669 vertices, named, from 085e92f:
[1] DONALD J. TRUMP    ALEXANDER NIX    CAMBRIDGE ANALYTICA
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Powerful People

DJT Holdings LLC has the second highest with a score of 0.07. Even though it has a degree of 36, the fact the organization is connected to such high level nodes, boosts the eigenvector value. DJT Holdings is a holding company for many of Trump's investments.

Eigenvector centrality brings nodes with low degree to the top. Rhona Graff has been Trump's personal assistant since the 1980s and because of this close connection, she is one of the most powerful nodes in the network.

Betweenness centrality is a measure of power. Individuals like Peter Thiel and Rebekah Mercer have a lower degree, but their high betweenness gives them more power in the network. The Kushner family is extremely powerful in this network with a few family members and their business ranked high across all metrics.

Conclusion

As a whole, the entire network is not as well connected as I would have thought. Many of the nodes have a degree of less than five indicating a low number of connections

This project can act as a springboard for additional analysis into Donald Trump's political and business connections. If there was more time, I would have liked to have a closer look at the types of connections in the network and create graphs that would detail familial or friendship connections.

Further analysis would be easier to do with a graph subset into upper level and lower level nodes to see how dense a mid level network would be. It would also be worth having a closer look at the network of business ties under the Trump Organization.

While the connections in the network are public knowledge, social network analysis allows us to sift through the noise and visualize truly shady and interesting ties between powerful individuals and organizations.

References

https://www.buzzfeednews.com/article/johntemplon/help-us-map-trumpworld