United States Supreme Court Zeitgeist

Introduction
The United States Supreme Court is one of the most secretive branches of the federal with only nine justices. These nine justices experience little checks and balances given their appointments are for life. As such, it is difficult to identify how a potential justice may vote over the term of their lifetime appointment. Basic demographic (e.g., Law School, age appointed, tenure, etc.) is sometimes the only means of guessing their potential slant. By visualizing the SCUTS (Supreme Court of the United States), I hope to find potential anomalies that can better explain why a justice from a particular law school was appointed or why they stayed on the Supreme Court for a particular length of time.

Dataset
For this dataset, I searched the Internet for information regarding each Supreme Court Justice. I utilized a variety of sources from Wikipedia to Adherents.com (seen in the references section). From this data, I came across a total of 154 nodes that includes the Presidents who appointed each Justice and the Justices who were appointed (some Justices were appointed twice and Howard Taft was both a Justice and a President).

The Dataset included the following information:
Religion, Political Party of President appointing, Birth year, Death year, Age appointed, Whether Chief justice or not, Term in days, Law School, Birth State, Why they left their term, and year left term

Headlines
A Law Degree: specifically an Ivy League Degree Need Only Apply
I wanted to be able to visualize when Supreme Court Justices started having law degrees and what law schools are the most prevalent. To find the answer to my question, I separated the nodes into groups based on law schools and then placed them into a circular layout to emphasize time similar to a clock. I also deemphasized the intergroup edges by combining them, as the President appointing them is less important than his/her law school.

It is interesting to note that Harvard Law School was founded in 1817, yet the first Justice from there was not appointed until 1851. Also, until 1946 one could be appointed without any formal legal education, as depicted in the “None” group. From my data, I was not able to make assumptions why Ivy League schools have become increasingly prevalent among Supreme Court members since 1946. I can only assume that the importance of both a Juris Doctorate and law schools have increased over time.
Note: The non-labeled nodes, in every visualization, are the Presidents (I placed little importance on Presidents for this project).

Jews and Republicans: Do they mix?

To come to another interesting fact, I incorporated filters (filtering out political party) and visualization techniques and grouping to more easily identify specific traits. I also set the grouping to be by religion for easier recognition. The state for which the Justice was born is placed under their node. I was unable to specify the color of the node for some reason even though I did select the color in column autofill. I organized the layout following the grid algorithm because I consider it to be the most effective way to illustrate each religious group.

Throughout the history of the United States Supreme Court, there have been a total of eight Jewish justices of which only a Republican President, Herbert Hoover, appointed one, Benjamin N. Cardozo. Could it be that Jewish people are perceived as traditionally liberal? It is difficult to know from the supplied data, but the current Jewish Justices (Ginsberg, Kagan, and Breyer) are certainly considered liberal. It is also interesting that only two Jewish Justices come from outside of the Northeast (Tennessee and Illinois).
Does a Younger Start Mean a Longer Tenure?

As our politics become increasingly partisan, I wonder if justices are staying on the bench longer (1775-1900 versus 1925-Present). To find out, I decided to arrange the nodes in two different ways, in a circular fashion and in a grid fashion. I chose both means to see if one is better at depicting this versus the other. The nodes are further organized into groups by 25-year periods (1775-1799, 1800-1824, etc.). This is done because people are living longer than they were in the past. To more easily understand the length of time a justice served (in days), I shaped the nodes as squares because size increases are easier to see compared to circles. The age to which a justice started is labeled under his/her node.

I came out surprised that age has a minimal impact on how long a justice serves on the bench. While there appears to be an impact, it is a best a few years longer. Once more, I was unable to color-code each node by the reasons for leaving the bench (resignation, death, or retirement), but I did have this coded in my data. Nevertheless, I was shocked that even in the 1700s, judges were still roughly the same age when appointed, around 50-60, as judges are today (2000s).
Critique

Strengths
NodeXL is a powerful tool that allows users without any programming experience to easily visualize a data network. It performs such functionality in an environment, Microsoft Excel, familiar for many users. NodeXL is particularly strong at allowing users to dynamically filter out content and manually move a node to a particular location. Tool tips explaining functions are also helpful for learning how to use the application. The option to select a specific shape for nodes adds a nice customization for the specific needs of visualizing networks.

Weaknesses
While NodeXL does have several strong features, it is not without fault. When hovering over the columns to find information about a column’s function, the tool tip’s content is partially cut off. Once more, the program could not load datasets of greater than 24,000 items (at least on my computer), which caused the program to crash. NodeXL can also be frustrating if users wish to undo a mistake (a limitation of Microsoft Excel). By being unable to undo a mistake, NodeXL goes against one of Ben Shneiderman’s Eight Golden Rules by not allowing users to undo such action. This causes particular frustration when users import new Twitter data, which automatically overrides previous data. Because NodeXL is also written with the .NET Framework, I cannot use the program in my OS X and Linux environments without creating a virtual Windows environment. NodeXL’s Twitter importation also limits users to only 15 character long Twitter user names, which forced me to rethink my project since I originally wanted to explore Michael Bloomberg’s (the Mayor of New York City) Twitter network, but his name exceeded the 15 character limit. Another frustration is NodeXL not remembering my Twitter credentials. Furthermore, if users change the name of a column in one excel book page, the change does not occur on another page (e.g., Change column name in Edges book → Does not cause column name to change in Vertices book).

Suggestions
To enhance NodeXL, I offer a few suggestions. While Node XL is an open source application, it is not available for OpenOffice/LibreOffice. I know there is the Mono Project that allows .NET-
based applications to run under non-Windows environment, but I am sure it would be too burdensome to incorporate such ability in a non-Windows/Microsoft product. Moreover, I suggest incorporating a warning dialogue to alert users that actions are irreversible and an explanation why. An integrated option to pay Twitter for additional access, more than what Twitter offers for free, to its API integrated would create a more fluid experience. Informing users that they can buy access to a larger allotment of Twitter data would too enhance the experience because some users might be unaware that they can buy such access. Lastly, a preview of what each graph layout algorithm does would be nice for users who do not know what the algorithm does.

**References**

Eight Golden Rules  
http://faculty.washington.edu/jtenenbg/courses/360/f04/sessions/schneidermanGoldenRules.html

Mono Project  
http://www.mono-project.com/Main_Page/

Religion of the Supreme Court Justices  
http://www.adherents.com/adh_sc.html/

Justices Time in Office  
http://en.wikipedia.org/wiki/List_of_United_States_Supreme_Court_Justices_by_time_in_office

List of Supreme Court Justices  

Harvard  