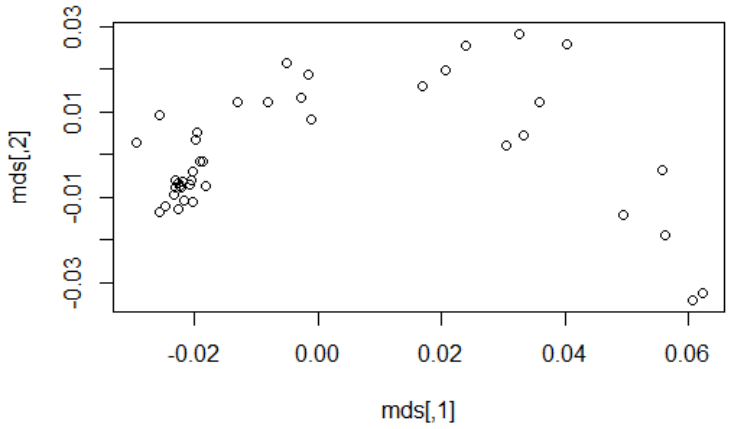
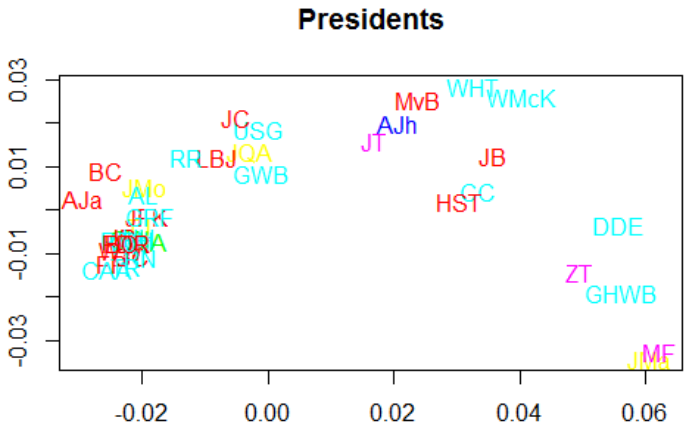
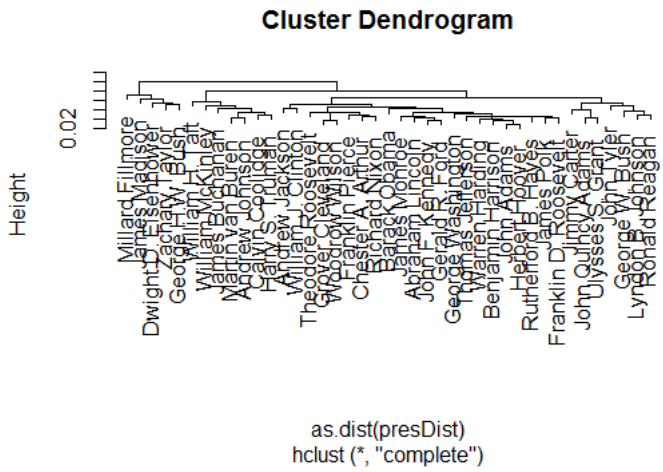
Here is the first unlabeled plot of speech similarity grouped by president.

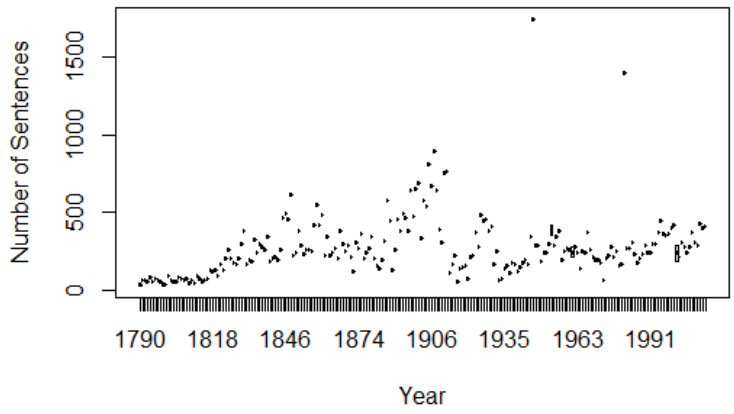


In the next two plots we can see that while they are visually different, the same presidents are grouped together.

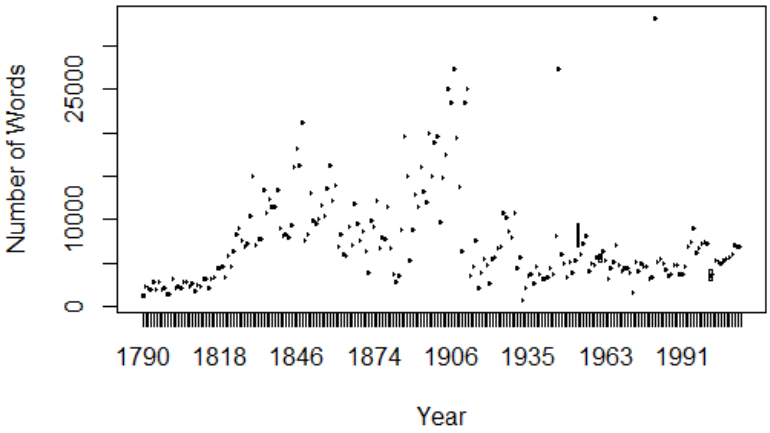




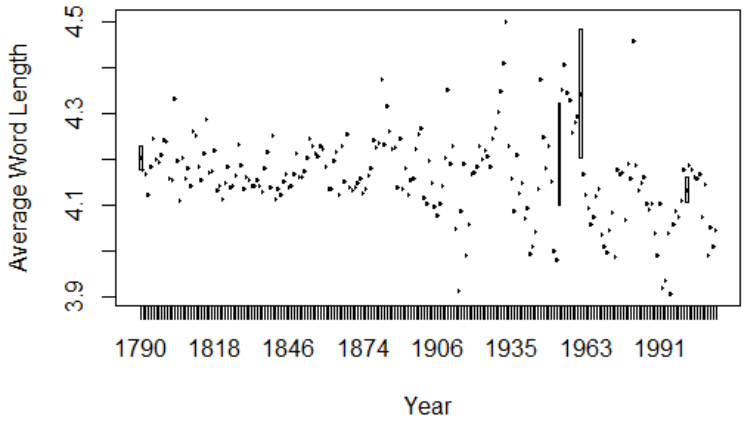
The number of sentences used doesnt seem to follow any trend or pattern. There are some spikes, particularly around the turn of the 20th century as well as some outliers.



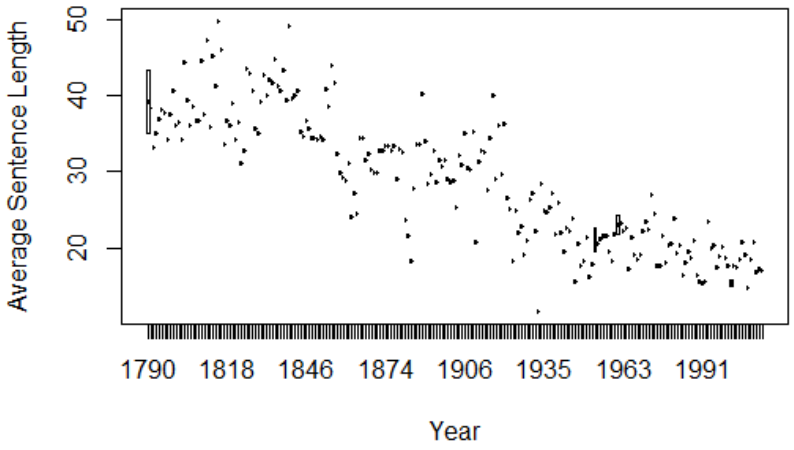
The number of words in each speech doesnt not seem to have any trend either which makes sense since it must be very closely correlated with the number of sentences.



Average word length seems to be going down slighly over time. Furthermore, it seems to have a sinusoidal shape or seasonality to it.



This plot most definitely shows a a steady decline in sentence length over time. Most recent speeches have average sentence lengths that are half of what they were at the start.


Average Sentence Length
20
30
40
50
1790
1818
1846
1874
1906
1935
1963
1991
Year