

Public Sentiment about Women's Rights Movements

An analysis of the evolution of public sentiment about women's rights movements, starting from the right to vote.

Initial Inspection of the Dataset

The dataset contains a wide range of text records about Suffragettes.

Our initial research question is to compare the suffragette movements in the early 1900s and the feminist resurgence of the 1960s and 1970s. But looking at the time frame, we saw the initial dataset only contains documents up to 1914. Therefore, we might build on the current dataset to include documents from the 1960s and 1970s so that a comparison can be made across time.

Building Datasets (1)

We set out to search for results about the Feminist movement in 1960s and 1970s, and we intend to use them to build a comparison set to the original content set.

We also started searching for results in the pre-Suffragettes years. We intend to use them as a comparison set as well to the original content set.

Building Datasets (2)

We have built the Pre-History Suffragettes dataset and the Feminism Resurgence dataset with approx. 200-300 documents in each set. This is to match with the number of documents in the initial Suffragettes dataset.

Some keywords used for the Feminism Resurgence dataset include "Feminism" "Women's Rights Movement" "Equality for Women" "Workplace" "Sexism", etc.

Besides the filters on publication years and OCR confidence level, we selected editorial and newspaper publications out of the variety of document types because we believe that these documents are more politically charged, more readable, and can represent to a certain extent the public opinions of the time.

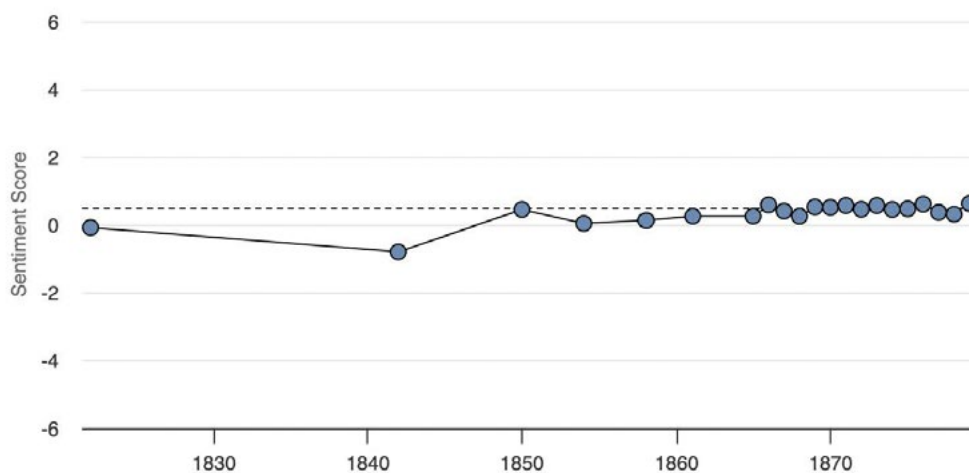
Pre-History Period

The nineteenth-century

The debate about women's right to vote goes back into the nineteenth century, and the archives in Gale DSL reflect that presence. In order to establish a background for the suffragette movement "proper" in the twentieth century, we built a dataset of documents from transatlantic archives that mention all of the following: suffrag*, voting, and wom?n. We then further subsetted the results by the document types of "editorials" and "letters to the editor," which gave a manageable corpus of 266 documents.

Misleading sentiments in the early period

A sentiment analysis of our nineteenth-century editorials show a slight but definite negative leaning in the time period. However, a closer analysis of the documents indicates that negatively emotive words are often marshaled against the opponents of broader suffrage. Thus, the negative slant appears to be more indicative of the genre of the archive rather than the content --editorialists and authors of letters to the editor are looking to inveigh against something, no matter the position of the writer.



Cluster analysis of the pre-history editorials

To get a better sense beyond sentiment of how the documents frame women's suffrage, I did an analysis of the pre-history editorial documents, breaking them down into 5 clusters of documents. I then took two clusters which looked to be furthest apart, "Cluster 2," and "Cluster 5," and subjected them to quick analysis for the common shared and common unique terms between them, to see what "the extremes" might be. Unsurprisingly, the top shared terms were: women, woman, suffrage, vote, and men. The first four terms were what I originally searched for

to build the dataset, so again, no surprise. The distinct terms, however, were curious.

The most common unique terms for each cluster are included in the attached visualization. The two document clusters seem to be:

Cluster 2: Western locale, people groups, and finance terminology

Cluster 5: Northeastern(ish) locale and governmental terminology

There were also curious unique words in both: e.g., "polygamy" for Cluster 2, and "temperance" for Cluster 5. Although generalization is dangerous at this point, the initial analysis of these clusters suggests that location specificity impacts what kinds of larger societal concerns are tied up in the question of women's suffrage.

**Note that the cluster sizes are different. Cluster 2 contains 105 documents, and Cluster 5 only 32.*

| | A | B | C | D | E |
|----|--------------------------------|---------------|---|------------------------------|---------------|
| 1 | Cluster 2 | Count: | | Cluster 5 | Count: |
| 2 | tax | 33 | | petition | 30 |
| 3 | franchise | 29 | | hall | 27 |
| 4 | wyoming | 28 | | michigan | 22 |
| 5 | utah | 26 | | rev | 20 |
| 6 | wives | 24 | | maine | 19 |
| 7 | negroes | 22 | | president | 19 |
| 8 | mormon | 19 | | temperance | 18 |
| 9 | view | 19 | | audience | 17 |
| 10 | republic | 18 | | vermont | 17 |
| 11 | state county | 17 | | dr | 15 |
| 12 | taxation | 17 | | member | 15 |
| 13 | girls | 16 | | met | 15 |
| 14 | polygamy | 16 | | platform | 15 |
| 15 | trade | 16 | | signed | 14 |
| 16 | whites | 16 | | die | 13 |
| 17 | sit | 15 | | month | 13 |
| 18 | | | | | |
| 19 | Western/people groups/finance? | | | Northeastern / governmental? | |
| 20 | | | | | |

Five Topics in the early period

When we run an analysis for 5 topics in the nineteenth-century editorials, place still seems to

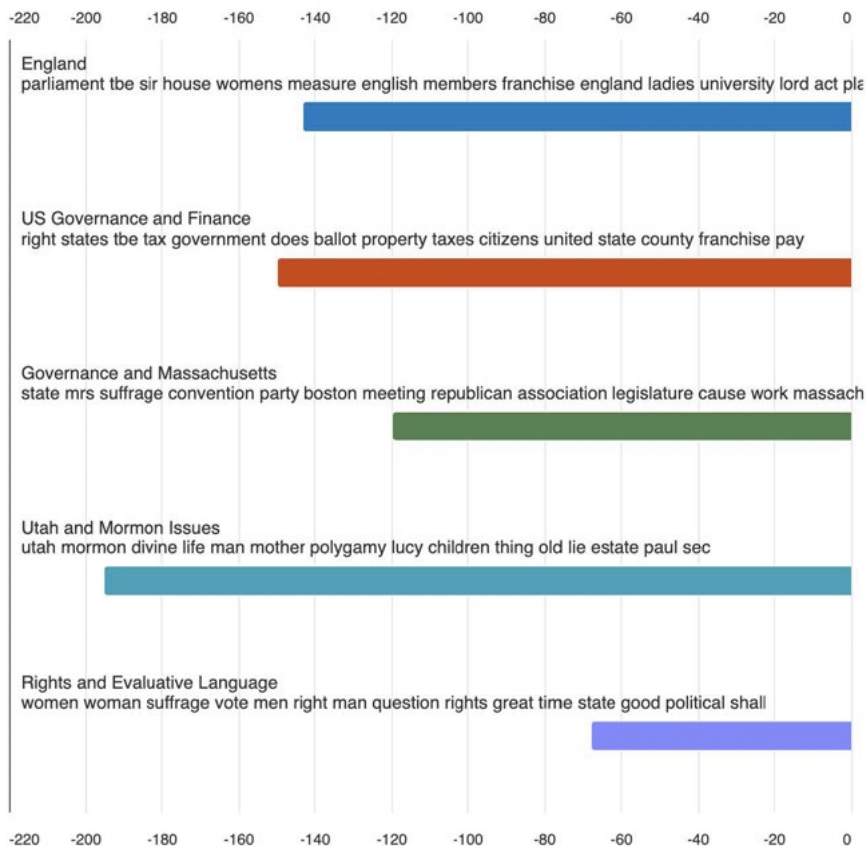
hold a strong sway, with England, Massachusetts, and Utah showing up as strong signals. This leads me to suspect that this could be a dataset bias, but I don't know why.

What is most "coherent," in this set, however, are a cluster of words that deal with gender, rights, and evaluative language ("good," "great," even "shall" and "time" seem to fit).

What a person might glean from this, in combination with the cluster analysis, is that there is geographic specificity to the issues surrounding the question of women's right to vote, and people see it as a major phenomenon, whether they are for or against the extension of the franchise. Perhaps. These are opening guesses, which further close and distant reading would need to test and develop.

Coherence

A score indicating how likely it is that a topic's words will appear together in a document. Values closer to 0 indicate that the topic's words are more likely to appear together. Large negative values indicate words that don't co-occur often.



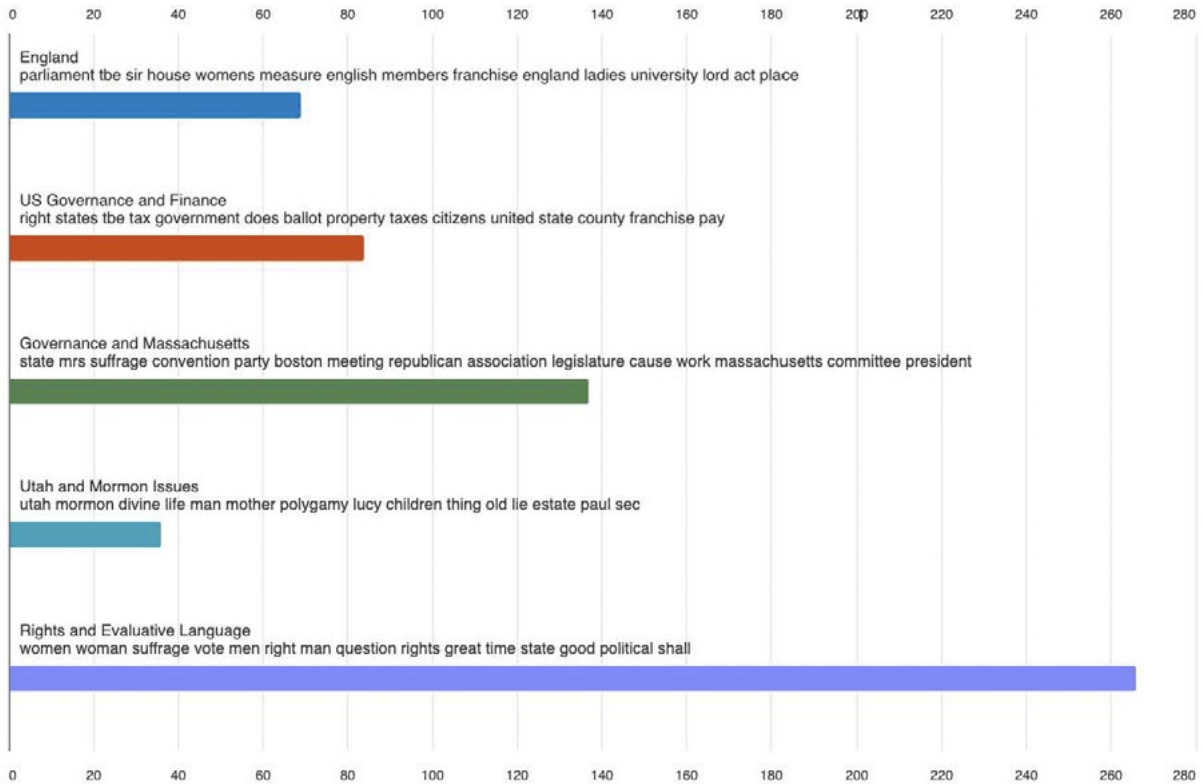
Evaluative language is widespread in the early period

Confirming my suspicion on the earlier topic models visualization, this representation of document count for the different topics shows that "Rights and Evaluative Language" is a

widespread phenomenon throughout his early-period archive.

Document Count

The count of documents that make up a given topic. Smaller counts compared to the total number of documents may indicate an outlying topic whereas larger counts may be more representative of the Content Set as a whole.



Suffragette Period

Suffragette Ngram Result

Words with the highest frequency in the dataset include suffragette, women, MAUD, house, London, police, government, prison, pankhurst.

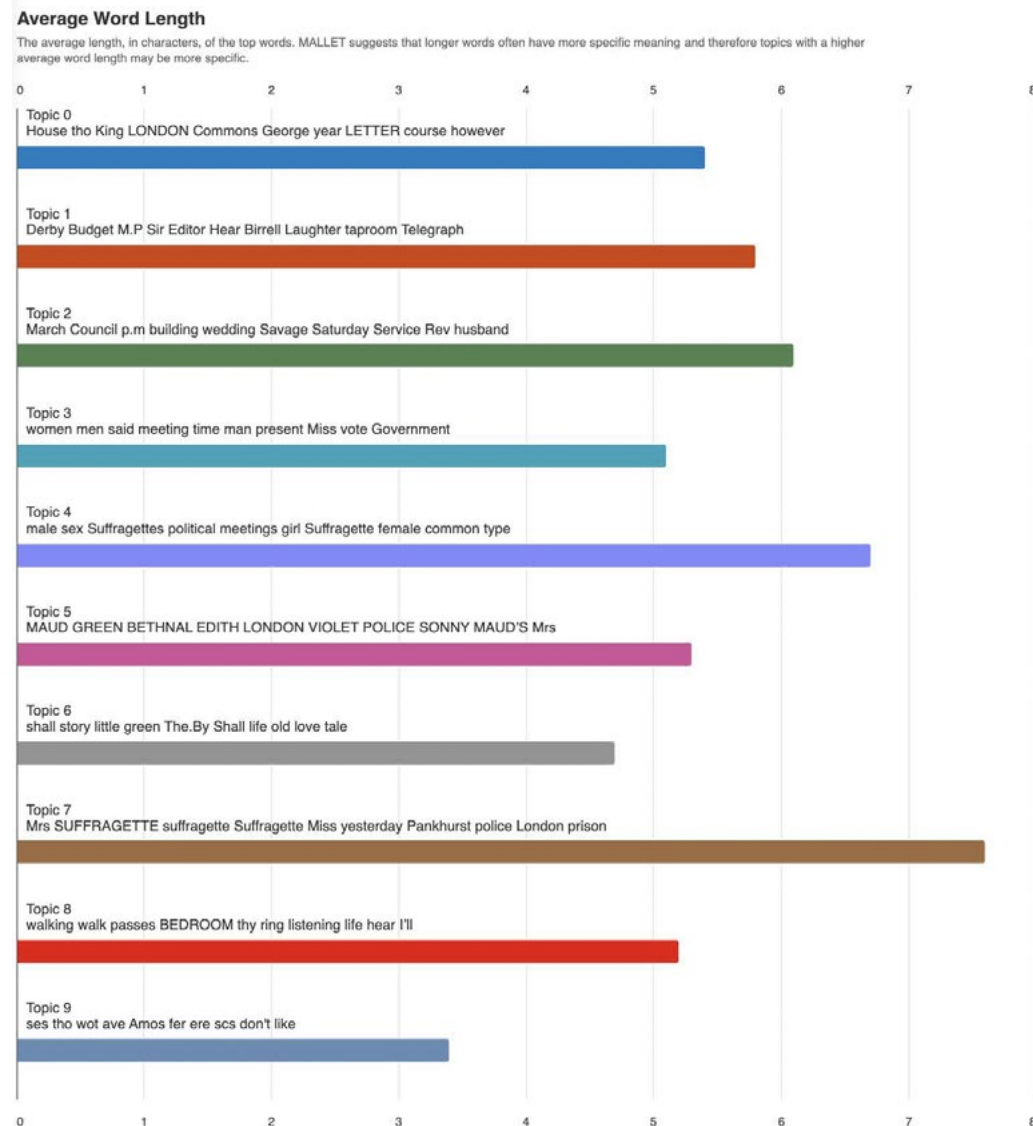
These words suggest the political and activist nature of the movement, involving a lot of police activities, arrests, and civil unrest. It also highlights the location and the main people in the Movement.

The appearance of the word "house" is very interesting and worth more in-depth inspection.

Suffragette Topic 3 Analysis

Gender Dynamics: words like women, men, and man suggest a focus on discussions about gender roles, status, or actions of specific individuals. The prominence of women and men indicates these are central to the corpus, possibly reflecting debates on suffrage or societal Roles.

Political and Activism Context: words like vote, government, and meeting point to political discussions or organizations, maybe centered around suffrage advocacy or legislative debates. Government and vote suggest the involvement of political institutions, and meeting might be referring to activist gatherings or parliamentary debates.



Suffragette Topic 7 Analysis

Individual Figures and Leaders: words like Mrs, Miss, Pankhurst point to specific individuals or

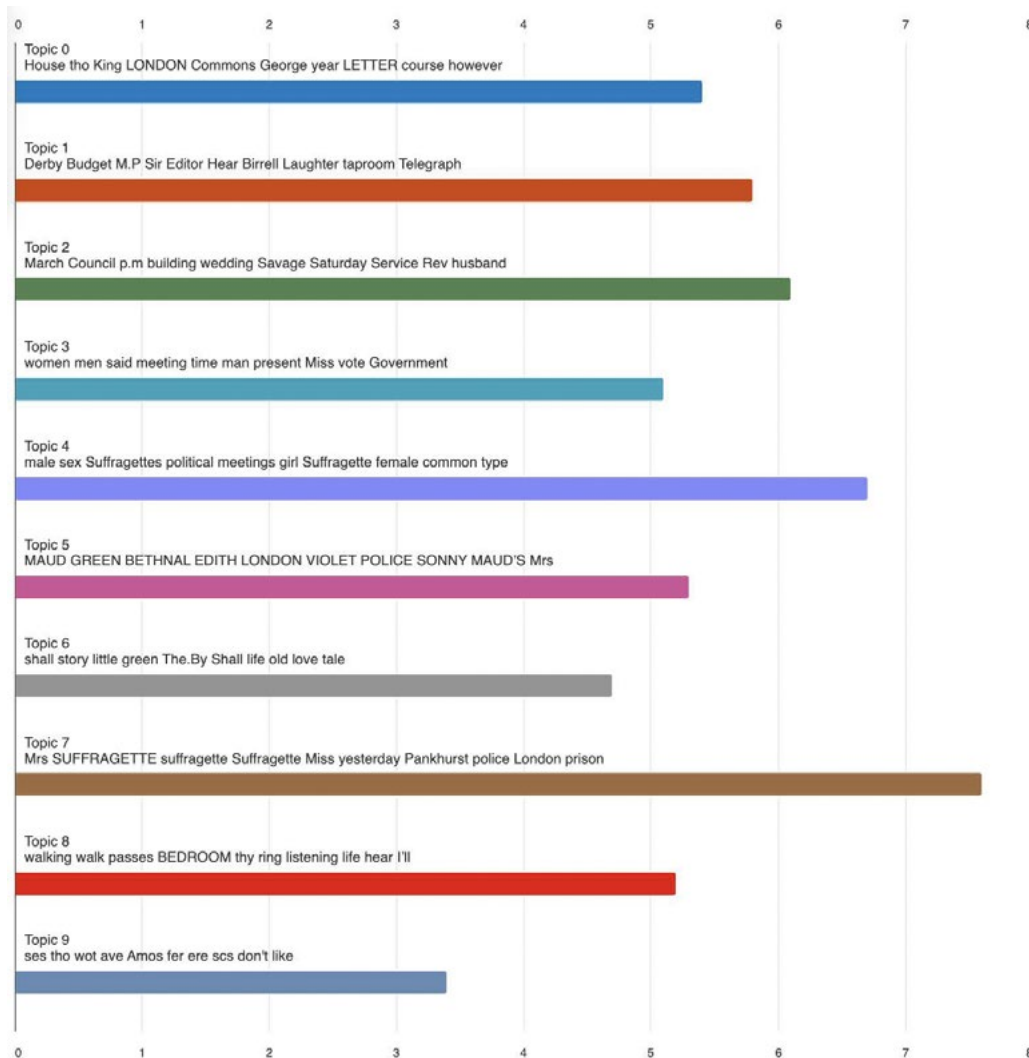
roles in the movement. Pankhurst likely refers to Emmeline, prominent the leader of the suffragette movement.

Arrests and Unrests: words like police and prison likely relate to arrests and incarcerations of suffragettes, a recurring theme in the movement's history. Many arrests and trials took place during the movement, suggesting again the militant nature of the movement.

Locations and Hub: London is significant, as it was a central hub for suffragette activism, protests, and government engagement.

Average Word Length

The average length, in characters, of the top words. MALLET suggests that longer words often have more specific meaning and therefore topics with a higher average word length may be more specific.



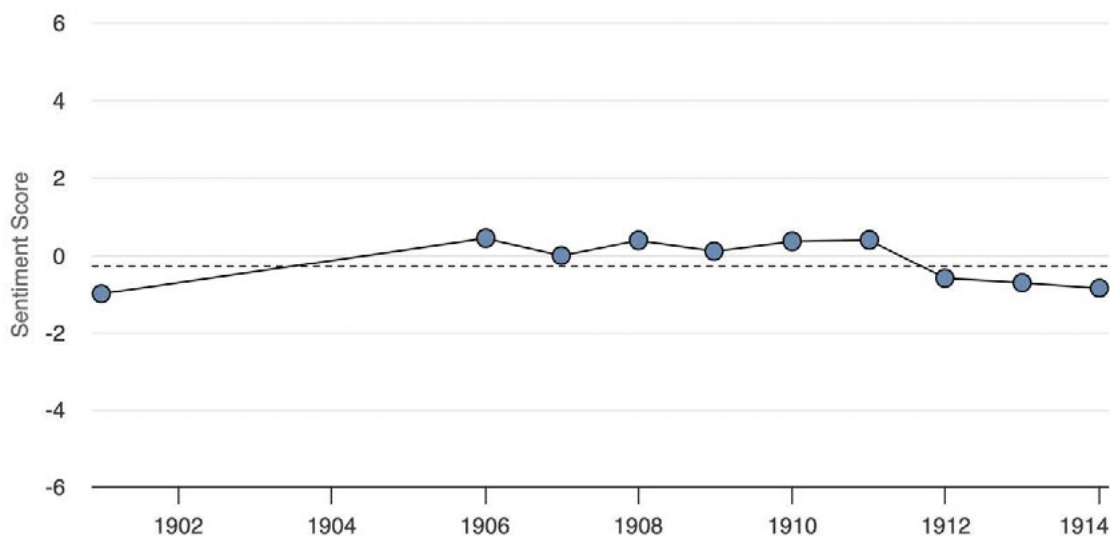
Suffragette Dataset Sentiment Analysis

After multiple cleaning iterations, we ran a sentiment analysis on the suffragette dataset. The visualization indicates an increasing sentiment for the Suffragette movement between 1906 to 1912 and then a downturn after 1912.

The initial negative response towards the Suffragette movement might be due to the militant activism method the Suffragettes decided to adopt. They disrupted public meetings, protested publicly, and demonstrated their demand through minor criminal acts.

The sentiment then shifted towards a more positive outlook in the early 1900s. We presume that it was due to the public's increased sympathy towards the women Suffragettes. People started empathizing with their cause, and they even attended their rally (one of the biggest rally took place in 1908, arousing public interest in the movement). During imprisonment, some Suffragette members refused to eat, resulting in the much hated force-feeding measure of the Government.

Entering the 1910s, the analysis indicates a downturn in the sentiment. Our hypothesis is that the Suffragettes caused too much havoc and damage to the public living, and the public and the press were feeling a little exhausted about the Suffragettes' doings. By clicking into each sentiment data point, we can see keywords like "A violent Suffragette" "Suffragette Madness" "Suffragette Rage" that reflect the militant nature of the movement.



Sentiment Analysis Insights for Year 1913

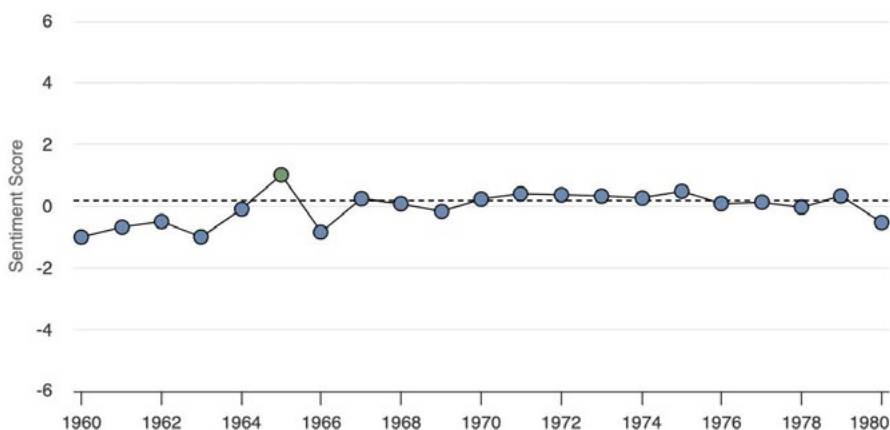
Data point result for 1913

- 1.100 The Unpopularity of the Suffragettes
- 1.111 Suffragette Leader's Arrest
- 1.214 The Arrests
- 1.222 Suffragette in Trousers?
- 1.286 Suffragette Outrage
- 1.333 Suffragette Sandwich-Women Mobbed in London
- 1.333 Suffragette Committed
- 1.400 A Trial of Patience
- 1.444 Suffragette Crimes
- 1.667 The "Suffragette."
- 1.667 Doorstep Suffragette
- 1.833 "The Home Breakers."

Resurgence Period

Resurgence Period Sentiment Analysis Result

By 1965, the suffragette movement had largely achieved its primary goals in many countries. The sentiment analysis of documents this year shows that the sentiment is positive and then became pretty neutral, slightly positive. Voting Rights Act of 1965 is a landmark legislation that outlawed discriminatory practices like literacy tests and poll taxes and ensured women of color the right to vote. Sentiment became consistently neutral and slightly positive in the 1970s. It reflects that public discussions have become less contentious.



Entity Analysis

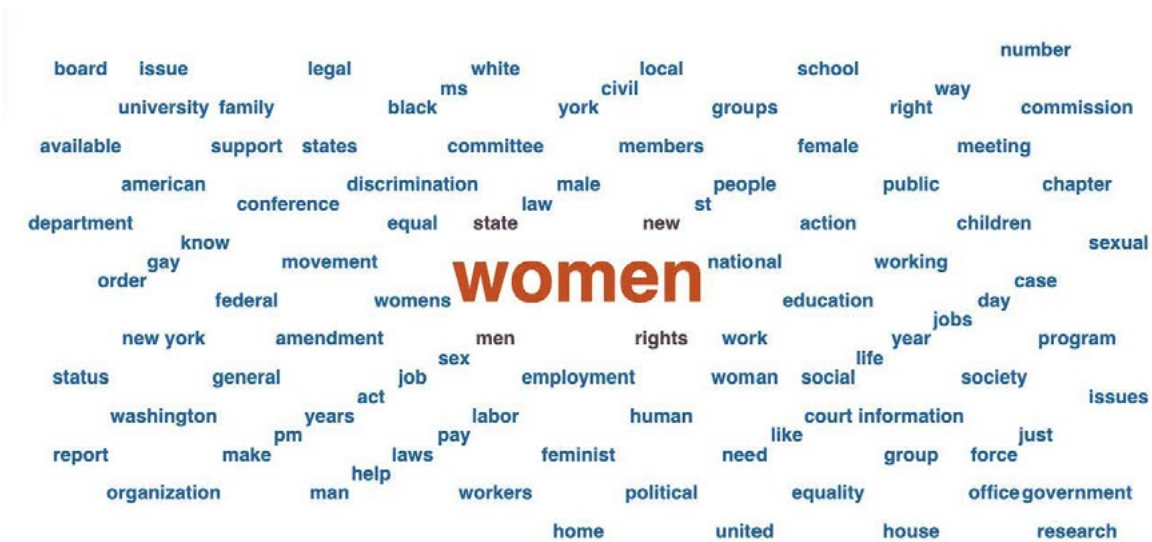
Unsurprisingly, named entity recognition indicates a strong emphasis on feminism/suffragette rights in terms of geo-political entities and cultural groups. Continuing to query and explore how attention paid to these entities and cultural groups changed/expanded over time.

We see a lot of focus on American places/groups (washington, new york, american, chicago) but I found a fair amount of discussion around the Caribbean in my topic model, so curious about reconciling these/putting them in convo with each other.

| Entity | Category | Documents | Count |
|---------------|----------------------|-----------|-------|
| washington | Geo-Political Entity | 46 | 598 |
| new york | Geo-Political Entity | 51 | 575 |
| years | Date | 68 | 485 |
| american | Cultural Group | 54 | 432 |
| congress | Organization | 37 | 319 |
| july | Date | 33 | 308 |
| chicago | Geo-Political Entity | 29 | 304 |
| year | Date | 55 | 302 |
| second | Position | 62 | 296 |
| today | Date | 48 | 294 |
| irish | Cultural Group | 3 | 273 |
| cuba | Geo-Political Entity | 15 | 273 |
| august | Date | 36 | 258 |
| june | Date | 34 | 245 |
| senate | Organization | 30 | 243 |
| california | Geo-Political Entity | 31 | 229 |
| supreme court | Organization | 18 | 217 |
| lesbian | Cultural Group | 9 | 193 |
| october | Date | 33 | 171 |
| days | Date | 31 | 162 |

Word Cloud

The word cloud suggests that "equal," "rights," "employment," and "jobs" are high-frequency words, which marks an era when broader issues of gender equality and civil rights gained momentum.



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