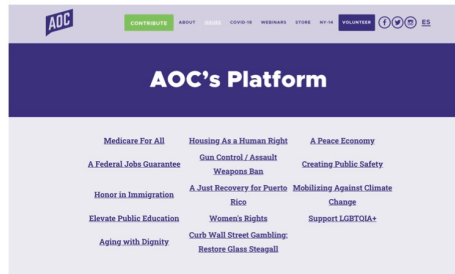


Measuring Issue Polarization in Congressional Elections

Methodological Objective

Measure the ideology of candidates' issue-specific positions in campaigns

Data: Campaign Platforms



- Issue text from platforms for 2018–2022 primary election candidates who had a campaign website (N = 4,554; 77%)

Method: Word Embeddings

- Candidate- and word-level embeddings trained on campaign platform text with doc2vec (Case, 2023)
- Methodological Advantages:
 - Uncovers linear substructures in texts
E.g.: *king* – *man* + *woman* = *queen*
 - Places candidates and words in same dimensional space

Methodological Innovation

Employ linear substructures as a tool for estimating the ideology of candidates' individual issue positions

For Example:

$AOC + \text{healthcare} = \text{universal}$
 $MTG + \text{healthcare} \neq \text{universal}$

Colin R. Case

University of North Carolina at Chapel Hill
crcase@live.unc.edu

Rachel Porter

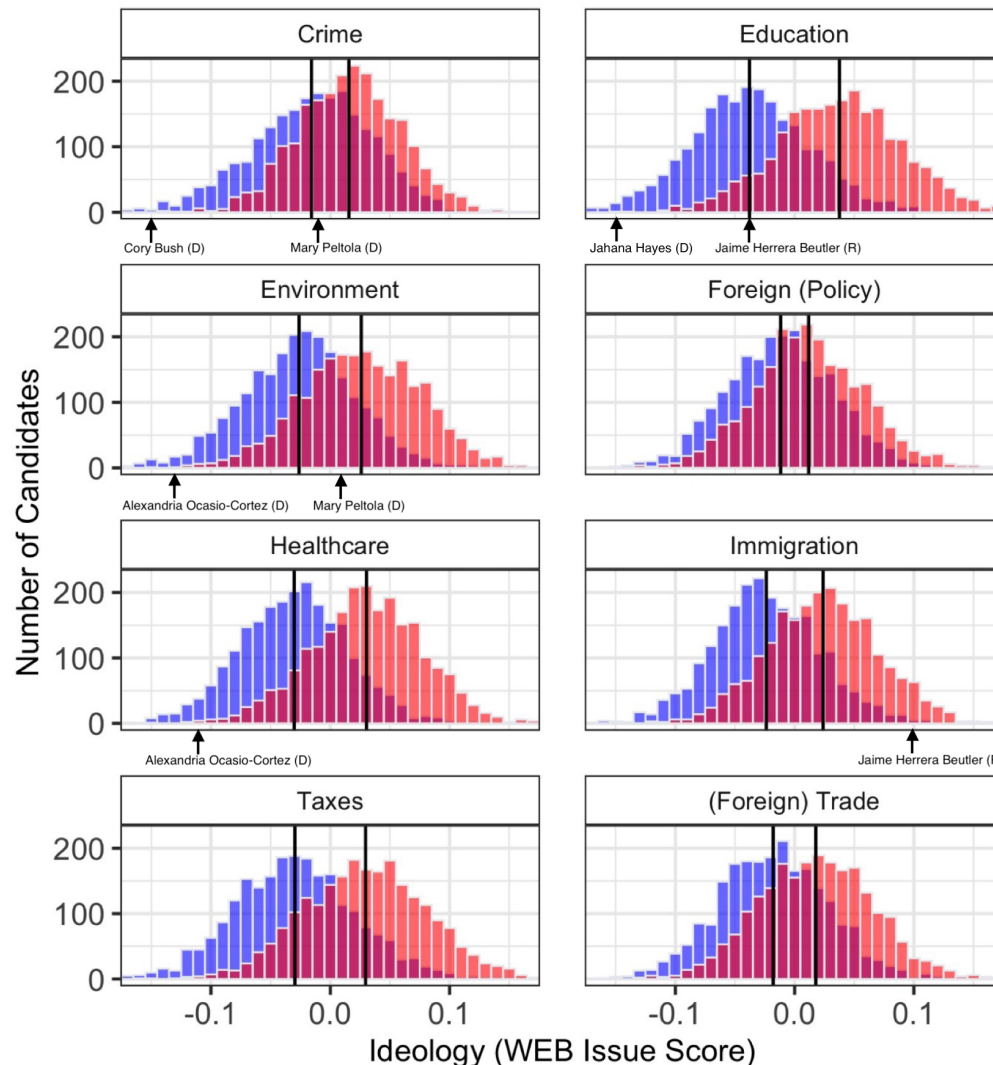
University of Notre Dame
rachel.porter@nd.edu

Framework for Word Embedding Linear Substructures

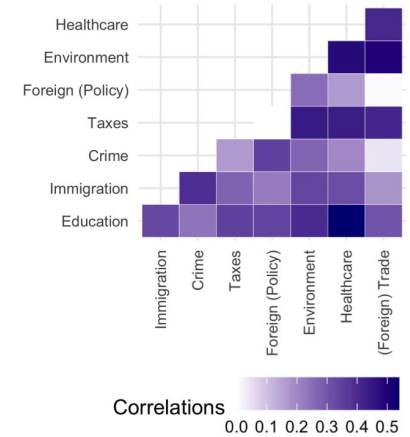
$$\text{Candidate} + \text{Policy} = \text{Conservative Word Embeddings} - \text{Liberal Word Embeddings}$$

(Alexandria Ocasio-Cortez) (healthcare) (universal, expand, singlepayer...) (free, market, choice...)

Distribution of Issue-Specific WEB Scores, By Party



WEB Issue Score Correlations



Example Issue Text

Jaime Herrera Beutler (R-Wash.)

On Education...

My priorities include alleviating the monetary burden that **student loan debt** has on graduates.

On Immigration...

I support enhanced border security measures such as a **wall**...I also favor making **English the national language** and a requirement for citizenship.

Mary Peltola (D-Alaska)

On Crime...

I will fight to ensure federal law enforcement focus on **public safety solutions** in all of Alaska.

On the Environment...

I support **responsible** resource development. Our abundant natural resources have provided **economic prosperity** for many in our state.

Next Steps

- Keyword & missingness sensitivity
- Measurement validation
- Applications
 - Electoral choice
 - Democratic accountability