# Political Marketing: Bipartisanship Signaling

Rosh Ho
Professor Mohamed Hussein

**SIGNIFICANCE**

# Campaign Spending

2000: $3.1B
2024: $15.9B
416% ⬆️
(OpenSecrets, 2024)

**PROJECTS**

**Elitism Signaling**

Elite status without coming from
as elitist

E.g. Self funded education in Columbia Law

**Bipartisanship Signaling**

📈 opposition voters + 👌 base
supporters & Super PAC

E.g. Democrat in Conservative district
supporting gun control

"I am Jacky Rosen and six years ago. I promised to do what's right for Nevada, not my party leaders. I won't walk the party line and I never have ... I stood up to my own party to support police officers and get more funding for border security"



COLIN ALLRED
FOR SENATE

"In congress, I have stood up to the president and my own party. I condemned our handling of the border, and I have worked hard to secure our border"



"Marie Perez is taking on the Biden administration and her party to secure the southern border and improve public safety ... I will do whatever it takes to secure the border and keep Washington safe"



"Jared isn't afraid to stand up to his own party to keep Mainers safe, voting for billions of dollars to support law enforcement and to secure our border"

# Campaign Spending

2000: $3.1B
2024: $15.9B
416% ⬆️
(OpenSecrets, 2024)

## (1) Bipartisanship Signaling
📈 opposition voters + 👌 base supporters & Super PAC

E.g. Democrat in Conservative district supporting gun control

## (2) Elitism Signaling
Elite status without coming from as elitist

E.g. Self funded education in Columbia Law



"I am Jacky Rosen and six years ago. I promised to do what's right for Nevada, not my party leaders. I won't walk the party line and I never have … I stood up to my own party to support police officers and get more funding for border security"



COLIN ALLRED
FOR SENATE

"In congress, I have stood up to the president and my own party. I condemned our handling of the border, and I have worked hard to secure our border"



"Marie Perez is taking on the Biden administration and her party to secure the southern border and improve public safety … I will do whatever it takes to secure the border and keep Washington safe"

# Discover whether bipartisanship <u>helps or hurts</u> candidates?
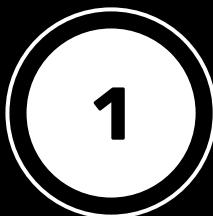
**1**

## PARTY ID

Democrat, Republican, or Independent

**2**

## VALUES

Via tweets

**3**
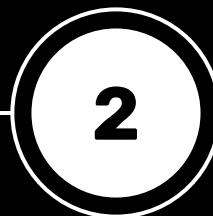
## PARTY ALIGNMENT
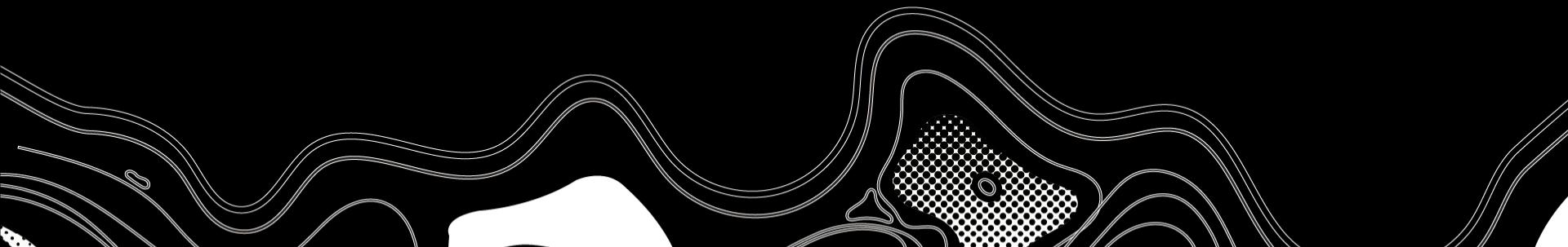
Align with party?

# Does bipartisanship <u>help or hurt</u> candidates?

**METHOD**

**1**

**PARTY ID**
Democrat, Republican, or Independent

**2**

**VALUES**
Via tweets

**3**

**PARTY ALIGNMENT**
Align with party?

**Whether bipartisanship helps or hurts candidates?**

**How to "do" bipartisanship effectively?**

**METHOD**

**1**

**Bipartisanship
shows potential**

**2**

<u>Bipartisanship</u>
**performance
in-the-wild**

**3**

<u>Help or hurt</u> **based
on stats**
Via twitter stats and poling
outcome

# Identify more bipartisanship

**1**

**PARTY ID**

Democrat,
Republican, or
Independent

**2**

**VALUES**

Via tweets

**3**

**PARTY ALIGNMENT**

Align with party?

**TWEET LABELING**

**01**

**MANUAL LABEL**

Label ~2200 out of
1M tweets

**02**

**LLM SENTIMENT**

Sentiment:
🙂😭😠😨

**03**
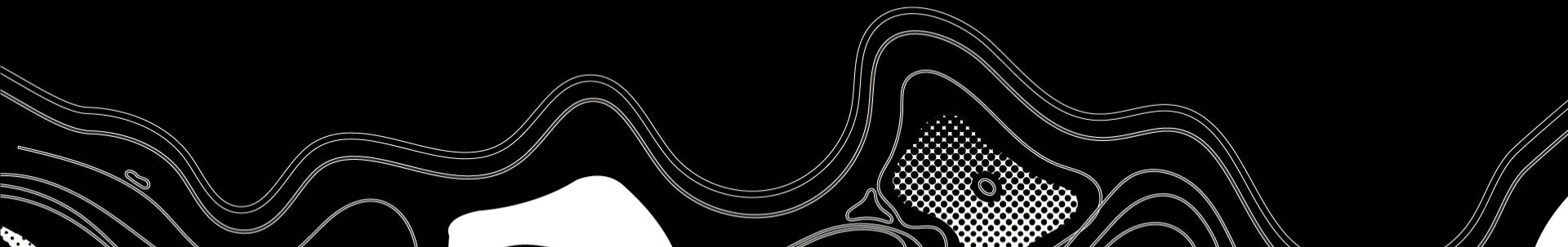
**IMPLEMENTATION**

Try GPT 3.5, GPT 4o,
Claude 3 Opus,
Claude 3.5 Sonnet

| Metric | Macro Precision | Macro Recall | Macro F1 | Accuracy |
|---|---|---|---|---|
| Claude 3 Opus | 0.515 | 0.494 | 0.445 | 0.614 |
| Claude 3.5 Sonnet | 0.593 | 0.622 | 0.581 | 0.729 |
| ChatGPT 3.5 Turbo | 0.490 | 0.378 | 0.089 | 0.083 |
| ChatGPT 4o | 0.518 | 0.606 | 0.460 | 0.573 |

**Claude 3 Opus**

Ground Truth

| Model Prediction | | | |
|---|---|---|---|
| congruent | 0.87 | 0.67 | 0.50 |
| bipartisan | 0.06 | 0.22 | 0.05 |
| irrelevant | 0.07 | 0.11 | 0.45 |

**Claude 3.5 Sonnet**

| Model Prediction | | | |
|---|---|---|---|
| congruent | 0.93 | 0.56 | 0.38 |
| bipartisan | 0.01 | 0.33 | 0.02 |
| irrelevant | 0.06 | 0.11 | 0.60 |

**ChatGPT 3.5 Turbo**

| Model Prediction | | | |
|---|---|---|---|
| congruent | 0.04 | 0.00 | 0.03 |
| bipartisan | 0.96 | 1.00 | 0.88 |
| irrelevant | 0.00 | 0.00 | 0.10 |

**ChatGPT 4o**

| Model Prediction | | | |
|---|---|---|---|
| congruent | 0.92 | 0.33 | 0.62 |
| bipartisan | 0.03 | 0.56 | 0.04 |
| irrelevant | 0.05 | 0.11 | 0.34 |

| Metric | Macro Precision | Macro Recall | Macro F1 | Accuracy |
|---|---|---|---|---|
| Claude 3 Opus | 0.515 | 0.494 | 0.445 | 0.614 |
| Claude 3.5 Sonnet | 0.593 | 0.622 | 0.581 | 0.729 |
| ChatGPT 3.5 Turbo | 0.490 | 0.378 | 0.089 | 0.083 |
| ChatGPT 4o | 0.518 | 0.606 | 0.460 | 0.573 |

## Claude 3 Opus

**Ground Truth**

Model Prediction

| | | | |
|---|---|---|---|
| congruent | 0.87 | 0.67 | 0.50 |
| bipartisan | 0.06 | 0.22 | 0.05 |
| irrelevant | 0.07 | 0.11 | 0.45 |

## Claude 3.5 Sonnet

Model Prediction

| | | | |
|---|---|---|---|
| congruent | 0.93 | 0.56 | 0.38 |
| bipartisan | 0.01 | 0.33 | 0.02 |
| irrelevant | 0.06 | 0.11 | 0.60 |

## ChatGPT 3.5 Turbo

Model Prediction

| | | | |
|---|---|---|---|
| congruent | 0.04 | 0.00 | 0.03 |
| bipartisan | 0.96 | 1.00 | 0.88 |
| irrelevant | 0.00 | 0.00 | 0.10 |

## ChatGPT 4o

Model Prediction

| | | | |
|---|---|---|---|
| congruent | 0.92 | 0.33 | 0.62 |
| bipartisan | 0.03 | 0.56 | 0.04 |
| irrelevant | 0.05 | 0.11 | 0.34 |

# Hallucination Rates for Top 25 LLMs

| Model | Rate |
|---|---|
| Google Gemini-2.0-Flash-001 | 0.7% |
| Google Gemini-2.0-Pro-Exp | 0.8% |
| OpenAI o3-mini-high | 0.8% |
| Vectara Mockingbird-2-Echo | 0.9% |
| Google Gemini-2.5-Pro-Exp-0325 | 1.1% |
| Google Gemini-2.0-Flash-Lite-Preview | 1.2% |
| OpenAI GPT-4.5-Preview | 1.2% |
| Zhipu AI GLM-4-9B-Chat | 1.3% |
| Google Gemini-2.0-Flash-Exp | 1.3% |
| OpenAI-o1-mini | 1.4% |
| OpenAI GPT-4o | 1.5% |
| Amazon Nova-Micro-V1 | 1.6% |
| OpenAI GPT-4o-mini | 1.7% |
| OpenAI GPT-4-Turbo | 1.7% |
| Amazon Nova-Pro-V1 | 1.8% |
| OpenAI GPT-4 | 1.8% |
| Amazon Nova-Lite-V1 | 1.8% |
| Google Gemini-2.0-Flash-Thinking-Exp | 1.8% |
| OpenAI GPT-3.5-Turbo | 1.9% |
| XAI Grok-2 | 1.9% |
| OpenAI GPT-4.1-nano | 2.0% |
| OpenAI GPT-4.1 | 2.0% |
| XAI Grok-3-Beta | 2.1% |
| OpenAI GPT-4.1-mini | 2.2% |
| AI21 Jamba-1.6-Large | 2.3% |
| OpenAI o1-Pro | 2.4% |
| OpenAI o1 | 2.4% |
| DeepSeek-V2.5 | 2.4% |

vectara

Last updated on April 17th, 2025

**X**

## EASIER EXAMPLE

"passed a <u>bipartisan us house bill</u> - the most ambitious legislation targeting military toxic exposure ..."
- @LizMathis (D)

**X**

## HARDER EXAMPLE

" ... eagle act will <u>fund local police</u> departments... high standards ..."-
@ChrisPappasNH (D)

**TWEET LABELING**

**01**

**MANUAL LABEL**

Label ~2200 out of 1M tweets

**02**

**LLM SENTIMENT**

Sentiment:
🙂😭😡😨

**03**

**IMPLEMENTATION**

Tried GPT 3.5, GPT 4o, Claude 3 Opus, Claude 3.5 Sonnet

**04**

**SHIFTED TO VIDEO ADS**

Smaller dataset, clearer message, greater viewership

**LLM...**
**not great for everything**

# Q&A

rh3210@columbia.edu

linkedin

Given a tweet and the author's party affiliation (Democrat or Republican), assign one of these labels:
0: The message reflects typical positions or rhetoric associated with the author's party affiliation 1: The message contradicts or challenges typical positions associated with the author's party affiliation 2: The message is politically neutral or focused on general updates, celebrations, or acknowledgments
Consider both the explicit content and underlying tone/implications when assessing party alignment. Focus on whether the message would be generally expected from someone of that party affiliation in contemporary American politics.

please return in the form of a csv without altering the tweets itself. please label all the tweets
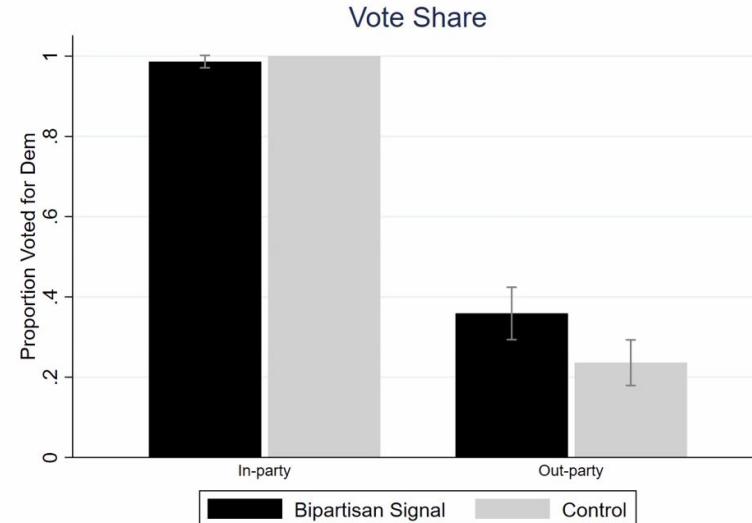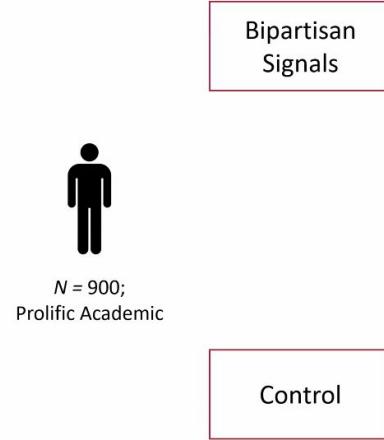
**METHOD**

**1** Partisan Identity Centrality Skew (PICS)
Metric value alignment to topic

**2** Identify more bipartisanship

**3** Help or hurt based on stats

PICS based Topics

Hussein, 2022
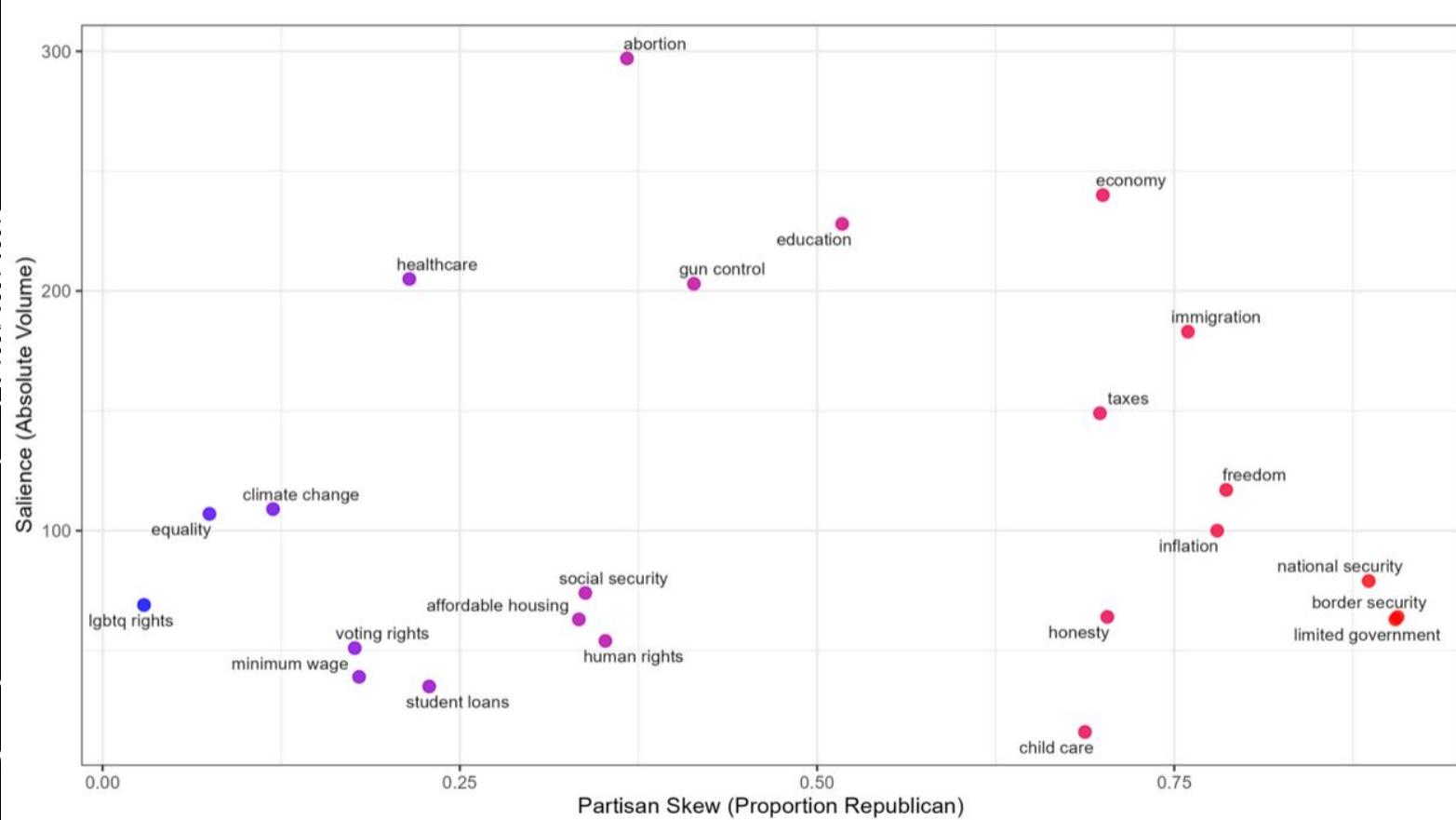
# SIGNIFICANCE

**Campaign Spending**

2000: $3.1B
2024: $15.9B
416% ⬆️
(OpenSecrets, 2024)

**Divisive** ⬆️
(candidates)

Negative, "gotcha" tweets = 📈
(Jiménez-Zafra, 2021)

**Tactic of Disagreement** ⬆️

"I won't walk the party line … I stood up to my own party to support police officers and get more funding for border security."
- Senator Jacky Rosen (D-NV)

**PELTOLA**

<u>Mary Sattler Peltola</u>

US House Representative of Alaska

Alaska: Voted republican since 1968

Peltola: 1999 - 2009, 2022 - 2025

*Fish, family, & freedom*
- Fish: Wildlife conservation
- Family: Supports abortion
- Freedom: 2nd amendment