

# Revealing Political Donors' Motivations: The Connection Between Donations and Social Media

Ross Dahlke

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 Stanford University

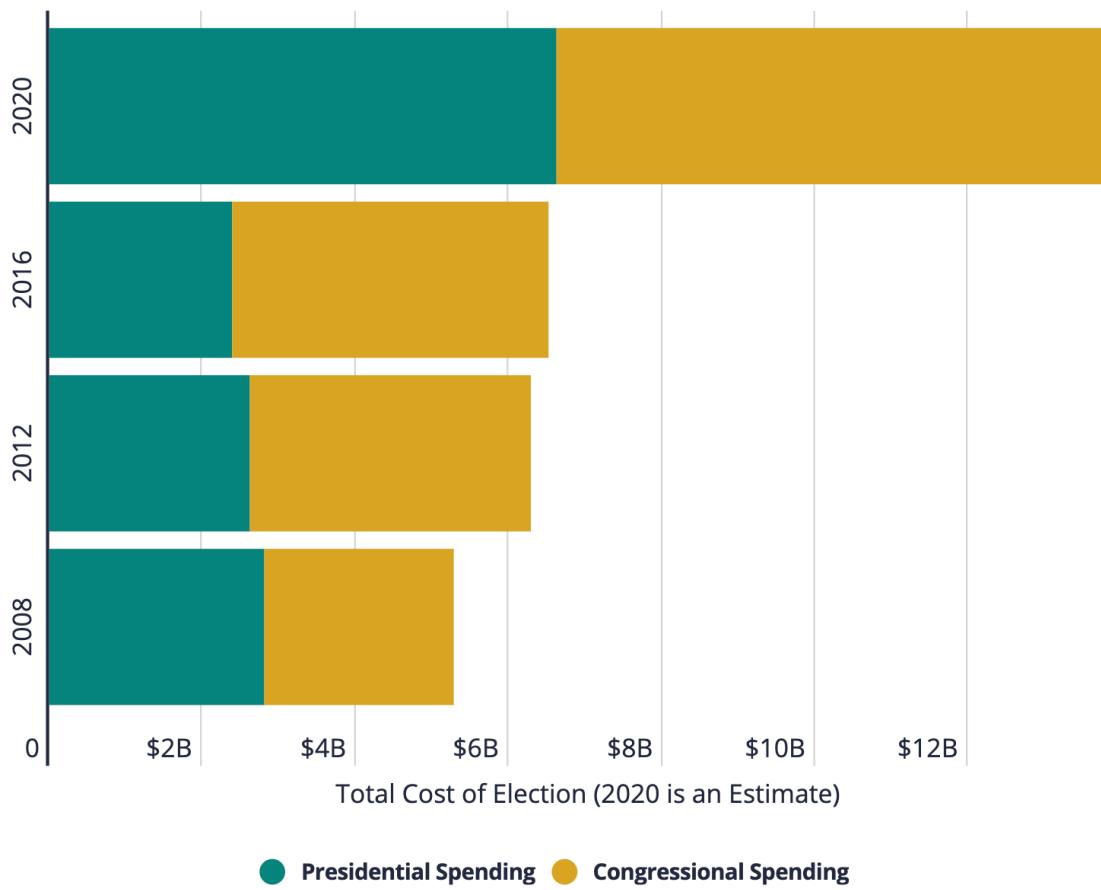
 [rdahlke@stanford.edu](mailto:rdahlke@stanford.edu)



# Money in politics continues to surge

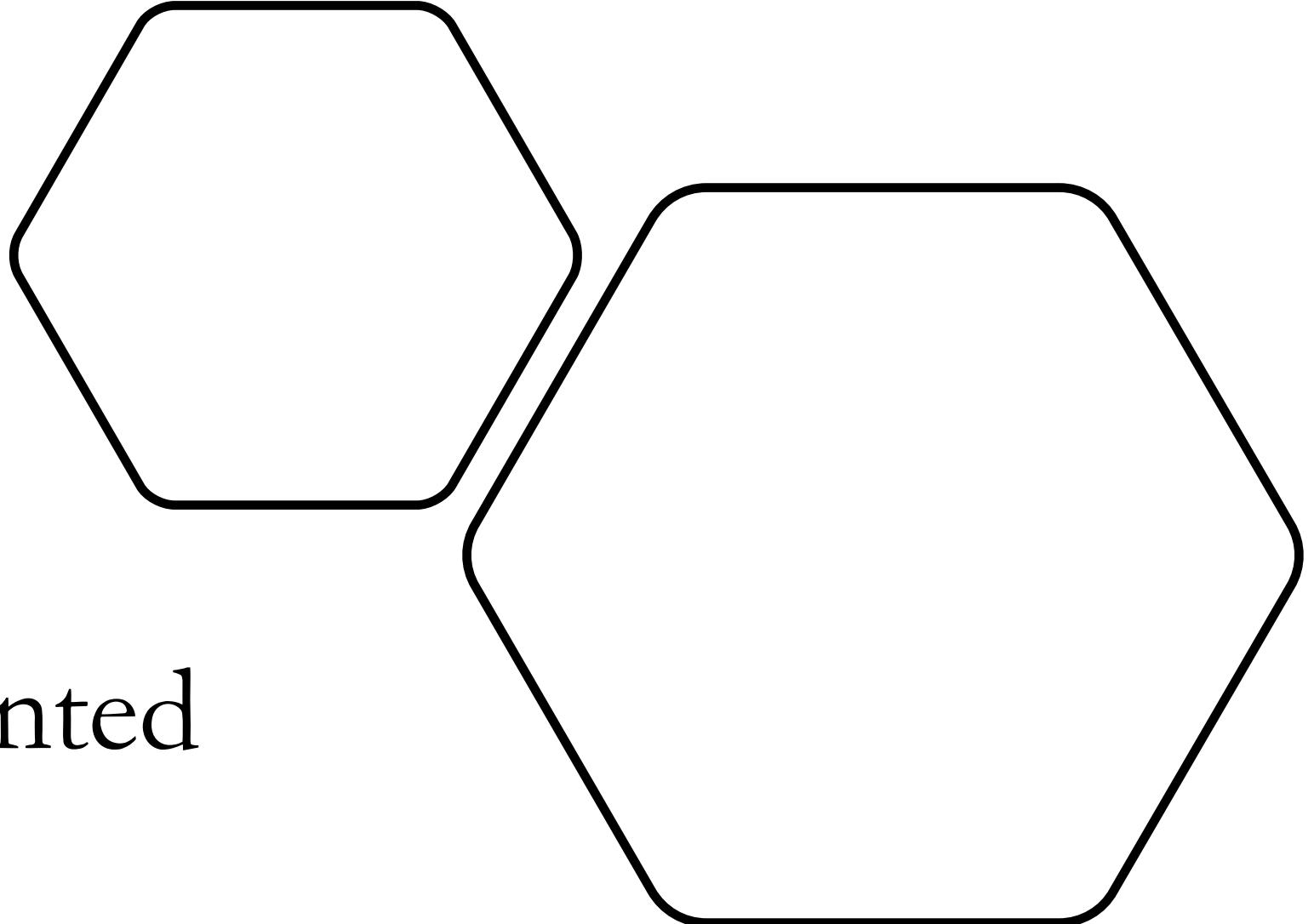
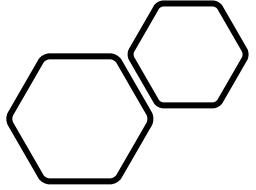
## 2020 Election to Crush Spending Records

OpenSecrets projects total federal spending in the 2020 election will near \$14 billion, establishing itself as the most expensive election in U.S. history by a large margin.

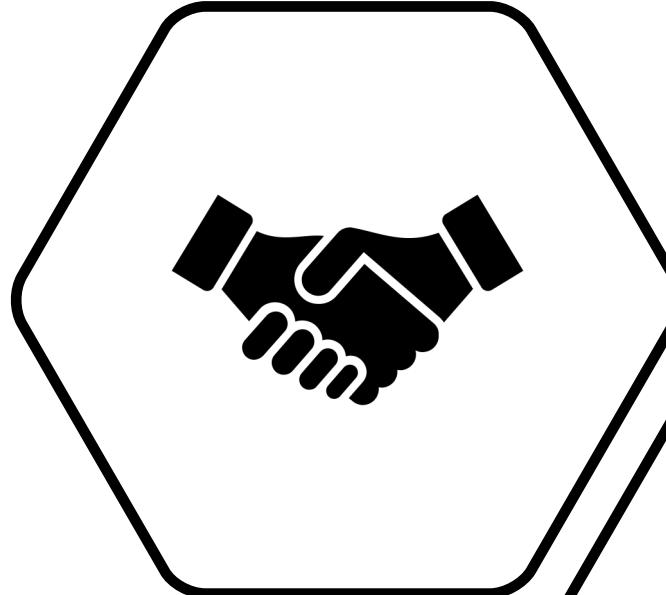
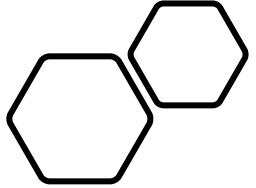


# What motivates political donors?

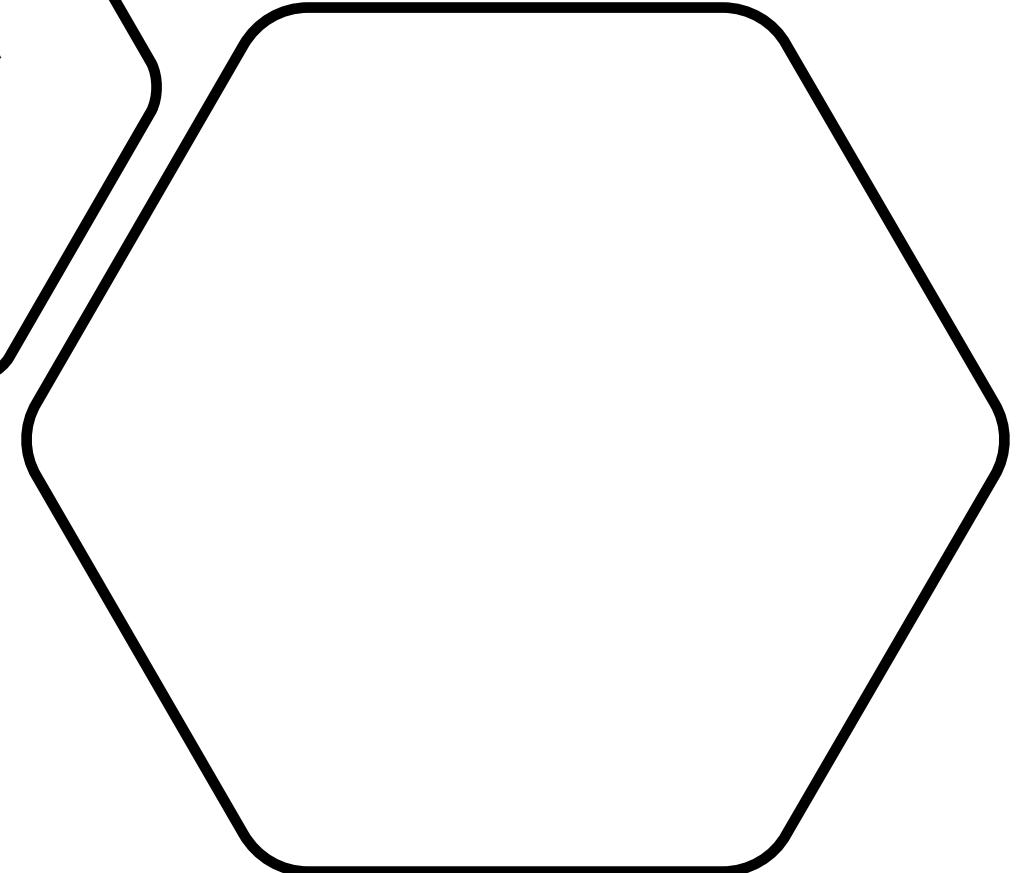


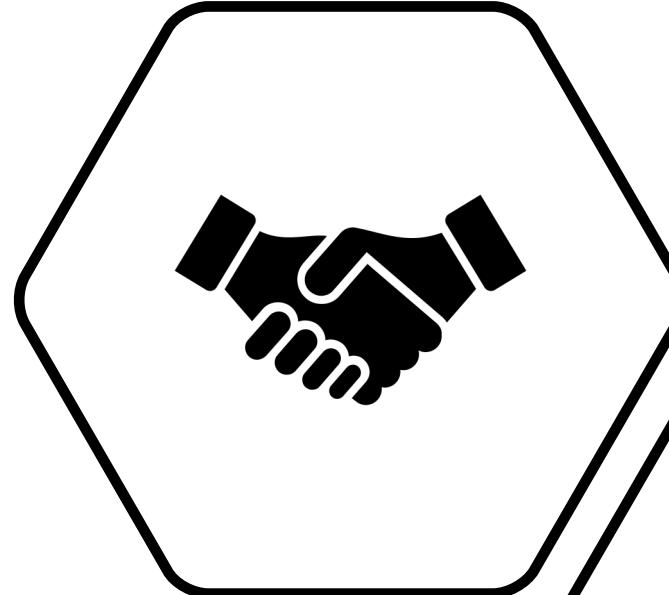
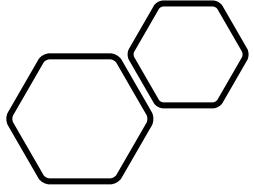


Access-Oriented



Access-Oriented



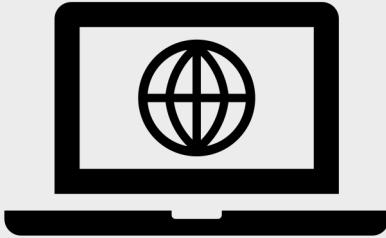


# Access-Oriented

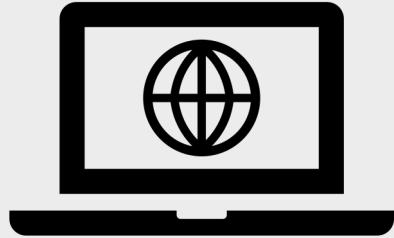
Andrew the Access-Oriented Donor



# Consumption-Oriented



# Consumption-Oriented



Connie the Consumption-Oriented Donor

# Consumption-Oriented

# Political Donor Motivation Models



Access-Oriented



Consumption-Oriented



# Political Donor Motivation Models



Access-Oriented



Consumption-Oriented



# Political Donor Motivation Models



Access-Oriented



Consumption-Oriented



# Political Donor Motivation Models



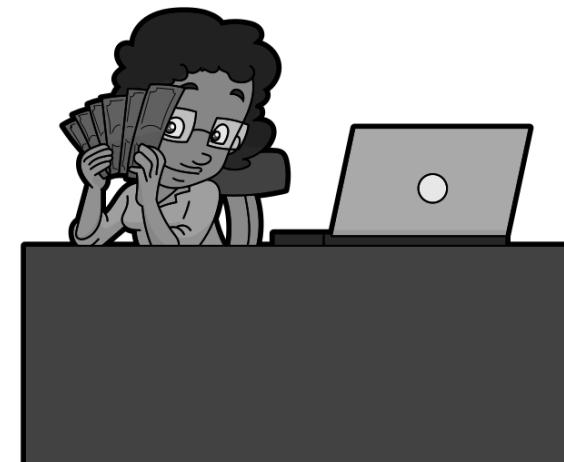
Access-Oriented



Consumption-Oriented



Or



# Political Donor Motivation Models

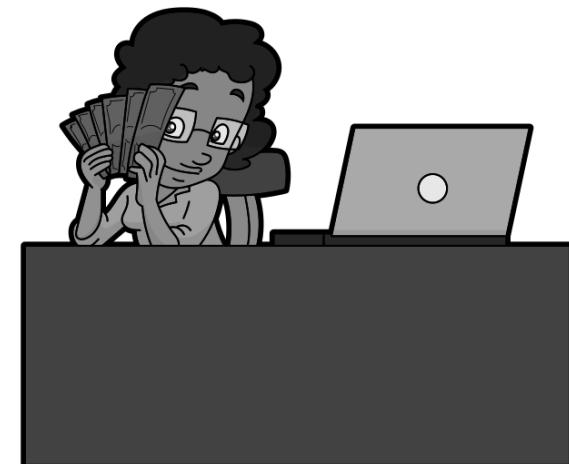


Access-Oriented



Consumption-Oriented

Or And



# Roadmap

- Political Donations as Network
- Unique Dataset: Social Media
- Combining Donations + Social Media



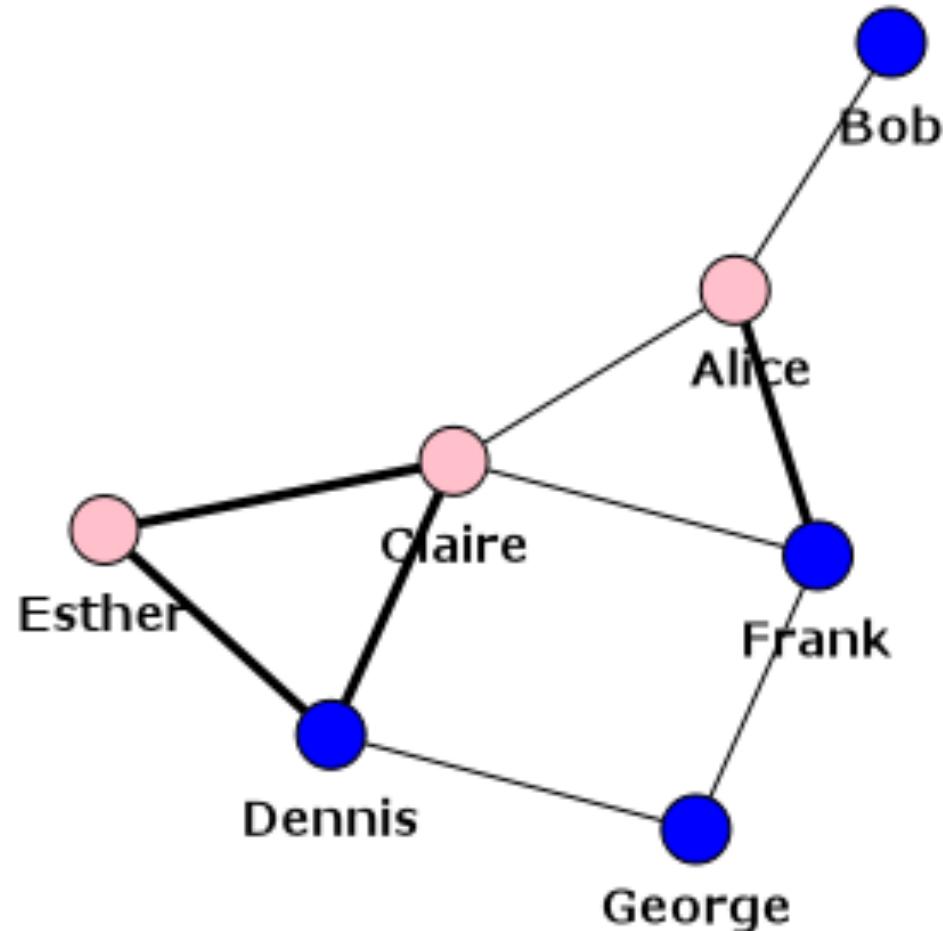
# Roadmap

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# Political Donations as Network

- Network terms:
  - Nodes
  - Edges



Source: igraph.org



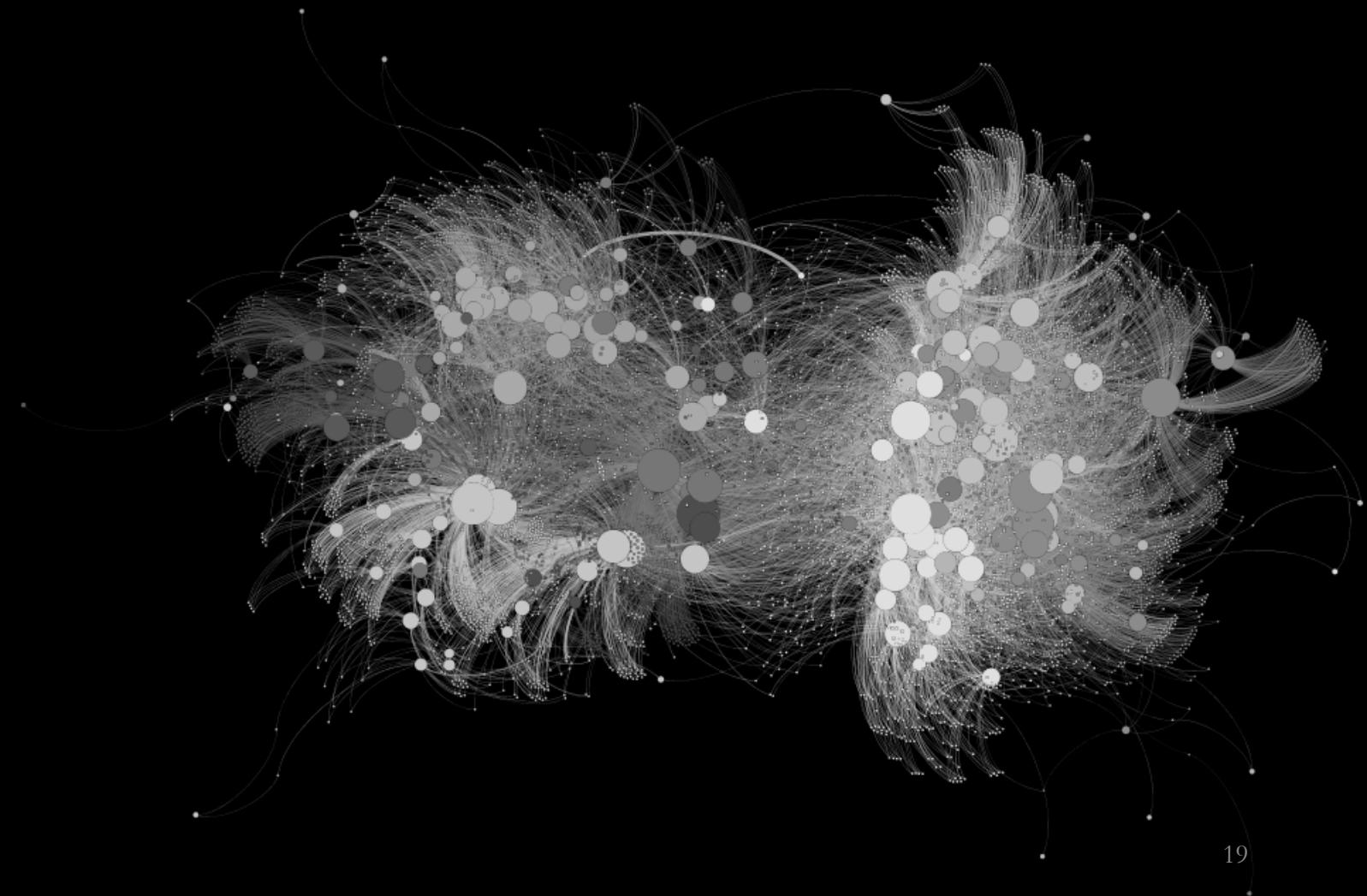
# Political Donations as Network

- Nodes
  - Donors and Candidates
- Edges
  - Donations between Donors and Candidates



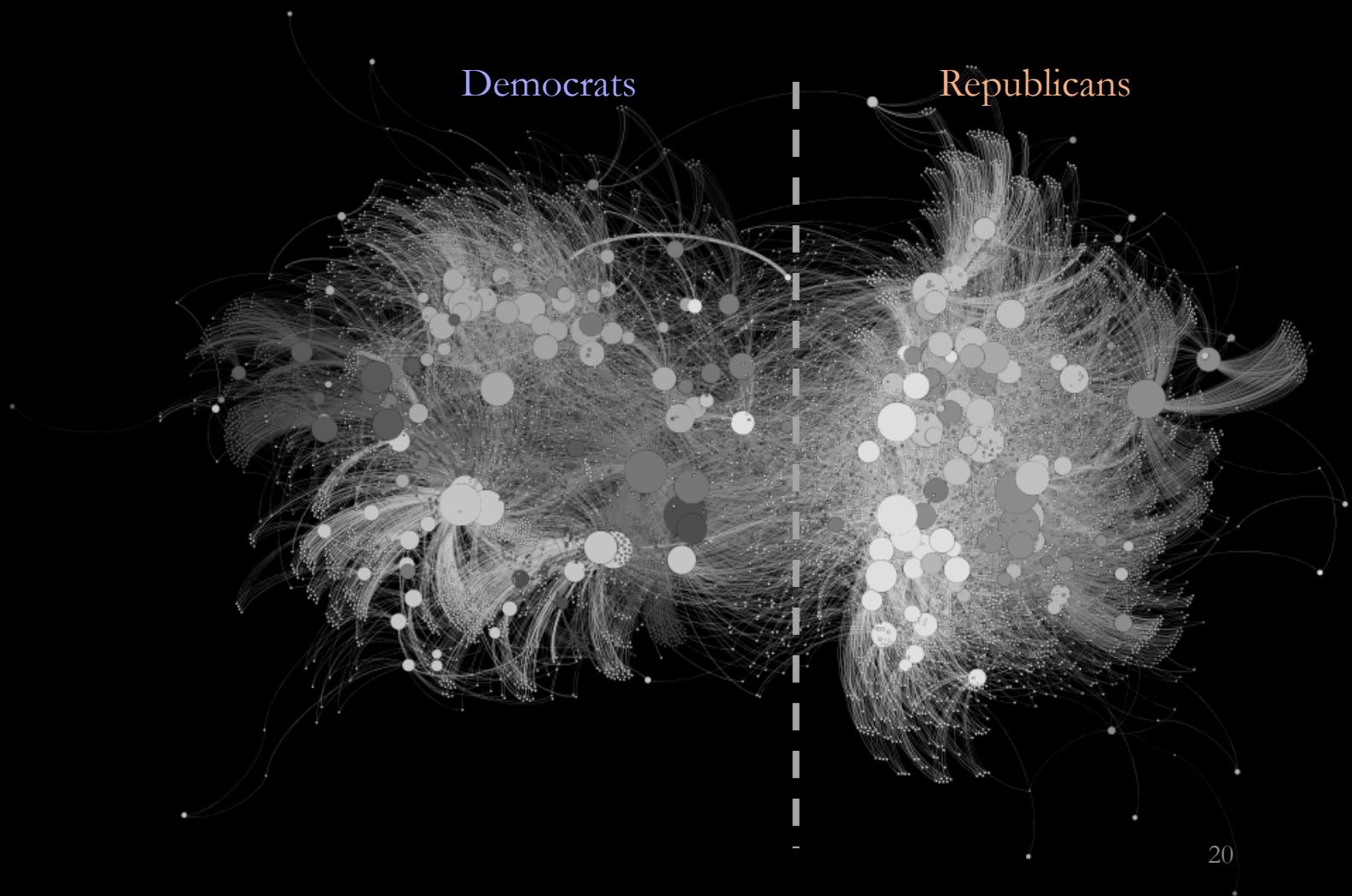
# Political Donations as Network

- Nodes
  - Donors ( $n = 7,567$ )
  - and Candidates
- Edges
  - Donations ( $n = 28,858$ ) between Donors and Candidates



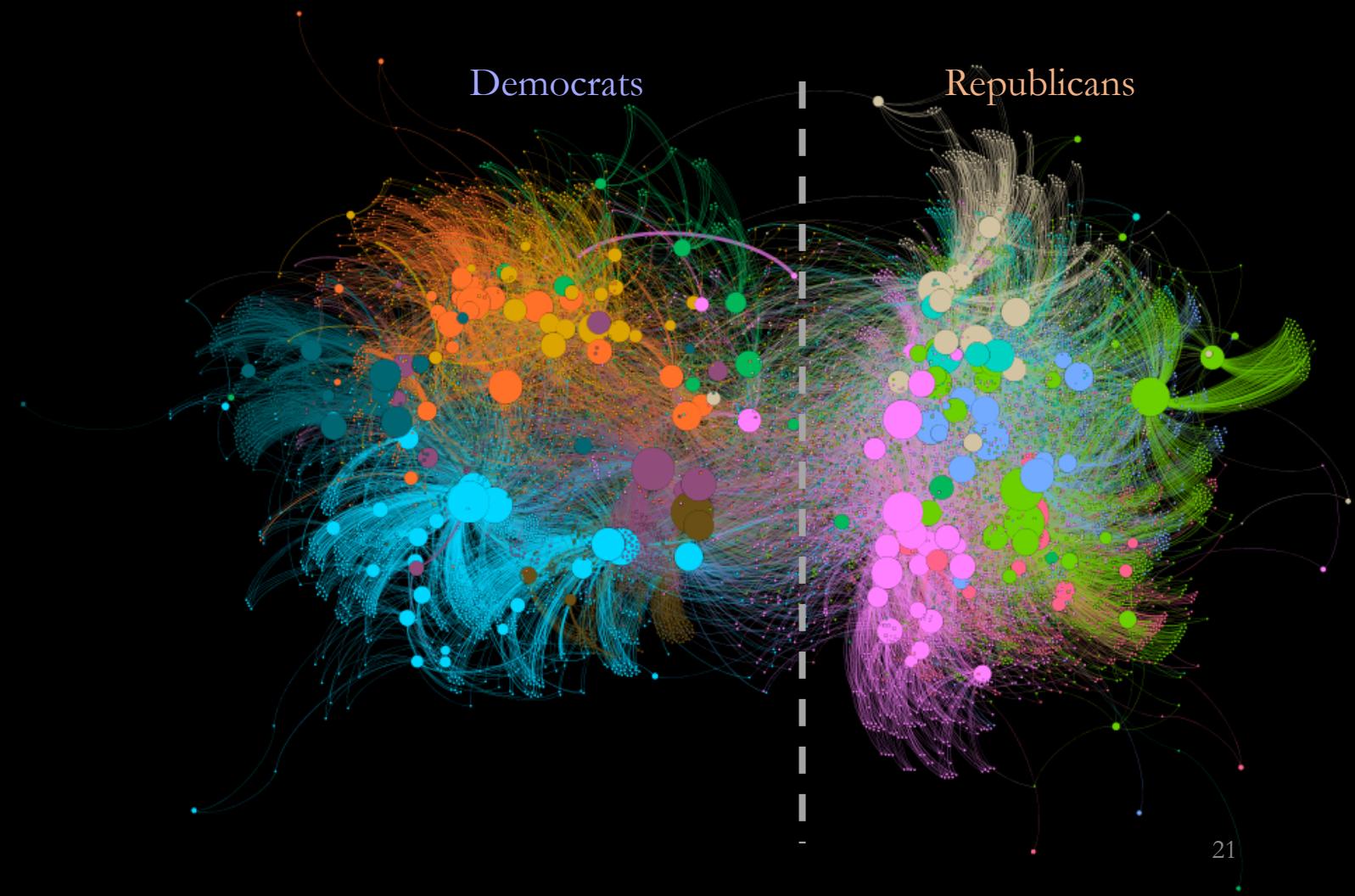
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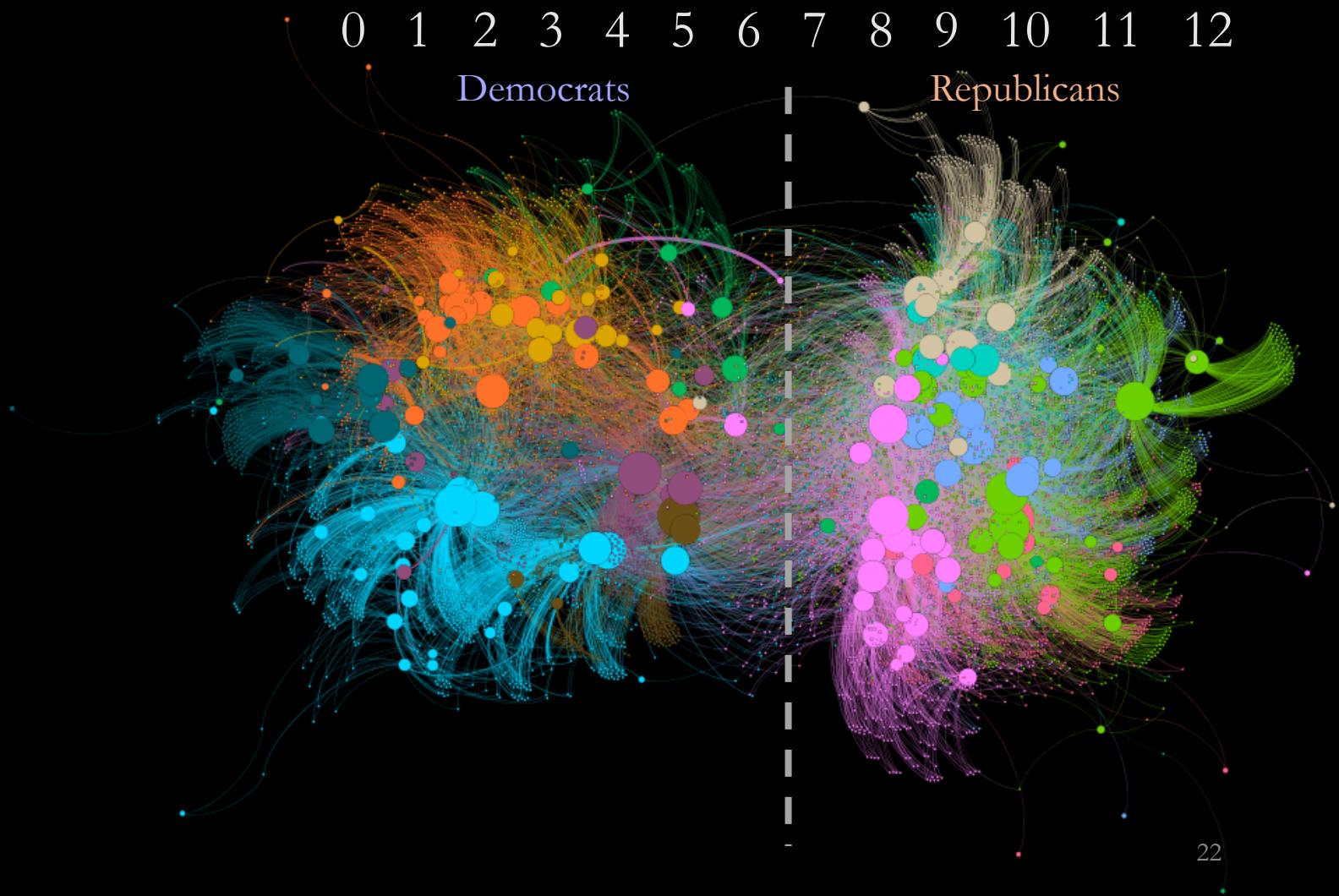
# Political Donations as Network

- Cluster  
Donors



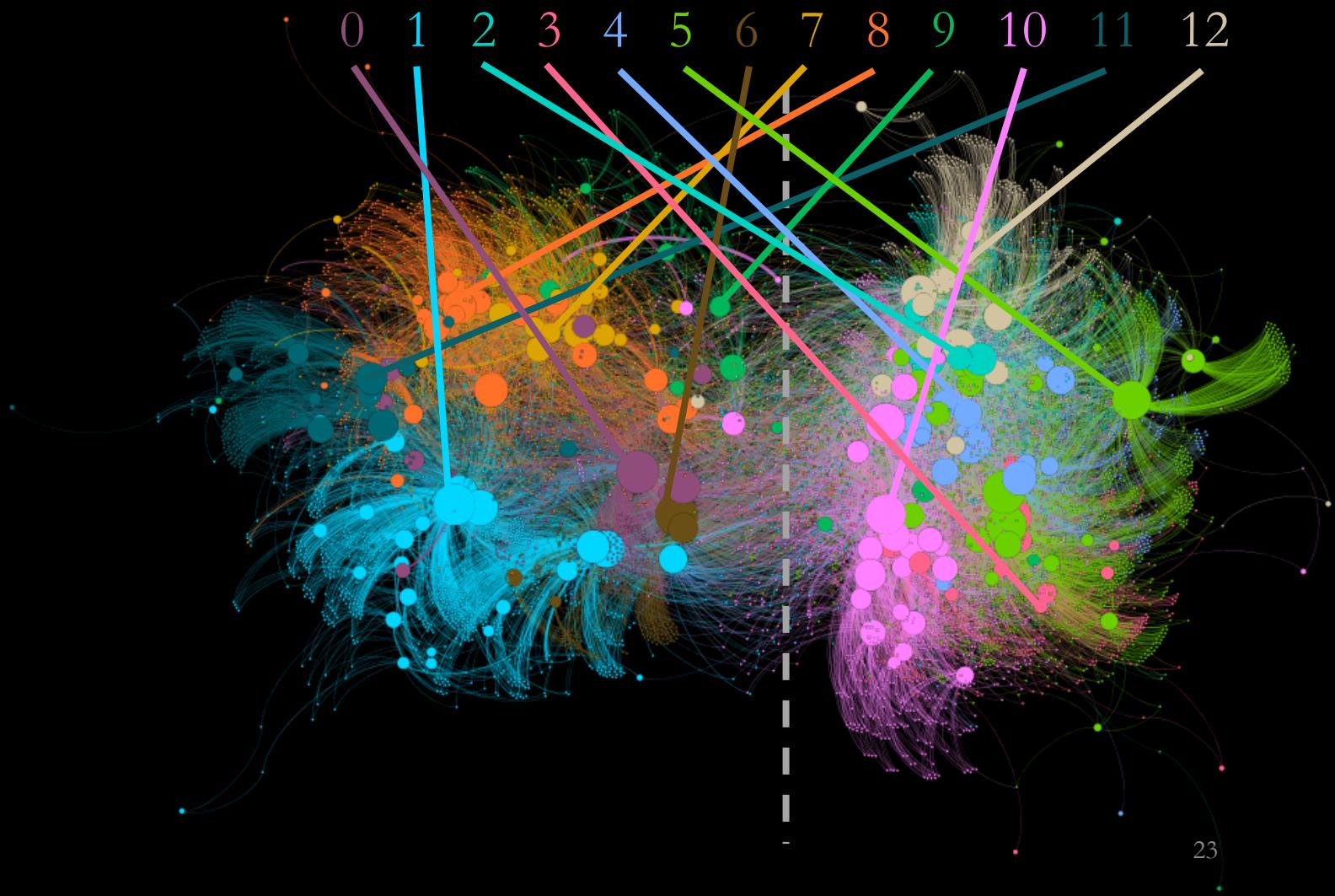
# Political Donations as Network

- Complex system
- To 2-D
- To 1-D



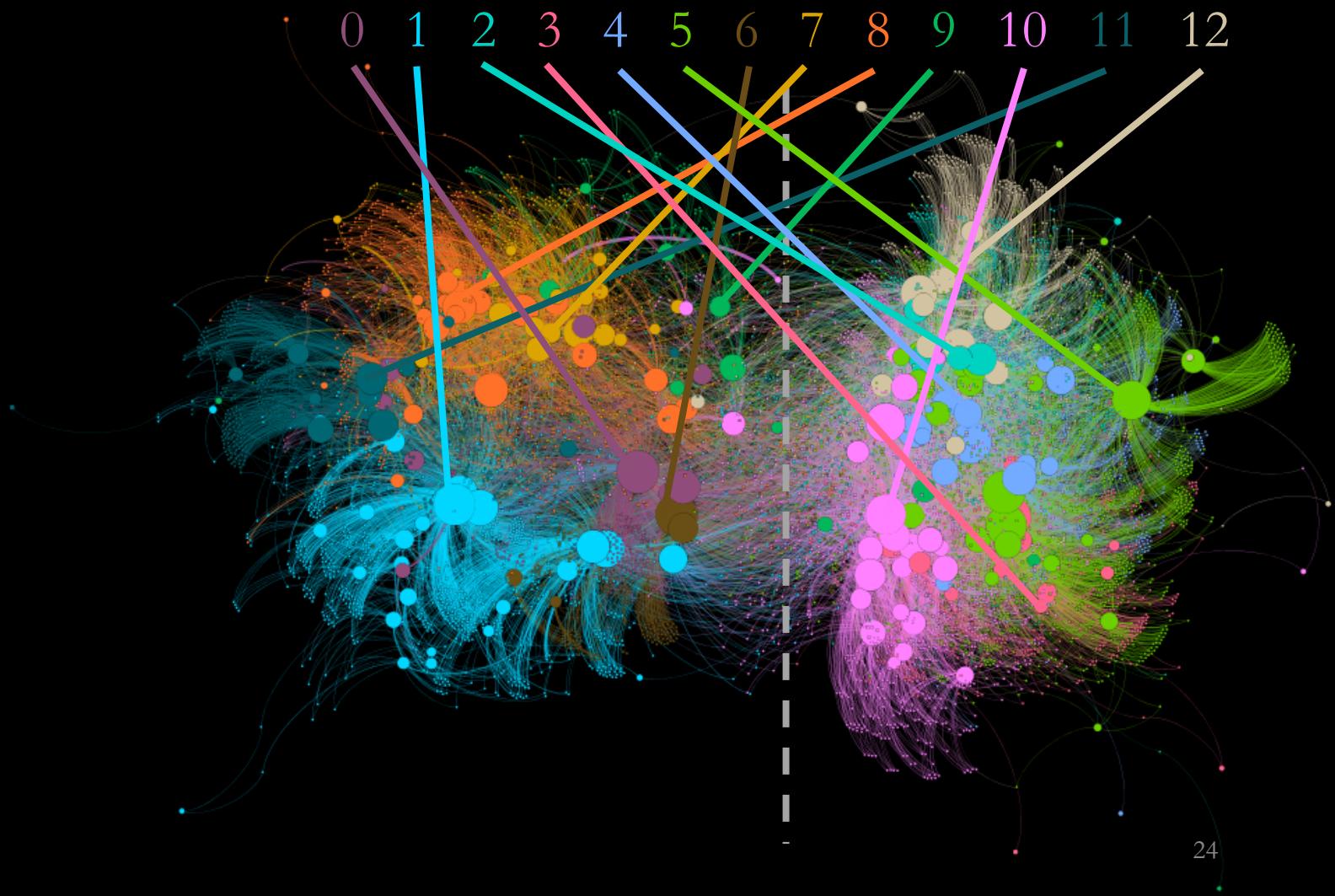
# Political Donations as Network

- Complex system
- To 2-D
- To 1-D



# Political Donations as Network

- Which groups are Andrews?
- Which groups are Connies?



# Roadmap

- Political Donations as Network
- Unique Dataset: Social Media
- Combining Donations + Social Media



# Social Media

- Facebook and Twitter posts



# Social Media

- Facebook and Twitter posts
- All posts by 149 candidates for Wisconsin state legislature in the 2016 election cycle



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- 1/1/2015-11/8/2016



# Social Media

- Facebook and Twitter posts
- All posts by 149 candidates for Wisconsin state legislature in the 2016 election cycle
- 1/1/2015-11/8/2016
- n = 82,851



# Social Media

- Hand-coded  
~12,000



# Social Media

- Hand-coded  
~12,000
- Into 27 categories

abortion and women's issues: conservative  
abortion and women's issues: liberal  
cannabis: liberal  
crime and police: conservative  
criminal justice reform: liberal  
domestic violence: bipartisan  
drug abuse: bipartisan  
economy: conservative  
economy: liberal  
education: conservative  
education: liberal  
environment: liberal  
gerrymandering: liberal  
governance: liberal  
guns: conservative  
guns: liberal  
healthcare: bipartisan  
healthcare: conservative  
healthcare: liberal  
infrastructure: liberal  
lgbtq+ issues: conservative  
lgbtq+ issues: liberal  
other  
race issues: liberal  
veterans issues: bipartisan  
voting: conservative  
voting: liberal

# Social Media

- Hand-coded  
~12,000
- Into 27 categories
- Trained Deep Learning Model to classify the rest of the posts
- 82.9% accuracy

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Julie Lassa  
September 15, 2016 ·

Insights into how the GOP political machine works against WI voters. From the State Journal: Hours after polls closed in the closely contested 2011 state Supreme Court election, Republican consultants and lobbyists traded emails about launching a potential public campaign to allege "widespread" voter fraud, newly released emails show.

Steve Baas, a lobbyist for the Metropolitan Milwaukee Association of Commerce and former Republican legislative staffer, floated an idea on th... [See More](#)

HOST.MADISON.COM  
In newly released emails, critics see proof of political motive for GOP voter fraud claims

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Patrick Testin @patricktestin · Jul 1, 2016  
The unborn deserve the same right to life as anyone else:  
[patricktestin.com/prolife/](http://patricktestin.com/prolife/)

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# Time-Series Model

- Granger Causality
- Does one time-series helpfully predict another?
- What would we expect to see?



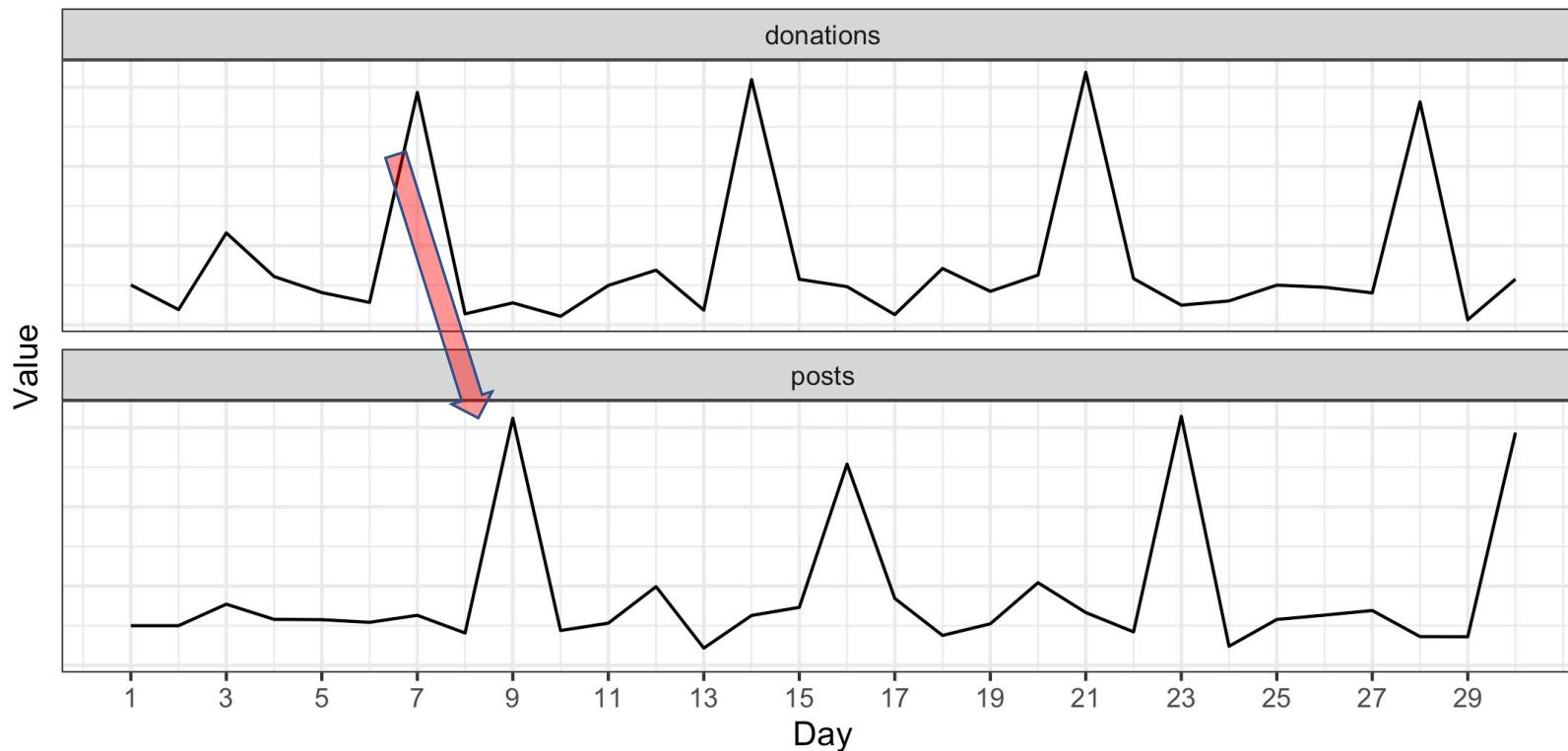
# Simulated Model



## Access-Oriented

Simulated Access-Oriented Model

A spike in donations predicts a spike in posts 2 days later



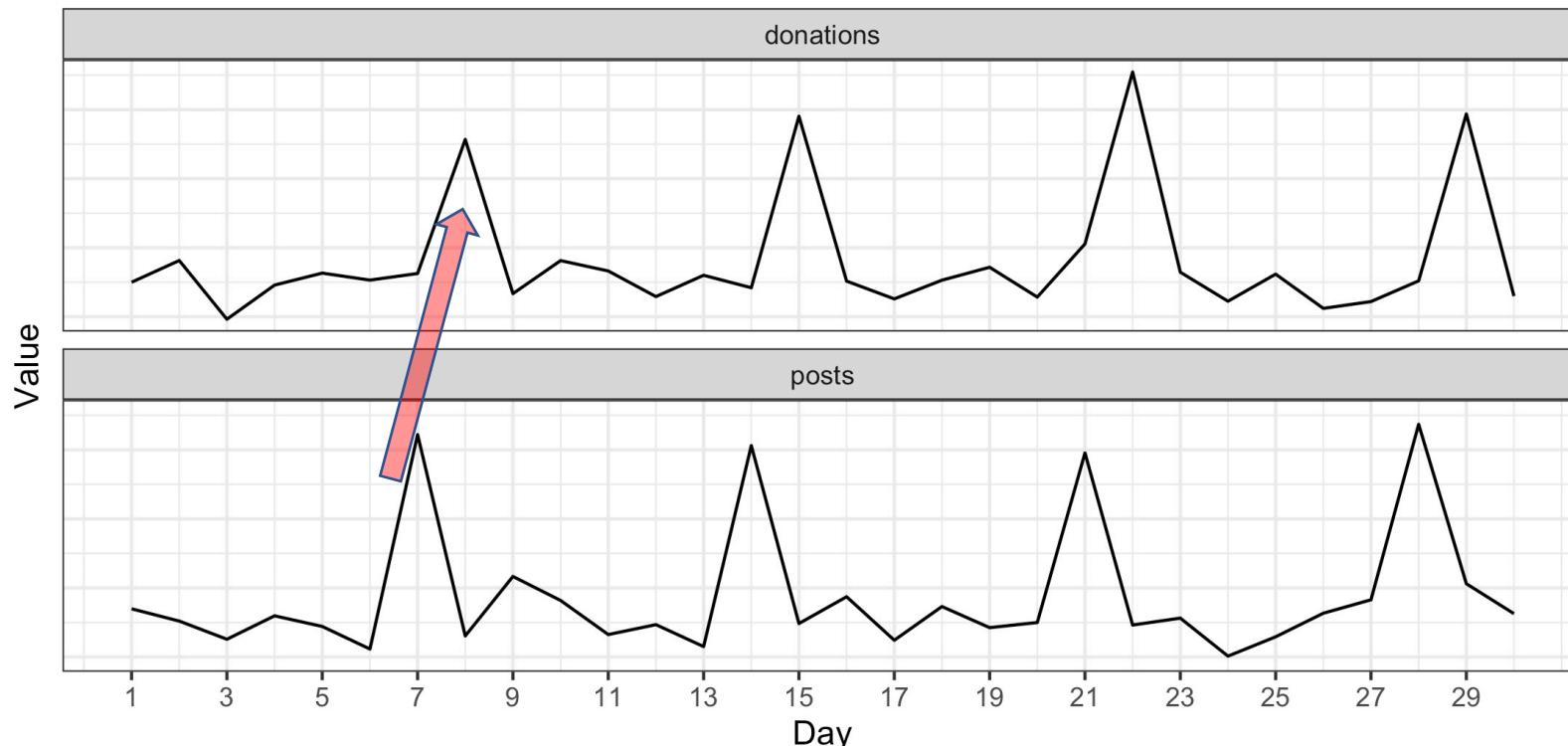
# Simulated Model



## Consumption-Oriented

Simulated Consumption-Oriented Model

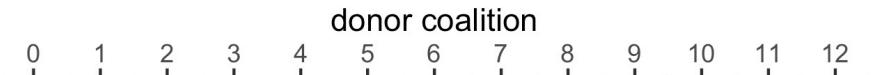
A spike in posts predicts a spike in donations 1 day later



# Results

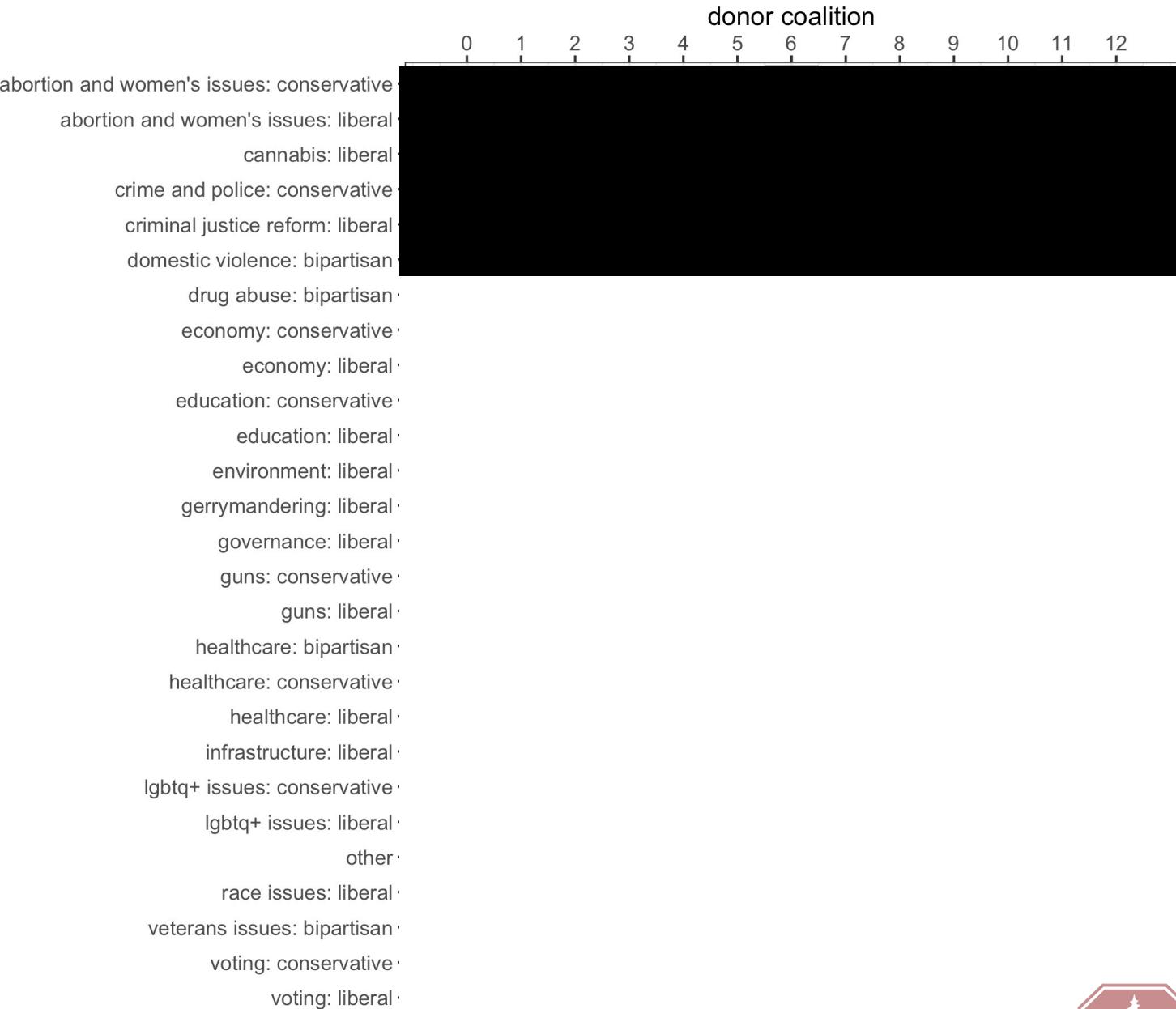


# Results



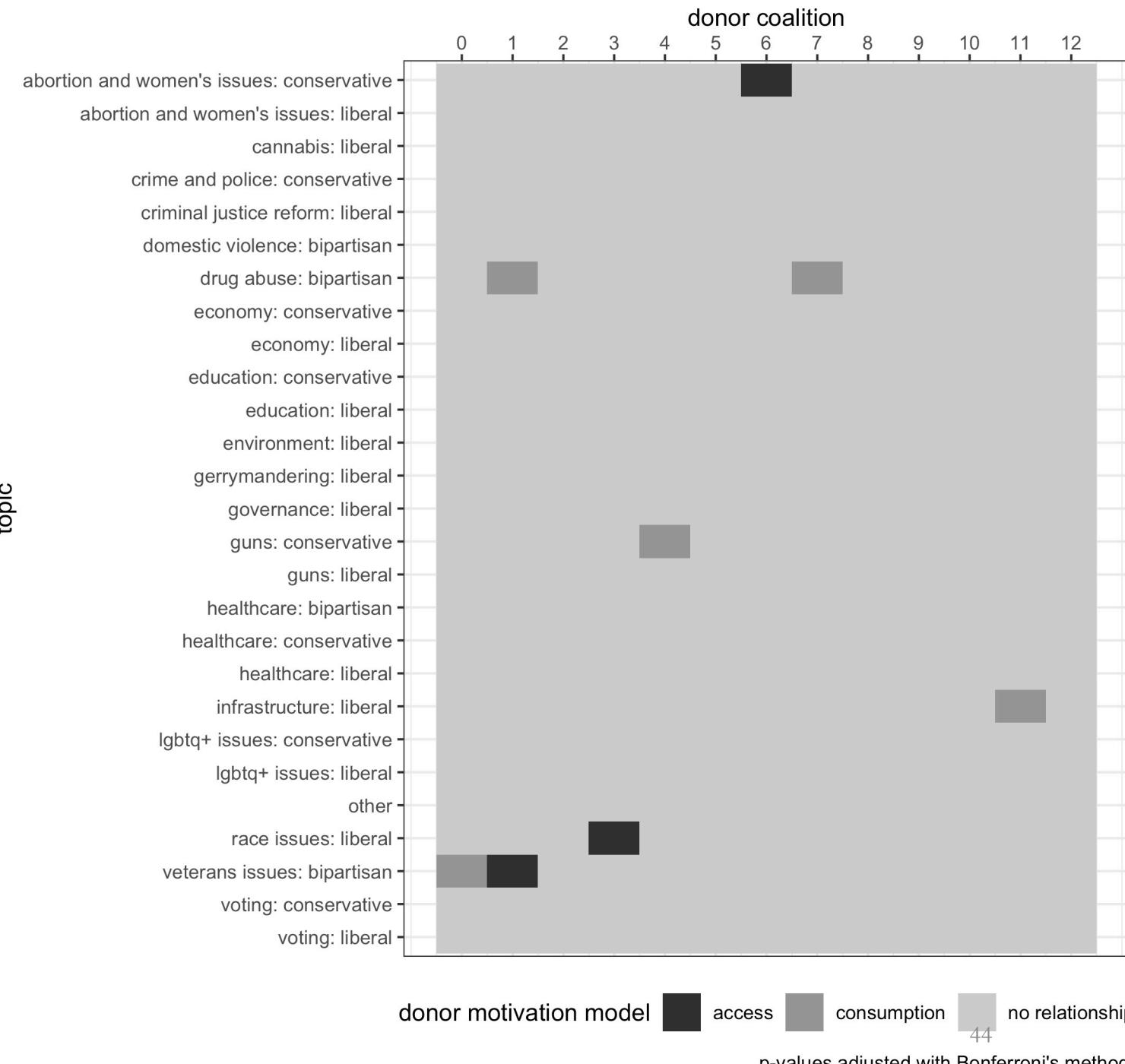
# Results

topic



# Results

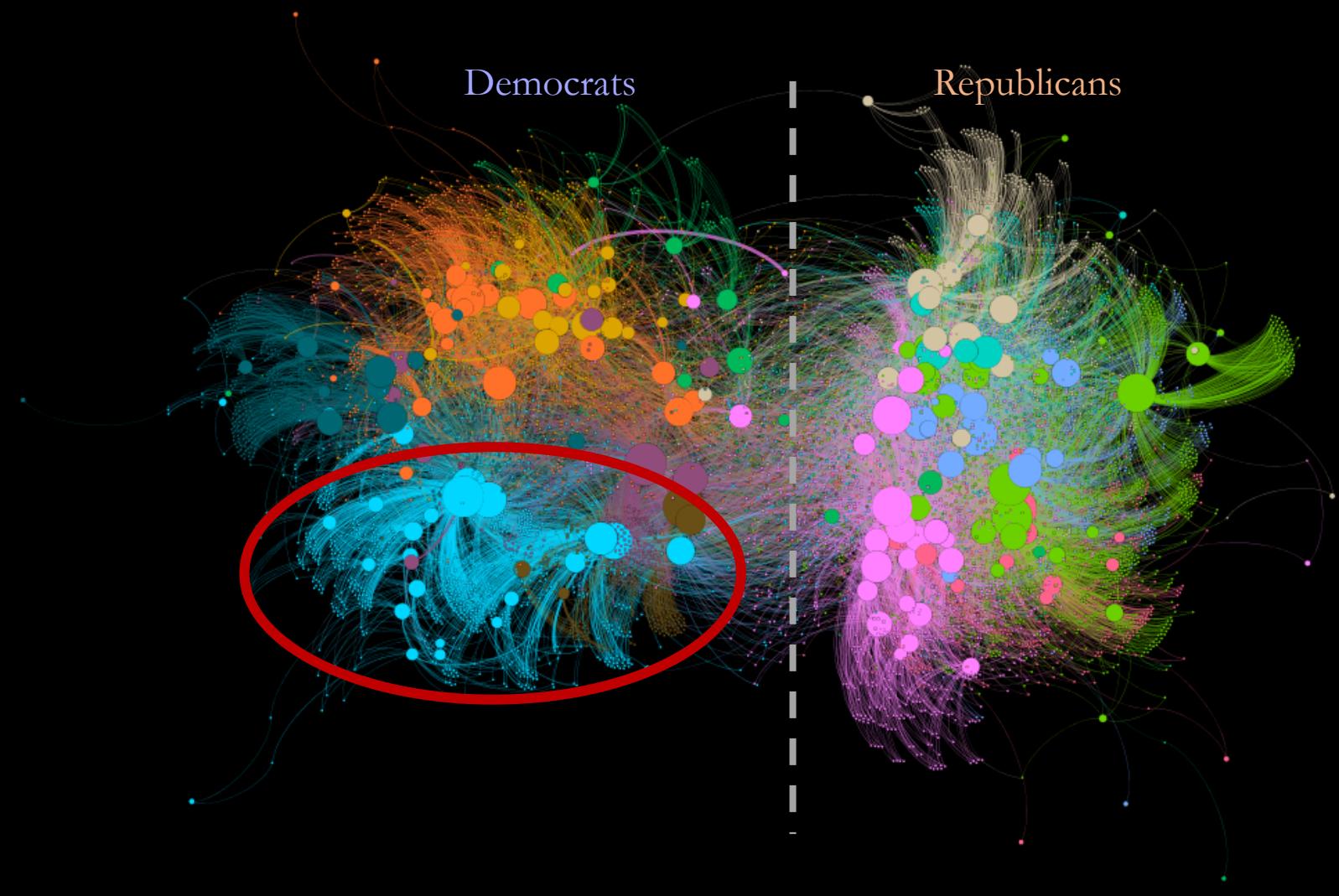
- 3 clusters of access-oriented
- 5 clusters of consumption-oriented





# Access-Oriented

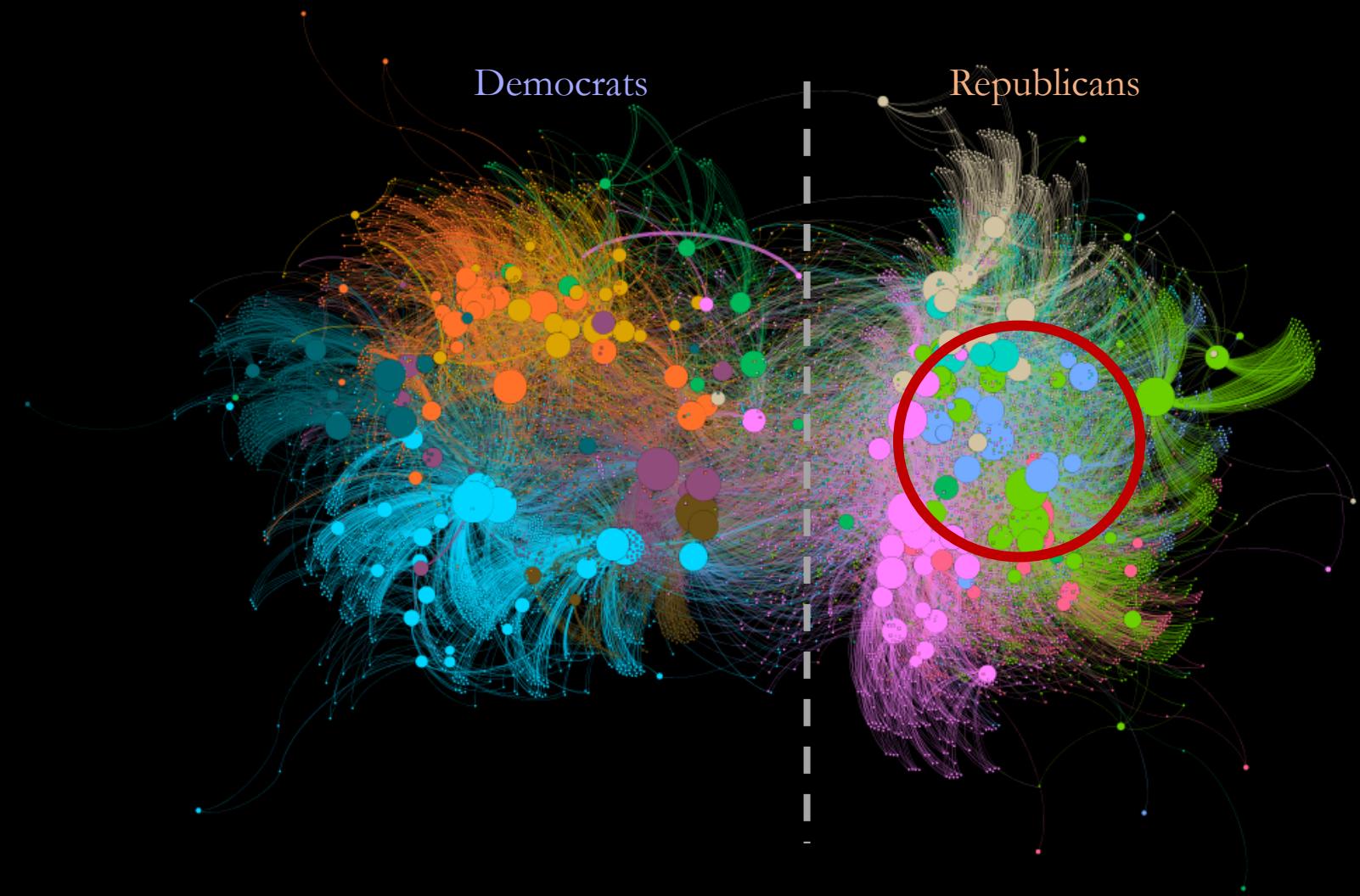
- Donor cluster #1
- Donations predict campaigns to post about veterans' issues





# Consumption-Oriented

- Donor cluster #4
- Candidates' pro-gun posts predict donations



Result: Both donor models exist



# Other Hypotheses



Access-Oriented



Consumption-Oriented



# Other Hypotheses



## Access-Oriented

- Larger donors



## Consumption-Oriented

- Smaller donors



# Other Hypotheses



## Access-Oriented

- Larger donors
- More moderate



## Consumption-Oriented

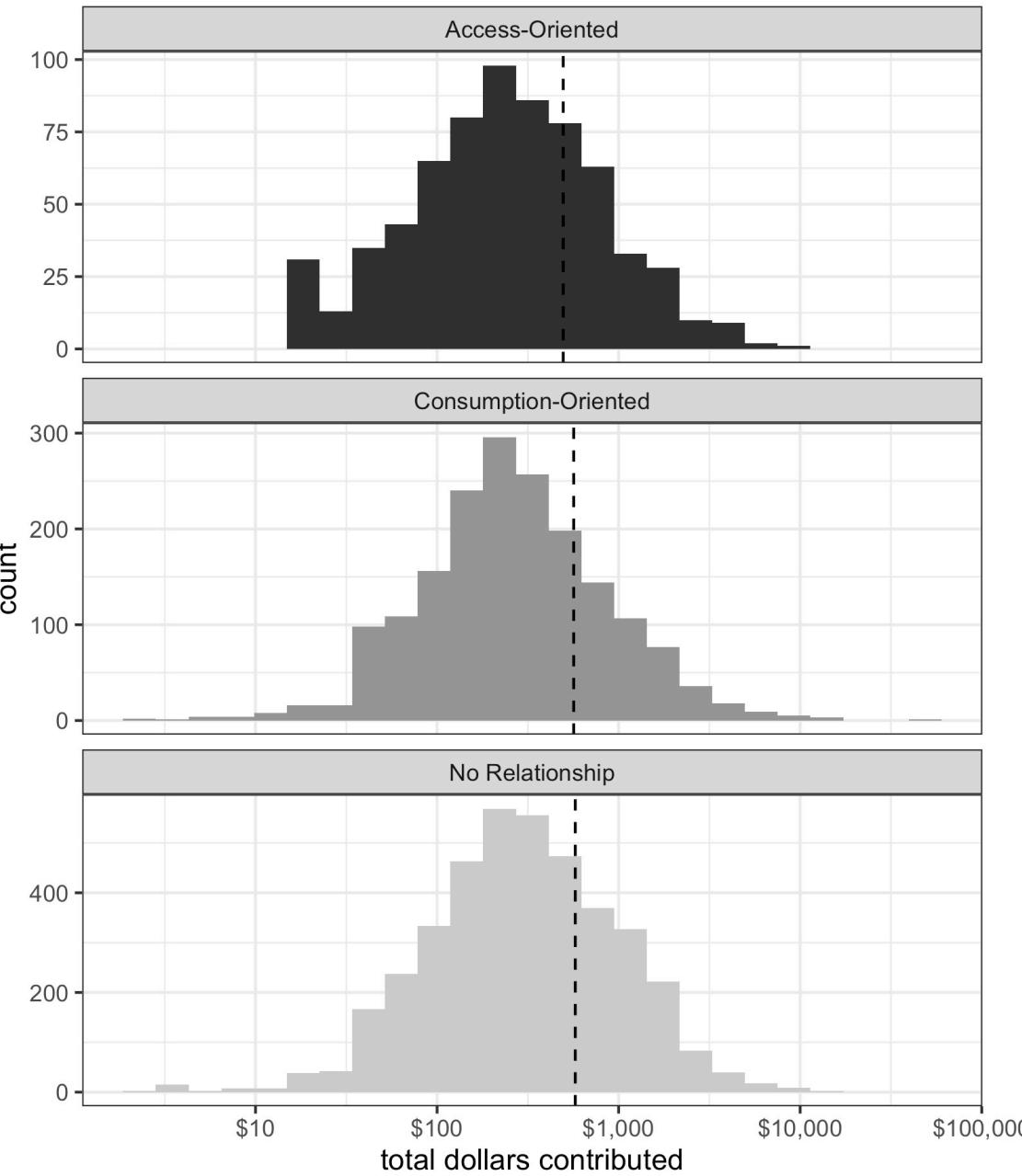
- Smaller donors
- More polarized



# Donor Sizes

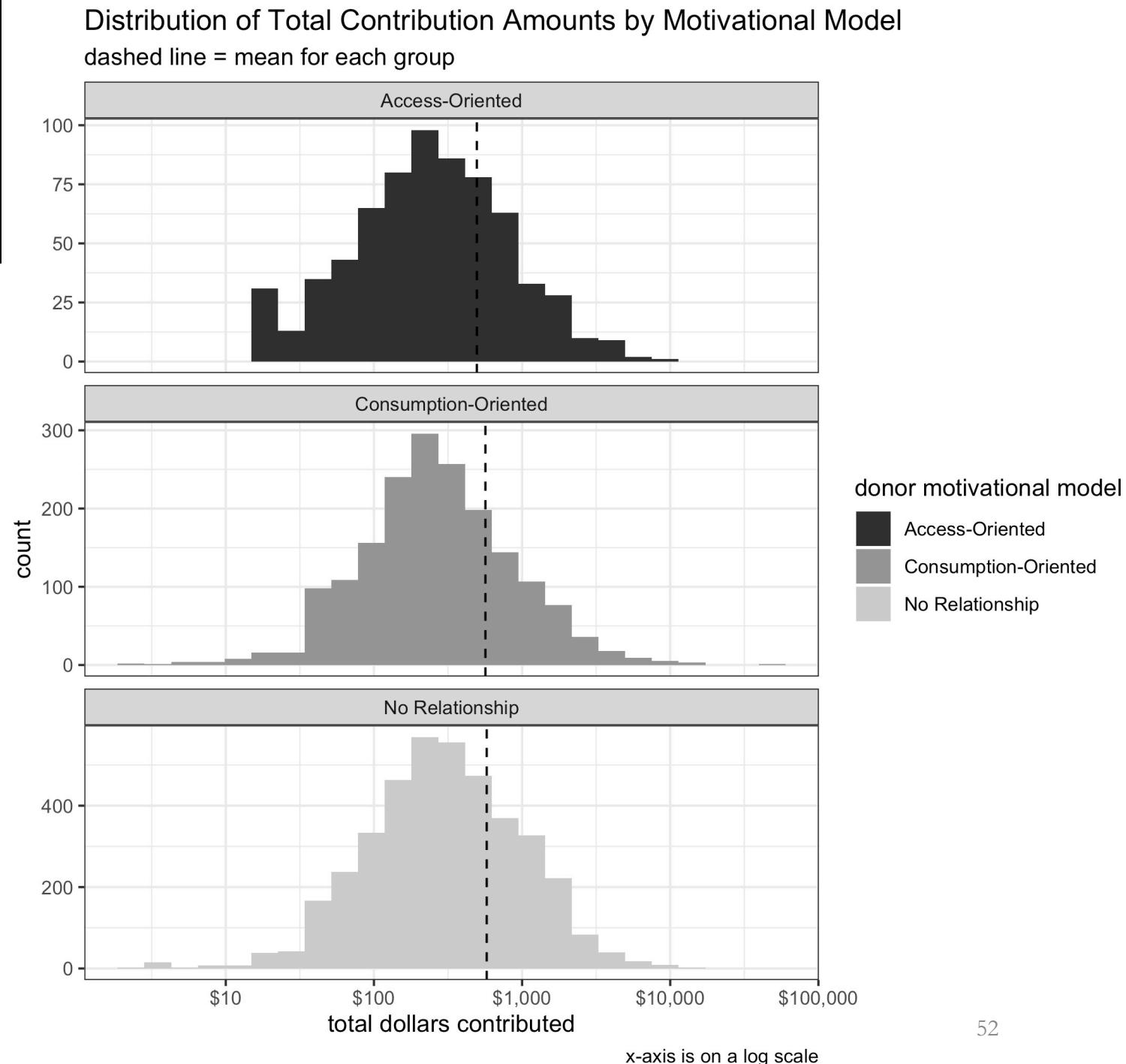
Distribution of Total Contribution Amounts by Motivational Model

dashed line = mean for each group



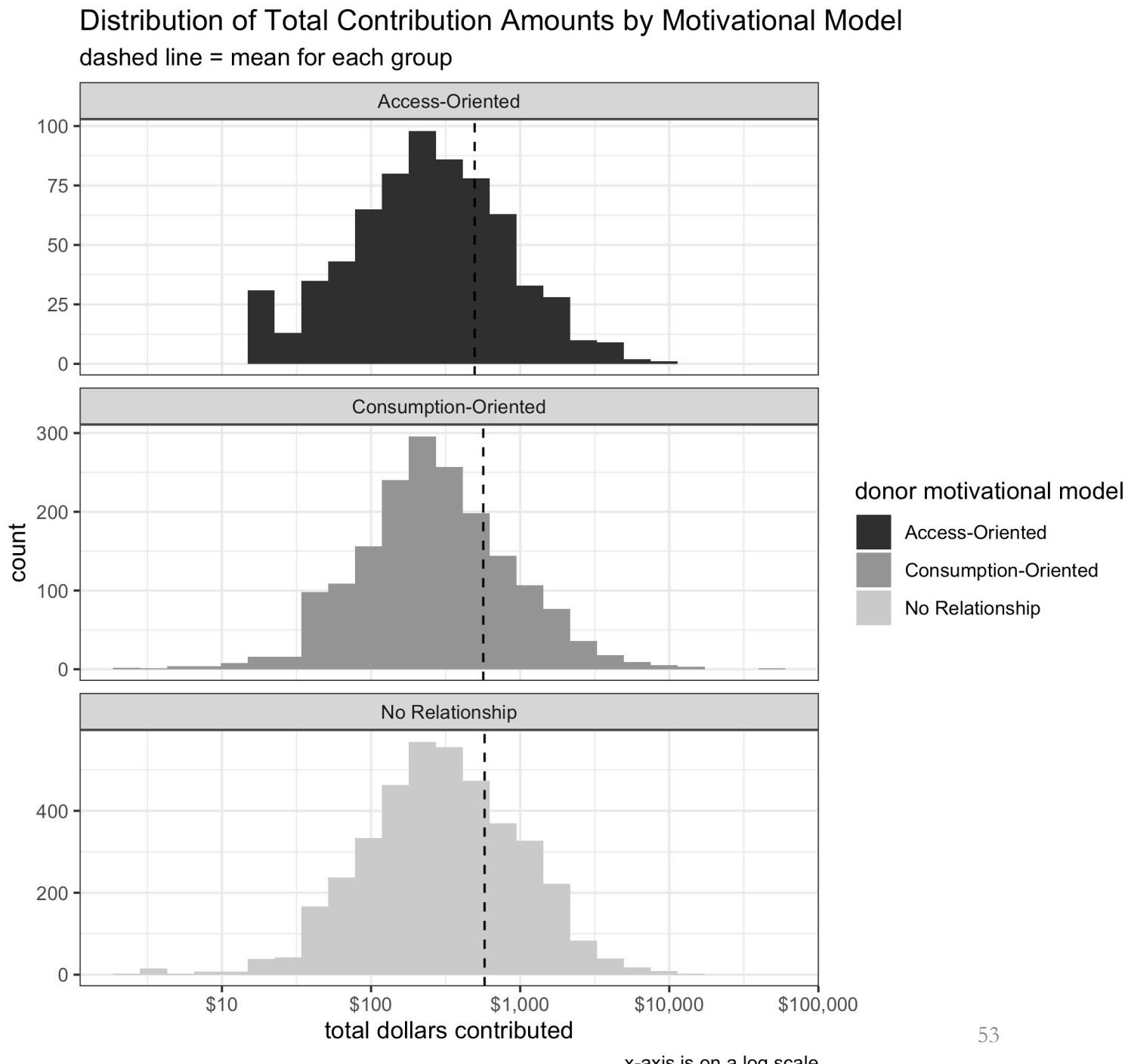
# Donor Sizes

- Are access-oriented donors bigger?
- Are consumption-oriented donors smaller?

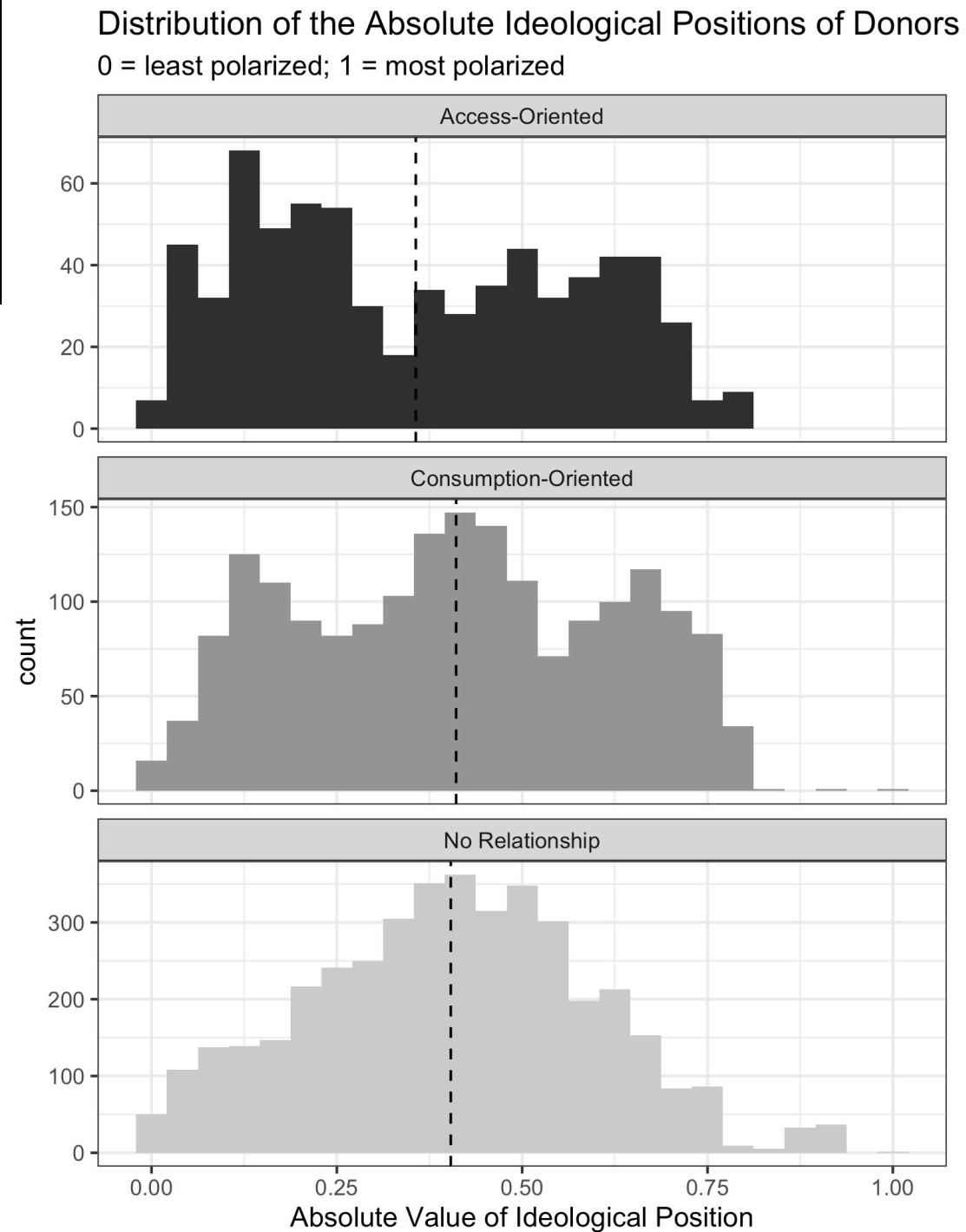


# Donor Sizes

- Are access-oriented donors bigger?
- Are consumption-oriented donors smaller?
- No

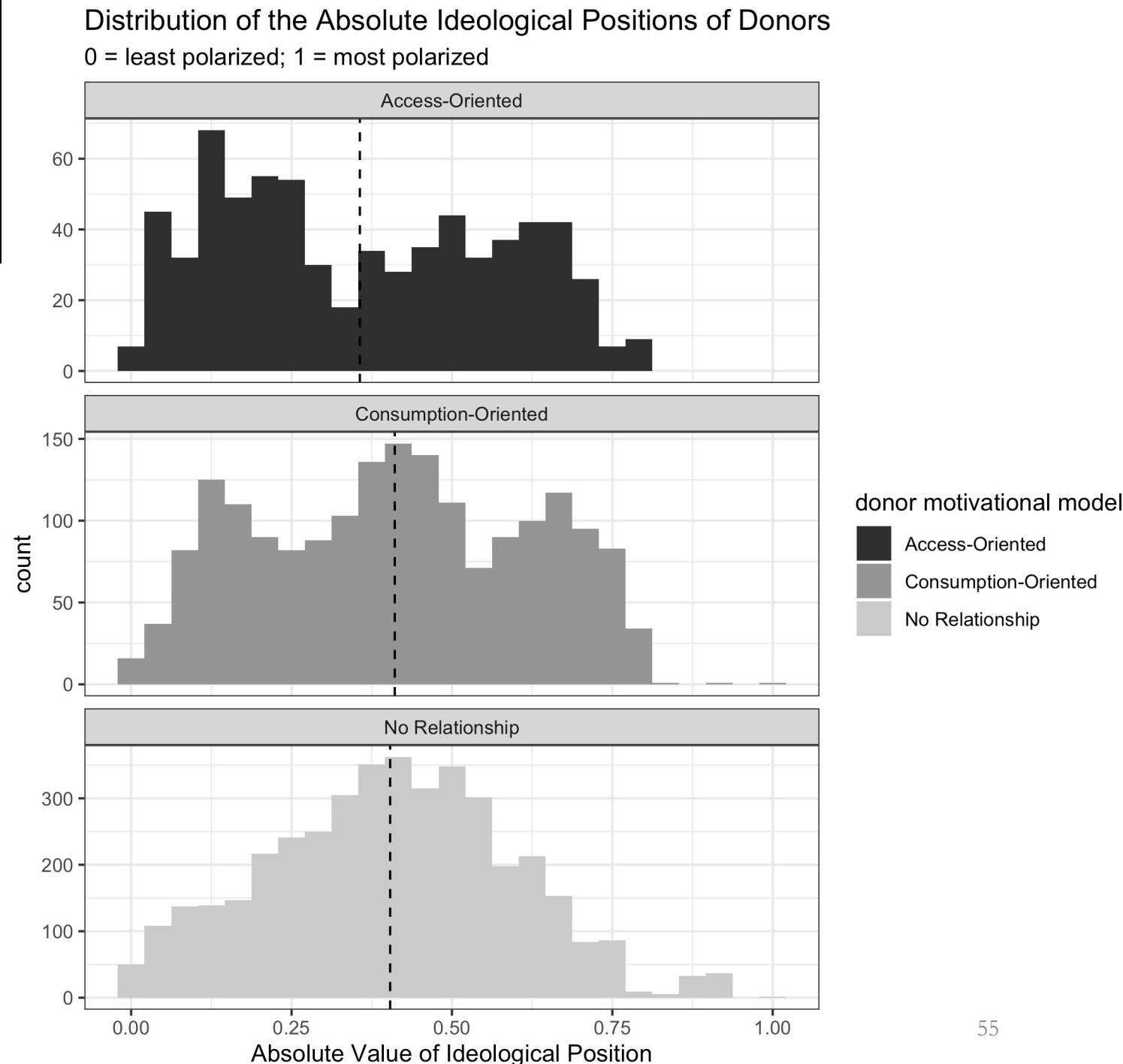


# Donor Polarization



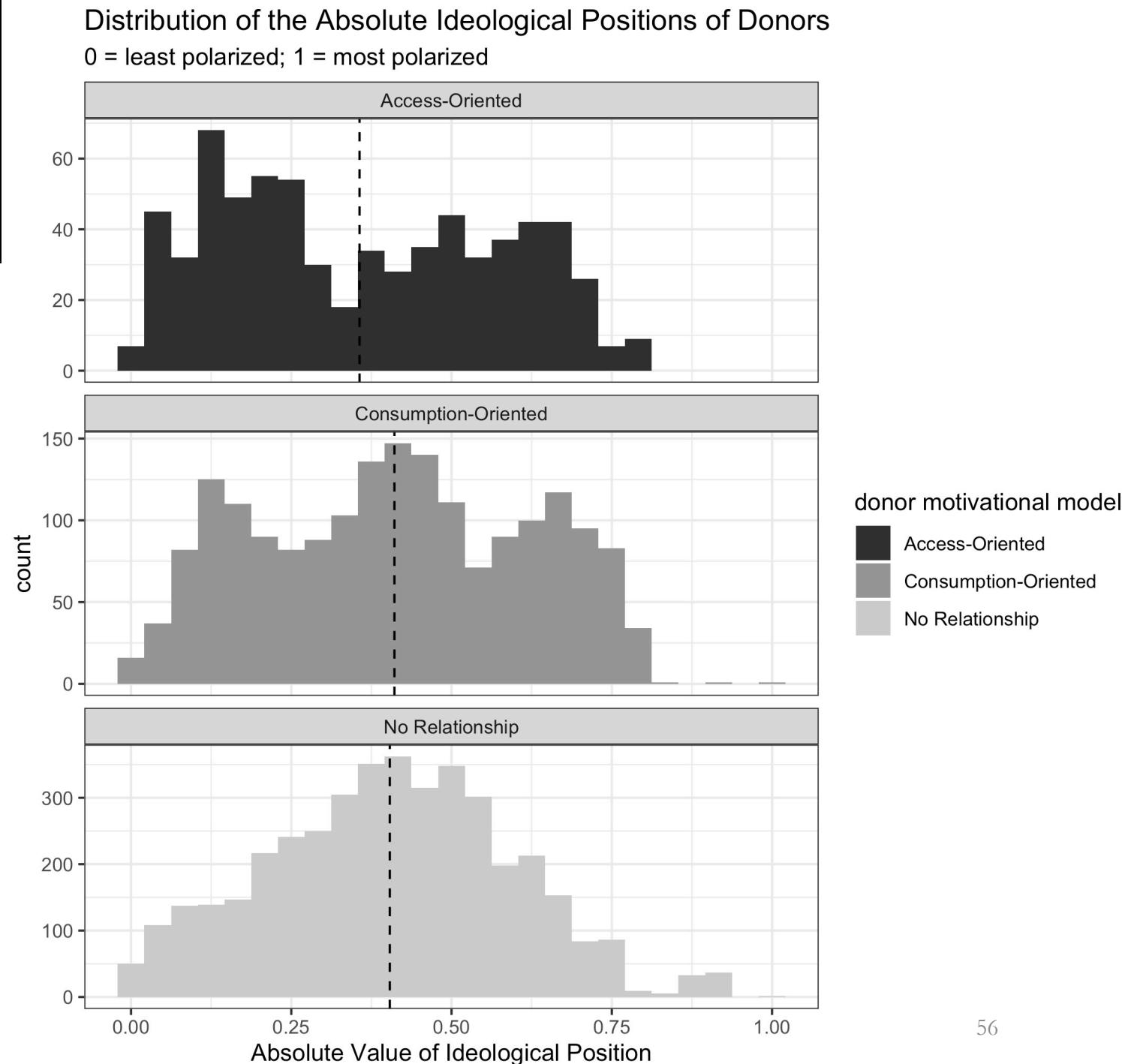
# Donor Polarization

- Are consumption-oriented donors in more polarized positions?
- Are access-oriented donors in more moderate positions?



# Donor Polarization

- Are consumption-oriented donors in more polarized positions?
- Are access-oriented donors in more moderate positions?
- Yes



# Other Hypotheses



## Access-Oriented

- Larger donors
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- Smaller donors
- More polarized



# Other Hypotheses



## Access-Oriented

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- Smaller donors 
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If we extrapolate...

- 2.5M itemized donors in 2020 (Open Secrets)



# If we extrapolate...

- 2.5M itemized donors in 2020
- 500,000 access-oriented donors
  - Attempting to gain access to politicians



# If we extrapolate...

- 2.5M itemized donors in 2020
- 500,000 access-oriented donors
  - Attempting to gain access to politicians
- 900,000 consumption-oriented donors
  - Potentially polarizing our politics



Which group should we care more about?



# Thank you

Ross Dahlke

 @ross\_dahlke

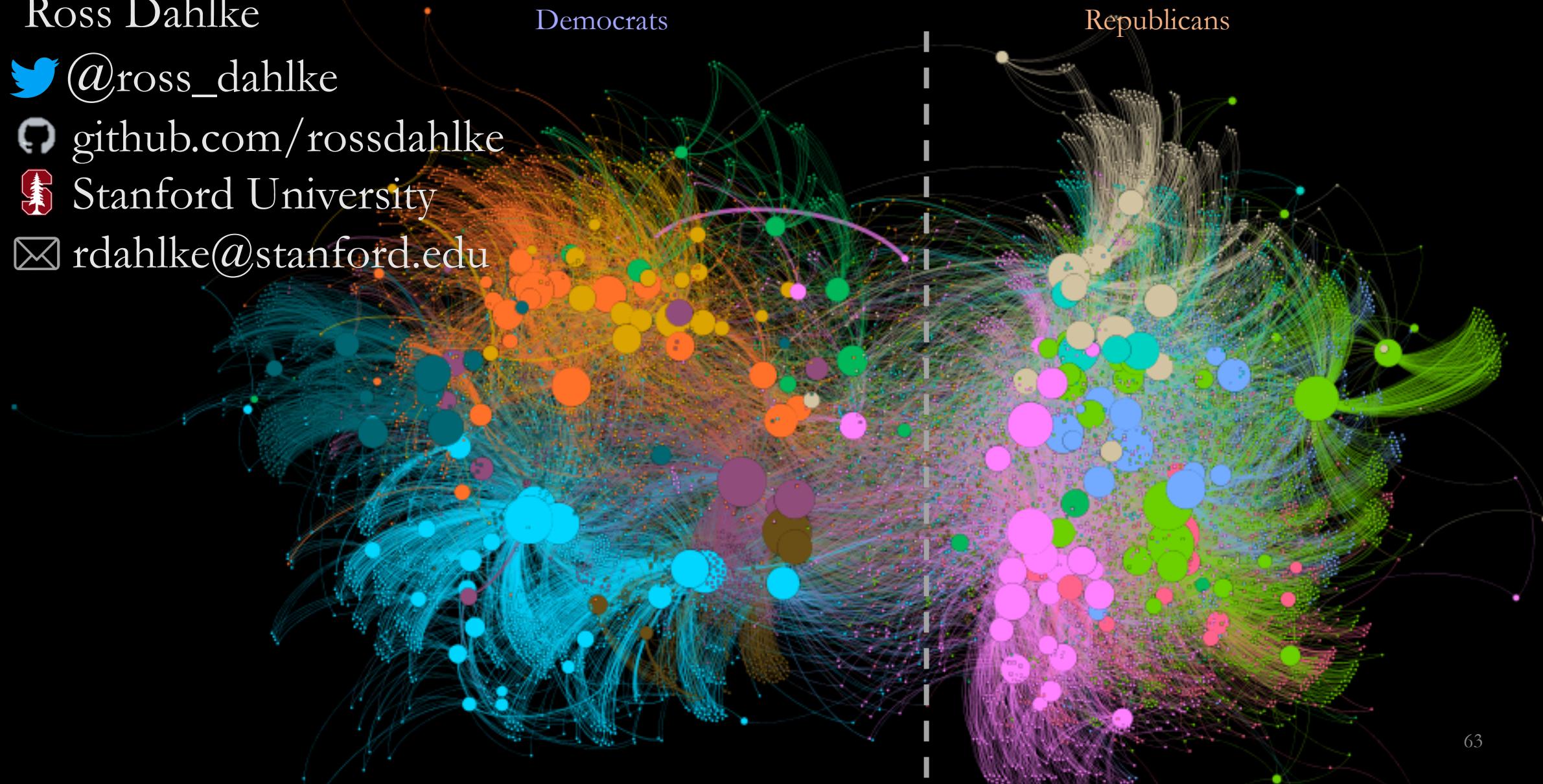
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 Stanford University

 rdahlke@stanford.edu

Democrats

Republicans

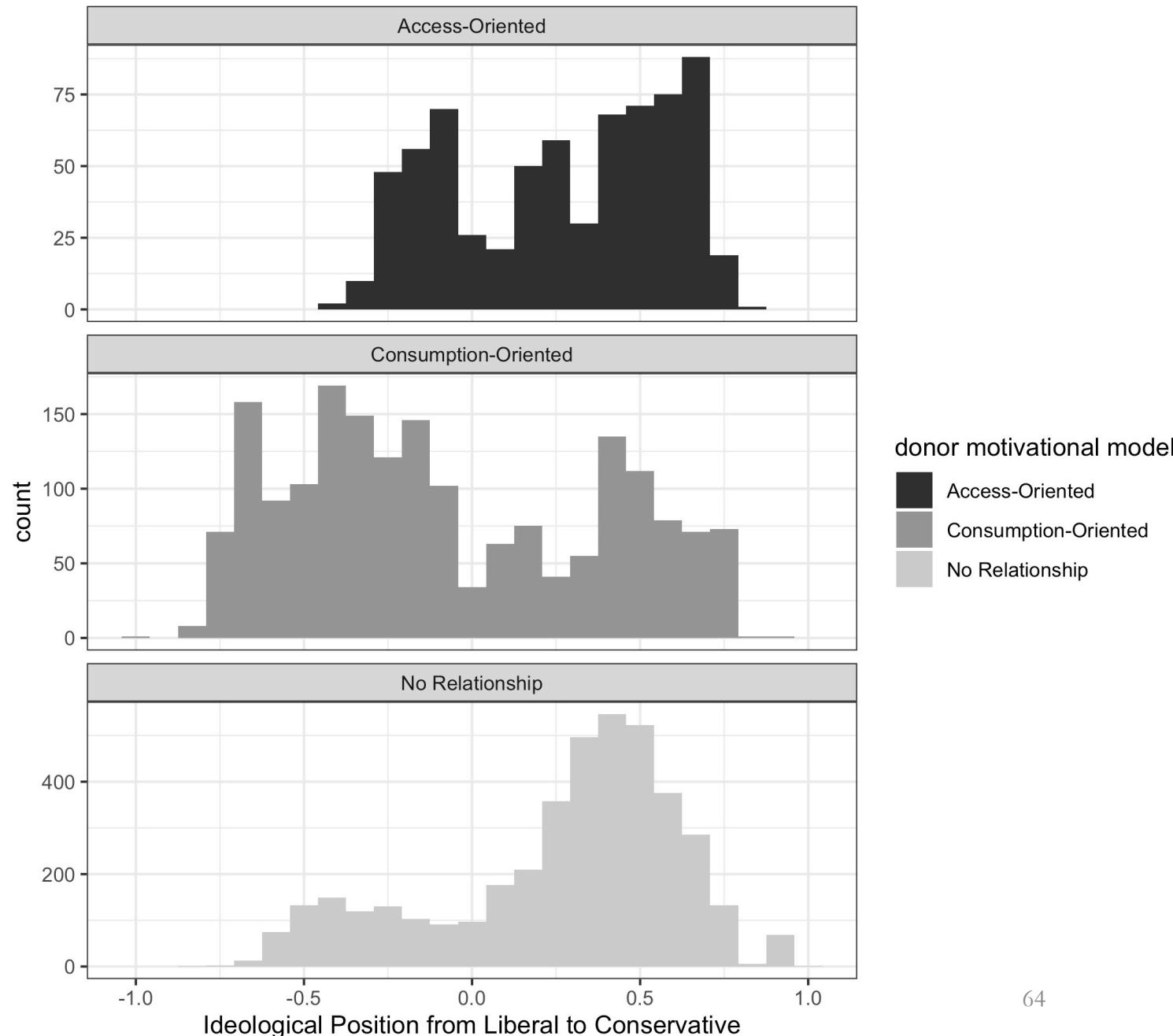


# Donor Types

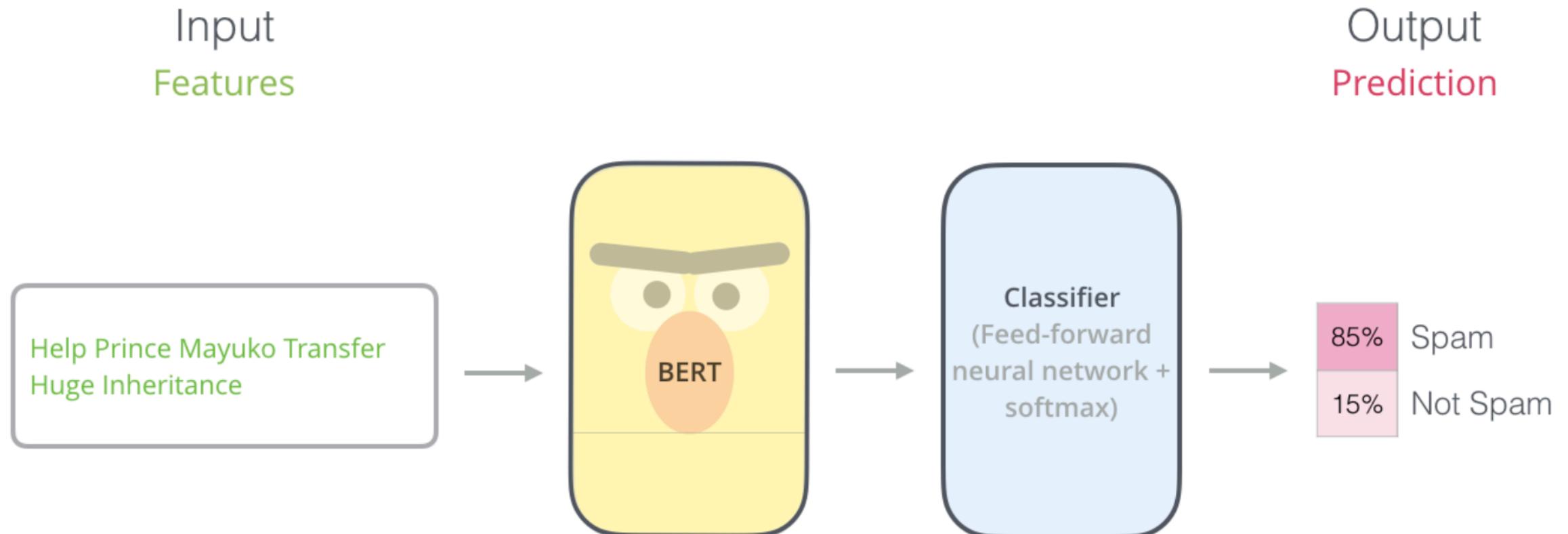
Motivational Model	% Republican	% Democrat
Access-Oriented only	63.9%	36.1%
Consumption-Oriented only	34.7%	65.3%
No Relationship	74.7%	25.3%

Distribution of Ideological Positions of Donors

-1 = most liberal; 1 = most conservative



# BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding



Source: [jalammar.github.io/illustrated-bert/](https://jalammar.github.io/illustrated-bert/)

