A Shifting Balance: Ideological Sources in Climate News

Methods Workshop

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        - ▶ Almost 70% of journalists who write for "lean left" outlets think "every side does not always deserve equal coverage" (Pew, 2023)

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  - To a lesser extent, new hire journalists are less balanced

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  - **Assumption** that the source of the quote is a good proxy for its content

Sources

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  - ▶ Environmental advocacy groups: WWF, Sierra Club, NRDC, etc.
  - ▶ Fossil fuel interest groups: American Petroleum Institute, Exxon, Shell, etc.

Source type distribution by outlet
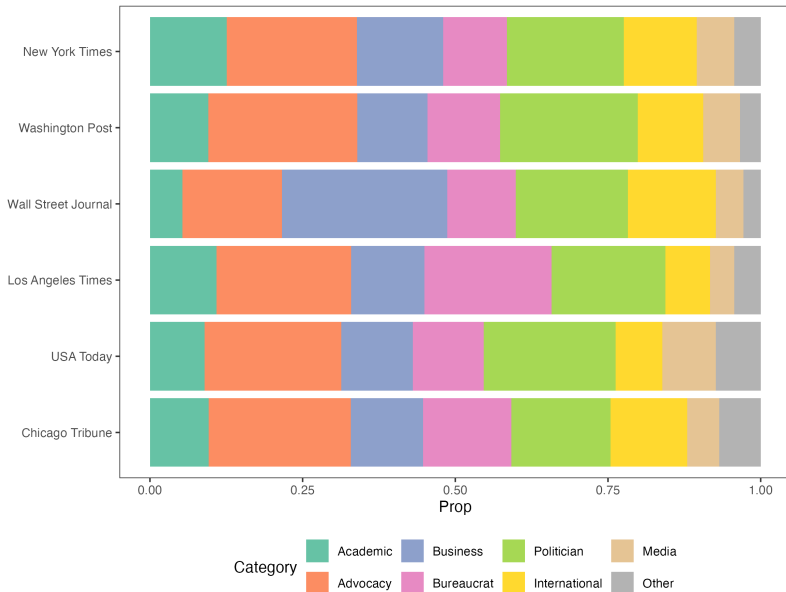
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- Next: What counts as liberal/conservative?

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    - ▶ DIME matching
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- ▶ These measures all strongly correlated and good face validity
- ▶ Main specification: use DIME cfscore and imputed data when DIME is missing

Top Sources
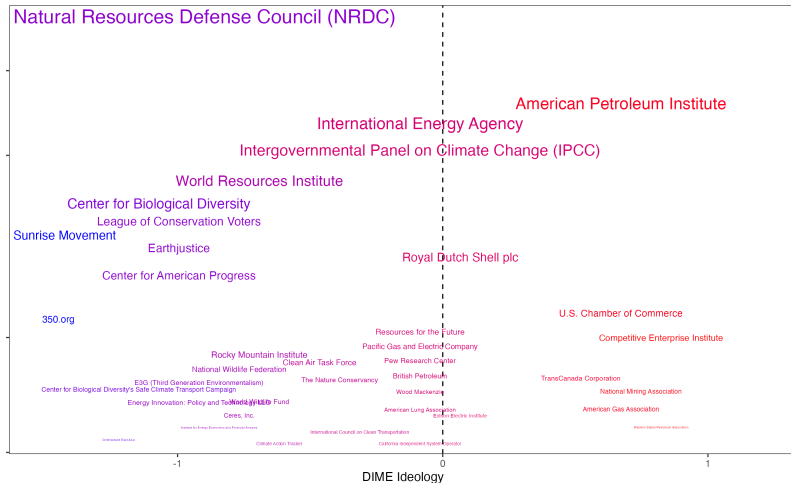
Exxon should be on this chart but currently working through a bug in the data

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- Early stage classification of the topic of each source citation into `business`, `environmental`, `policy`, `other` correlates with cfscore

Content Analysis

Dependent Variable:		cfscore	
Model:	(1)	(2)	(3)
Variables			
Constant	-0.07***		
	(0.02)		
src_topicBusiness	0.11***	0.10***	0.09***
	(0.03)	(0.02)	(0.03)
src_topicEnvironment	-0.35***	-0.33***	-0.33***
	(0.03)	(0.01)	(0.04)
src_topicPolicy	-0.10***	-0.10**	-0.11***
	(0.02)	(0.03)	(0.03)
Fixed-effects			
source		Yes	
year		Yes	
author_name			Yes
Fit statistics			
Observations	23,871	23,871	22,914

Measuring Balance

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  - National Association of Homebuilders (0.36)

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  - 36% of articles are "balanced" by this definition

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- This measure of balance is correlated with other plausible measures
- I will show multiple sets of results varying sensitive parts of the specification

Alternative Balance Measures

▶ Balance indicator correlated with mean ideology score closer to 0
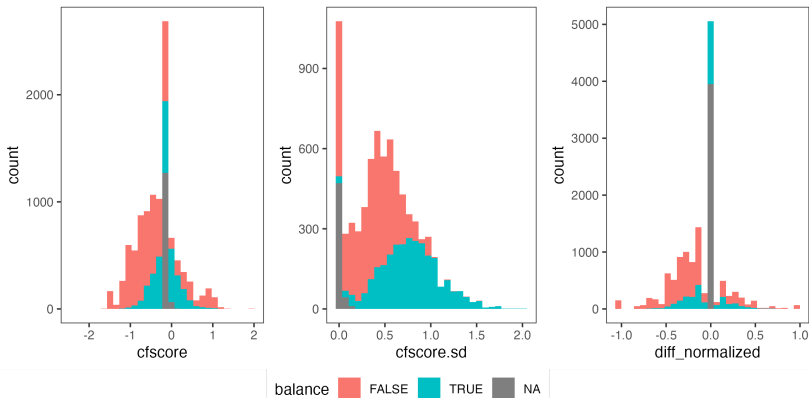
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- ▶ Balance indicator correlated with higher source ideology SD
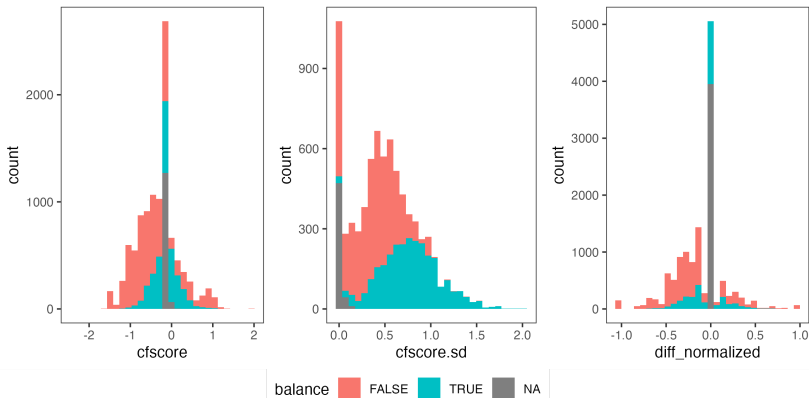
Alternative Balance Measures

- ► Balance indicator correlated with mean ideology score closer to 0
- ► Balance indicator correlated with higher source ideology SD
- ► Balance indicator correlated with lower normalized absolute difference between number of left and right sources
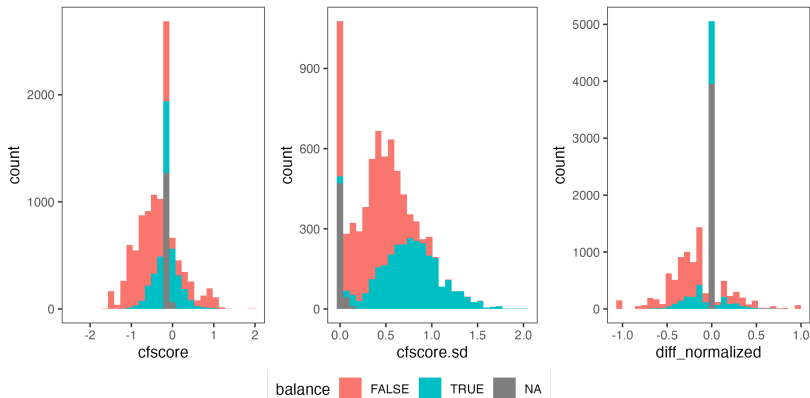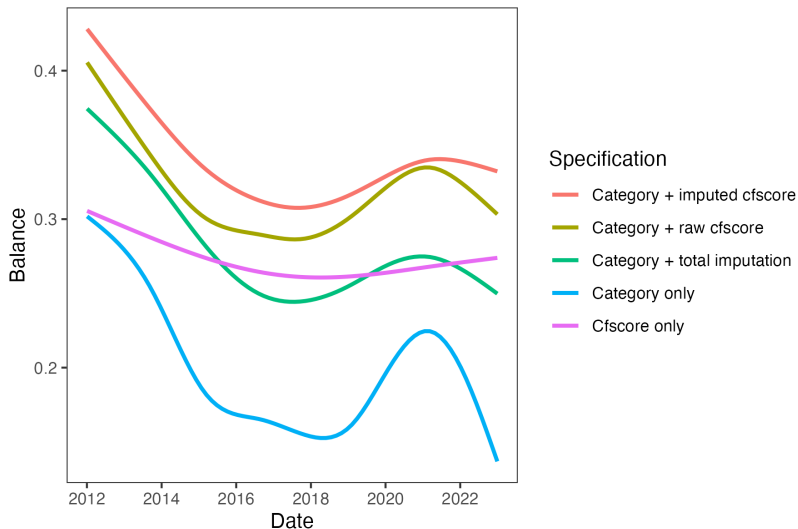
Balance Over Time: Differing Right/Left Threshold

Vary the threshold used to define a "left" vs. "right" source. Main specification uses $t = 0.3$.
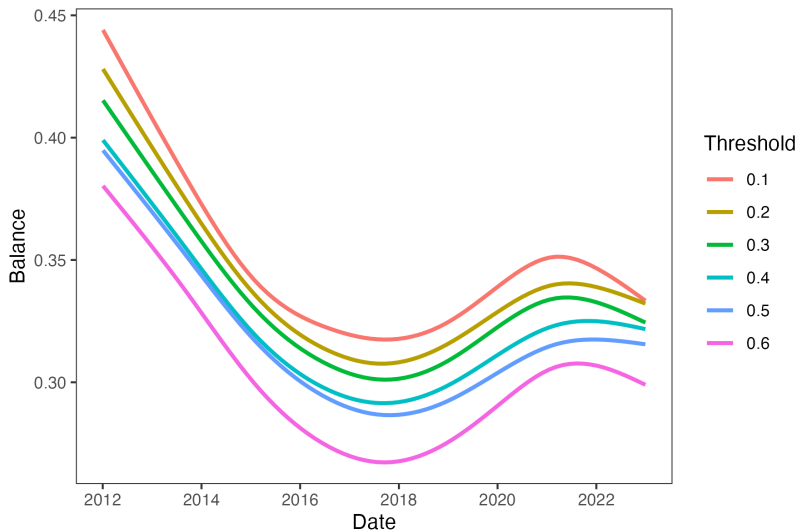
Balance Over Time: Differing Imputation Strategy

Vary imputation strategy. Main specification uses DIME score, but when data is missing, use imputed scores.

Balance Over Time: Differing Match Quality Threshold

Vary threshold for "bad match" definition. DIME matching procedure often returns multiple matches. We throw out matches where the SD is too high .
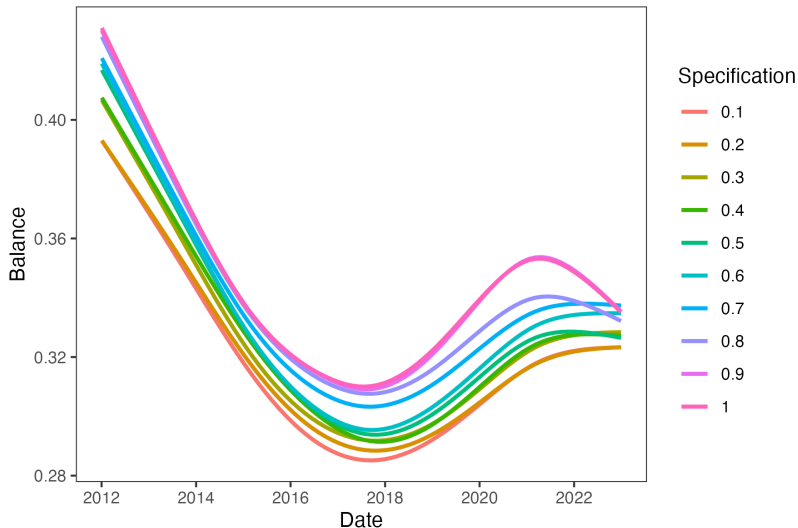
RQ1: Measuring Balance

- Results: articles are less balanced over time, particularly during 2016-2020

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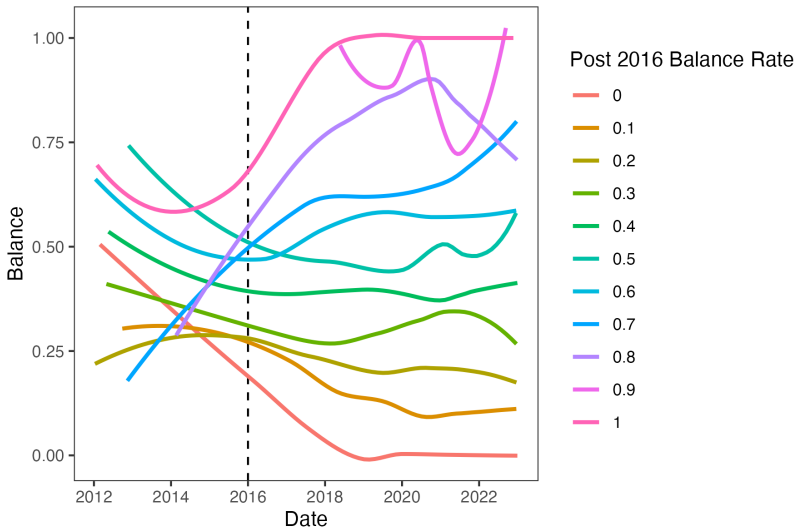 ▶ But there could also be journalist level heterogeneity (Boxell and Conway, 2022)

Within-Journalist Change in Balance Production

▶ Did "unbalanced" journalists change over time? (ie, react to 2016)
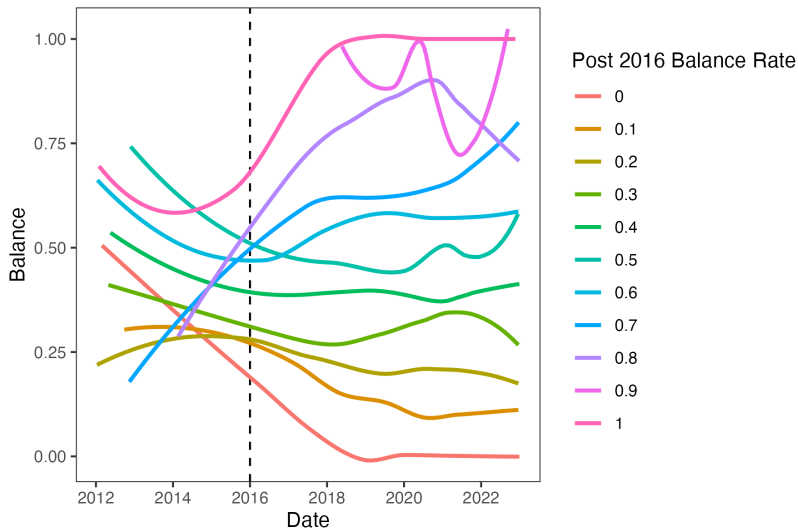
Within-Journalist Change in Balance Production

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- ▶ Calculate P(balance|year > 2016) at the journalist level

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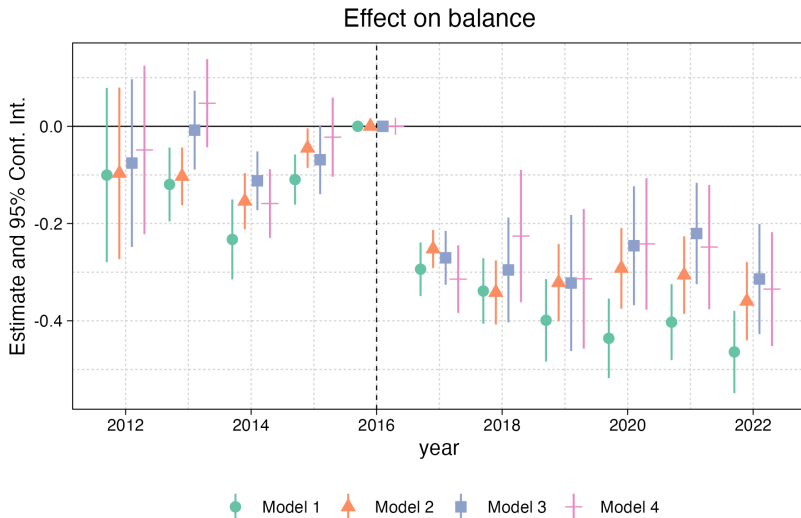
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- ▶ Empirical strategy: (ab)use a difference in differences design
- ▶ Treated group here are journalists who wrote unbalanced articles at a higher than median rate ($> 70\%$) in the post 2016 period
- ▶ Then we estimate `feols(balance ~ i(year, treat, ref=2016) | author_name + year)`

DiD Result

We show the results of multiple models varying the cutoff for assigning "treatment"

Effect on balance

Journalist Demographics

▶ Next, find out what type of journalists are more likely to be in this `treat` group

Dependent Variable:	treat
Variables	
Elite Undergraduate Institution	-0.3429***
	(0.0340)
Postgraduate Education	0.0547**
	(0.0205)
Journalism Major	-0.1745***
	(0.0392)
Age > 37	-0.1041***
	(0.0248)
Male	0.0543
	(0.0315)
Non white	0.1018*
	(0.0510)
Fixed-effects	
year	Yes
source	Yes

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- ▶ These results also robust to eg, varying the age threshold.

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- Thank you!

Appendix