

Title: Misinformation-related topics at source level for traditional media appendix for “Lies and presidential debates: How political misinformation spread across media streams during the 2020 election”

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Note: The material contained herein is supplementary to the article named in the title and published in the Harvard Kennedy School (HKS) Misinformation Review.

Appendix C: Misinformation-related topics at source level for traditional media

In the main analysis, we used the number of mentions to track misinformation-related topics in our streams at the unit level: articles, TV segments, Twitter posts, or surveys. Number of mentions indicates how many times a given topic appears in a given stream at a given time across units, providing a direct measure of misinformation discussion. As a point of contrast, in a supplementary analysis we also measured a topic’s spread by determining the proportion of sources (newspapers and TV channels) discussing the misinformation-related topic. This proportional measure captures how broadly misinformation has penetrated media discourse overall—without over-counting larger sources that publish more articles or segments.

The patterns described in the main text are similar whether we measure misinformation at the mention level or at the source level. The rise in misinformation at the source level was just as striking as described above: The proportion of newspapers discussing any misinformation grew from 5.34% before the debates to 7.86% after debate 2, while the proportion of TV channels doing so grew from 2.55% to 4.33% over the same period. In newspapers, considering the proportion of sources that mentioned a misinformation-related topic, *Biden personal attacks* and *taxes* surged around debate 1 from 5.2% to 14.8% and from 4.4% to 15.6%, respectively. While *taxes* rivaled *Biden personal attacks* around debate 1 by this measure, *taxes* still dropped off by debate 2 to 8.0%. *COVID-19* and *climate* were more prevalent when considered at the source level, with the former peaking around debate 1 (at 10.9% of sources, from 5.7% pre-debate) and the latter climbing through debate 2 (reaching a considerable 16.2%, from 7.6% pre-debate). However, the biggest difference in the source analysis is that *election integrity* outpaced all other topics—it was stable between 27% and 29% across time—while in the mentions-based analysis *Biden personal attacks* ranked first starting around the first debate.

Source-based analysis of TV channels yields similar findings to analysis of newspapers, but with smaller magnitudes: *Biden personal attacks* peaked at 12.8% around debate 1, *election integrity* dominated (but dropped from 14.5% pre-debate to a stable 13.1%), and *COVID-19*, *climate*, and *taxes* reached lower peak levels: 9.8% around debate 1, 4.0% around debate 2, and 7.8% around debate 1, respectively. However, *racism* and *healthcare* climbed to 6.0% and a surprising 10.3% of sources around debate 2, diverging from newspapers but reproducing the pattern in TV mentions.

Table 1. Misinformation-related topic frequencies (and proportions) at source level: Newspapers and TV channels.

Misinformation-related topic and date range	Newspapers			Television Channels		
	Pre-debate	Post-debate 1	Post-debate 2	Pre-debate	Post-debate 1	Post-debate 2
<i>Biden personal attacks</i>	457 (5.2%)	515 (14.8%)	406 (21.1%)	1,732 (2.6%)	3,294 (12.8%)	1,753 (12%)
<i>Campaigning</i>	815 (9.3%)	201 (5.8%)	90 (4.7%)	1,765 (2.7%)	316 (1.2%)	63 (0.4%)
<i>Climate</i>	661 (7.6%)	314 (9.1%)	311 (16.2%)	1,668 (2.5%)	608 (2.4%)	582 (4%)
<i>Courts</i>	0 (0%)	6 (0.2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<i>Covid-19</i>	499 (5.7%)	377 (10.9%)	186 (9.7%)	3,428 (5.2%)	2,513 (9.8%)	1,104 (7.6%)
<i>Economy</i>	216 (2.5%)	125 (3.6%)	59 (3.1%)	1069 (1.6%)	598 (2.3%)	504 (3.5%)
<i>Election integrity</i>	2,345 (26.8%)	998 (28.8%)	522 (27.1%)	9,545 (14.5%)	3,373 (13.1%)	1,906 (13.1%)
<i>Foreign relations</i>	0 (0%)	0 (0%)	18 (0.9%)	0 (0%)	0 (0%)	0 (0%)
<i>Healthcare</i>	191 (2.2%)	143 (4.1%)	54 (2.8%)	692 (1.1%)	931 (3.6%)	1,508 (10.3%)
<i>Immigration</i>	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<i>Law enforcement</i>	182 (2.1%)	64 (1.8%)	11 (0.6%)	528 (0.8%)	77 (0.3%)	3 (0%)
<i>Military</i>	573 (6.6%)	241 (6.9%)	130 (6.8%)	342 (0.5%)	182 (0.7%)	56 (0.4%)
<i>Racism</i>	214 (2.4%)	88 (2.5%)	176 (9.2%)	419 (0.6%)	516 (2%)	880 (6%)
<i>Taxes</i>	386 (4.4%)	541 (15.6%)	154 (8%)	2,286 (3.5%)	2,021 (7.8%)	475 (3.3%)
Number of source-mentions ¹	6,539	3,613	2,117	23,474	14,429	8,834
Number of sources	8,744	3,469	1,923	65,863	25,773	14,578
Prop. of sources that mention misinformation ²	5.34%	7.44%	7.86%	2.55%	4.00%	4.33%

¹ Number of “source-mentions” indicates the number of times any source in this time period mentions any myth. Each source can be counted multiple times, so this figure may be higher than the total number of sources.

² This proportion indicates the prevalence of misinformation across sources—that is, the number of sources that mentioned any misinformation-related topic divided by the number of sources in that stream. It is calculated by topic and averaged across all 14 topics, hence its lower baseline than mentions per unit.