## Methods Supplement for "More and more, Republicans are sharing misinformation, research finds."

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## 1 Data Collection

We collected all Facebook page URLs for candidates for Congress in 2020 and 2022. We collected URLs for both incumbents and challengers. Using these data, we collected Facebook posts on candidate pages between January 1, 2020 and July 14, 2020 for 2020 election candidates and between January 1, 2022 and July 14, 2022 for 2022 election candidates using the Crowdtangle API.

Our unit of analysis is URLs shared by candidates for Congress. To assess the reliability of sources shared by candidates, we collected NewsGuard ratings for all websites that NewsGuard rated in July 2022.

## 2 Data Definitions

We define incumbents for 2022 as candidates who were elected to the House in November 2020 or in a special election since 2020. Non-incumbents are any candidates who do not meet either of these criteria.

To label data, we use the definitions from NewsGuard. NewsGuard rates websites as either reliable or unreliable (or platform/satire, which we exclude from this analysis) based on a set of criteria related to news credibility and transparency. <sup>1</sup> For all domains shared by candidates, we use the rating supplied by NewsGuard. We calculate the proportion of unreliable news sources by aggregating by day. For example, to calculate the daily average of unreliable sources shared by Republicans, we select all sources shared by Republicans, calculate the percentage of unreliable sources shared each day (compared to reliable sources), and then average over all days.

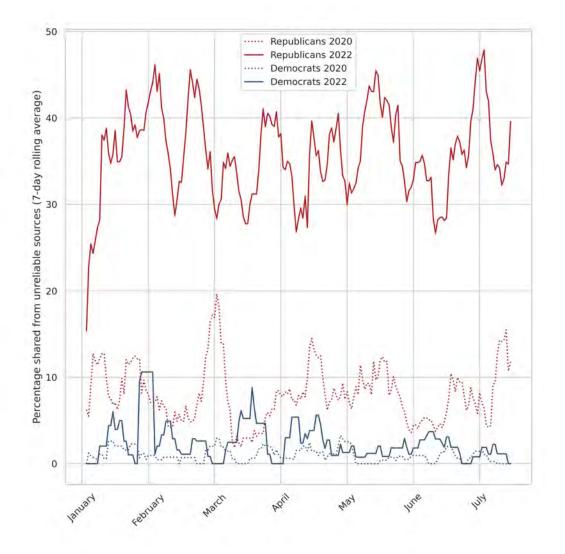
## 3 Analysis

We show three analyses. First, we assess the daily average of unreliable sources shared by Democrats and Republicans in 2020 and 2022. In Figure 1 we show the daily percentage of sources shared from unreliable sources (out of all sources shared). We calculate the rolling

<sup>&</sup>lt;sup>1</sup>https://www.newsguardtech.com/ratings/rating-process-criteria/

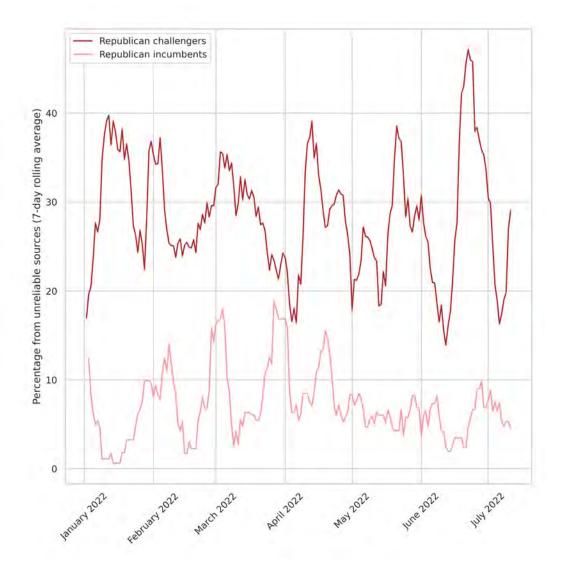
average for the purposes of smoothing. Democrats are shown in blue where the dashed line represents 2020 Democrats and the solid line represents Democrats in 2022. Similarly, Republicans are displayed in red, where the dashed line represents Republicans in 2020 and the solid line represents Republicans in 2022.

Figure 1: Percentage of links from known unreliable sources shared on Facebook by congressional candidates (out of those that had a NewsGuard rating), January - July 2020 and 2022



To investigate what drives unreliable source sharing amongst Republicans, we look at the percentage of unreliable sources shared by Republican incumbents compared to Republican non-incumbents. In Figure 2, we show the percentage of links shared by Republican challengers (red) compared to the percentage of links shared by Republican incumbents (pink). Similar to our previous analysis, we plot the rolling average for the purposes of smoothing. We find that Republican challengers consistently share more unreliable sources than Republican incumbents.

Figure 2: Percentage of links from known unreliable sources shared on Facebook by incumbent and non-incumbent Republicans (out of those that had a NewsGuard rating), January - July 2022



In further analysis, we identified Sarah Palin as a super-sharer of unreliable sources. She shared 849 links to unreliable sources from January to July 2022. The next most frequent sharer was Rob Cornicelli, who shared 88 links to unreliable sources. To determine how much Sarah Palin's sharing affected the prevalence of unreliable source sharing by Republican challengers, we plot the percentage of unreliable sources shared by Republican challengers (with and without Palin) to the percentage of unreliable sources shared by Republican incumbents. In Figure 3, we show the percentage of unreliable sources shared by all Republican challengers (solid red), the percentage of unreliable sources shared by Republican challengers without Palin (dashed red), and the percentage of unreliable sources shared by Republican incumbents (pink). We find that when Palin is removed, the difference between Republican challengers and Republican incumbents shrinks, but Republican challengers still share more unreliable

sources than Republican incumbents.

Figure 3: Percentage of links from known unreliable sources shared on Facebook by incumbent and non-incumbent Republicans (out of those that had a NewsGuard rating), January - July 2022

