

**Mainstream American News Media: Is It as Polarized as Its Consumers Over the
Issues of Climate Change, COVID, and Immigration?
A Cross-Country Study of U.S. and U.K. News Media**

by

Rachel Spruill

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Honors Degree in Political Science with Distinction

Spring 2022

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ACKNOWLEDGMENTS

I would first like to thank Dr. Kassra Oskooii, who, by agreeing to be my research advisor and first reader, took a chance on a student he had never taught before, guided her through each stage with his expertise, and most importantly, challenged her. When I completed the fall semester of the thesis from London, England, he met with me via Zoom each week despite the difference in country and time zone. I would also like to thank my second reader, Dr. Philip Jones, for providing valuable advice throughout the year that helped shape the study. His skill in data analysis, desire to lend support, and enthusiasm for the material are evident in the success of the project and have been much appreciated. Additionally, thank you to my third reader, Dr. Theodore Davis, whose insightful questions and comments made me, as well as my fellow thesis candidates, think critically about our projects. Conversations with Dr. Davis served as useful preparation for the thesis defense. Finally, thank you to my friends and family for the constant encouragement, especially during the difficult stretches of the process. Everyone mentioned above has contributed not only in supporting the thesis, but in developing my passion for political science research.

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ABSTRACT

Does U.S. news media really just cater to the existing partisan divide? Studies show that American society has grown more polarized on a partisan basis, yet in the United Kingdom, party loyalty is splintering and growing weak. If news media is truly just a business, we can expect U.S. news coverage to be more ideologically polarized than that of the U.K. The role of the media as a political influence has been the subject of much scholarship, but there lacks a database in which multiple content-related variables can be compared across countries. The objective of this study is to compare the media landscapes of the U.S. and the U.K. over shared political issues: climate change, COVID vaccines, and immigration. To do so, a collection of 600 articles across multiple news outlets in both the United States and the United Kingdom were quantified based on ideological leaning, key source, and article type. It was found that U.S. news articles are only slightly more likely to be ideological, and after controlling for the greater number of opinion articles in the U.S., there is no difference in the levels of ideology between the two countries' media. This means that 1) the ideology of U.S. news coverage is not as dramatic as a business model would expect, and 2) if the U.S. news media is more ideological than that of the U.K., it is due to a greater number of opinion articles rather than innate outlet bias.

Chapter 1

INTRODUCTION AND LITERATURE REVIEW

It has often been said that news media operates as a business, making views and dollars the modes of survival and success (Pew Research Center, 2021). Because of the need to stir attention and engagement, news coverage has become, "... based on what interests the public rather than what is in the best interests of the public" (Winch, 2000: 131). If news media is indeed first and foremost a business, it could be expected that two countries with drastically different levels of partisanship in society would also have drastically different levels of partisanship in news. This, however, may not be the case.

U.S. society as a pinnacle of political polarization has been the subject of much study. Polarization is said to have, "... spread widely in American society, fueling divisions, anger, and conflict among ordinary citizens to a startling degree" (Carothers, 2019: 65). Pew Research Center indicates that this growing polarization seen in the U.S. is largely created on partisan grounds. It states that the percentage of Democrats and Republicans with a "very unfavorable" view of members of the opposite party has skyrocketed, each by 28 percentage points, between 1994 and 2017 (Pew Research Center, 2020). This societal polarization also translates into polarized attitudes toward news media outlets. Studies have found that 83 percent of Americans claim to see "a fair amount" or "a great deal" of political bias in U.S. news coverage (Gallup/Knight Foundation, 2020: 5). Specifically, this perceived bias is partisan;

Michael Hameleers writes that the public tends to believe that U.S. news coverage frames issues in either a Republican or Democratic manner (Hameleers, 2019: 491).

Meanwhile, despite being another western democracy, the U.K. societal dynamic looks very different. Recent research has explored how party loyalties are fading and splitting off on economic and social grounds instead (Duffy et al., 2019: 32). While U.S. polarization on partisan lines is getting stronger, the U.K. has experienced the concept of “partisan dealignment,” where citizens detach from their parties and new, splintered parties increasingly hinder the process of reaching a majority (Duffy et al., 2019: 28). The recent example of Brexit illustrates how U.K. polarization is not exactly partisan in nature; the sides of the debate were not parties, but rather Leave and Remain identities. Researchers suggest that the views and voting behavior surrounding Brexit could not be explained by party divisions, but rather reconfigured them (Hobolt et al., 2021: 9). It has instead been proposed that populist ideology is the root of the Brexit divide (Hameleers, 2019: 486).

With this in mind, the objective of this study is to compare levels of ideology in mainstream U.S. and U.K. news media over shared controversial issues. To attain this goal, the final product of this study is a detailed directory through which articles about political issues can be compared between the two countries. Studies surrounding content-related characteristics of news outlets are important because existing research has explored the role of news media on public opinion. A multifaceted content analysis also has the potential to challenge pre-conceived notions and sweeping generalizations of news outlets (e.g., “X news outlet is so conservative”).

Examining the ideological leaning of news media is important because there has been scholarly debate over the prevalence of confirmation bias, with some

scholars believing the media has the capacity to change minds, and others convinced that viewers only seek out beliefs they agree with. However, both schools of thought suggest that political messaging consumed through news has important consequences on the public. Those who place more emphasis on confirmation bias argue that the development of modern media has amplified polarization, as viewers and readers are now able to only pick and choose the sources they agree with, creating an “echo chamber” (Campante & Hojman, 2013: 80). Rather than undergoing information-processing, viewers and readers use selective exposure to only absorb information that aligns with their pre-existing views. One study offering some evidence of this view selected an array of headlines and randomly assigned them to Fox News, NPR, CNN, or BBC, then presented them in sets of 4 (a headline attributed to each outlet) to participants. It was determined that Republicans were drawn to headlines attributed to Fox News and largely avoided ones labeled with CNN or NPR, while the reverse is true of Democrats (Iyengar & Hahn, 2009). This suggests that studying the ideological leanings of news content can help us better understand the political identities of viewers, and by extension, the political polarization of the public.

However, other scholars are more optimistic about the media’s influence. Robert M. Entman (1989) pushes back on traditional theories of the “schema” of confirmation bias to provide evidence for an “information-processing” theory. He explains that if a person initially deems an article or report as salient, they process the information to determine if they will dispose of it or store it; should the information be stored, it might create or change views (Entman, 1989: 350). A prime example of this theory is a 2007 study on the effect of the emergence of Fox News on the 2000 election, the main result being that the Republican share of votes increased by 200,000

votes (DellaVigna & Kaplan, 2007: 1188). Another reason why certain scholars doubt the strength of confirmation bias is because previous research has not always distinguished deliberate confirmation bias from the “de facto” bias resulting from a person’s social circles, friends, and family (Iyengar & Hahn, 2009). Because it is sometimes unclear whether or not skewed exposure is intentional, there is reason to believe that the media may have the ability to persuade. If political views are seen as somewhat flexible, studying the ideology of news media is important because the results might suggest the ideological direction of the media’s influence.

Aside from whether news messaging changes attitudes or further reinforces them, news ideology is an important area of study; should ideology be polarized, it might influence the political activity of citizens and elected officials alike. Scholars have pointed to a relationship between polarization and political gridlock, leading to, “... much reduced rates of policy innovation and a decreased ability to adapt to changes in economic, social, or demographic circumstances” (Campante & Hojman, 2013: 79). On the other hand, shifts away from polarization in the media landscape might cause society at large to de-polarize, which then motivates political parties and politicians to become more centrist (Campante & Hojman, 2013: 80). In this sense, it is important to explore the political ideology of news because ideological extremes in the media tends to be mirrored in the public as well as legislators.

Knowing that the presence and polarization of ideology in news have these significant effects, I chose to use the United Kingdom as a yardstick with which to measure U.S. news media ideology. To fulfill this research objective, this study examined the following research questions:

How ideological are mainstream online news outlets in the United States when compared to the United Kingdom across three hot-button political issues?

If one country's news media is more ideological than the other, what factors might explain the difference?

Case Selection

The two countries used in this research are the United States and the United Kingdom. The broadest reason for selecting the U.K. for this comparison is that, like the U.S., it is a western democracy, meaning different regime types could not be a possible explanation for different media landscapes, as would be the case if one country was authoritarian or totalitarian. News outlets in both countries also use English as the primary language, which makes comparison easier by allowing the original text to be analyzed rather than a translation. Furthermore, the U.S. and U.K. have certain similarities in their media standards. In both countries, the journalism industries themselves are charged with the responsibility of setting their own standards for ethical reporting practices. In the U.S., self-regulating bodies including, but not limited to, the Society of Professional Journalists (SPJ) have been formed to fulfill such a task. The core values of the SPJ's latest Code of Ethics are as follows: Seek Truth and Report It, Minimize Harm, Act Independently, and Be Accountable and Transparent (SPJ, n.d.). The U.K. has its own counterparts, such as the National Union of Journalists. Many items in the NUJ code are similar to the core values of the SPJ. For example, the NUJ code states that a good journalist "strives to ensure that information disseminated is honestly conveyed, accurate, and fair" and "obtain material by honest, straightforward and open means" (NUJ, n.d.). Both organizations

have explicit membership structures and are run by an assortment of committees and boards (SPJ, n.d., NUJ, n.d.). All of these similarities serve as constants, making the media landscapes of the U.S. and U.K. easier to compare.

As an additional note, the first half of the thesis was completed in London, England, providing further advantages for studying the United Kingdom in relation to the United States. For example, the instructor for one of the courses I took in London is a freelance journalist with a comprehensive understanding of the British news landscape. As such, I was able to receive guidance from a country expert as I compiled data from different sources.

Literature Review

United States

A study by Tim Groseclose and Jeffrey Milyo aimed to identify ideological values (ADA scores) of major U.S. outlets by a source-based approach: comparing the number of times each outlet cites or quotes particular interest groups and think tanks to the number of times that congressmembers refer to the same sources. For example, The Wall Street Journal had the same ADA score as the average Democrat, The New York Times had the same score as Senator Joe Lieberman (D-CT), and Fox News' Special Report had a similar score to Senator Susan Collins (R-ME) (Groseclose & Milyo, 2005: 1228). An important note is that the Groseclose & Milyo study excluded "instances where the member of Congress or journalist only cited the think tank so he or she could criticize it or explain why it was wrong" (Groseclose & Milyo, 2005: 1198). For my own research design, however, I chose to consider all ideological arguments being made in the article, and sometimes arguments involved criticism toward sources. Similarly, the previous study excluded, "cases where a journalist or

legislator gave an ideological label to a think tank” (Groseclose & Milyo, 2005: 1198). Under the belief that these statements may be an indicator of ideology, my study was not limited to references made without any value judgments of the source.

A 2010 study of U.S. newspapers used a similar methodology: comparing phrases used by members of Congress in the 2005 Congressional Record, determining what phrases are used by one party over another, and then examining how often these phrases appear in specific newspapers (Gentzkow & Shapiro, 2010). One of the study’s conclusions is that local newspapers adopt the political leaning of their given consumer market (Gentzkow & Shapiro, 2010). An important difference between this study and the one I conducted is that the previous study deliberately excluded all opinion pieces when measuring ideological slant. Operating under a prediction that op-eds might in fact be an important contributor to how ideological outlets may be, my study did not exclude op-eds when they were sampled.

The Supreme Court has been used as another yardstick of media ideology. Ho and Quinn (2008) analyzed 1500 editorials from 25 mainstream newspapers, comparing stances taken in editorials to the stances taken by Supreme Court justices. Using item response theory (IRT) models, outlets could be scored alongside justices; for example, editorials from The Wall Street Journal fall between the views of Justices Scalia and Rehnquist, while editorials of The San Francisco Chronicle fall between Justices Ginsburg and Stevens (Ho & Quinn, 2008: 364). This study, however, only explores explicit bias in the form of opinion pieces, differing from the study I aimed to conduct, which allowed for the analysis of implicit and explicit bias simultaneously through an article type variable.

AllSides also contains a database of bias ratings for mainstream news outlets in which the labels “Left,” “Lean Left,” “Center,” “Lean Right,” and “Right” are determined by many factors: Editorial Review teams, blind bias surveys, independent research, third-party data, and community feedback (AllSides, 2022). It aggregates news outlets onto a chart of these categories; for example, The New York Times was considered “Left,” The Wall Street Journal was labeled “Center,” and Fox News was deemed “Right” (AllSides, 2022). This database differs from my research design in that its methodology includes multiple forms of public perception surveys. Additionally, the end result on AllSides is an outlet-based analysis rather than a country comparison.

United Kingdom

In a 2019 study, Hameleers used the issue of Brexit to gauge the ideological leaning of U.K. outlets. Rather than “liberal” or “conservative” labels, he categorizes outlets into the “Leave” and “Remain” camps. For example, The Sun was categorized as the former due to statements such as: “Brexit is our chance to escape a burning building, we should flee before the EU drags us down,” and The Daily Mirror was categorized as the latter for saying: “This is why Brexit has already ruined Christmas” (Hameleers, 2019: 495). The Guardian, while categorized as a “Remain” sympathizer, was seen as less explicit in its ideological tilt; a quote that was cited was, “As every restaurant owner knows, this is a tough market and post-Brexit the pressures and unknowns have made it even harder” (Hameleers, 2019: 495). While my study shared the same research aims as Hameleers’s, I chose to 1) evaluate news coverage on a

liberal-conservative scope, and 2) conduct a quantitative study as opposed to a qualitative one.

Another study of Britain's media landscape was less focused on the ideological leaning of outlets and more interested in what sorts of content online outlets keep on the front page. Evidence suggests that high-traffic articles, regardless of topic, are 25 percent less likely to be removed from the front page in the short-term (Bright & Nicholls, 2014: 178). It was then concluded that the consideration of article viewership numbers means that the audience has become an important component of online news journalism, unlike in previous forms of news (Bright & Nicholls, 2014: 178). While that study took into account different news categories, such as sports and arts, it did not conduct an ideological content analysis; this is a gap that this study intended to fill.

Certain research on the ideological leaning of news outlets exist; for example, YouGov asked survey respondents to place mainstream U.K. news outlets on the left-right political spectrum (Smith, 2017). The Daily Mail was considered the most conservative outlet, as 88 percent of respondents labeled it as right-leaning. The Guardian, on the other hand, was considered the most liberal, as 71 percent of respondents labeled it as left-leaning. The ideological leanings of outlets as determined by the results of this research are entirely based on overall public perception, which contributes to an understanding of public attitudes towards outlets. My study, however, aimed to be more methodological in labeling ideology by sampling randomly-selected articles and developing criteria regarding the assignment of ideological values. This relies on content analysis of the articles.

AllSides, a previously mentioned news bias website, also contains ratings for mainstream U.K. outlets. For example, BBC was rated as “Central,” The Guardian was considered “Lean Left,” and The Daily Mail was considered “Right” (AllSides, 2022).

In a study by the Reuters Institute, scholars looked at the role of media in the 2019 U.K. General Election. It was found that The Guardian and The Mirror had endorsed the Labour Party during this time, outlets like The Sun and The Telegraph had endorsed the Conservative Party, yet most of the outlets consumed by the public did not make an endorsement, such as BBC News (Fletcher et al., 2020: 11). It was also discovered that in the week before the election, outlets deemed impartial by the study were used by 68 percent of those who voted Conservative and 60 percent of Labour voters. This was a greater percentage than those who only consumed news that endorsed their party— 42 percent and 20 percent, respectively (Fletcher et al., 2020: 19).

Expectations

This study is exploratory; however, based on previous research concerning political ideology in the U.S. and the U.K., certain predictions could be made regarding article ideology in U.S. and U.K. news media. Mainly, the existing research on the fracturing party system in the U.K. might possibly indicate that U.K. articles would not be as polarized on the liberal-conservative spectrum. Meanwhile, studies on the U.S. highlighted the strength of the two-party system. Thus, while it was unclear as to which country’s articles would be more ideological overall (it is theoretically possible for a country’s news coverage to be more ideological but one-sided), I

anticipated that U.K. news coverage would be less polarized than the U.S. media landscape across the same topics/issues.

Selection of News Outlets

Ten news outlets were selected to be used in the study, with five outlets from each country. The U.S. news outlets chosen were 1) CNN, 2) The New York Times, 3) Fox News, 4) The Washington Post, and 5) The New York Post. The U.K. outlets selected for the study were 6) BBC, 7) The Daily Mail, 8) The Guardian, 9) The Sun, and 10) Sky News. The process for selecting news outlets involved reviewing viewership rankings from multiple sources to determine five of the most prominent news outlets in each country. To do this, I consulted Statista and SimilarWeb, which each had separate lists of U.S. and U.K. news website rankings. I was also able to view news outlet rankings on the Pew Research Center's website. Because there was not an available U.K. ranking on this site, I obtained a third U.K. ranking from Semrush, which tracks website traffic. To determine which news outlets would be selected for the study, I noted the ones that appeared on all sites and were consistently in the top five. When analyzing these rankings, I disregarded internet-based companies, such as MSN, that mainly republish articles from other outlets. I also excluded social media, such as Instagram or Twitter, when they appeared on rankings. Of the ten outlets ultimately selected, this study does not assert any particular ranking in terms of popularity; this selection process was only followed to ensure that the news outlets used in the study could be considered mainstream. This is important because the outlets in the study need to be ones that the public interacts with regularly.

The Study Topics

I chose three political issues as the topics of the articles to be studied: 1) climate change, 2) COVID vaccines, and 3) immigration. These topics are issues that both countries experience, and selecting more than one topic to analyze provides greater diversity in articles; it accounts for the possibility that the media landscape can be more ideological in one issue area rather than in another.

These are also prominent issues in each country, but not on a partisan basis in the U.K. On the issue of climate change, 90 percent of Democrats believe the U.S. is doing too little to reduce the effects of climate change, while only 39 percent of Republicans share this view (Funk & Hefferon, 2021). In the U.K., the divide is not partisan— 47 percent of the Conservative Party and 48 percent of the Labour Party are somewhat worried about climate change— but attitudes toward climate change vary greatly based on age, sex, and education level (Fisher et al., 2018).

On the issue of COVID vaccines, a 2021 study showed that American adults were evenly split (50-50) over whether proof of vaccination should be required to eat inside a restaurant (Gramlich, 2021). U.S. Democrats are more likely to be vaccinated than Republicans, as 86 percent of Democrats have received a vaccine compared to 60 percent of Republicans (Gramlich, 2021). In the U.K., the divide over willingness to take the vaccine is not party-based, as 94.8 percent of Conservative voters and 91.4 percent of Labour voters stated that they are willing (Ansell et al., 2021). However, an identity-based difference can be seen; across multiple waves of surveying, people who voted “Leave” in the Brexit referendum were around 7 percent less willing to take the vaccine than those who voted “Remain” (Ansell et al., 2021).

In the U.S., increasing border security is a very or somewhat important goal for 91 percent of Republicans and only 49 percent of Democrats (Daniller, 2020). Inversely, establishing a way for undocumented immigrants to stay in the U.S. is an important goal for 82 percent of Democrats and only 48 percent of Republicans (Daniller, 2020). According to a 2014 study in the U.K., 86 percent of Conservative voters and 71 percent of Labour voters stated that the number of immigrants in the country should be reduced (Statista, 2014). There is a greater non-partisan divide over the issue, as majority of the British population (73 percent) believe the government handles immigration poorly, yet the top two reasons for this response come from opposite ideologies: 23 percent cite that more immigrants are needed to fill labor shortages, and 22 percent cite that immigration numbers are too high (English & Mann, 2021).

Chapter 2

METHODS

Data Sources and Collection

The data for this study is derived from three article archives: Nexis Uni from LexisNexis, Global Newsstream from ProQuest, and Google News. All sites offer filtering capabilities by keyword and date range. Nexis Uni was considered the primary archive, but because certain news outlets were not available for certain topics, the other two archives were used to bolster the sample size of the articles.

Samples

The sampling of articles was performed using a probability design. Sampling required conducting a series of archive searches in order to obtain articles from each outlet on each issue, and each search used certain parameters. First, a date range was entered for consistency purposes: March 1, 2020 to December 1, 2021. This date range was consistent for all 600 articles, regardless of topic. The March 1 date was chosen because there would not have been a sufficient amount of COVID articles before this time, and the December 1 date was chosen because sampling was beginning in December; without this end date, new events being reported could skew the data during sampling. The next search parameter was keyword, which narrowed the search results to the political topic of interest. The keywords chosen for the three political topics were kept broad to prevent undue bias in the search results: they were “climate

change,” “COVID vaccination,” and “immigration.” The final search parameter involved distinguishing the news outlet whose articles were being collected in each search. In Nexis Uni and Global Newsstream, the desired news outlet could be specified in the Advanced Search feature; for searches via Google News, including the name of the news outlet before the keyword helped to narrow the results to the target outlet.

With each search, articles were chosen randomly. The title and date of every third article listed was recorded on a spreadsheet until a “set” of 30 articles were selected from each outlet on each political issue. Anticipating that around 10 articles in each set would not be relevant enough to their respective political issue, the sets were then narrowed down to the desired number of 20 articles each. For example, one of the search results for CNN “climate change” articles was an article discussing the various outfits of Paris Fashion Week, only one of which pertaining to climate activism (Pellerin, 2020). If more than 10 articles in a set were deemed irrelevant, sampling was resumed by selecting every third result after the last-selected article. If less than 10 articles were deemed irrelevant, the articles sampled last were removed until a total of 20 remained.

Outcome Variable

The outcome variable of the study is the ideology of articles in the U.S. and U.K. samples.

For the variable of political ideology, articles were read and then coded based on their ideological leaning. The possible values were -1 (liberal), 0 (moderate), and 1 (conservative). The ideological value of an article was determined by a number of

factors. Strictly informative articles that did not include strong language by the author were considered moderate or coded as neutral. Moderate articles were also those that presented both sides of an issue without taking a particular position or political stance on the issue. Articles that advocated for a particular Democratic policy or agenda were considered liberal, and ones that advocated for Republican policies and agendas were considered conservative. Articles that condemned Republican politicians without condemning Democratic ones were considered liberal, and articles that condemned Democratic politicians without condemning Republican ones were considered conservative. The exception for this rule was if a Republican candidate was criticized for not being conservative enough or if a Democratic candidate was criticized for not being liberal enough; the former was coded as conservative, and the latter was coded as liberal. The same criteria applied to articles with an imbalance of praise. To reduce bias in coding ideology, two quotes were extracted from each article to justify its assigned value. For liberal and conservative articles, the quotes contained strong liberal or conservative language as proof of the article's bias. For moderate articles, quotes served one of two purposes. For strictly informative articles, the quotes contained facts. For articles that balanced liberal and conservative arguments, one quote from each side was extracted.

Although articles were coded on an ideological scale of -1 to 1, when regressions were run to determine levels of ideology present in the U.S. and U.K. samples, the ideology variable was mutated so that both liberal and conservative articles were coded as 1 (signifying the presence of political ideology), while moderate/neutral articles remained coded as 0.

Explanatory Variables

In this study, the core independent variable is the country of publication (U.S. vs. U.K.). This is to achieve the primary research goal of examining political news landscapes on a cross-national scale.

Because the study involves the five most mainstream news outlets in each of the two countries, domestic-level analyses could be performed. In these analyses, specific news outlets are considered the independent variable. Because each “set” only contained 20 articles, I chose not to focus on the ideologies of individual news outlets, as a greater sample size would be needed to put forth meaningful observations on this level.

Another variable coded in this study is key source. Should the type of sources relied upon in each country be different, this could explain a difference in ideology levels. The same premise applies to the different political topics; different topics using different source types could explain differences in ideology levels.

Key source was captured using a series of categories:

1. Science/academia (i.e. scientists, professors, researchers)
2. Government/politicians (i.e. government officials and organizations, political officeholders and candidates)
3. Civilians/eyewitnesses (individuals not in a professional role)
4. Interest groups/activists (individuals and groups advocating or known for advocating for particular causes or agendas)
5. No reference/anonymous (articles that do not cite the source or refer to an anonymous source)
6. Business (i.e. corporations, representatives from major league sports teams)

7. Other news outlets
8. Multiple key sources (a value assigned to articles that relied equally on at least two of the above source types)

To code this variable, each source type was assigned a number. For each article, every reference to a source was counted, and the source type that was referenced the most was coded as the article's key source.

The final explanatory variable coded in the study is article type, which simply refers to whether an article is labeled as an opinion piece. If different article types are embedded with different levels of ideology, this could translate into the ideology of the country's sample. Non-opinion articles were given a value of 0, and opinion articles were given a value of 1. The archives provided section information next to the article (opinion, weather, world, etc.), but in the rare case that an article was missing this information, I searched for the article on the outlet's website to find it.

Chapter 3

RESULTS

U.S. and U.K. Ideology: Descriptive Statistics

In order to assess the ideological distribution of U.S. in relation to U.K. news media coverage, I first constructed a bar chart of all 600 articles. This revealed that a large majority of articles in both countries were moderate, only slightly less so in the U.S. The U.K. sample consisted of 37 liberal articles, 247 moderate articles, and 16 conservative articles. Of the U.S. sample, 52 articles were liberal, 226 were moderate, and 22 were conservative.

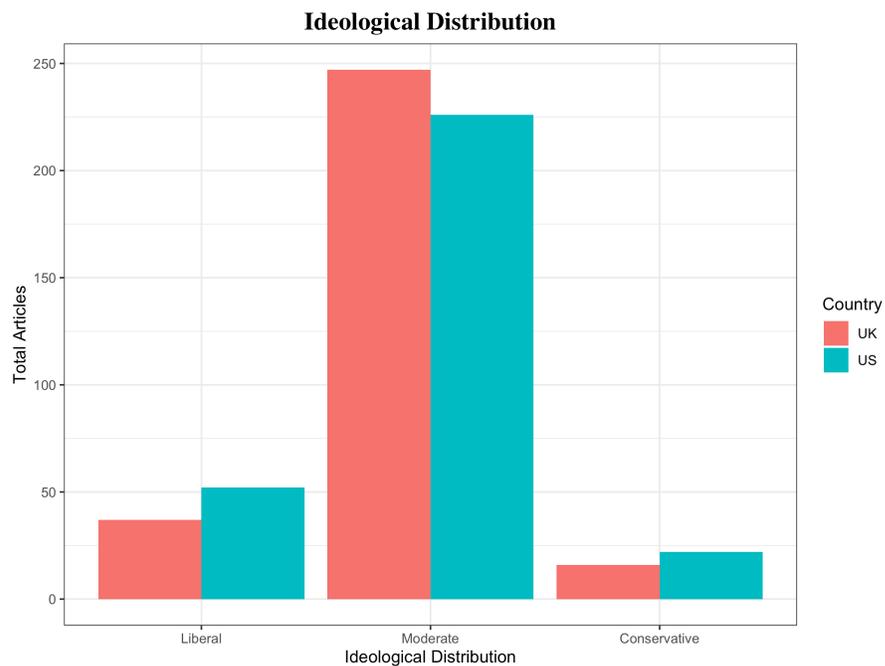


Figure 1 Ideological distribution of the entire samples of both countries.

To ascertain if or how these distributions change on the issue level, I created separate plots comparing the ideological spread of these countries across each of the three political topics (Figure 2). The distribution of the climate change articles was virtually identical to the distribution of both countries' overall samples. The distribution of the COVID vaccine articles, however, was the most moderate of all three topics; out of the 100 articles per country on COVID vaccines, 93 articles per country were coded as moderate. The U.K. sample had no conservative articles for this topic. Finally, on the issue of immigration, the samples of both countries were the most polarized. The U.K. sample consisted of 16 liberal articles, 74 moderate articles, and 10 conservative articles. The U.S. sample demonstrated an even stronger polarization, containing 29 liberal articles, 59 moderate articles, and 12 conservative articles.

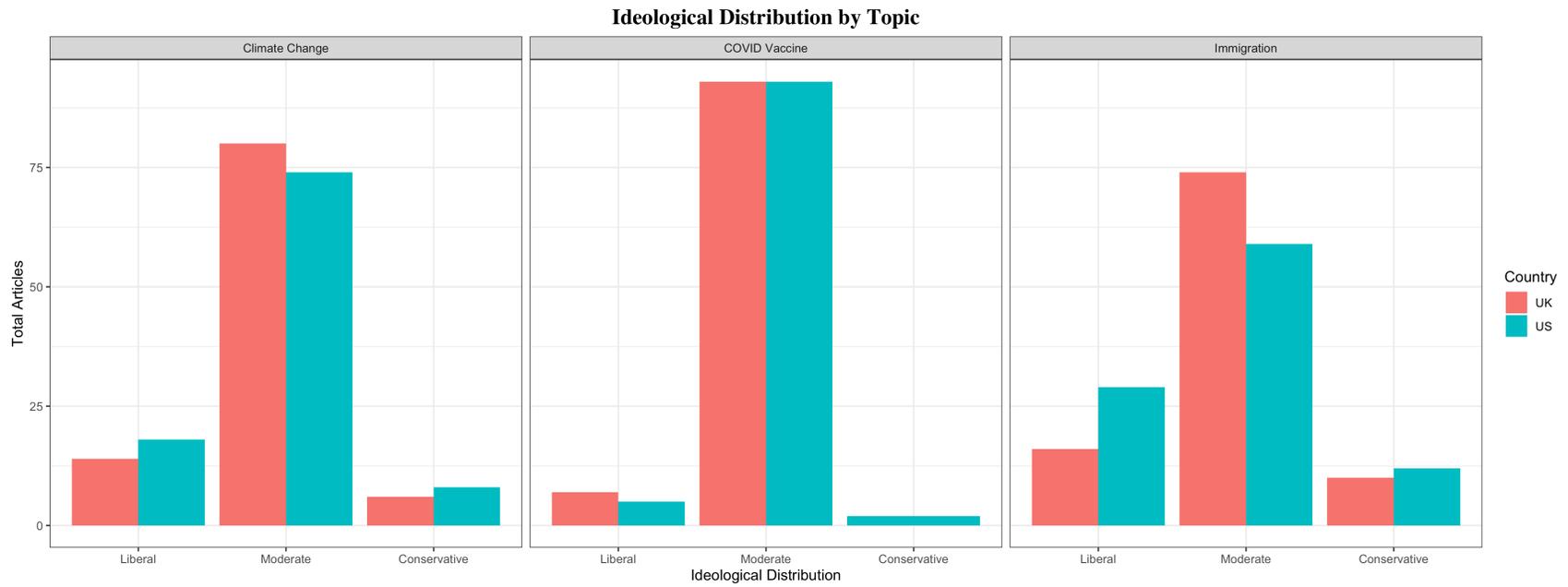


Figure 2 Ideological distribution of each issue for both countries.

Key Source Distributions

To determine if the sources relied upon in each country could explain the distributions, bar charts were created to visualize the amount of variety regarding the key sources used in articles (Figures 3-5). For the topics of climate change and COVID vaccines, the top 2 key sources used by each country are the same; both heavily cite sources in the “Government/Politicians” and “Science/Academia” categories. For the topic of immigration, both the U.S. and U.K. articles rely on the “Government/Politicians” category the most; in fact, this category is cited the most of any category for any political topic. However, the other key source categories for the immigration samples are the least similar between the U.S. and U.K.

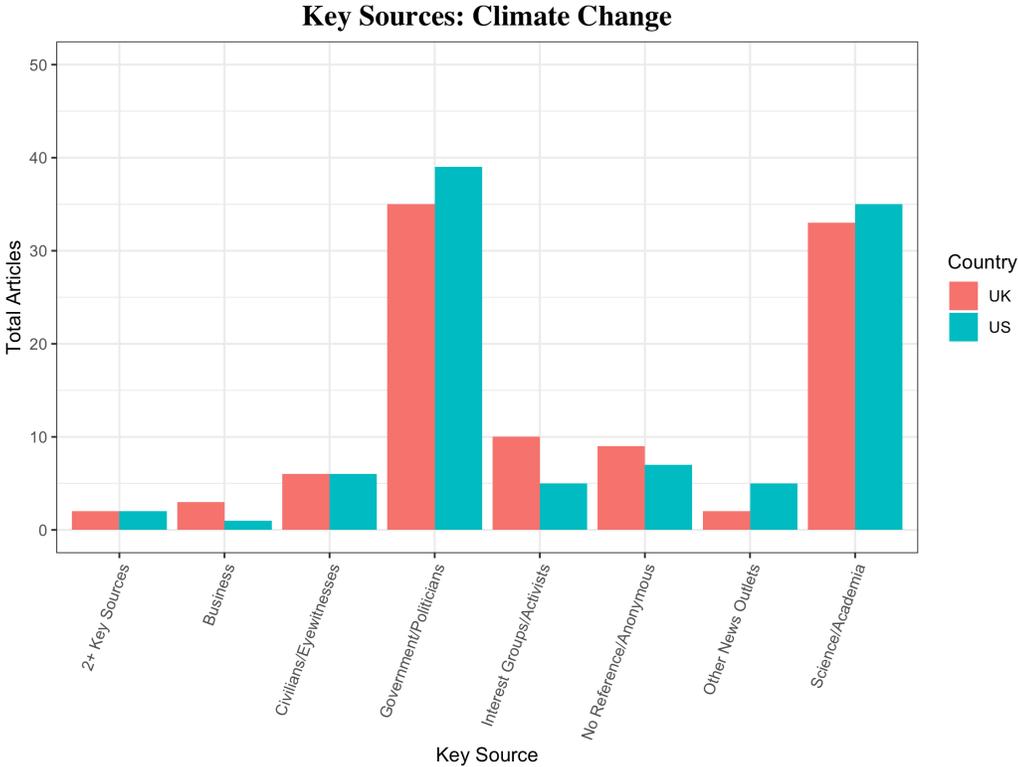


Figure 3 Distribution of key sources: climate change, both countries.

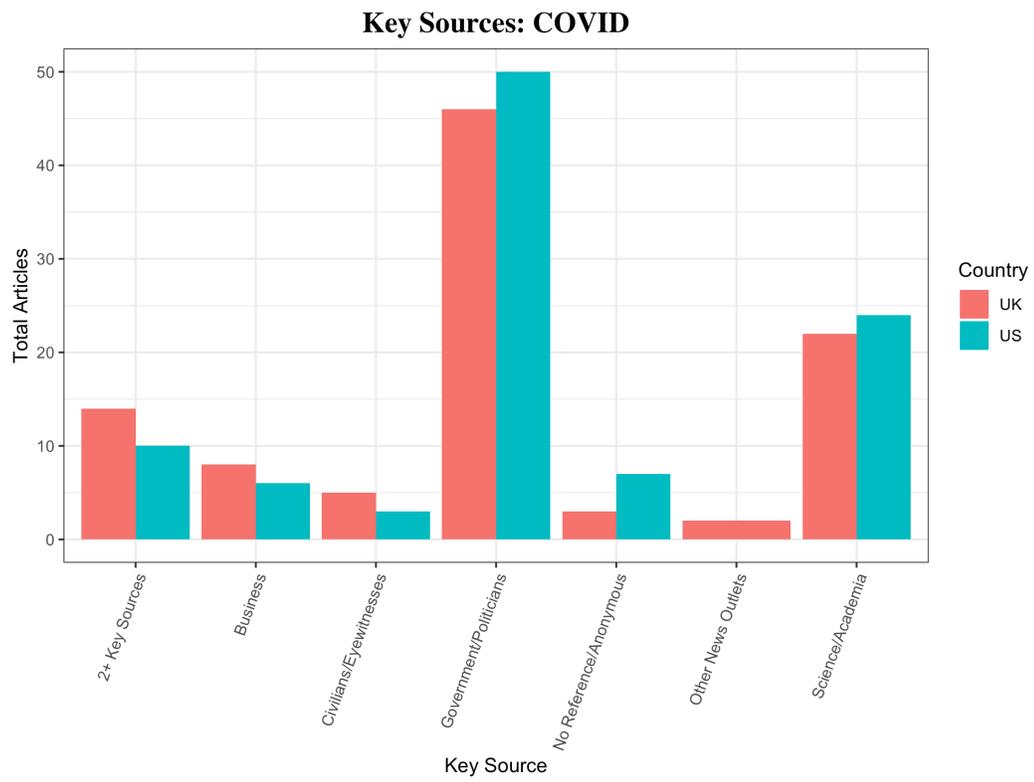


Figure 4 Distribution of key sources: COVID vaccine, both countries.

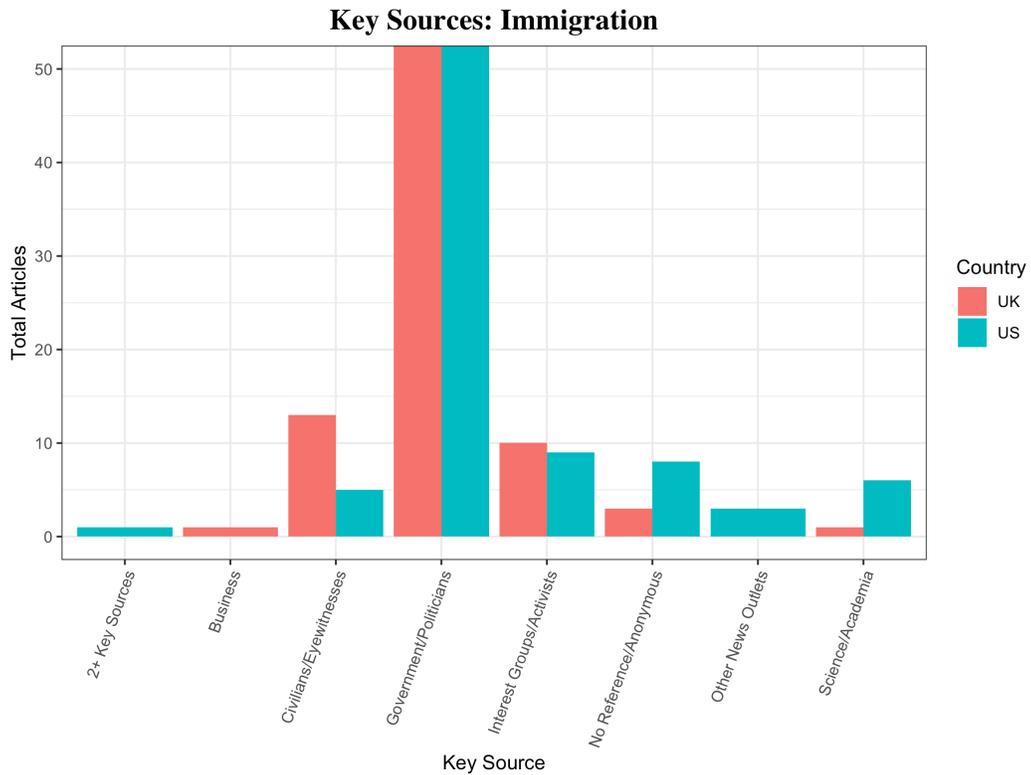


Figure 5 Distribution of key sources: immigration, both countries.

Levels of Ideology: Regression Models

In order to assess the extent to which coverage of the three issues across U.S. media sources are more or less ideological than U.K. news media coverage, I ran several Ordinary Least Squares (OLS) models where I regressed article ideology on country (U.K. as the comparison category), and accounted for each political topic (immigration as the comparison category), as well as the sources cited (“science/academia” vs. all other sources). To view levels of ideology, I mutated the political ideology variable so that ideological articles (both liberal and conservative) were all coded as 1. Moderate/neutral articles remained 0. Thus, the results of the regression are values on a scale from 0 to 1. Tables 1–4 report the results of these

regression models. For the ease of interpretation and to display the statistical and substantive significance of the findings, I then constructed coefficient plots with 95% confidence intervals.

As Figure 6 helps illustrate, across both bivariate and multivariate OLS models, U.S. outlets were only about 7 percentage points more likely to have an ideological slant. After controlling for the issue content and article sources, U.S. articles remained at 7 percentage points more likely than U.K. articles to take a liberal or conservative position.

Figure 6: U.S. Ideology Relative to U.K.

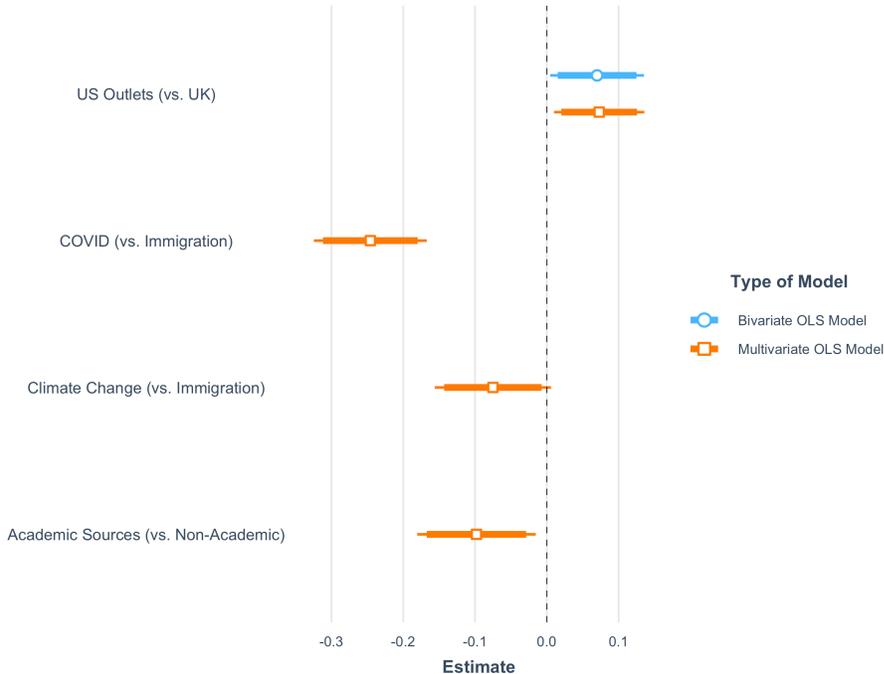


Figure 6 Bivariate and multivariate OLS regression coefficients with 90% and 95% CIs. Full Sample (600 articles). Outcome variable is article ideology (coded as 1 = liberal or conservative, 0 = moderate/neutral)

The results also show that immigration-related articles as a whole were more likely than COVID and climate change articles to have an ideological slant. Specifically, immigration articles were, on average, about 25 percentage points more likely than COVID vaccine articles to take a liberal or conservative stance than a moderate or neutral stance. Immigration articles were also found to be 8 percentage points more ideological than articles focused on climate change. Finally, the science/academia key source category was compared against the other key source types, and it was found that as a whole, the former was 10 percentage points less ideological than the latter. After controlling for all of these variables, the overarching finding was that U.S. articles were, on average, 7 points more ideological than U.K. articles.

To determine which political topic possesses the greatest difference in ideology levels between the two countries, I ran three OLS models, each comparing the U.S. articles to the U.K. articles for a different political issue (see Figure 7). The full results of this model can be found in Table 3 of appendix A. The model used the U.K. as the comparison category, to which the U.S. sample was compared. The results show that COVID vaccine articles in the U.S. sample were no more or less likely than the COVID articles in the U.K. sample to have a liberal or conservative slant. On the issue of climate change, the U.S. sample was more likely to hold an ideological stance by around 6 percentage points, but given the confidence interval, this difference is negligible and not statistically significant. Finally, on the issue of immigration, U.S. articles were more likely than U.K. articles to take a liberal or conservative stance by around 15 percentage points, the largest difference between the countries of all three topics.

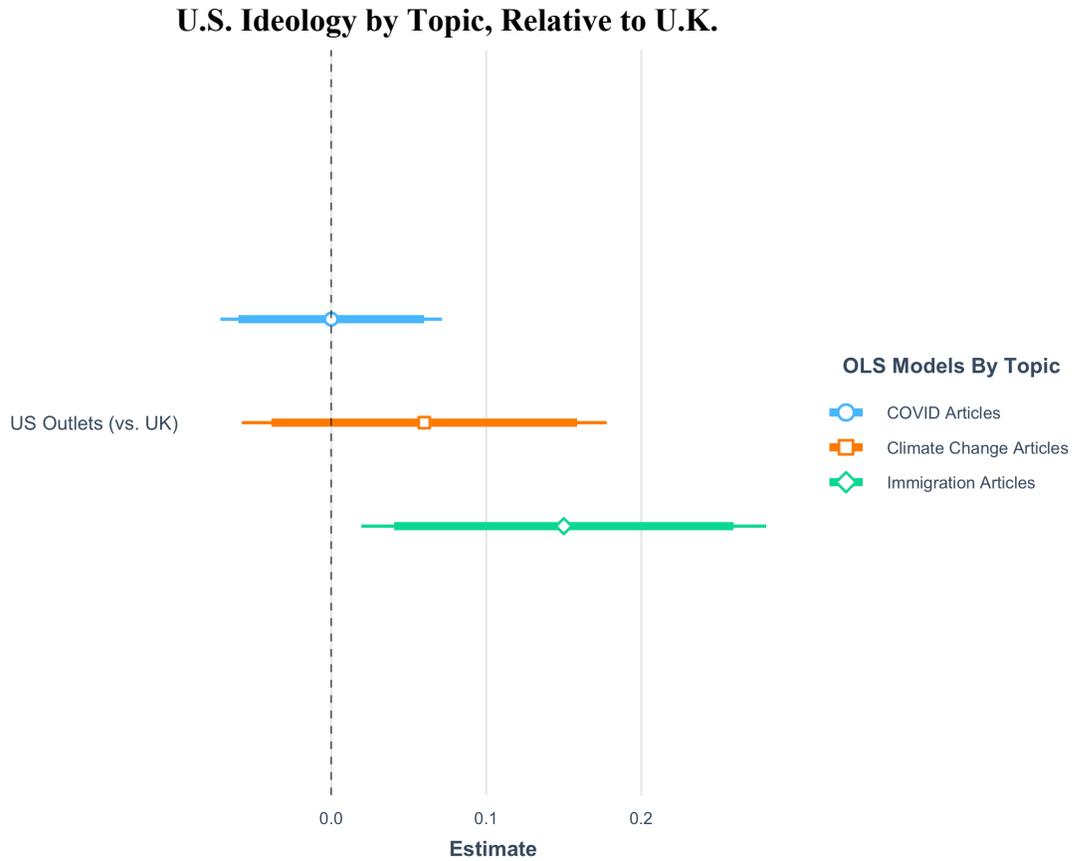


Figure 7 OLS models comparing the articles of U.S. outlets for each topic to those of the U.K. about the same topic.

Article Type

After running regression models that compared levels of ideology across topics and compared the ideology of articles with academic v. non-academic key sources, a regression was run that introduced a new control variable: article type. The reasoning behind the inquiry into op-eds was a 2008 study, which demonstrated the persuasive nature of these articles; it discusses how op-eds are one of the most effective ways for individuals to influence public policy (Sommer & Maycroft, 2008). This means that opinion articles are more ideological; they are regarded as highly subjective material

often consisting of “strong stands on issues of interest to the newspaper’s editorial board” (Sommer & Maycroft, 2008). Thus, if one country’s sample contained a greater number of op-eds, it might explain a difference in ideology level. It was then determined that the U.S. sample contains 48 opinion articles, while the U.K. sample contains only 14. By controlling for op-ed articles in a separate model, it might be discovered that the amount of opinion articles in each country’s sample influenced the sample’s overall level of ideology.

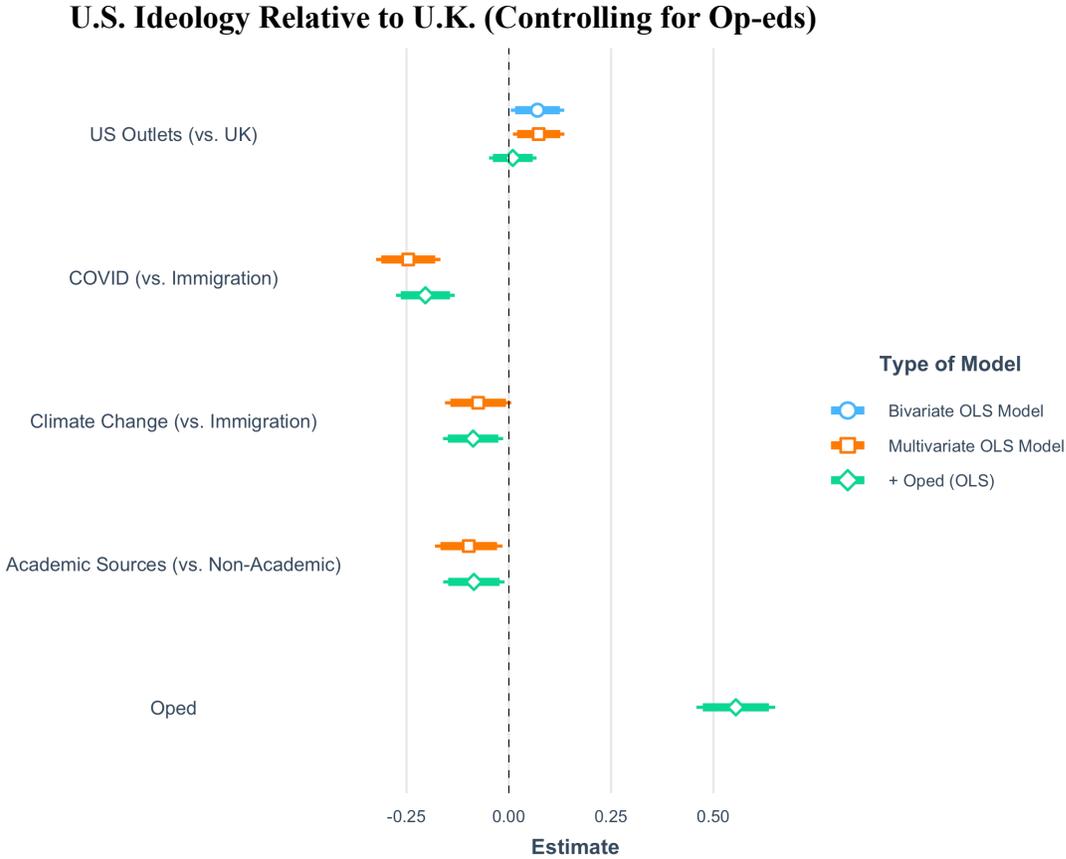


Figure 8 Bivariate and multivariate regressions of U.S. articles using U.K. articles as the comparison category, with opinion articles as an additional variable being controlled.

The regression suggested that this was the case. Once an updated model was created that accounted for opinion articles (Table 2 in appendix A), the difference in ideology levels between the U.S. and U.K. samples virtually disappeared, decreasing from a difference of 7 percent to a statistically insignificant difference of 1 percent. It was also discovered in this model that opinion articles were 55% more ideological on average than other articles. This is strong evidence that the higher number of op-eds in the U.S. sample contributed to its higher level of ideology.

Given that immigration was the most ideological topic of the U.S. in relation to the U.K., I wanted to assess if controlling for op-eds would lower the level of ideology in U.S. immigration articles. To achieve this, I ran another three OLS models for a topic-by-topic comparison between countries. This time, however, a fourth model was created, titled “Immigration + Oped,” to control for opinion pieces about immigration (Figure 9). Appendix Table 4 reports the full results of this regression.

The results show that after controlling for opinion articles, the difference in ideology levels between the U.S. and U.K. over the topic of immigration was reduced from a statistically significant 15 percent to 5 percent, which is not statistically significant. The main finding from the regression was that the additional ideological charge found in the U.S. immigration articles was driven by the op-eds in the U.S. sample, and the U.S. sample more closely resembled the U.K. sample once opinion articles were factored into the analysis.

U.S. Ideology by Topic, Relative to U.K. (Controlling for Op-eds)

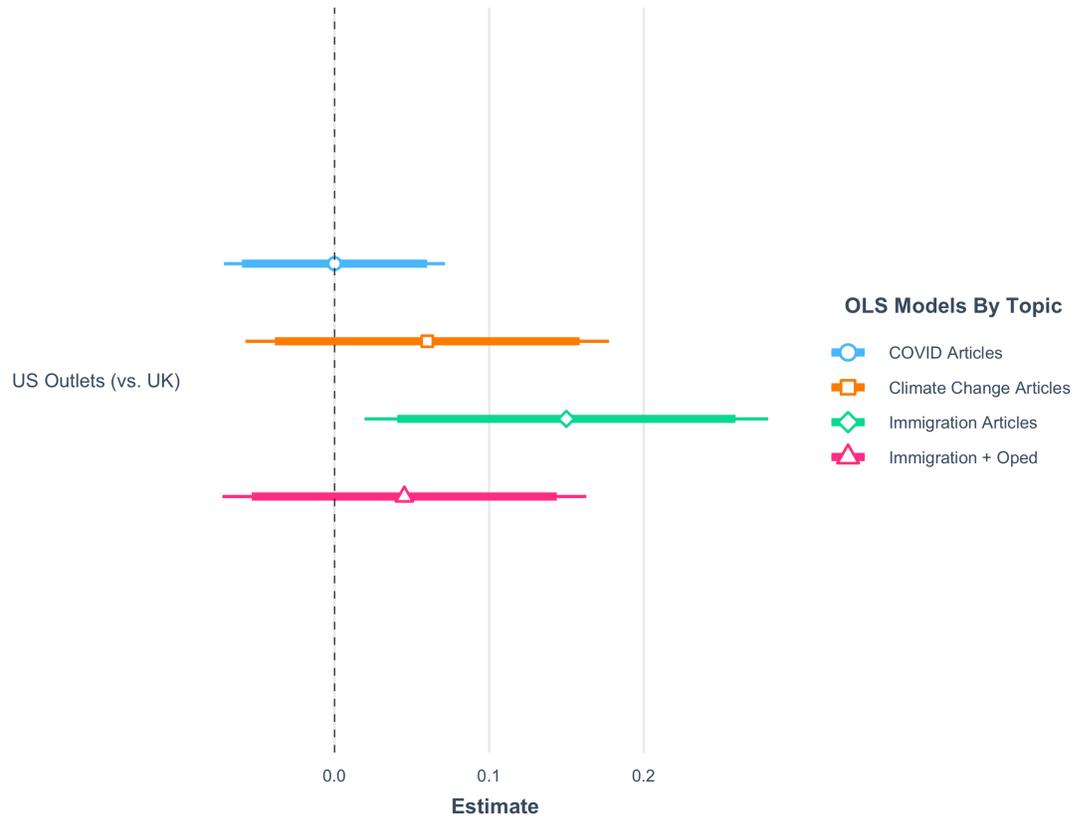


Figure 9 A recreation of Figure 2, but controlling for op-eds for the immigration topic.

Chapter 4

CONCLUSION AND DISCUSSION

This study is one of many that aim to garner an understanding of the political news landscapes of the U.S. and the U.K., although not many attempt to study the two comparatively through content analysis. One goal of this study is to determine how ideological mainstream news outlets are in both countries across controversial issues common to each. Additionally, variables were coded to suggest what journalistic properties might explain any ideological difference between the U.S. and the U.K.

The results for the first research question determining if there is an ideological difference between the two countries first show that the U.S. sample was slightly less moderate than the U.K. sample and more polarized in the liberal and conservative directions. There was variation across the political issues, but these variations were parallel for both countries; COVID was the most moderate topic, and immigration the most polarized. For the issues of climate change and immigration, there were fewer moderate articles in the U.S. sample than the U.K. sample; both countries had an equal number of moderate articles for the issue of COVID vaccines.

Bivariate and multivariate OLS regressions allowed me to conclude that the U.S. sample was only 7 percent more ideological, even after controlling for political topics and scientific/academic key sources. These regressions also uncovered that the driving force of ideology in the at-large sample was the immigration topic, which was 8 percent more ideological than climate change articles and 25 percent more ideological than articles about COVID vaccines.

These results demonstrate that U.S. news coverage is not nearly as ideological as U.S. society. On the issue of climate change, there was a partisan opinion gap of 51 percent regarding U.S. efficiency in reducing climate change. Regarding COVID vaccines, society was evenly split on their opinions of requiring proof of vaccination at restaurants, and there was a partisan gap of 26 percent regarding vaccination status. In terms of immigration, there was a partisan opinion gap of 42 percent over increasing border security. It was also established that the U.K. did not have a significant partisan divide on any of these issues. Discovering, then, that U.S. articles are only 7 percentage points more likely to have an ideological slant than U.K. articles provides a significant challenge to the idea that news media caters to existing political dynamics in order to advance business. If U.S. news media had been true to their business model of garnering attention and reactions, the share of moderate articles would not have been so large, and the level of ideology in U.S. news coverage would have been significantly higher than that of the U.K. Instead, the regression analysis suggests that American news coverage may in fact be more objective than the polarized American society claims it to be. In a society with a tendency to make generalizations and ideological judgments of news outlets, the findings of this study warn against jumping to such conclusions.

In preparation of searching for possible explanations for ideological differences between countries, the key source of every article was coded. However, this is not a probable explanation of why U.S. articles are more likely to be ideological. This is in part because controlling for scientific/academic key sources had no effect on the ideology gap; it remained at 7 points. Additionally, plots of key sources revealed that for every political topic, both U.S. and U.K. articles relied most heavily on the

same two key source categories. This indicates that U.S. and U.K. news outlets mainly report information from the same types of sources, meaning source type is likely not a strong determinant of these countries' news ideologies.

The other variable, article type, shows more promise in explaining why U.S. articles appeared to be slightly more ideological than U.K. articles. Once the OLS regressions controlled for opinion articles, the ideological effect in the U.S. sample goes away entirely, making the level of ideology in U.S. articles mirror that of U.K. articles. The reason why op-eds produce this result was also discovered: opinion pieces are, on average, 55 percentage points more ideological than regular articles. Therefore, a likely reason why U.S. articles appeared to be more ideological is because the U.S. publishes more op-eds, which adds a significant amount of ideological charge to its sample. The implications of this finding on the way society views news outlets should be significant; are U.S. news outlets truly as innately biased as people say, or are we truly just hearing the partisan voices of specific op-ed writers? Moving forward, I think it wise for outlets to make as clear as possible which articles are opinion pieces and which are being passed as objective news coverage. This way, we reduce the risk of associating ideological values with outlets that are more truthfully associated with op-ed writers.

Even though news coverage was already largely moderate in both countries, there is room to become more so. As was discussed in the introduction, different ideas regarding the strength of confirmation bias means news media either influences the public's views or it is used by the public to reinforce their pre-existing views. Regardless of the extent of confirmation bias, a possible suggestion moving forward may be to direct attention to maintaining or increasing the proportion of moderate

articles on controversial issues. One previous study noted that, "... the health of democracy is threatened when conflicts solidify and political identities crystallize into polarized groups" (Hobolt et al., 2021: 4). Because democracy is common to both the U.S. and the U.K., this area of research will hopefully spark future discussions on how to reduce news media's contribution to national political polarization.

In the meantime, we can find assurance in the notion that news coverage is largely objective in the U.S.— even more so when you distinguish opinion articles apart from standard ones. The fact that non-opinion journalism in the U.S. resembles that of the U.K., a nation without such strong bidirectional partisanship, is a reason not to lose faith in mainstream American news. Our society may be afflicted with negative partisan polarization, but regular news coverage does not seem to exploit it.

Openings for Future Research

Because the main product of research was a spreadsheet database of 600 articles, future research could use other independent variables recorded but not explored in this study. For example, article dates could be used to track levels of ideology over time on cross-national or domestic scales. Another variable that was coded but ultimately not used in the study was article tone, which measured how positive or negative an article is outside of political ideology (-1= negative tone, 0= neutral/both positive and negative, 1= positive tone). A separate study could be conducted using this variable to measure the overall levels of optimism and pessimism in U.S. and U.K. journalism.

Additionally, if an outlet-level analysis is to be conducted, other methods of measuring political ideology are available. Instead of measuring ideology based on the

way information is presented in an article, ideology could be recorded by *what* is presented in an article. An omission v. inclusion approach to analyzing news outlets could draw a comparison based on what events and facts are being reported by specific news outlets; the information itself may be objective, but whether or not it is reported by certain outlets may be an indicator of the outlet's ideological leaning.

Finally, a methodology that was not available for this study but may be valuable in future research is using machine learning to code variables. Having an automated system of reading, evaluating, and coding articles would provide time advantages and reduce human error in measurement.

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Appendix A

TABLES

Table 1 Country, Topics, Key Source

	Bivariate (OLS)	Multivariate (OLS)
US (v. UK)	0.07 * (0.03)	0.07 * (0.03)
COVID (v. Immigration)		-0.25 *** (0.04)
Climate Change (v. Immigration)		-0.08 (0.04)
Academic Source (v. Nonacademic)		-0.10 * (0.04)
(Intercept)	0.18 *** (0.02)	0.30 *** (0.03)
N	600	600
R2	0.01	0.09

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

Table 2 Country, Topics, Key Source, Op-ed

	Bivariate (OLS)	Multivariate (OLS)	+ Oped (OLS)
US	0.07 * (0.03)	0.07 * (0.03)	0.01 (0.03)
COVID		-0.25 *** (0.04)	-0.20 *** (0.04)
Climate		-0.08 (0.04)	-0.09 * (0.04)
Academic_source		-0.10 * (0.04)	-0.09 * (0.04)
Oped			0.55 *** (0.05)
(Intercept)	0.18 *** (0.02)	0.30 *** (0.03)	0.26 *** (0.03)
N	600	600	600
R2	0.01	0.09	0.25

*** p < 0.001; ** p < 0.01; * p < 0.05.

Table 3 Comparing U.S. to U.K. by Topic

	COVID (OLS)	Climate (OLS)	Immigration (OLS)
US	0.00 (0.04)	0.06 (0.06)	0.15 * (0.07)
(Intercept)	0.07 ** (0.03)	0.20 *** (0.04)	0.26 *** (0.05)
N	200	200	200
R2	0.00	0.01	0.03

*** p < 0.001; ** p < 0.01; * p < 0.05.

Table 4 Immigration Ideology, Controlling for Op-ed

	Immigration (OLS)	Immigration + Oped (OLS)
US	0.15 * (0.07)	0.05 (0.06)
Oped		0.70 *** (0.09)
(Intercept)	0.26 *** (0.05)	0.23 *** (0.04)
N	200	200
R2	0.03	0.25

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

Appendix B

R CODE

Dataset

https://docs.google.com/spreadsheets/d/1xBZAYnEgqXI2_b8LE2uTDCvPoNXaR0vM6W56ZP3VsTI/edit?usp=sharing

Code

```
#Load Packages
  library(readxl)
  library(tidyverse)
  library(jtools)

#####
#Upload Dataset #
#####
media_data<-read_xlsx("Media_Data.xlsx",
  sheet = "All") %>% as.data.frame()

#Variable Summary By Country
  media_data %>% filter(Country=="US") %>% summary()
  media_data %>% filter(Country=="UK") %>% summary()

#####
#Article Counts by Ideology and Country #
#####
#Create Two US and UK Datasets
  media_data_uk<-media_data %>% filter(Country=="UK")
  media_data_us<-media_data %>% filter(Country=="US")

#Create a table for ideological distribution for UK
  table(media_data_uk$Ideology_lib_con)
```

```

#Create a table for ideological distribution for US
  table(media_data_us$Ideology_lib_con)

#####
#Graphing Ideology by Country #
#####
media_data %>% mutate(article_ideology= case_when( #create a new variable called
article_ideology)
  Ideology_lib_con=='-1'~'Liberal',
  Ideology_lib_con=='0'~'Moderate',
  Ideology_lib_con=='1'~'Conservative'),
article_ideology=factor(article_ideology, #Set the order with factor
  levels = c("Liberal", "Moderate", "Conservative")) %>%
ggplot(aes(x=article_ideology, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Ideological Distribution",
  y="Total Articles",
  x= "Ideological Distribution")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"))
ggsave("ideology_plot.png", width = 8, height = 6)

#####
#Graphing Ideology by Country: Climate Change #
#####
media_data %>% mutate(article_ideology= case_when(
  Ideology_lib_con=='-1'~'Liberal',
  Ideology_lib_con=='0'~'Moderate',
  Ideology_lib_con=='1'~'Conservative'),
article_ideology=factor(article_ideology,
  levels = c("Liberal", "Moderate", "Conservative"))) %>%
filter(Topic == "Climate Change") %>%
ggplot(aes(x=article_ideology, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
scale_color_brewer(palette = "Dark2")+

```

```

labs(title = "Ideology: Climate Change",
      y="Total Articles",
      x= "Ideological Distribution")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"))
ggsave("ideology_plot_climate.png", width = 8, height = 6)

```

```

#####
#Graphing Ideology by Country: COVID Vaccine #
#####
media_data %>% mutate(article_ideology= case_when(
  Ideology_lib_con=='-1'~'Liberal',
  Ideology_lib_con=='0'~'Moderate',
  Ideology_lib_con=='1'~'Conservative'),
  article_ideology=factor(article_ideology,
                          levels = c("Liberal", "Moderate", "Conservative"))) %>%
filter(Topic == "COVID Vaccine") %>%
ggplot(aes(x=article_ideology, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Ideology: COVID Vaccine",
      y="Total Articles",
      x= "Ideological Distribution")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"))
ggsave("ideology_plot_covid.png", width = 8, height = 6)

```

```

#####
#Graphing Ideology by Country: Immigration #
#####
media_data %>% mutate(article_ideology= case_when(
  Ideology_lib_con=='-1'~'Liberal',
  Ideology_lib_con=='0'~'Moderate',
  Ideology_lib_con=='1'~'Conservative'),
  article_ideology=factor(article_ideology,

```

```

        levels = c("Liberal", "Moderate", "Conservative")))) %>%
filter(Topic == "Immigration") %>%
ggplot(aes(x=article_ideology, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Ideology: Immigration",
      y="Total Articles",
      x= "Ideological Distribution")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"))
ggsave("ideology_plot_immigration.png", width = 8, height = 6)

```

```

#####
#Graphing Ideology by Country: All Three Topics (FacetWrap) #
#####
media_data %>% mutate(article_ideology= case_when(
  Ideology_lib_con=='-1'~'Liberal',
  Ideology_lib_con=='0'~'Moderate',
  Ideology_lib_con=='1'~'Conservative'),
  article_ideology=factor(article_ideology,
        levels = c("Liberal", "Moderate", "Conservative")))) %>%
ggplot(aes(x=article_ideology, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
facet_wrap(vars(Topic))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Ideological Distribution by Topic",
      y="Total Articles",
      x= "Ideological Distribution")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"))
ggsave("ideology_plot_facetwrap.png", width = 16, height = 6)

```

```

#####
#Key Sources by Country: Climate Change #
#####
media_data %>% mutate(article_source= case_when(

```

```

Key_source=='0'~'Science/Academia',
Key_source=='1'~'Government/Politicians',
Key_source=='2'~'Civilians/Eyewitnesses',
Key_source=='3'~'Interest Groups/Activists',
Key_source=='4'~'No Reference/Anonymous',
Key_source=='5'~'Business',
Key_source=='6'~'Other News Outlets',
Key_source=='7'~'2+ Key Sources'),
Key_source=factor(Key_source,
  levels = c("Science/Academia", "Government/Politicians",
    "Civilians/Eyewitnesses", "Interest Groups/Activists", "No
    Reference/Anonymous", "Business", "Other News Outlets", "2+ Key
    Sources")) %>%
filter(Topic == "Climate Change") %>%
ggplot(aes(x=article_source, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
coord_cartesian(ylim=c(0,50))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Key Sources: Climate Change",
  y="Total Articles",
  x= "Key Source")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"),
  axis.text.x=element_text(angle=70,hjust=1,vjust=1))
ggsave("keysource_plot_climate.png", width = 8, height = 6)

```

```

#####
#Key Sources by Country: COVID Vaccine #
#####
media_data %>% mutate(article_source= case_when(
  Key_source=='0'~'Science/Academia',
  Key_source=='1'~'Government/Politicians',
  Key_source=='2'~'Civilians/Eyewitnesses',
  Key_source=='3'~'Interest Groups/Activists',
  Key_source=='4'~'No Reference/Anonymous',
  Key_source=='5'~'Business',

```

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Key_source=='6'~'Other News Outlets',
Key_source=='7'~'2+ Key Sources'),
Key_source=factor(Key_source,
  levels = c("Science/Academia", "Government/Politicians",
    "Civilians/Eyewitnesses", "Interest Groups/Activists", "No
    Reference/Anonymous", "Business", "Other News Outlets", "2+ Key
    Sources")) %>%
filter(Topic == "COVID Vaccine") %>%
ggplot(aes(x=article_source, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
coord_cartesian(ylim=c(0,50))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Key Sources: COVID",
  y="Total Articles",
  x= "Key Source")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"),
  axis.text.x=element_text(angle=70,hjust=1,vjust=1))
ggsave("keysource_plot_covid.png", width = 8, height = 6)

```

```

#####
#Key Sources by Country: Immigration #
#####
media_data %>% mutate(article_source= case_when(
  Key_source=='0'~'Science/Academia',
  Key_source=='1'~'Government/Politicians',
  Key_source=='2'~'Civilians/Eyewitnesses',
  Key_source=='3'~'Interest Groups/Activists',
  Key_source=='4'~'No Reference/Anonymous',
  Key_source=='5'~'Business',
  Key_source=='6'~'Other News Outlets',
  Key_source=='7'~'2+ Key Sources'),
Key_source=factor(Key_source,
  levels = c("Science/Academia", "Government/Politicians",
    "Civilians/Eyewitnesses", "Interest Groups/Activists", "No

```

```

Reference/Anonymous", "Business", "Other News Outlets", "2+ Key
Sources")) %>%
filter(Topic == "Immigration") %>%
ggplot(aes(x=article_source, fill=Country))+
geom_bar(position=position_dodge(width = .9))+
coord_cartesian(ylim=c(0,50))+
scale_color_brewer(palette = "Dark2")+
labs(title = "Key Sources: Immigration",
      y="Total Articles",
      x= "Key Source")+
theme_bw()+
theme(plot.title = element_text(size=16, hjust = 0.5, face="bold", family =
"serif"),
      axis.text.x=element_text(angle=70,hjust=1,vjust=1))
ggsave("keysource_plot_immigration.png", width = 8, height = 6)

```

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#####
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```
#OLS Regression Models #
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#####
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```
#First Create Variables of Interest
```

```

media_data_analysis <-media_data %>%
  mutate(US=case_when(Country=="US"~1,
                      Country=="UK"~0),
         article_ideology=case_when(Ideology_lib_con==1~1,
                                     Ideology_lib_con==-1~1,
                                     Ideology_lib_con==0~0),
         CNN=case_when(Source=="CNN"~1,
                       Source!="CNN"~0),
         BBC=case_when(Source=="BBC"~1,
                       Source!="BBC"~0),
         NYT=case_when(Source=="NY Times"~1,
                       Source!="NY Times"~0),
         WAPost=case_when(Source=="Wash Post"~1,
                          Source!="Wash Post"~0),
         NYPost=case_when(Source=="NY Post"~1,
                          Source!="NY Post"~0),
         FOX=case_when(Source=="FOX"~1,

```

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Source!="FOX"~0),
DailyMail=case_when(Source=="Daily Mail"~1,
Source!="Daily Mail"~0),
Guardian=case_when(Source=="Guardian"~1,
Source!="Guardian"~0),
Sun=case_when(Source=="Sun"~1,
Source!="Sun"~0),
Sky=case_when(Source=="Sky News"~1,
Source!="Sky News"~0),
COVID=case_when(Topic=="COVID Vaccine"~1,
Topic!="COVID Vaccine"~0),
Climate=case_when(Topic=="Climate Change"~1,
Topic!="Climate Change"~0),
Immigration=case_when(Topic=="Immigration"~1,
Topic!="Immigration"~0),
Academic_source=case_when(Key_source==0~1,
Key_source!=0~0))

```

```

#####
#Subset Dataset by Topic for Topic Regression Analyses #
#####
COVID_data<-media_data_analysis %>% filter(COVID==1)
Climate_data<-media_data_analysis %>% filter(Climate==1)
Immigration_data<-media_data_analysis %>% filter(Immigration==1)

#Number of Opeds by Country
US_data<-media_data_analysis %>% filter(Country=="US")
table(US_data$Oped)

UK_data<-media_data_analysis %>% filter(Country=="UK")
table(UK_data$Oped)

#####
#Different Models #
#####
#Run Linear Regression Model (OLS) on all articles comparing US to UK
#Bivariate Model

```

```

model1<-lm(article_ideology~US, data=media_data_analysis)
summary(model1)

#Run Same model as above, controlling for topic
model2<-lm(article_ideology~US+COVID+Climate+Academic_source,
            data=media_data_analysis)
summary(model2)

model2.1<-lm(article_ideology~US+COVID+Climate+Academic_source+Oped,
              data=media_data_analysis)
summary(model2.1)

#Table for paper
export_summs(model1, model2, model2.1, scale = TRUE,
              ci_level = 0.90,
              model.names=c("Bivariate (OLS)", "Multivariate (OLS)", "+ Oped (OLS)"))

#Plotting two models results with 90% and 95% Confidence Intervals
plot_summs(model1, model2, model2.1, scale = TRUE, inner_ci_level = .9,
            coefs = c("US Outlets (vs. UK)" = "US", "COVID (vs. Immigration)" =
                    "COVID",
                    "Climate Change (vs. Immigration)" = "Climate",
                    "Academic Sources (vs. Non-Academic)"="Academic_source",
                    "Oped"="Oped"),
            model.names=c("Bivariate OLS Model", "Multivariate OLS Model", "+ Oped
                          (OLS)"),
            legend.title="Type of Model")
ggsave("regression_plots.png", width = 8, height = 6)

#Run OLS Models comparing US to UK outlets by individual topics
model3<-lm(article_ideology~US, data=COVID_data)
summary(model3)

model4<-lm(article_ideology~US, data=Climate_data)
summary(model4)

model5<-lm(article_ideology~US, data=Immigration_data)

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summary(model5)

model6<-lm(article_ideology~US+Oped, data=Immigration_data)
summary(model6)

#Table for paper
export_summs(model3, model4, model5, model6, scale = TRUE,
              ci_level = 0.90,
              model.names=c("COVID (OLS)", "Climate (OLS)", "Immigration
                             (OLS)", "Immigration +Oped (OLS)"))

#Plot for paper
plot_summs(model3, model4, model5, model6, inner_ci_level = .9,
           coefs = c("US Outlets (vs. UK)" = "US"),
           model.names=c("COVID Articles", "Climate Change Articles",
                          "Immigration Articles", "Immigration + Oped"),
           legend.title="OLS Models By Topic")
ggsave("regression_plots_by_topic.png", width = 8, height = 6)

```