

Major International Issues Undercovered By the News Media: Does Limited Supply Reflect Low Reader Demand?*

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April 28, 2024

Abstract

Many major international issues receive minimal news media attention. Does such lack of reporting reflect low demand? We first identify major underreported international issues through in-depth interviews with hundreds of foreign affairs professionals. Through additional interviews with news media professionals, we document significant heterogeneity in news rooms' editorial decisionmaking on international issues. Finally, we estimate demand for news stories on major international issues amongst two populations, U.S. residents and international relations professionals, divided into three distinct groups – 1) international relations faculty at colleges and universities across the United States; 2) current/former senior U.S. government officials who collectively served across (at least) three presidential administrations; and 3) international affairs-focused staffers at major U.S. think tanks. Results reveal significant interest in major undercovered international issues, suggesting that demand stories on these topics may significantly exceed their contemporary supply.

*WORKING PAPER. For comments on the project, we thank Edith Chapin, Tobias Heinrich, Yphtach Lelkes, Stephanie Perera, Ryan Powers, Marc Sandalow, Jacob Shapiro, Media@LSE's Working Paper Series anonymous reviewer, and participants of Georgetown University's CRITICS Seminar. University of California, Merced Institutional Review Board approval was given under application #UCM2021-125. For their research assistance, we thank Vanessa Cacayan, Dheera Dusanapudi, Rhiannon Gabrielle Enriquez, Orkun Eryilmaz, John Grammas, Jiahuan He, Constance Joves, Claudia Loomis, Mayra Maciel, and Ray Sun. Finally, for Qualtrics support, we thank Jung Chen. Any/all errors are the responsibility of the authors.

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1 Introduction

Existing research finds that major international issues often receive significantly different coverage levels by major international news media.¹ Why are some major issues covered significantly while others are not? Why, for instance, do particular refugee crises dominate the international headlines while others are scarcely covered even as they involve some of the most largest levels of human displacement? More specifically, does international news media coverage of major international issues reflect consumer demand? This is the central focus of this article.

Using survey experimentation, we estimate demand for international affairs content amongst two distinct populations: 1) U.S. residents; and 2) international affairs professionals consisting of a) international relations faculty at colleges and universities across the United States, b) current and former senior U.S. government officials who collectively served across (at least) three presidential administrations, and c) international affairs-focused staffers at major U.S. think tanks. The results reveal significant disparities between coverage and our estimates of demand.

We begin by identifying a set of major international issues that have been largely under-reported by the news media. We identified these by conducting in-depth interviews with foreign affairs professionals whose organizational experiences span the United Nations system; many of the world's largest international non-governmental organizations; major philanthropic organizations; think tanks; and foreign embassies; international associations, amongst others. We call these issues 'shadow topics' (and define them more thoroughly below). We then analyze tens of millions of news articles published by major international news media over the past roughly one decade, empirically confirming that the shadow topics we include in this study are significantly less likely to be covered than comparable international issues.

Next, we engage in-depth interviews with with current/former news media executives, editors, foreign bureau chiefs, foreign correspondents and freelance journalists with both direct and indirect insights into the nature of international story selection. These media professionals have worked with many of world's leading outlets reporting on international affairs.² We

¹Throughout this article, we refer to major international news media. We use this term generally to refer to the set of news outlets that are widely engaged in the United States. The specific sets of outlets consulted for our interview, content analyses, etc. varies. However, generally, they consist of major newspapers (e.g. *The Washington Post*) and digital native outlets (e.g. *Politico*). Although many of these are American, they also include major outlets like the *BBC* and *The Guardian*.

²Interviewees have worked on/from Afghanistan, Burkina Faso, Burundi, China, Colombia, Cuba, Ecuador,

find that factors that influence supply render alignment with demand unclear. First, editorial coverage decisions (editorial selection) vary considerably across outlets. Second, various factors that limit the set of international issues that (selection on capability) This is a clear departure from existing scholarship on media reporting on international affairs.

Finally, in survey experiments developed in consultation with news media professionals, we calculate demand for shadow topic news stories – framed in various ways and relative to leading headline news stories – and find that: 1) U.S. residents are nearly as likely to select the shadow topic previews as they are the headline news previews; 2) international affairs professionals were even more likely to.

Our results provide significant evidence that observed media reporting patterns on international affairs may not reflect an equilibrium with demand across these heterogeneous populations. In the discussion of this article, we engage further with our in-depth interviews and explore the separate, important impact of constraints on reporting that likely further account for observed patterns of reporting and their apparent disparity with demand.

The implications of this research are significant. As discussed below, the major international news media are a central source of the public’s and international affairs professionals’ knowledge of international events, with implications for their attitudes and behaviors. Results not only point to the existence of unmet demand for major under-covered issues but, combined with existing research, suggest that increases in their coverage may have meaningful impact.

More generally, our research provides a proof of concept—and more generally speaks to the potential—of academic-news media collaboration. Much attention has been paid, for instance, to academic-policy partnerships—even if many of those efforts remain nascent. However, academic-news media collaboration—particularly in the international affairs space—is exceedingly rare. To be sure, the media interview academics on foreign policy issues; they sometimes carry their articles in their pages, electronic or otherwise. However, partnerships rooted in shared understandings of problems, shared collaboration on tackling them—especially where

El Salvador, Haiti, Iraq, Israel, Libya, Mali, Mexico, Pakistan, the Palestinian Territories, Peru, the Philippines, South Korea, Sudan, Syria, Rwanda, Ukraine, Venezuela, Yemen, and Zimbabwe, amongst others. They have worked, or have reported as freelancers, for *Al Jazeera*, the *British Broadcasting Corporation (BBC)*, *BuzzFeed*, *The Christian Science Monitor*, *Canadian Broadcasting Corporation (CBC)*, *Der Spiegel*, *France 24*, *The Guardian*, *The HuffPost*, *Los Angeles Times*, *The New York Times*, *Public Radio International*, *Reuters*, *Vice*, *The Wall Street Journal*, and *The Washington Post* amongst others. (Some outlets are not listed here given interviewee requests for anonymity.)

quantitative methods can be brought to bear—is largely untrodden ground, and this effort represents one attempt to cultivate such space.

The remainder of this article proceeds as follows. Highlighting some of the key findings of our surveys and drawing from the broader body of scholarship, we first articulate the importance of patterns of major international news media reporting. That importance, in turn, motivates why understanding what drives patterns of reporting is its crucial—in this case, specifically, whether they reflect consumer demand. Second, we describe our extensive interviews with foreign affairs professionals and how we use those to identify major international issues that are undercovered in the news (in our language, ‘shadow topics’). Next, we reflect on existing studies on the media’s supply of international affairs content, updating this discourse with insights from our discussion with media professionals. Finally, we describe our pre-registered³ experimental design before presenting the results and discussing their significance.⁴

2 On the News Media’s Coverage of Major International Issues

Many major international events receive limited major news media attention. For instance, as the news media’s gaze has been largely fixed on the ongoing Palestinian-Israeli conflict, insurgent violence has forced millions of Sudanese from their country.⁵ We estimate that $\approx 32,000$ news articles published by the major international news media reference conflict in Gaza compared to $\approx 3,400$ for Sudan.⁶ Given the conflicts’ estimated deaths, this gives ≈ 0.922

³Please see B.8 for an important caveat regarding a mistake in our pre-registration for the U.S. resident population.

⁴Pre-registrations available anonymously through the following links: [Link 1](#) and [Link 2](#).

⁵For the latest displacement figures, see: data.unhcr.org/en/situations/sudansituation.

⁶To generate this estimate, we used Media Cloud, a multi-university collaboration involving Harvard University, Northeastern University and the University of Massachusetts Amherst, that allows scholars to query the content on news articles published online by a way range of news outlets. For this comparison, we generate article counts with the following queries: for the Israeli-Palestinian conflict: `(Israel* OR Palestin*) AND (conflict OR war OR fighting OR shooting OR bombing)` covering the period 10/07/2023 (when Hamas’ initial attack took place) through 04/08/2024; for the war in Sudan: `(Sudan*) AND (conflict OR war OR fighting OR shooting OR bombing)` covering the period 04/15/2023 (when the war reignited) through 04/08/2024. This query captures all articles referencing 1) either ‘Israel’ (or any derivative thereof—e.g. ‘Israeli’) or words derived from ‘Palestin’—e.g. ‘Palestinian’, ‘Palestinians’ and 2) at least one word related to conflict: conflict, war, fighting, shooting, or bombing. The logic for Sudan is comparable. For both queries, we search across 87 major news outlets (these include top American newspapers (e.g. *New York Times*, *Washington Post*) as well as digital natives news outlets (e.g. *Politico*).). See the full list [here](#). (Readers with familiarity querying text corpora will likely note that this approach is likely to result in some number of false positives. If we instead limit our queries to article titles only—an approach that is significantly less likely to generate false positives but will surely miss a number of true positives—the reporting patterns are effectively unchanged: 2,383 articles under this approach correspond to the Israeli-Palestinian conflict while 375 correspond to the war in Sudan.)

articles per conflict death in Israel/Palestine and ≈ 0.230 articles per conflict death in Sudan.⁷

Yet, other deadly conflicts fall further in the shadows. For instance, Shaver, Kazis-Taylor, Loomis, Bartschi, Patterson, Ver, Abad, Alqarwani, Bell, Bock, Cabezas, Felix, Gonzalez, Hoeft, Martinez, Keltner, Moroyoqui, Paman, Ramirez, Reis, Jr., Santos-Perez, Sikka, Singh, Tao, nad Aishvari Trivedi, Xu, You and Eskander (2023) document significant, ongoing violence in Pakistan’s Balochistan province—fueled in part by weapons flows from Afghanistan following the United States’ withdrawal from that country—that has received virtually no news media attention.

Existing research more generally documents significant differences in the coverage of international events when considered in terms of underlying human costs. Eisensee and Strömberg (2007) find that substantially many more deaths from drought are required to achieve coverage comparable to that afforded victims of volcanic disasters. Shaver et al. (2023, p. 2) find similarly disparate patterns across a wide range of international issues, ‘[f]rom reporting on refugee and asylum-seeker populations, communicable diseases and, separately, natural disasters in other countries, and death sentences handed down by foreign governments...’ Such reporting differences are also reflected across regions of the world (Eisensee and Strömberg, 2007; Golan, 2008; Segev, 2015; Dietrich and Eck, 2020).⁸

More generally, the work of scholars including Cohen and Green (2012) point to significant patterns of media underreporting on variables of central interest to scholars of political violence, human rights abuses, and other topics of social science inquiry in which data are otherwise difficult to acquire. For instance, news report data on political violence and social unrest around the world often systematically underreport particular types of political violence and social unrest (Miller et al., 2022; Larreguy et al., 2020; Gibilisco and Steinberg, 2022; Weidmann, 2015; Dietrick and Eck, 2020; Eck, 2012; Kalyvas, 2004; Von Borzyskowski and Wahman, 2021; Croicu and Eck, 2022; Zhukov and Baum, 2016), with implications for the inferences drawn from the widely cited/used datasets (Raleigh et al., 2010; Leetaru and Schrodt, 2013; Sundberg and Melander, 2013; LaFree and Dugan, 2007; Boschee et al., 2015; Salehyan et al., 2012)

⁷See: <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-181> and <https://reports.unocha.org/en/country/sudan/>.

⁸Beyond differences in overall levels of reporting, other works points to differences in the type of reporting that different issues receive – e.g. see the case of terrorism: Powell (2011); Huff and Kertzer (2018); Arva, Idris and Pervez (2017).

constructed from such reports (Shaver et al., 2022).

The international affairs professionals we surveyed confirm this with most agreeing or strongly agreeing that ‘[m]ajor news media reporting on international affairs often leaves out major global issues.’⁹ In short, there is significant evidence that many major international issues are left out of major international news media reporting and that, when they are, the reporting they receive lacks important details.

Furthermore, there is significant and growing evidence that these patterns of reporting have real consequences. First, the news media serve as a major source of international affairs information for members of the public (Iyengar et al., 2009; Aalberg et al., 2013; Soroka et al., 2013) and foreign policy elite (Shaver et al., 2023) alike. As Soroka (2003, p. 43) has previously observed, ‘[f]oreign affairs events most often take place beyond the realm of personal experience— if we learn about these events, it is almost surely the product of media coverage.’ This is indeed the case: most U.S. adults obtain their information about the world from the news media (Gallup, Inc, 2019). We confirm this more directly in our survey of U.S. residents.

There is also significant evidence that the major international news media play a central role in the continuing education of professionals who work, research, or teach in international affairs sphere. Although there is indubitable endogeneity between the issues that international affairs professionals promote and those that the media cover, there is strong evidence of causal effects of the media reporting on international affairs professionals’ knowledge. Avey et al. (2021) find that hundreds of current/former U.S. foreign policymakers ranked ‘newspapers and news magazines’ nearly as high as ‘classified U.S. Government reports’ as a ‘very important’ source of information for their job (and higher as a ‘somewhat important’ source). Erdos & Morgan (2015) similarly confirm the centrality of major news media reporting amongst international affairs professionals. Finally, our survey of international affairs professionals further confirms this: between 95% (current/former senior officials) and 97% (international relations faculty) report relying on major international news media as a primary source of information on international affairs. Strikingly, approximately one in three current/former senior U.S. officials and nearly

⁹More generally, most ($\approx 52.94\%$) of these current/former officials indicated that the issues they work(ed) on were either not covered by the news media ($\approx 7.69\%$) or were covered ‘but generally not in a manner reflecting the importance, trends, nuances, costs, etc. of the issues’ ($\approx 45.25\%$). Specifically, we asked ‘[w]ere the issues that you worked on during your time in office as a senior government official generally covered by the major international news media?’

one in every two international relations faculty in our surveys listed only major international news media as their primary source of information. Together, the findings depict broad reliance on news media both across specific job contexts and for more general knowledge of global affairs.

Second, international affairs professionals themselves identify the major international news media as an actor that influences international affairs. Specifically, we asked the current/former senior government officials and think tank staffers in our surveys about the influence of major international news media reporting on ‘the work you/your organization did during your time in office as a senior government official (i.e. by influencing which issues were prioritized, affecting funding streams, and so on)?’ The results are striking. Amongst current/former senior international affairs officials, major international news media were reported to have moderate to significant impact on their organizations’ work between $\approx 47\%$ and $\approx 63\%$ of cases.¹⁰¹¹

These responses reflect a large body of work depicting direct and indirect media effects on foreign affairs. From influencing public perceptions of and attitudes toward foreign affairs (Baum and Potter, 2008; De Vreese and Boomgaarden, 2006; Entman, 2004; Iyengar and Simon, 1993; Wanta, Golan and Lee, 2004), governmental foreign relief responses (Eisensee and Strömberg, 2007), and the strategic behaviors of non-state actors (Jetter, 2017), media’s effects are substantial.

3 Demand for Content on Major International Issues

Collectively, these empirical realities beg the fundamental question: what determines patterns of reporting on major international issues? Particularly, do such patterns reflect underlying demand? One dominant strategy for assessing determinants of reporting has involved macro-empirical analyses that adopt variables at the country-level (e.g. population size) (Segev, 2015), dyad-level (e.g. trade between country pairs) (Guo and Vargo, 2020; Golan and Wanta, 2003; Zuckerman, 2003; Chang, 1998), international event-level (Chang, Shoemaker and Brendlinger,

¹⁰Because responses fall on an 11-point scale (0-10), responses of 5 are the center of the scale. $\approx 47\%$ represents excluding responses of 5 whereas $\approx 63\%$ includes them. Amongst, international affairs focused think tank staffers, that range spans $\approx 43\%$ and $\approx 67\%$. The wider distribution stems from think tank staffers’ tendency to rate media’s influence as a 5.

¹¹These results are consistent with answers given during our separate, in-depth interview series. Professionals interviewed for this research frequently described international aid and donor assistance flowing to those causes which received significant news media attention and away from those that did not.

1987), etc.

Furthermore, major international news media outlets have generally been considered collectively—whether completely aggregate (e.g. Baum and Groeling (2009)) or based on other broad groupings (e.g. public vs. private outlets (Aalberg et al., 2013; Iyengar et al., 2009), belonging to countries with one regime type or another (Baum and Zhukov, 2015), delivering soft or hard news (Baum, 2002)). Yet, as we discuss below, considerable variation exists amongst the individual outlets that comprise the major international news media.

In Baum and Potter (2008)’s highly cited model of news media reporting, the demand of foreign policy elite do not factor in to the determinants of reporting patterns (which, as we discuss below, contrasts sharply with our interviews of editorial professionals). Instead, demand is assumed to come from the public generally: ‘The media primarily rely on leaders for access to information, that is, for their *supply* of the key market commodity... [And] the media are equally reliant on the demand of the public as the ultimate consumers of this information’.

Related scholarship describes reporting processes but without a specific focus on associated demand. For instance, Baum and Groeling (2009) explore variation in foreign policy content at the level of individual statements aired on major television networks, showing that such statements systematically deviate from objective assessments of elite foreign policy views. Nevertheless, it is unclear whether such variation reflects consumer demand, the values (or other non-commercial strategic interests) of the news stations themselves, or some other factor. Other scholars have explored the influence of particular media outlets on the international coverage of other outlets (Guo and Vargo, 2017; Golan, 2006).

Critically, throughout the literature referenced above, although factors likely associated with consumer demand feature within the pages of these studies, direct references to demand are scarce, and, at these macro-analytical levels, direct measures of demand are missing. For instance, Baum and Zhukov (2015, p. 387) explore variation in reporting across regime types. They distinguish the suppressive effects on news supply in non-democratic regimes with those capturing ‘the ‘true’ preferences of media organizations operating in Western democracies, most of which are privately owned and typically follow the traditional journalistic standards of newsworthiness to maximize audience’. Still, such ‘true’ preferences and their direct connection to consumer demand are assumed rather than established.

Furthermore, while a diverse body of work explores demand dynamics across a variety of issue areas (e.g. [Gentzkow and Shapiro \(2010\)](#); [Chopra, Haaland and Roth \(2022\)](#); [Segev \(2015\)](#); [Arango-Kure, Garz and Rott \(2014\)](#); [Chopra, Haaland and Roth \(2023\)](#); [Simonov and Rao \(2022\)](#); [Iyengar, Norpoth and Hahn \(2004\)](#)), we are unaware of any work focused specifically on individual consumer demand for international affairs content. This is the central focus of this article, which we seek to estimate through a pre-registered survey experiment.

4 Supply and Demand According to Media Professionals

One of our central qualitative contributions is to highlight the significant heterogeneity in editorial reporting considerations across major news media outlets. These insights come from in-depth interviews with current/former news media executives, editors, foreign bureau chiefs, international correspondents and other media professionals with direct insights into the nature of story selection, whose experiences span many of world’s leading outlets reporting on international affairs. Many interviewees requested (personal and/or organizational) anonymity. Thus, we limit how specifically we describe the organizations with which they work(ed). However, media organizations that our interviewees work(ed) include numerous organizations found by [Erdos & Morgan \(2015\)](#) as the most influential amongst professionals engaged on defense and national security, or trade/global economic issues. They include leading online news outlets; major global wire services; and major television/cable news stations.

In this section, following [Parkinson \(2023\)](#) and [Shaver et al. \(2022\)](#), we consider two sources of variation in international reporting: editorial selection and selection on capability.¹²

4.1 Editorial Selection

Many outlets pursue markedly different approaches in determining which international stories to cover and which not to (or how much attention to devote to them). As one interviewee summarized, describing international reporting:

‘There is no set formula in any news room, and certainly it is not consistent across the broadcast or digital journalism landscape... Each news room is different; each

¹²[Parkinson \(2023\)](#) describes these ‘editorial bias’ and ‘access bias’. [Shaver et al. \(2022\)](#) describe them as ‘editorial selection’ and ‘selection on capability’.

*editorial leader is different in terms of how they approach coverage decisions.*¹³

Their quote emphasizes the importance of heterogeneity both *across* organizations as well as amongst the individuals *within* them. We reflect on both dynamics.

At the organizational level, audiences targeted by outlets with foreign affairs reporting vary significantly as do the methods by which outlets seek to assess the efficacy of such efforts. One interviewee described the significant revenue streams that come from the financial industry: ‘[O]ur client is an international financial person, [a] global citizen who is interested in a lot of things... and one of their big interests is: ‘...How do I make money off of this news?’”¹⁴ Another compared coverage decisions across the major wire services: ‘A lot of [*Reuters*] coverage was driven towards a business audience... and [content] that would be more of interest to a general audience was not quite as important for them as it would be for a competitor like *AP* or *AFP*.’¹⁵

Others described their focus on responding to the demands of the American public: ‘All news is local.’¹⁶ ‘It [is] about covering local stories [and where] they intersect with national [and] international stories...’¹⁷ Yet, in significant contrast, another responded:

*‘I am asked often if our advertisers or sales of our newspapers have anything to do with our coverage decisions. At the [New York Times], I can tell you that it doesn’t.... [I]t’s a pretty healthy media company, and that financial health has given it the luxury of being able to decide how it is going to cover the world and where.’*¹⁸¹⁹

Relatedly one senior editor described the importance of news room values in driving coverage: ‘[*The*] *Monitor* has a deeply embedded set of values that drive our coverage...’ Accordingly, ‘[w]e try to not just do our coverage based on American interests... but we also try to keep an eye to stories that... speak to important things that are going on... staying mindful of stories that have dropped off the radar but that have good reason to be covered. The aim is to give

¹³President and CEO of the Radio Television Digital News Association. This was echoed by another interviewee, a *Buzzfeed News* reporter.

¹⁴Journalist for a major news organization.

¹⁵Former *Reuters* journalist.

¹⁶Former cable news executive.

¹⁷Former director for digital media in *WCBS-TV* and *CBS Television Stations Group*, describing coverage in New York in particular.

¹⁸Staff writer at *the New York Times Magazine* and former *Wall Street Journal* writer. Bolding applied by the authors for emphasis.

¹⁹Another *New York Times* interviewee confirms: ‘I think people outside of the news business often think: ‘Oh they are only going to report on this if there is a link to the United States, or if there are Americans involved.’ And, yes, that is often the case... sometimes a link to the United States helps... But it’s not always the case. Sometimes, we just rely on our own news judgment...’ (Journalist with the *New York Times*).

a richer picture not only of regions that people might assume they aren't interested in reading about, or are often written about only in limited contexts, but a more accurate representation of the world more broadly.'²⁰

Still others described their specific focus on writing for foreign policy professionals: 'We want to write about things that are in demand from the one [or] two thousand foreign policy professionals... we care about what [professionals] in the [National Security Council] want to read but not so much the average person'.²¹ Yet, even then, the set of policy professionals of interest varies: Another described their outlet's focus more broadly on policy professionals from governments around the world.²²

Nor are their efforts to track how well they respond to demand homogeneous. For some outlets, '[i]t's about attracting eyeballs and ears to your broadcast or digital stories... to be as high in the ratings as you can... to get as many unique visitors and video views to your website as you can...'²³ Yet, other media professionals spoke about very different, qualitatively informed processes: '[A] lot of it happens through word of mouth and hearing that a certain high-level person thought that [a given] article was worth reading.'²⁴ Similarly, other interviewees, directly involved in editorial deliberations and decisionmaking, described limited reliance on metrics (page views, clicks, etc).²⁵ 'We don't really have the technology to do that... [However,] policy impact is seen as very important internally. There is a high premium on it', further describing the importance when the outlet learns that senior policy professionals engaged with their work.^{26,27}

At the level of editorial professionals within organizations, additional factors drive supply with unclear alignment with demand. For instance, interviewees highlighted the influence of

²⁰Amelia Newcomb, Managing Editor, *The Christian Science Monitor*.

²¹Junior editor at an international affairs related publication.

²²Senior staff writer with a major economics and politics magazine/newspaper.

²³Former director for digital media in *WCBS-TV* and *CBS Television Stations Group*.

²⁴Junior editor at an international affairs related publication.

²⁵E.g. Amelia Newcomb, Managing Editor, *The Christian Science Monitor*. However, she further noted that the dearth was the result of an extended period of understaffing, rather than undervaluing analytics. 'This year, *The Monitor* rectified this and is leaning in firmly on analytics to understand how to be most effective in our work.' More generally, this case may speak to variability in practices amongst major news outlets given changing media economics and advances in/access to quantitative methods.

²⁶Senior staff writer with a major economics and politics magazine/newspaper.

²⁷Though, to be sure, the use of various methodologies is widespread amongst at least some outlets. Even still, the methodologies themselves vary: 'Not every company that operates newsrooms participates in this but a lot... conduct market research... There often are focus groups... or traditional research methods... But among the things that are tested is international news and how much of it do you want to see and know about...' (President and CEO of the Radio Television Digital News Association).

the particular backgrounds and values of individual editors on coverage decisions in ways potentially orthogonal to the global distribution of international events from which to select. One described tending to take their work on human rights abuses in South and Central America to one particular major global outlet because ‘their international editor worked in Latin America as a journalist and so he has a really deep interest in these stories.’²⁸

Importantly, editorial teams, even those of leading outlets covering foreign affairs, can be quite small, with the effect that heterogeneity in individual members’ backgrounds and knowledge can drive reporting: ‘A lot of time, we are not covering [particular international issues] because we all have our biases of areas [of the world] that we know better... We used to have an editor was a big Latin America person and now that [region is] a gap in our coverage.’²⁹ Similarly, multiple interviewees referred to the role of intuition: ‘You make it partially on... your years of experience in journalism and as a newsroom leader...’³⁰

Adding to the diverse influences on ultimate coverage decisions, some outlets delegate reporting decisions to their international correspondents: ‘[O]ne of the magical things about the organization... is that correspondents in the field have a great amount of freedom and leeway to decide on what they are going to report about and how.’³¹ In such cases, connections to demand are even more tenuous as decision making occurs outside of editorial headquarters.

4.2 Selection on Capability

We also consider impediments to supply. First, many issues are simply more difficult to cover than others. High costs³², logistical impediments³³, government censorship³⁴; and threats to the safety of journalists³⁵ are factors commonly cited by our interviewees. They described significant variation, for instance, in their ability to access conflict settings around the world – with some, like Yemen and Syria, exceedingly difficult to access and others like Libya and

²⁸Journalist with a major wire service.

²⁹Junior editor at an international affairs related publication.

³⁰Former director for digital media in *WCBS-TV* and *CBS Television Stations Group*.

³¹Journalist with the *New York Times*.

³²Reporter for an international news agency

³³Sub-regional News Director for a major news agency; also, former *Reuters* journalist; also, journalist for a major news organization; also freelance reporter for the *Washington Post* and other outlets.

³⁴Journalist working for the *New York Times*.

³⁵Former *New York Times* reporter; *Reuters* reporter in Latin America; also, French freelance journalist; also, Mexican/French freelance journalist who has reported for big U.S. media

Ukraine much easier to navigate.³⁶

While such factors are important, if they effectively prohibit reporting, which in turn accounts for mismatches in the supply and demand of international affairs content, our finding would not be particularly interesting as this would suggest that there is no clear way of increasingly supply to meet demand.

However, the story does not end there. Our interviews points to various, more nuanced explanations. For instance, path dependencies appear to have created particular patterns of supply. A staffer writer with the *New York Times Magazine* described the plausibly exogenous role that historical foreign bureau placement plays in influencing contemporary coverage:

*‘The Times has only three offices in Africa... [Whereas in Europe] just because of the legacy of other reporters that have been here largely since World War II, there are many offices... [and] it’s just more extensively covered. And actually I think that has to do largely with the fact that in the twentieth Century, a lot of places sent these organizations out after World War II to set up offices and the offices are still around... Part of the reason why some of these bureaus stay for as long as they do... [is] there might be a news assistant and a secretary and a driver that work in this place and they have worked at the Times maybe for twenty-five years and **we can’t just let go of that person because the news has shifted...** Sometimes the bureau is in a country because it’s easier to live there and the correspondent might have children and that has to be taken into account too. So there are a lot of practical issues related to where the office is going to be.’³⁷*

Other news professionals whom we interviewed independently spoke of the significance of foreign bureau placement on their outlets’ country-by-country coverage.³⁸ And although cost considerations once again appear to drive reporting decisions under such path dependencies, they are unlike the largely insurmountable restrictions imposed, for instance, by authoritarian governments that deny journalists access to entire territories or by intense levels of wartime violence that effectively prevent news reporting absent military escort. Instead, they appear to be rooted more firmly in historical practices; lifestyle considerations for staff; normative considerations related to the hiring and firing of local staff; and so forth.

Consistent with these descriptions, in a recent analysis of contemporary reporting pat-

³⁶Journalist with a major wire service; also, freelance journalist who worked with various major North American outlets.

³⁷Staff writer at *the New York Times Magazine* and former *Wall Street Journal* writer. Bolding applied by the authors to emphasize the particular emphasis on maintaining bureau presence even as news-relevant geographies potentially shift.

³⁸Journalist with the *New York Times*; former cable news executive; Amelia Newcomb, Managing Editor; *The Christian Science Monitor*.

terns, [Shaver et al. \(2023\)](#) provide quantitative evidence of an independent, substantial effect of bureau presence on country-specific reporting levels, indicating that such factors account for meaningful levels of variation in supply. [Larson \(1979\)](#) and [Wu \(2000\)](#) made similar observations decades ago, and this dynamic appears to continue to carry outsized influence on the issues to which readers are exposed in spite of the proliferation of information and communication technologies and social media that might have been expected dismantle such structural barriers to international news flow. This is all the more striking given expectations that such socio-technological developments—including ‘the expansion of blogging and user generated content... [would transform] the very nature of the news selection process... not only influenc[ing] the news selection process but also the very nature of global journalism’ ([Golan, Johnson and Wanta, 2009](#), p. 4).

Instead, as [Chang \(2009, p. 14-16\)](#) observed, even as the world has grown increasingly interconnected—increasing opportunities for the world’s ‘shadow topics’ to rise to the fore—‘[historical] structural imbalance and unequal flow in international communication are being reproduced... [such that] as far as... coverage of foreign news are concerned... most countries... turn out to be largely invisible’. Indeed, our interviews speak to this paradox—as one journalist interviewed described from a slightly different angle: ‘Governments [worldwide] are getting more savvy as to media’s role in the world... governments are actively trying to play the information game, ever governments that didn’t try to do it that much before. This moves you [as a journalist] into the role of a competitor... an adversary... I find that it’s getting more difficult to get at the stories that are critical of governments or systems.’³⁹

Although we withhold normative judgment about such choices, we note the clearly sub-optimal educational influence of such practices on the students, voters, policymakers, and other members of society who depend on foreign affairs reporting (again, see this paper’s introduction for clear empirical evidence of that reliance).

4.3 Joint Influences of Editorial Selection & Selection on Capability

A third and even subtler set of factors that emerges from our interviews concerns the important role that ‘intersectionality’ plays in the lack of coverage of many major international

³⁹Freelance reporter for the *Washington Post* and other outlets.

issues receive. We define ‘intersectionality’ as the blending of two or more issues/issue areas, which, on their own might be likely to attract news coverage, but once combined, result in issues that are much less likely to be covered. Our analysis of these cases suggests this happens for a variety of reasons, which we group under two broad themes below. In such cases, both editorial selection and selection on capability are often at play, making difficult efforts to distinguish between them—though by no means rendering such dynamics any less important.

First, the issues combine in ways that make the resulting issue more likely to fall outside the areas of expertise/focus of foreign affairs professionals and journalists alike. As a consequence, they lack experts to advocate for their coverage by the news media (or more generally to educate news media staff about their existence/importance in the first place) and/or they lack the designated news media staff whose job it is to cover such issues in the first place.

As one global development public relations professional explained very directly when describing development and humanitarian issues that tend to fall through the cracks: ‘The things that are most likely to be covered are things where there is a reporter whose job it is to cover it... [A given issue] really has to correspond with what the beat is for the reporters... when you talk about news coming from low and middle-income countries.’⁴⁰ In short, many major issues that occur in low and middle-income countries simply fall outside the purview of journalists assigned to those countries, a problem exacerbated as ‘there are fewer and fewer people whose job it is to write about news from low- and middle-income countries, and that is largely because [news] bureaus are closing, newspapers have less resources, and so the first that goes typically is the international bureaus and reporters abroad.’⁴¹

To give just one example, interviewees from the World Diabetes Foundation described the significant lack of reporting on the costs of chronic illnesses like diabetes during war and other humanitarian crises—and, therefore, the resulting lack of planning for the treatment of chronic illnesses in governments’/intergovernmental emergency response operations.⁴² In this case, the media might report significantly on chronic diseases in their health pages; they might report on war in the international pages. But, this issue is likely to fall through the cracks altogether as it does not cleanly fit within either focus area.

⁴⁰Global development public relations professional.

⁴¹Global development public relations professional.

⁴²Representatives of the World Diabetes Foundation.

Second, issues often combine in ways that make them more difficult to report on. Difficulty manifests in various forms. In some cases, resulting issues may be considered taboo. One interviewee, a media specialist with the United Nations Population Fund, the UN entity focused on sexual and reproductive health, described the significant difficulty he faces in encouraging reporters to focus on international patterns of sexual abuse within disabled communities:

‘The scale of sexual abuse that people with learning difficulties or other difficulties face is just shocking... but, disability is something that media don’t really know how to talk about... When it comes to disability [and sexual abuse], I think maybe there is sort of a stigma there... [and] I am not finding it easy to get journalists interested... the intersection between sex and disability is a place where there are [important] stories that have to be told but it’s difficult...’⁴³

In other cases, the difficulty comes from relative complex subject material. Rather than engaging in more detailed reporting to clearly convey the issue, they may ultimately avoid as they/their editors instead focus on simpler content more accessible to readers. For instance, one interviewee, an expert on the persecution of minority groups worldwide, described the lack of coverage of the persecution of Armenians in Syria during the Syrian Civil War given the complicated nature of walking readers through the issue, requiring them to first understand the historical presence of Armenians in Syria and so on:

‘[A] group could be known well but they might not be in the ‘right’ place for editors or readers to make sense of. For example, there are Armenians in Northern Syria who have been victimized in similar ways to the Yazidis and Syriac Christians but in a way ‘they are out of place.’ The Armenians are easier to cover if they are in Armenia or in Nagorno-Karabakh... But when they are in northern Syria... it [is] more difficult to... make sense of or portray in a news piece.’⁴⁴

Collectively, the numerous and often independent heterogeneous sources of variation in supply we identify raise fundamental questions about their relationship to general demand for content—particularly as concerns major global issues that have received little coverage in spite of their significant (human or other) costs associated.

⁴³Media Specialist, United Nations Population Fund (UNFPA). The UN official also provided statistics substantiating the claim: ‘Women with disabilities are up to ten times more likely to experience gender violence’, which is particularly striking given the already high base rate of psychological, physical, and sexual amongst females in general. Furthermore, ‘[y]oung women and girls with disabilities have the lowest levels of sexual health information and education.’

⁴⁴International affairs professional at Anti-Defamation League.

5 Identification Strategy

5.1 Shadow Topics in International Affairs

We first briefly describe what we call shadow topics as they are a central theme of this article, and understanding how they are defined and identified will assist readers. Broadly, shadow topics are international issues that: 1) involve significant human, environmental, or other cost or benefit (or the expectation of significant cost or benefit), according to the international affairs professionals interviewed for this research, and 2) have received minimal major international news media attention.⁴⁵

The task of identifying shadow topics is complicated because such issues are, by definition, largely unreported. To identify them, we have conducted more than 200 in-depth, semi-structured interviews with current/former international affairs professionals from across i) the United Nations system; ii) major international NGOs; iii) international affairs-focused think tanks; iv) major internationally focused philanthropic organizations; v) foreign country embassies based in Washington DC; and vii) international associations, amongst other organizations. In addition to representing a wide variety of organizations, interviewees have also worked across a broad range of issue areas – from international criminal issues to international maritime issues to international postal issues, to name just several distinct examples. After defining shadow topics, we asked interviewees about any such issues relevant to their current or former work in foreign affairs that they have observed.⁴⁶ Very rarely did interviewees not share a shadow topic with us.⁴⁷ Major, under-covered international issues abound.

Interviewees highlighted a wide variety of shadow topics ranging from the educational consequences of ‘period poverty’; patterns of elder abuse around the world; environmental con-

⁴⁵We leave the definition (and accordingly in-depth interview question wording) intentionally general to accommodate various possible responses from policy professionals. Sometimes, ‘shadow topics’ responses refer to clearly discrete issues (e.g. bottom trawling). In other cases, ‘shadow topics’ refer to particular aspects of broader issues that are well covered by the news media, while the particular issue is not. For instance, whereas (many, though not all) new refugees displacements receive significant coverage, issues like chronic displacement, which affect huge numbers of displaced persons, are scantily covered. In other cases still, entire countries, or regions of countries, were described as ‘shadow topics’—this occurred particularly around cases (e.g. the Democratic Republic of the Congo) where multiple major issues (e.g. large scale political violence, refugee flows, internal displacement, communicable disease outbreaks) are afflicting the population but collectively underreported. We give additional examples below.

⁴⁶The general language used to ask this question is provided in Appendix A.1.

⁴⁷When the survey experiment described in this paper was developed, we had conducted a relatively small subset of these, serving as the basis for the shadow topics which chose to include in the experiment.

sequences of bottom trawling; harmful effects of in-door cooking with biofuels; loss of indigenous languages; non-communicable disease treatment in crisis settings in which delivered aid typically does not include resources needed to manage such diseases; to name just several. In some cases, entire countries were identified as shadow topics by interviewees given high rates of suffering across multiple, largely unreported dimensions (e.g. the Democratic Republic of the Congo (DRC) and Yemen).

5.2 General Strategy

In brief, we sought to estimate demand for shadow topics relative to major domestic and international news headline events amongst 1) U.S. residents; and 2) international affairs professionals comprising a) international relations faculty across the United States, b) current and former senior U.S. government officials with a foreign policy focus, and c) international affairs-focused staffers at major U.S. think tanks. Although we do not specify an exact estimate of demand against which to compare our estimates, given very low rates of coverage of ‘shadow topics’ (by definition), we would expect similarly very low levels of demand for them if demand is driving their supply. (Instead, as we will show, *substantive* demand for shadow topics is effectively indistinguishable from that for leading headline news items.)⁴⁸

To do so, we designed an online survey experiment intended to mirror news preview displays on the leading pages of news outlets’ websites.⁴⁹ To create conditions in which respondents would choose amongst a set of presented news items based strictly on interest, respondents were told that their survey participation would begin/continue after they had first taken some time to catch up on the day’s news. We then randomly displayed to each respondent shadow topic article previews alongside previews of leading domestic and international news article headlines,⁵⁰ which they were asked to choose from. To achieve a design mimicking major news outlet styles, we drew directly from actual news previews published on major news websites, editing that

⁴⁸Indeed, as reviewers will see from the original pre-registrations, our early expectation in this project was that “shadow topic” demand would be low, and our original focus was on the potential to re-frame “shadow topics” presentation in ways that might increase interest in them. Experimental results, however, revealed the much more striking, important, and unexpected result of consistently high demand in such content, regardless of framing.

⁴⁹For empirical research designs that adopt somewhat similar strategies of exposing survey participants to news content, please see [Valentino and Weinberg \(2017\)](#) and [Zhukov and Baum \(2016\)](#).

⁵⁰As we discuss later, minimal edits were made to leading domestic and international news article headlines to ensure that survey respondents would not recognize them as stories they had already seen/read about.

content to produce final previews in consultation with news media professionals.⁵¹

Below, we first describe the populations from which we recruited survey participants. We then describe the survey/experimental designs in additional detail before turning to our statistical tests and results.

5.3 Survey Respondents

We surveyed two populations to estimate their demand for news about major undercovered international issues relative to headline news stories: 1) U.S. residents and 2) three sets of international affairs professionals: a) international relations faculty at colleges/universities across the United States, b) current/former senior U.S. government officials who served across (at least) three presidential administrations, and c) international affairs-focused staffers at major U.S. think tanks.

The U.S. residents were recruited by Cint, a digital consumer insights firm. Cint recruited online panels of U.S. residents who are at least 18 years of age. 5,383 respondents completed our survey⁵², representing all U.S. states, the District of Columbia, American Samoa, Guam, and the U.S. Virgin Islands, representing a diverse makeup of partisan, gender, ethnic and racial identifications; ages; educational backgrounds; and employment statuses. About half of respondents reported having traveled internationally. In Appendix C.1, we report the summary statistics of the U.S. survey sample.

In collaboration with William & Mary’s Teaching and Research in International Politics (TRIP) (Avey et al., 2023), we sent surveys to three targeted groups of international relations professionals: 1) 5,356 international relations faculty members across 973 U.S. colleges and universities; 2) 3,579 current/former⁵³ professionals who served across the Bush II, Obama, and Trump presidential administrations on issues relating to U.S. trade, development, or national security and who held the rank of ‘assistant/deputy director’ (or equivalent) or above; and 3) 3,690 professional staff with an international affairs focus employed by major U.S.-based think

⁵¹In Appendix B.3, we provide tables summarizing the original news titles and the titles of both domestic and international news used in our experiment with minimal modification for the experimental design purpose.

⁵²Defined here as those who completed both attention checks of our survey, which we used to ensure the quality of responses received.

⁵³A number of these individuals have remained or returned to government service. Thus, throughout this article, we therefore refer to these individuals as current/former officials.

tanks. Additional details about these groups and the process by which they were identified and contacted can be found under Appendix B.5.2, C.2 and in Avey et al. (2023).⁵⁴

Amongst the international relations professionals, we received a total of 1,347 survey responses.⁵⁵ The majority of participating faculty members indicated working on international relations/global politics and comparative politics and included Adjuncts ($\approx 2.98\%$), Assistant Professors ($\approx 9.32\%$), Associate Professors ($\approx 30.31\%$), Chaired Full Professors ($\approx 10.81\%$), Emeriti ($\approx 5.96\%$), Full Professors ($\approx 32.92\%$), Lecturers/Senior Lecturers ($\approx 3.35\%$), and Visiting Instructors/Visiting Assistant Professors ($\approx 0.75\%$).

The current/former senior government officials served in government for an average of 21.65 years and included military officers (nearly all general officers) ($\approx 5\%$); political appointees not-confirmable (deputy assistant secretary of defense, office director, special assistant) ($\approx 21.07\%$); professionals at the GS/GG 13/Band 4 level ($\approx 0.71\%$); professionals at the GS/GG 15/Band 5 level ($\approx 18.57\%$); Senate confirmable policy or department/agency leaders ($\approx 22.14\%$); and SES-level civil servants ($\approx 22.14\%$).

Finally, all responding think tank staffers confirmed that they work(ed) on international, global, or foreign policy issues and reported a wide range of specific focus areas – from environmental protection to migration and refugees to democracy and civil society to peace and security, and various issues in between; approximately 61.69% described holding either senior or board member positions.⁵⁶

5.4 Experimental Design

Respondents were shown three news article previews displayed side by side, mimicking news content presentation typical of front page major international news media websites (e.g. *cbnews.com*, *foxnews.com*, *washingtonpost.com*).⁵⁷⁵⁸ As described below, in addition to ‘shadow

⁵⁴There is no overlap between interviewees and surveytakers. Importantly, this rules out any possible obfuscation of results that may arise were the individuals who raised shadow topics with us the same who were then asked about them through the experiment.

⁵⁵Specifically, we received 805, 281, and 261 responses from the IR faculty, current/former policymakers, and think tank staffers, respectively.

⁵⁶Appendix C.2 reports the basic information about the three IR professionals that participated in our survey.

⁵⁷For laptop and tablet users, the three news previews were displayed horizontally; for mobile phone users, they were displayed vertically. The order of three previews were randomized for each respondent for each round of the question. See Appendix B.4 for more details.

⁵⁸Consistent with the front page layout designs of many major news websites, each news preview was constructed to contain 1) an image; 2) a small caption under the image with details about the photo and/or its

topics’ previews, respondents were exposed to a wide range of topics closely modeled after actual headlines news items. These included stories about celebrities/entertainment, sports, environment and climate change, technology, economics and business, domestic politics, international affairs, violence and conflict, art, public health, amongst others.

Our goal is to understand how demand for ‘shadow topics’ compares with that for headline news content—the set of national and international stories deemed most worthy of the time and attention of millions of viewers. As we describe and address later, this produces a clear interpretation of results: ‘shadow topic’ interest *vis-à-vis* that of leading news content. It also puts ‘shadow topics’ up against the highest standard—the set of content that news agencies deemed most important to display on their front (online) pages. As we will show, we estimate nearly identical demand (sometime slightly lower, sometimes slightly higher) between ‘shadow topics’ and these headline news controls. As will further later show, these results are not driven by differences in international vs. domestic content.

Before they were presented with the previews, the U.S. resident surveytakers were shown the following message: ‘Before starting the survey, please take a brief moment to catch up on a few short news stories randomly pulled from today’s headlines. *Simply click a **preferred** article on each of the next several pages.*’ On each of the three subsequent pages, they were then simply asked to select their preferred article from amongst the set of previews.⁵⁹⁶⁰ The international affairs professionals were presented with the experiment just one time given survey space constraints, and both the question and the news previews were presented on the same page. (See Appendix B.1 for demonstrations of both.)⁶¹

Of the three news previews simultaneously displayed, one featured shadow topic news content⁶², while the other two showed leading domestic or international news content. The pool of non-shadow topics for the U.S. resident survey consisted primarily of U.S. domestic news,

source; 3) a news title; and 4) a short summary of the news item under the title.

⁵⁹The instruction reads as ‘[p]lease choose your preferred article amongst these short stories.’

⁶⁰The instruction in the IR professionals survey was modified slightly: ‘Before proceeding, please take a brief moment to select one of these short news stories we pulled from today’s international news headlines that is of most interest to you. (Simply select a **preferred** article and then click the arrow to proceed.)’.

⁶¹The stories were not actually pulled from the day’s headlines, and we included language debriefing survey respondents about this at the end of the survey.

⁶²The set of possible shadow topics displayed to respondents included 1) the Africa Continental Free Trade Area (AfCFTA henceforth), 2) bottom trawling, 3) indoor cooking with bio-fuels, 4) global prevalence of elder abuse, 5) ‘period poverty’, 6) the loss of indigenous languages, and 7) protracted refugee displacement. (See Appendix A.2 for additional description of these shadow topics, Appendix B.6 for selected AfCFTA news previews.)

with 3 out of 21 of the total headline news previews focused on international issues. By contrast, given their clear interests in foreign affairs, international affairs professionals were shown only headline news items dealing with international events.⁶³ All previews were randomly drawn from a pool of previews – shadow topic previews from their own pool and headline news items from their own. Furthermore, the display order of three previews was randomized every time previews were displayed in order to eliminate any potential biasing effect of that might result from preview positioning.

⁶³See Appendix B.6.2 for additional details.

Before starting the survey, please take a brief moment to catch up on a few short news stories randomly pulled from today's headlines. *Simply click a **preferred** article on each of the next several pages.*

Please choose your *preferred* article amongst these short stories.



Cécile Gariépy

You've heard of extreme poverty in low income countries, but what about "period poverty"?

While you may be familiar with extreme poverty in low income countries, what about "period poverty" in relation to the global health crisis? Many individuals globally experience "period poverty" — a lack of access to pads or tampons due to financial constraints and cultural stigma.



Supplements for pets is a \$636 million industry. (Getty Images)

Supplements for your pets are a huge business

The American pet product industry, which is reportedly worth \$75 billion, has become a gold rush. Pet food is one of the food sector's fastest growing segments, and the category of pet supplements — from fish oil to probiotics — has grown year over year for the past five years.



Elderly women walk at a fast pace in a park during the third wave of the coronavirus pandemic. (Sean Gallup/Getty Images)

Brisk walking may lower risk for depression, study suggests

According to a new study in the journal JAMA Psychiatry, adults who performed 75 minutes per week of moderate-intensity brisk walking lowered their risk of depression by 18 percent. The study states that walking also reduces the risk of heart disease more effectively than running, when the energy expenditure of both activities is accounted for.

23

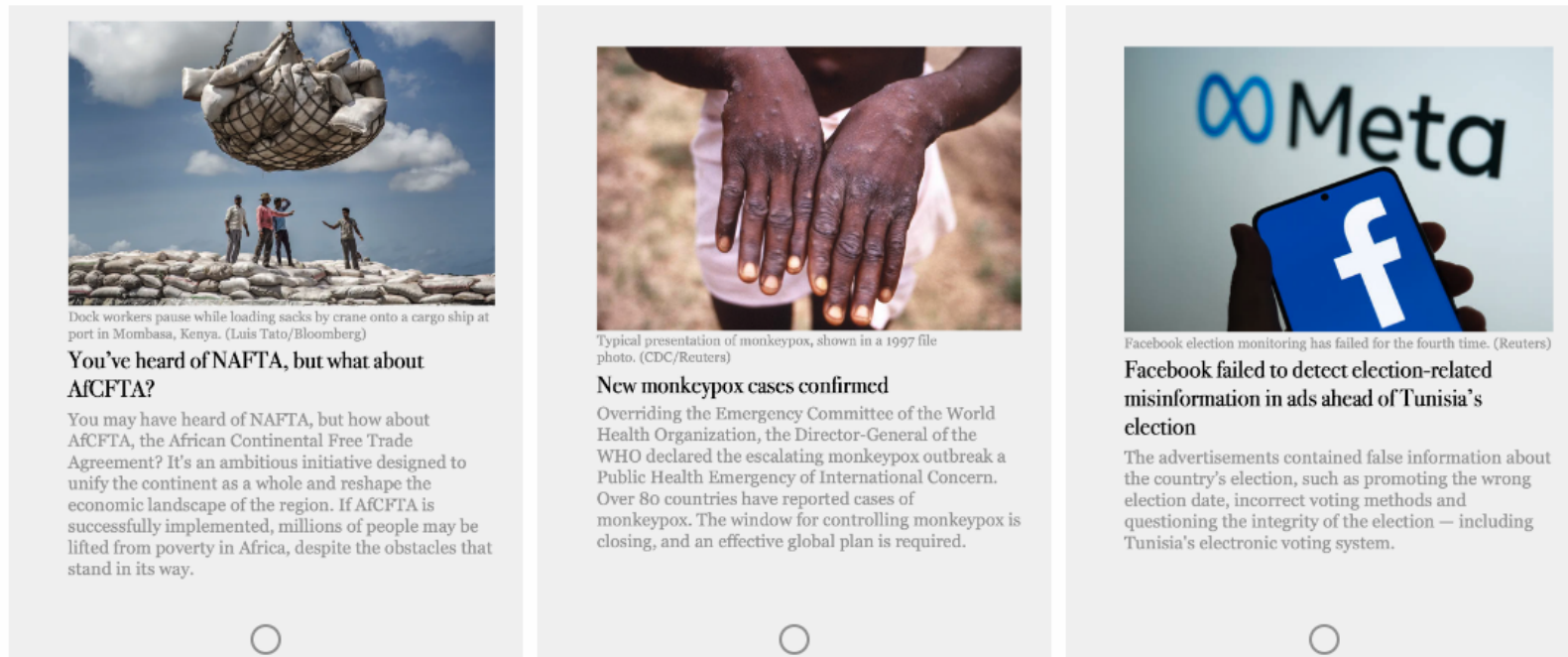


Question in the U.S. Residents Survey

Figure 1: This figure displays an example round of the survey experiment administered to U.S. residents. Given space constraints, we only include a single preview for brevity. Appendix B.6.1 for a complete list of non-shadow topic previews displayed to US residents.

Before proceeding, please take a brief moment to select one of these short news stories we pulled from today's international news headlines that is of most interest to you. (Simply select a *preferred* article and then click the arrow to proceed.)

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The figure displays three news story preview cards arranged horizontally. Each card features a top image, a headline, a sub-headline, and a short text snippet. Below each card is a small white circle, likely a selection button. The first card shows dock workers with a crane lifting sacks. The second shows hands with monkeypox lesions. The third shows a hand holding a smartphone with the Facebook logo.

Card 1:
Image: Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombasa, Kenya. (Luis Tato/Bloomberg)
Text: **You've heard of NAFTA, but what about AfCFTA?**
Text: You may have heard of NAFTA, but how about AfCFTA, the African Continental Free Trade Agreement? It's an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. If AfCFTA is successfully implemented, millions of people may be lifted from poverty in Africa, despite the obstacles that stand in its way.

Card 2:
Image: Typical presentation of monkeypox, shown in a 1997 file photo. (CDC/Reuters)
Text: **New monkeypox cases confirmed**
Text: Overriding the Emergency Committee of the World Health Organization, the Director-General of the WHO declared the escalating monkeypox outbreak a Public Health Emergency of International Concern. Over 80 countries have reported cases of monkeypox. The window for controlling monkeypox is closing, and an effective global plan is required.

Card 3:
Image: Facebook election monitoring has failed for the fourth time. (Reuters)
Text: **Facebook failed to detect election-related misinformation in ads ahead of Tunisia's election**
Text: The advertisements contained false information about the country's election, such as promoting the wrong election date, incorrect voting methods and questioning the integrity of the election — including Tunisia's electronic voting system.

Next

(a) Question in IR Professionals Survey

Figure 2: We only include a single preview here for brevity. See Appendix B.6.2 for a complete list of non-shadow topic previews displayed to IR professionals.

To ensure that the article previews were developed in a manner reflecting news media reporting styles, we consulted news media professionals about their design, and all news previews were edited by an external copy-editing professional who applied *Associated Press (AP)* style across all text elements to ensure their uniformity.

For each shadow topic preview, we generated one baseline news article preview about that topic. This baseline preview was based on an actual news article previously written by a major news outlet on the subject, which was edited as minimally as possible to ensure that survey respondents were exposed to actual professionally designed news content.⁶⁴ We also generated eleven alternative shadow topic previews to which different frames were applied.⁶⁵ In all cases, the frames involved making specific edits to the baseline article. The frames varied significantly – some provided first-hand accounts focusing on individuals directly affected by the shadow topic; others framed the issue in more quantitative terms, including statistics and data graphics in place of photos; others still focused on directly connecting the issue to the United States (complete details are provided in Appendix B.2).⁶⁶ Just as shadow topics themselves were randomly presented to respondents, so too was their framing.

Next, with respect to the alternative headline news previews, to ensure that they are as realistic as possible, they consisted of minimally modified versions of actual headlines news previews published in recent years on the front web pages of leading major international news outlets.⁶⁷ The modifications ensure that readers do not recognize any of these control stories as events that have already occurred, and they are edited to produce plausibly new stories.⁶⁸ However, using actual former headlines news article previews as our starting point ensures that

⁶⁴Edits were applied only to the extent required to reflect the global nature of the shadow topic accurately. For instance, we were unable to identify any articles written by the major international news media on global patterns of elder abuse. Thus, we modified an article that had been written on U.S. domestic elder abuse to reflect its international nature.

⁶⁵These included the shadow topic, ‘well-known issue comparison’, ‘governmental discourse’, ‘public (social media) discourse’, ‘engagement brings change’, ‘condensed presentation’, ‘quantitative presentation’, ‘optimistic’, ‘firsthand account’, ‘national identification’, and ‘personal/community identification’ frames, (see Appendix B.2 for details).

⁶⁶The U.S. resident survey takers were exposed to all eleven frames. Given the small sample size of the international affairs professionals, they were exposed to three frames.

⁶⁷See Appendix B.3 for the complete list and selection process.

⁶⁸For instance, one of the *BBC*’s headline news articles published shortly prior to the start of the experiment concerned a lawsuit filed by Brad Pitt against Angelina Jolie regarding ownership of a vineyard (*BBC*, 2022). We modified the preview to indicate that a judge had thrown the suit out – a plausible (but not actual) development in the news story intended to ensure that respondents who were shown this preview were shown the type of content that is actually displayed as headline news but in a manner that they would not recognize as something that had actually occurred.

readers are exposed to the actual images and languages news media professionals use in the production of headline news items. Critically, in comparing shadow topics with headline news content displayed on leading news sites, we have attempted to hold shadow topics previews against the highest standard—those national and international items deemed most worthy of front page attention. We do not simply seek to assess interest in shadow topics but in interest relative to content that dominates the headlines.

Overall, the experiment contained four different randomization processes: randomization across shadow topics; randomization across shadow topic framing; randomization of preview display order; and, finally, randomization of headline news preview controls.⁶⁹

5.5 Statistical Testing

We estimate demand for shadow topics by the probability of their selection (S) by respondent i during survey round r ⁷⁰, varying at random the framing to which they are exposed ($F_{i,r}$) and randomizing the two alternative headline news article previews to which they are simultaneously introduced. In our primary specification, we estimate the following model:

$$P(S_{i,r} = 1 | F_{i,r}, \mathbf{X}_i, \gamma_s) = \text{logit}^{-1}(\alpha + \sigma F_{i,r} + \beta' \mathbf{X}_i + \gamma_s) \quad (1)$$

Here, \mathbf{X}_i denotes respondents' demographics.⁷¹ Shadow topic fixed effects are given by γ_s .⁷² We use quasi-Bayesian Monte Carlo simulation to generate uncertainty estimates. We generate separate results for U.S. residents and international affairs professionals and further disaggregate amongst the three sub-populations of international affairs professionals.

Finally, we carry out a variety of robustness tests that confirm the stability of the results.

⁶⁹See Appendix B.4 for more information about the randomization process.

⁷⁰ $r \in \{1, 2, 3\}$ denoting each round of the experiment for U.S. resident surveytakers. For the international affairs professionals, $r = 1$ as they were only administered the experiment once.

⁷¹For U.S. residents, We include age, gender, education, race, ethnicity, income, political party identification, interaction with foreign countries at work, during travel or living, employment status, veteran status and the state they reside in the U.S. See Appendix B.7 for exact questions included in the survey. For the international affairs professionals, we include gender, age, race/ethnicity, education, their main source(s) of information about international events/affairs, partisan identification, political position on economic issues and social issues. Additionally, in sub-population regressions (e.g. regenerating results with only faculty members), we include additional covariates that are specific to that population but not the others (e.g. in the case of IR faculty, their rank (e.g. associate professor) within the university.) See Appendix B.7 for specific questions in the surveys.

⁷²For the U.S. resident survey, we collected approximately 55 responses daily from September 2022 to March 2023, thus we include time fixed effect to control for variables that are constant across respondents but vary over time. See Appendix B.5 for details in survey implementation.

These relate to including additional covariates; survey completion status; engagement checks; across-wave and across shadow topics-results; and sub-group testing that demonstrates the consistency of our results when the headline news controls are considered in terms of specific characteristics (specifically, whether they are international or domestically focused and, separately, whether they are focused on discrete or protracted issues). Robustness checks demonstrate that demand for ‘shadow topics’ news items is highly consistent. For parsimony, we describe and report these results in Section 6.2.⁷³

6 Results

The central findings are that we 1) estimate significant demand for shadow topics news amongst both U.S. residents and the international affairs professionals and 2) find that demand is highly persistent, varying only marginally across the various framings that were applied.

6.1 Primary Results

We estimate significant demand for shadow topics news amongst both U.S. residents and the international affairs professionals.⁷⁴ U.S. residents were nearly as likely to choose a shadow topics preview ($\approx 28.67\%$) as they were major headline news previews. International affairs professionals were more likely, choosing shadow topics in $\approx 36.62\%$ of cases.⁷⁵ (See Figure 3.)

These results are striking. Amongst U.S. residents, for instance, we find that interest in issues like elder abuse worldwide and the costs of menstruation in countries where it is stigmatized fared about as well as, and in some cases better than, major headline news items, including Nancy Pelosi’s visit to Taiwan and a lawsuit involving Angelina Jolie and Brad Pitt (to give just two examples). (Demand across individuals headline news previews are displayed under ‘U.S Residents, Headline News Preview Interest’ in 4.)

Also of significant note, estimates of demand for shadow topics are highly stable. When these shadow topic previews are reframed in manners substantially altering their presentation

⁷³Please see Appendix B.8 for discussion of several deviations from the study’s pre-registrations, and Appendix D for primary regression result.

⁷⁴Please see Appendix B.5 for details on survey response rates and other details about survey implementations.

⁷⁵Results amongst the three groups of international affairs professionals are similar: estimated demand is $\approx 37.27\%$ for IR scholars, $\approx 33.94\%$ for former senior foreign policy professionals, and $\approx 37.31\%$ for IR professionals in U.S.-based think tanks.

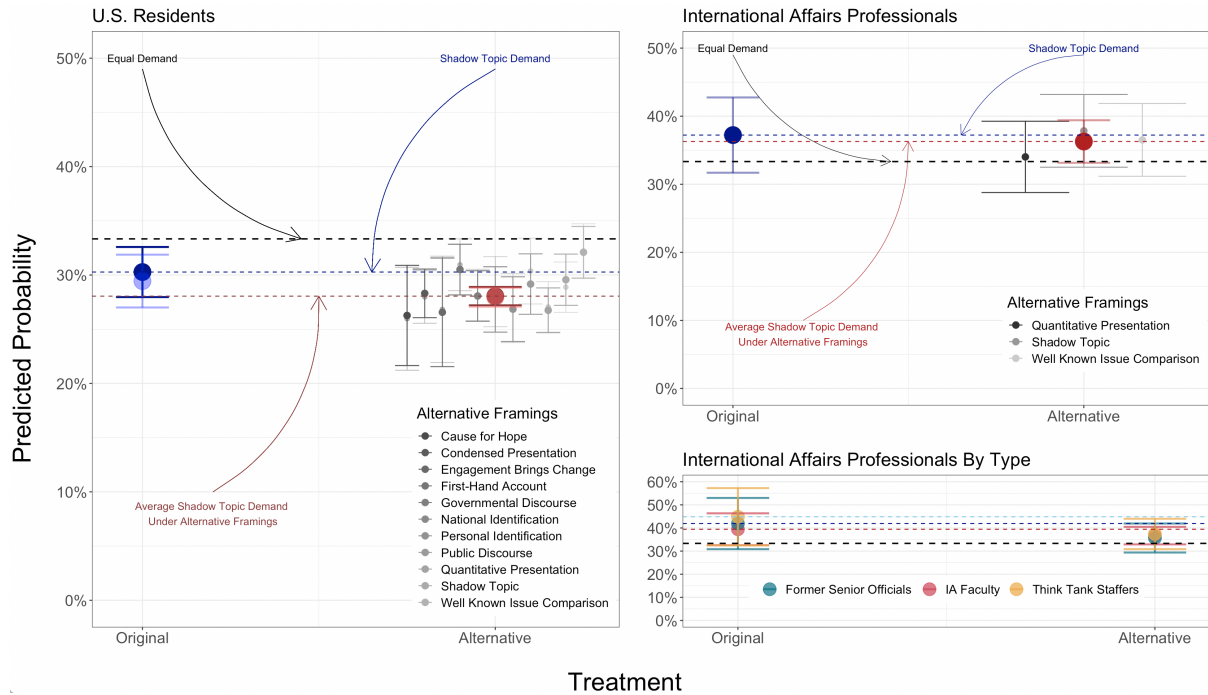


Figure 3: This figure depicts significant estimated demand for ‘shadow topics’ news article amongst both the U.S. residents and international affairs professionals. Clockwise from left: The first plot displays the predicted probability of ‘shadow topic’ article selection under the original framings (blue) as well as under the alternative framings (red). The second plot shows the same results for the international affairs professionals. Finally, the third plot disaggregates results across the three sets of international affairs professionals. Overall, all three plots show significant and highly stable interest in ‘shadow topic’ article previews relative to leading headline news items.

from baseline previews, we observe little change in their selection, evidence of underlying interest in the topics themselves and not in some peculiarity of the original news framing.

6.2 Robustness Checks

The results are robust to a variety of additional tests. First, we address the possibility that survey participants selected answers in some random or haphazard manner. If so, selection of shadow topic previews would be expected in about 33% of cases, calling into direct question the results that we report. This is perhaps of most concern as regards U.S. resident survey takers who were recruited from online panels and compensated monetarily for participating. We address this concern in four ways, which reveal clearly that this was not the case.

- i. We included two separate attention checks in the survey of U.S. residents, subsetting the dataset used to generate results to only those individuals who successfully completed

both checks and who were, therefore, clearly reading the questions and answering questions accordingly.⁷⁶⁷⁷⁷⁸

- ii. For one quarter of U.S. resident respondents, we asked them to explain why they chose the articles they did.⁷⁹ We then manually inspected their responses, subsetting the response to those who offered plausible answers and regenerating results.⁸⁰ Estimates of demand are very similar. See ‘U.S. Residents, Cases of Confirmed Engagement’ in Figure 4.
- iii. We generated results subsetting the data shadow topic by shadow topic. If respondents had selected article previews at random, we should observe little difference between demand estimates across the shadow topics. This is not the case. Rate of selection varies across topics. See ‘U.S. Residents, Shadow Topics Compared’ in Figure 4.
- iv. Finally, and directly following the preceding point, we also generated the predicted probabilities of each headline news preview being selected. Again, if previews were selected at random, these should also not vary significantly. This is also not the case: We find significant differences in interest across the headline news items, ranging from a predicted probably of $\approx 27\%$ on the low end to $\approx 50\%$ on the high end. See ‘U.S. Residents, Headline News Preview Interest’ in Figure 4.

Second, as described in [Experimental Design](#), U.S. resident surveytakers were administered the experiment three times. To address concern that participation in rounds two and three might have been influenced by participation in preceding rounds, we generated test results by round. Results of rounds two and three are consistent with those of the first. See ‘U.S. Residents, First, Second and Third Waves Compared’ in Figure 4.

Third, for the survey of U.S. residents, results are robust to including a series of political

⁷⁶The entire survey included two attention-check questions, one placed prior to the knowledge questions and one placed following the knowledge questions. The attention check question is designed to determine whether respondents read questions in our survey carefully, so respondents know the correct answers after reading the full question instructions.

⁷⁷Per the pre-registration, we subset responses to individuals who completed the entire survey (and not just the two attention checks). If we instead subset responses to only individuals who passed the two attention checks, results are virtually identical. For parsimony, We do not report them in the paper but can gladly supply them should the referees wish to see them.

⁷⁸We did not include attention checks in the survey of international affairs professionals given that these participants completed the survey voluntarily (and thus did not face any clear incentives as paid respondents might) to rush through responses. More generally, we are much less concerned about spurious responses from this population of individuals that currently hold or previously held positions of public trust/influence and had volunteered to participate in the survey to help advance research.

⁷⁹Following three rounds of news headline selection, respondents were asked to: ‘[p]lease explain in just a sentence or two why you made these particular news article selections. What stood out or was otherwise more interesting about these two choices than the others?’.

⁸⁰If a respondent provided a valid reason for their selection—for instance, indicating that the topic falls within their interests—we coded the answer as a case of clear engagement. If a respondent provided a vague answer—for example, repeating the content of the news previews—we code it as a ‘maybe’. Finally, if they provided an irrelevant or nonsensical response, or if they stated directly they did not know why, we coded the answer as not engaged. Two members of the research team collaborated to code the responses during a first round of review. They then cross checked the ‘maybe’ entries during a second round. We then generated both conservative and liberal estimates, treating the ambiguous (‘maybe’) cases as illegitimate and dropping them in the conservative case (retaining $\approx 74.17\%$ of the approximately one quarter of relevant survey responses) and keeping them in the liberal case (retaining $\approx 91.16\%$). Results are consistent under both approaches.

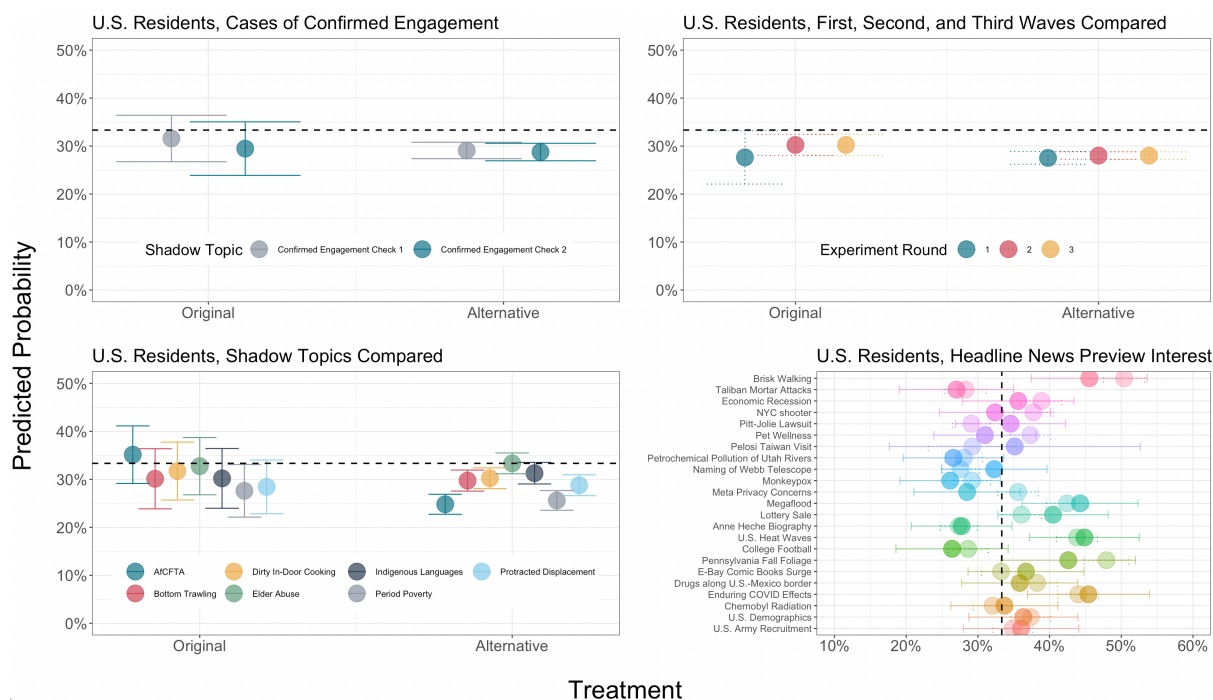


Figure 4: This figure displays various experimental estimates. Clockwise from top left: The first and second plots display the predicted probabilities of ‘shadow topic’ selection under both the original and modified framings (average). The first plot includes only those individuals who provided responses describing their answer choices. The second plot displays the probabilities disaggregated by survey round. The third image displays the predicted probabilities at which each of the alternative headline news articles were chosen. Finally, the last image displays predicted probabilities disaggregated by ‘shadow topic’. Collectively, the results provide strong evidence that the primary results are not the result of respondents choosing answers at random.

covariates as well as information on issues related their their knowledge of, attitudes toward, and sources of information about foreign affairs. (As described in this study’s pre-registration, responses to these questions may introduce post-treatment bias, if influenced by the experiment itself, might bias estimated treatment effects. Thus, we do not include these in our primary specification and instead generate results with them included separately. Furthermore, asking these before the survey experiment would have carried the risk of influencing experimental results (Blackwell et al., 2023).) A description of these additional controls appear in Appendix B.7. Results are effectively unchanged when these additional covariate adjustments are applied, see Appendix C.2. Finally, results are robust to adding two respondent-wave specific alternative headline news preview indicators ($\mathbf{N}_{i,r}$).

Fourth, readers might wonder about possible alternative selection dynamics that comparisons with headline news controls may capture given their heterogeneous characteristics. For

instance, for U.S. respondents, headline news controls consist of both domestic and international issues, raising the question of whether interest in ‘shadow topics’ reflects more general respondent preferences for domestic or international content. The heterogeneous nature of headline news controls is a feature, not a bug, of the study—the assorted set of issues covered through the headline controls reflect the rich diversity of issues news readers encounter when engaging with the online pages of major news organizations. Nevertheless, we address this issue in two ways: first, we compare ‘shadow topics’ previews to only international affairs headline news controls and then to those controls that are entirely domestic. Second, ‘shadow topics’ headlines tend to deal with broader chronic issues, whereas some headline news controls deal with discrete events (e.g. Nancy Pelosi’s visit to Taiwan).⁸¹ Again, we compare ‘shadow topics’ previews to only discrete event headline news controls and separately to only those dealing with protracted issues (e.g. the impacts of long Covid). Results, displayed in 5, are substantively unchanged.

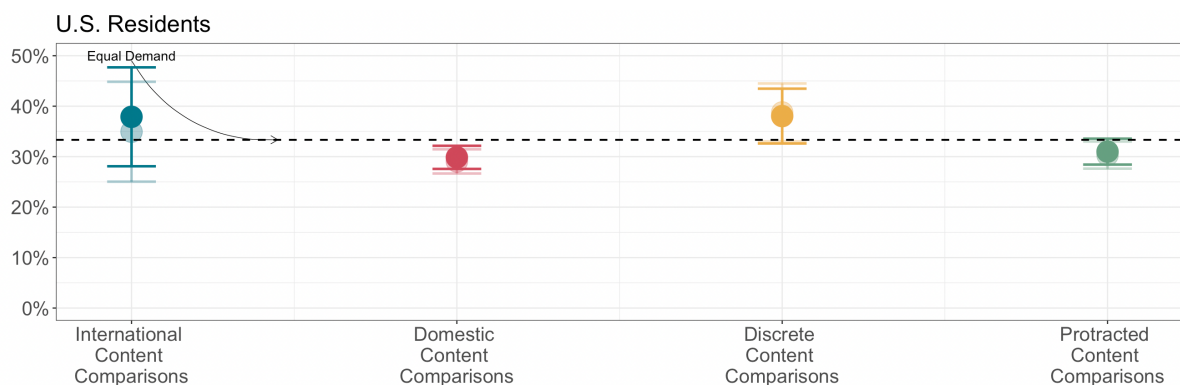


Figure 5: This figure displays ‘shadow topic’ demand estimates when compared with headlines news previews that are 1) international only; 2) domestic only; 3) discrete events only; and 4) protracted events only.

Fifth, related to the preceding point, [Muralidharan, Romero and Wüthrich \(2023\)](#) show that in cross-cutting designs, omitted interactions between distinct treatments can bias results when interaction effects are non-zero. Accordingly, for the robustness checks in which various framings were randomly assigned, we generated saturated model results (Table 10) in which we include controls for both international headline controls and, separately, discrete headline controls, along with two- and three-way interactions. Results are effectively unchanged.

⁸¹In the accompanying R code, we detail the specific categorization choices we make.

7 Conclusion

Our research corroborates the existence of significant gaps in the coverage of major global issues. The separate parallel interview and survey efforts we carry out depict significant reliance on the news media for information on foreign affairs as well as significant causal impacts of media reporting on international affairs processes.

Yet, the results of our survey experiment suggest that there is little connection between actual patterns of reporting on undercovered international issues and our estimates of demand for such topics across distinct populations: U.S. residents; international relations scholars; current/former senior foreign policymakers within the U.S. Government; and think tank staffers with an international affairs focus.

Importantly, to the extent that concern over consumer demand drives limited reporting on the world's shadow topics, our results may serve to dispel editorial concerns that featuring shadow topics in their (digital or physical) pages might not generate interest (a concern that has been directly expressed in discussions with news media professionals).

More broadly, our findings raise questions about previous claims of limited American interest in international affairs news (Baum, 2002; Moisy, 1997) and uniquely contribute to literature on consumer demand for content given previous focus on corresponding shifts towards more entertaining soft-news issues (Prior, 2007) and consumer 'preference [for] sports, crime, entertainment, and weather' over 'politics, international relations, and economics' (Boczkowski and Mitchelstein, 2013). To the contrary, respondents' preferences suggest substantial and robust interest in major undercovered global issues—even when presented with soft (and other) headline alternatives.

Just as importantly, our results speak not only to a domestic political audience but, to best of our knowledge, they are the first direct assessment of demand for content amongst international affairs professionals. Accordingly, the results contribute to a vast literature that questions whether major international news media is more responsive, and therefore vulnerable to, elite demands (Zaller and Chiu, 1996; Bennett, Lawrence and Livingston, 2006)—or whether its reporting decisions have direct impacts on such professionals in the first place.

Our results contribute more generally to discourse on equity and inclusion on the inter-

national level by not only highlighting many individuals/communities globally that face lack of attention in the face of significant hardship but by providing early evidence that greater attention to such communities may not accompany reductions reduced consumer interest.

Finally, our research provides a proof of concept for greater academic-news media collaboration. We have demonstrated how news media professionals may contribute to the design of research in a manner providing insights to academics and news editors alike. We hope that this project will inspire future such efforts and more generally encourage conversation about the need for and potential benefits of academic-news media collaboration.

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A ‘Shadow Topics’

A.1 ‘Shadow Topic’ Identification

To identify shadow topics—and more generally investigate the causes of underreporting on major global issues—we carried out approximately 180⁸² in-depth semi-structured interviews with international affairs professionals as well as news media professionals engaged in the international news reporting/production. Interviewees consisted primarily of professionals who have been engaged in the implementation, funding, or analysis of various global issues and include current and former professionals from across 1) the United Nations system⁸³ (e.g. the International Labor Organization, the United Nations Children’s Fund, the United Nations Refugee Agency, and the World Health Organization) and other intergovernmental entities; 2) many of the world’s largest international non-governmental organizations⁸⁴ (e.g. Médecins Sans Frontières, Mercy Corps, MSI Reproductive Choices, Save the Children, and the World Wildlife Fund); 3) major philanthropic organizations⁸⁵ (e.g. the Gates Foundation); 4) think tanks and research institutes⁸⁶ (e.g. the Atlantic Council, The Council on Strategic Risks, and the Institute for Economics and Peace); and 5) diplomatic staff⁸⁷ (both U.S. diplomats posted overseas as well as foreign diplomatic staff based in Washington D.C.), amongst other organizations. The interviewees also included media professionals (current/former major news media executives, foreign correspondents, freelancers, etc.).

During the interviews, we described our focus on shadow topics. After providing our definition of shadow topics, we asked the following or similarly worded questions directly:

‘In your work on [*description for each interviewee’s professional focus*], have you encountered such issues? Are there certain topics, certain communities, or otherwise that seem to fall in the shadows of public attention but that you believe deserve far more attention?’

The IR professionals and media experts collectively highlighted a broad range of topics, of which we selected seven shadow topics for inclusion in the survey experiment representing a diverse range of major issues across fields.

⁸²At time of writing; these interviews continue. The specific shadow topics identified for this project were selected as the interviews progressed and were based on a smaller initial set of interviews.

⁸³The UN department sample was determined using [United Nations Department of Global Communications \(2021\)](#), a graphic organizer published every two years by the UN Department of Global Communications. The 2021 edition of this list includes other iNGOs affiliated with the UN (e.g. International Atomic Energy Agency, the Organisation for the Prohibition of Chemical Weapons, and the World Trade Organization) that we excluded from the UN sample. Some UN departments were determined to be out of sample as their focuses are largely logistical.

⁸⁴The international non-governmental agency (INGO) sample used a list compiled by [Teaching Research, and International Policy \(2021\)](#). Tax-exempt institutions that filed taxes as of 2018 with income over \$50 million were included in the sample, excluding institutions dealing only with domestic issues.

⁸⁵Our engagement with major private philanthropy organizations consisted of outreach to the top philanthropy organizations by donations for sustainable development, between 2018 and 2020, as defined by [OECD \(2023\)](#).

⁸⁶To determine a sample of think tank professionals, we consulted a comprehensive database of think tanks ranked and sorted by category, compiled by [McGann \(2021\)](#). Starting with the ‘2020 Top Think Tanks in United States’ list (Table 7), we removed organizations dealing solely with U.S. domestic issues.

⁸⁷The U.S. embassies worldwide and almost all foreign embassies based in Washington D.C. were contacted via outreach to the public affairs offices, where addresses were obtained from the websites of U.S. Missions to respective locations. A small number of embassies were not contacted in which they fell on a list of countries with export controls/foreign influence concerns.

A.2 ‘Shadow Topics’ Included in Survey Experiment

African Continental Free Trade Area (AfCFTA). As the first continent-wide free trade agreement, the African Continental Free Trade Area (AfCFTA) creates the largest free trade area in the world measured by number of participating countries. AfCFTA took effect in January 2021 with projections to raise income by seven percent and reduce the number of people living in extreme poverty by 40 million by 2035 (World Bank Group, 2023; Echandi, 2022). However, AfCFTA has received scant attention from the major international news media. In the years leading up to AfCFTA agreement and in the months following (through 2022’s end), we estimate that the agreement was referenced by the news media some 214 times by major news media outlets.⁸⁸ For comparison, Queen Elizabeth’s death was mentioned more than 13,000 times between her passing in September 2022 and the end of the year.

Bottom trawling. Bottom trawling is an industrial fishing technique in which heavy nets, large doors, and chains are dragged over the seabed (USGS, 2016) and is described as the ‘most widespread source of physical disturbance to the world’s seabed’ (Hiddink et al., 2023). The cumulative effects of this practice ‘resemble the catastrophic effects caused by man-accelerated soil erosion on land... and the general environmental deterioration of abandoned agriculture fields exposed to high levels of human impact...’ Pusceddu et al. (2014). The effects are associated with carbon emissions (Sala et al., 2021)⁸⁹, biodiversity and ecosystem degradation (Pusceddu et al., 2014), sediment resuspension, whose resulting mass is ‘approximately the same as the sediment mass supplied to the continental shelves through the world’s rivers’ Oberle, Storlazzi and Hanebuth (2016), amongst other effects. Since 2010, we estimate that bottom trawling has received some 231 collective references across a broad range of major international news media outlets. In contrast, we estimate that deforestation, an analogous environmental issue, has received tens of thousands.

Indoor cooking with biofuels. Approximately one third of the world’s population cooks using open fires or inefficient stoves fuelled by kerosene, biomass (wood, animal dung and crop waste) or coal, resulting in harmful household air pollution, resulting in 2020 in 3.2 million deaths—including over 237,000 deaths of children under the age of five (World Health Organization, 2022b). Compared with other harmful environmental issues, we estimate that this issue received a small fraction of the attention.

Elder abuse. Elder abuse refers to actions (or lack thereof) by caregivers and others resulting in harm or stress to older. Elder abuse includes emotional, financial, physical, and/or sexual abuse as well as more general neglect (Perel-Levin, 2008; Chalise and Basnet, 2017). About 1 in 6 older adults over 60 years of age have been subjected to some form of abuse in their communities in the past year, and the rate of abuse increased during the COVID-19 pandemic (World Health Organization, 2022a). While domestic violence, another common household crime, has received significant news media, our estimates of references to elder abuse are much rarer.

Loss of indigenous languages. Indigenous languages are those that are ‘native’ to a particular region (Walsh, 2005), and over 40 percent of languages spoken throughout the world are in danger of disappearing (*Atlas of the World’s Languages in Danger*, 2011; United Nations, 2018; UNESCO, 2021). Comparing this loss of human diversity to endangered animal and plant species, we estimate that the latter was referenced by the major international news media nearly 250,000 times between 2010 and 2022 while indigenous language loss received a fraction of this

⁸⁸For a description of our approach to calculating article references, see Shaver et al. (2023).

⁸⁹Though, see Hiddink et al. (2023).

attention.

Period poverty. ‘Period poverty’ refer to ‘inadequate access to menstrual hygiene tools and educations’ (Alvarez, 2019). Globally, more than 500 million women and girls lack adequate facilities for managing their menstrual hygiene, according to World Bank (2018). 2.3 billion girls and women are estimated to fail to manage their menstruation due to a lack of facilities, high costs, and a lack of education (World Health Organization and United Nations Children’s Fund, 2017), with consequences for school/work absenteeism (Hennegan et al., 2021), mental health (Crichton et al., 2013), infection (Torondel et al., 2018; Nabwera et al., 2021), etc. We estimate that period poverty received the attention of about 600 news articles from major international news media between 2010 and 2022.

Protracted refugee displacement. United Nations High Commissioner for Refugees (2020b, 2022) defines long-term or prolonged refugee situations as those in which more than 25,000 refugees from the same country live in exile for more than five years consecutively. In such situations, refugees remain in a state of ‘intractable limbo’, often deprived of free movement, access to land, and employment opportunities. By the end of 2020, 15.7 million people were living in protracted displacement. Although the international refugee crisis is widely reported on, with more than 500,000 articles directly referencing recent refugee arrivals departures, temporary refugee crises, etc., chronic displacement and those communities whom it affects receive far less attention, according to our estimates.

A.3 Selected Shadow Topic Article Previews

A.4 News Media Reporting Estimates

In order to confirm that a topics raised by international affairs professionals are indeed under-reported, we engaged with Media Cloud (Roberts et al., 2021)—an open source and open data platform that tracks, stores, retrieves online news articles—to estimate article counts across major international news media outlets that contain, in their titles or bodies of the articles, key words and/or phrases related to each shadow topic. We then divided these topic-specific article counts by the total number of articles published by each media outlet to obtain the proportional media attention to these issues. For example, we identified references to period poverty with the following query [‘period poverty’ OR ‘menstrual poverty’], which would identify all articles containing either of these two phrases.⁹⁰ In total, we conduct searches across 73 major U.S. news outlets for daily news reporting count data on all shadow topics and various non-shadow comparison topics from 2010 to 2022⁹¹

For issues that cannot be detected with single clear phrases, to avoid omitting potentially responsive articles, we instead included a variety of alternative key words and phrases. For instance, in the case of elder abuse, we counted articles that met the query [‘elder abuse’ OR ‘abuse of older people’ OR ‘elderly abuse’ OR ‘abuse of elder’ OR ‘abuse of elders’ OR ‘abuse of elderly’]. However, to avoid false positives, we do not search for individual words along (e.g. ‘elder’, ‘abuse’). Regardless, the differences overall with non-shadow topics to which we compare them indicate clearly that they are significantly less likely to be reported.

⁹⁰When a phrase is enclosed in quotation marks, Media Cloud searches for the whole phrase in the order in which it was typed. In Media Cloud, phrases will not be broken down by word, and a search will turn up articles that include all the words in the phrase in a different order.

⁹¹Media Cloud’s dataset only goes back to 2010.



Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombassa, Kenya. (Luis Tato/Bloomberg)

As the world wavers on free trade, Africa embraces it

The African Continental Free Trade Agreement, or AfCFTA, is an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. It remains to be seen whether it can be implemented successfully despite the obstacles in its way, but if it works, millions of the world's poorest people could be lifted out of poverty.

Baseline



Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombassa, Kenya. (Luis Tato/Bloomberg)

A massive free trade agreement could reshape the African economy. Why has no one heard of it?

Editor's Note: This is one of a series of "shadow topics"—issues that foreign affairs experts believe are very important but that have received limited media coverage. The African Continental Free Trade Agreement, or AfCFTA, is an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. It remains to be seen whether it can be implemented successfully despite the obstacles in its way, but if it works, millions of the world's poorest people could be lifted out of poverty.

Shadow Topic



Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombassa, Kenya. (Luis Tato/Bloomberg)

You've heard of NAFTA, but what about AfCFTA?

You may have heard of NAFTA, but how about AfCFTA, the African Continental Free Trade Agreement? It's an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. If AfCFTA is successfully implemented, millions of people may be lifted from poverty in Africa, despite the obstacles that stand in its way.

Well-known Issue Comparison

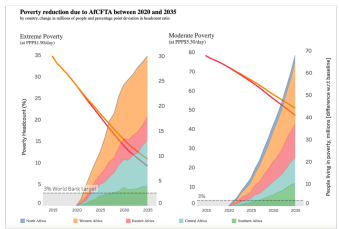


A female trader and her child carry merchandise at the Benin-Nigeria border city of Krake. (AFP/Getty Images)

We sit down with several female Ugandan small business owners to learn about how they expect Africa's new free trade agreement to affect their businesses

The African Continental Free Trade Agreement (AfCFTA) is an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. A woman trader stated that informal cross-border traders, such as herself, were exposed to the high risk of harassment, abuse, confiscation, and even imprisonment without the agreement; now that the agreement is in effect, their rights are protected.

Firsthand Account



Source: World Bank
African free trade deal projected to lift 30 million out of extreme poverty, new study shows

The African Continental Free Trade Agreement (AfCFTA) is an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. New research indicates that if AfCFTA is successfully implemented, it could lift 30 million people out of extreme poverty, increase the continent's income by \$450 billion, and increase African exports by \$560 billion.

Quantitative Presentation



Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombassa, Kenya. (Luis Tato/Bloomberg)

Africa's new free trade agreement has social media users from around the world talking

The African Continental Free Trade Agreement, or AfCFTA, is an ambitious initiative designed to unify the continent as a whole and reshape the economic landscape of the region. There has been considerable online discussion surrounding the AfCFTA, which, if successful, could lift millions of people out of poverty worldwide.

Public (Social Media) Discourse

Figure 6: Selected Shadow Topics News Previews: AfCFTA

B Survey Design

B.1 Survey Experiment Administration

Respondents were asked to select one preferred article from three news previews. Figures 1 and 2 provide examples.⁹² Each news article preview within the set of three consisted of four components: from top to bottom: 1) an image; 2) an image caption; 3) a title; and 4) a preview caption. This structure generally reflects previews featured on the web pages of major international news outlets. Although there is variation across sites (e.g. some news sites may not include captions), this set up is common – see, for instance, the digital front pages of the *Washington Post*, *New York Times*, or *Wall Street Journal*.

For U.S. residents, after answering preliminary survey questions, they were instructed: ‘Before starting the survey, please take a brief moment to catch up on a few short news stories randomly pulled from today’s headlines. *Simply click a **preferred** article on each of the next several pages*’⁹³. On each of the three pages that followed, we displayed the instruction: ‘Please choose your *preferred* article amongst these short stories’ along with three article previews. (A detailed explanation of the randomization logic follows in Appendix B.4.) On each page, one preview related to a shadow topic, and the other two to headline news items. The two headline news previews were randomly assigned from a pool of headline news previews of which twenty related to domestic news and three to international affairs.⁹⁴ U.S. resident survey respondents were required to answer these questions in order to proceed (though they were free exit the survey at any time).

International affairs professionals surveyed were asked to select a news preview only once given survey space constraints. In their surveys, they were instructed: ‘Before proceeding, please take a brief moment to select one of these short news stories we pulled from today’s international news headlines that is of most interest to you. (Simply select a *preferred* article and then click the arrow to proceed.)’ On the same page, they were presented the news article previews from which to choose. The structure and randomization logic was identical to that of the U.S. residents’ survey, except that 1) the IR professionals were allowed to skip the question if they so chose and 2) their headline news preview controls all dealt with international affairs subjects, drawn from a pool of 20 potential controls.

B.2 Baseline News Article Previews & Alternative Framings

Baseline news preview: For each shadow topic, we generated one baseline news article preview. To ensure that the previews displayed to respondents closely resembled actual headline news previews, we began by identifying and using where possible previous news articles/article previews written about each shadow topic. We then used these materials to construct our shadow topic baseline previews (as well as reframed previews, which we describe below). Edits

⁹²Figures depicting all framings applied to all shadow topics included in the survey are available upon request. They are collectively too large to include here reasonably.

⁹³Bolding and italicization used to describe instruction given to respondents reflect the actual formatting displayed to respondents.

⁹⁴Respondents were not presented with same shadow topics during the second and third rounds that they had already been presented. However, it was possible that a respondent would be shown the see the same headline news preview control more than once across the three rounds. (Though, the design prevented headline news previews from occurring more than once within a given round.) As we show in the robustness checks, results are consistent if we restrict only to the first round of the survey. Thus, we have no reason to believe that this had any adverse effect on the results.

to the previous news article previews/article content was minimized to maintain as much of the original content as reasonably possible. Where necessary, edits were applied to ensure: 1) that the global nature of the phenomenon was highlighted (e.g. we were unable to identify a previous headline news preview on global patterns of elder abuse and thus adopted and edited a domestically focused preview on the topic) and 2) to ensure that reader perceived the news topic to be novel and not something they might otherwise have recalled reading about previously. Generally, we sought to maintain the original reporting style and focus of each preview.

Importantly, most of the previews developed for this experiments were reviewed and/or edited by one or more news media professionals prior to being fielded to ensure that they closely reflected headline news articles.

‘Shadow topic’ framing: We modified the baseline preview by indicating directly in the preview caption that the topic is a shadow topic: *‘Editor’s Notes: This is part of a series of shadow topics — topics that foreign affairs experts believe are very important but that have received limited media coverage’*.

‘Well-known issue comparison’ framing: In the title, we compared the shadow topic to a related and comparable but much better known issue, indicating that the reader is likely to have heard of the well-known issue and asking if they have heard of the shadow topic. For instance, we compared the bottom trawling shadow topic with deforestation as both topics relate to significant environmental degradation. The title asks: *‘You’ve heard of deforestation, but what about bottom trawling?’* In the preview caption, we further compare the two issues.

‘Governmental discourse’ framing: In the title, we describe that people worldwide have been talking about the topic; those others may be general or part of a specific group. In the case of the AfCFTA, we change the baseline title to, *‘Africa’s new free trade agreement has business owners from around the world talking’*, while for the topic of indoor cooking with biofuels, we alter the baseline title to, *‘Alarm over ‘dirty cooking’: A leading source of indoor air pollution around the world catalyzes international dialogue’*. This information is also added to the baseline preview caption in order to ensure that it reflects the title.

‘Public (social media) discourse’ framing: We modified the baseline title so that it appears as a topic of widespread social media discussion. Taking bottom trawling as an example, the title after alteration reads: *‘Bottom trawling gains social media attention around the world’*. Again, the preview caption is slightly altered to reflect the title.

‘Engagement brings change’ framing: The baseline title is revised to convey that public awareness or attention can affect the current status of the issue by taking a small action or that if no action is taken, the situation will deteriorate. The bottom trawling title is edited to say, *‘Awareness of bottom trawling leads to new environmental protections in multiple countries’*.

‘Condensed presentation’ framing: We use a standardized method for this framing, applying the phrase, *‘[Shadow topic]: Everything you need to know in five minutes’* to the title, adding each shadow topic name to the beginning. For indigenous language loss, the title reads: *‘The global extinction of indigenous languages: Everything you need to know in five minutes’*.

‘Quantitative presentation’ framing: We replaced the shadow topic baseline preview image with a graphic clearly depicting statistics related to the issue, accompanied by an appropriate image caption. In the title and preview caption, we referred quantitatively to the issue or to new research or new data (or both). Collectively, these various modifications were intended to give readers a sense that the article being previewed is based on a quantitative presentation. For example, concerning the loss of indigenous languages, we write: *‘Every 2 weeks around the world, 1 indigenous language dies out, researchers estimate’*, alongside a horizontal bar graph

featuring the countries with the highest number of endangered languages.

‘Optimistic’ framing: For this framing, we applied a relatively optimistic tone, emphasizing in the title that efforts have been made worldwide to address the issue. Patterson (2000) suggests that American people show slightly more interest in hard news headlines with positive tone; they seem to be tired of negative political news. For example, our period poverty preview was titled: ‘*Free Periods: An international legal campaign launched to end ‘period poverty’*’.

‘Firsthand account’ framing: This framing relates to firsthand experiences of individuals affected by the issue. Titles and preview captions were changed to reflect first-hand accounts. In the case of AfCFTA, for instance, we told a story about Ugandan small business owners: ‘*We sit down with several female Uganda small business owners to learn about how they expect Africa’s new free trade agreement to affect their businesses*’.

‘National identification’ framing: In this framing, we sought to relate the topic to readers’ sense of national identity. In the title, we either mentioned how the United States has addressed the issue or posed a question intended to encourage readers to think about how the country might be affected. For ‘period poverty’, for instance, we amended the title to, ‘*Period poverty in the U.S. is the inability to afford pads and tampons. What does it look like on a global scale?*’.⁹⁵

‘Personal/community identification’ framing: Like the ‘national identification framing’, this framing engages readers by raising a question that encourages them to consider how it may impact their own lives and communities. We edit both the title and preview caption to reflect the change. Taking the protracted refugee displacement as an example, the title reads, ‘*Will long-term refugee displacement around the world affect the future of your community?*’.⁹⁶

Baseline shadow topics, their original sources, and differences in titles across frames are depicted in B.6.

B.3 Headline News Article Preview Comparisons

Headline news previews were displayed alongside shadow topic previews, serving as the comparison against which shadow topics were compared. In comparing shadow topics with headline news content displayed on leading news sites, we have attempted to hold shadow topics previews against the highest standard—those national and international items deemed most worthy of front page attention. Like the shadow topic previews, these were designed to reflect front page website depictions of leading news stories on major news outlets.

Specifically, to construct the previews, we identified actual headline news previews featured on the pages of leading international news outlets. We then applied a minimal set of edits to each to achieve a related preview. The goal was to ensure that readers would not recognize the news item as one with which they had previously engaged. For instance, on September 23 2022, shortly before the survey were fielded, the *Associated Press* ran the article on its front page: ‘Taliban: Car bomb near Kabul mosque kills 7, wounds 41’. In our survey, we include a headline news preview whose title read: ‘Taliban: Mortar attacks in Helmand kill 3, wounds 12’. The details are sufficiently different that attentive readers should not recognize this as a story they had encountered previously (if they indeed had). Yet, by adapting the *AP* and other headline news items, we are ensuring that our choice of comparison previews are directly comparable (in focus, style, tenor) to actual contemporary, headline news content. The headline news previews original sources along with our title modifications are depicted in B.6.1 and B.6.2.

⁹⁵This frame was not pre-registered. Please see Appendix B.8.1.

⁹⁶This frame was not pre-registered. Please see Appendix B.8.1.

In this section, we provide the headline of the article that we base our preview on and compare it to our own title to highlight the small changes made to each article.⁹⁷

As the survey progressed, ultimately into 2023, some non-shadow previews became less believable as real news items. For example, at the beginning of the survey, we used a preview discussing the ramifications of Nancy Pelosi’s August 2022 visit to Taiwan. This preview was paused when our altered headline seemed unrealistic, meaning that not all non-shadow previews were ran for the entire duration of the experiment. No replacement previews were added when previews were removed from the randomization process.

B.4 Randomization Processes

The study’s experimental design includes four independent randomization processes that occurred every time the survey experiment was administered:

- 1) The order in which the previews was displayed was randomized. For computer users (mobile phone users), previews were displayed horizontally (vertically). (This was done simply for presentational purposes. Both displays are common across major news web sites.) For the former (latter), article previews were randomized across the horizontal (vertical) positions, ensuring that preview placement did not influence results.
- 2) Shadow topics themselves were randomized across survey takers, with each shadow topic being equally likely to be displayed to a given respondent.
- 3) Shadow topic framings were randomized. For the U.S. residents, each shadow topic article included a baseline (non-framed) preview in addition to eleven framed previews, with each equally likely to be displayed to a respondent.⁹⁸⁹⁹ Given the smaller number of anticipated participants, IA professionals were randomly shown either the baseline preview or one of three framings. These three framings were selected as we judged them to be most likely to appeal to international affairs professionals.
- 4) For each survey experiment administration, the two headline news previews displayed were randomly selected from twenty-three (for the U.S. resident survey) or twenty (for the IR professional survey) possible previews. Randomization was done without replacement, so two identical headline previews could not be displayed simultaneously.

⁹⁷Several examples of non-shadow topics are presented in Figure 1 and 2. Visuals depicting all non-shadow topic previews as seen by respondents is available upon request.

⁹⁸For the U.S. residents, before the ‘public (social media) discourse’, ‘national identification’, and ‘personal/community identification’ framings were added, each framing was equally likely to be applied to the shadow topic. In order to collect sufficient data on the three newly added framings, we made it a probability of 75% that a respondent would receive one of them (25% for each), and 25% none of them at all; participants are likely to see one of the new framings in the first round of the experiment.⁹⁸⁹⁹ Being midway through the survey, we intended to ensure that a comparable number of respondents would be exposed to the new framings. Participants were automatically, randomly split into one of four groups to determine the framing of their first question. Three of the groups were guaranteed to receive one of the new treatments applied to a random shadow topic, one group per framing. The fourth group had no weighting on the framing of the first question, but randomization occurred only amongst the original set of framings, including the baseline. The second and third presentations of the question were not changed.

⁹⁹Framings were drawn with replacement, unlike the shadow topics. This means that participants may have been exposed to the same framing (on a different shadow topic) multiple times. Again, our robustness checks show that results are consistent if analyze on first first instances of the survey experiment, which obviates concerns that repeated framing exposure may have influenced preview selection.

B.5 Survey Implementation

B.5.1 U.S. Residents Survey

The U.S. resident survey was programmed on Qualtrics and distributed through Cint, an online survey platform that provides a relatively representative sample of the U.S. population. We sought to survey individuals who currently reside in a U.S. state or territory (with no U.S. citizenship requirement) and were at least 18 years old. Cint quality control measures pre-screened participants who do not meet particular criteria. To prevent potential fraud, they identified and filtered out non-U.S. residents at the sample composition stage of the panel using their Geo IP fingerprinting system. In addition, we also asked respondents during the consent process to confirm that they met age and residency requirements.¹⁰⁰ For potential participants who indicated that they did not meet these criteria (or, more generally, who did not consent to participate), the survey ended immediately. Participants who completed the survey were compensated.¹⁰¹ Overall, 5,383 qualified respondents completed our survey.

The survey used a stratified randomization, using broad census balancing criteria on gender, age, and race/ethnicity. As Appendix C.1 illustrates, U.S. resident respondents represent various gender, age groups and education backgrounds, income levels, and are diverse across race and ethnicity identification. 5,383 of 19,574 participants who started the survey completed it (attrition rate: 72.5%). 1) $\approx 6.6\%$ of the participants declined to participate on the consent form page or indicate that they did not meet the age/location requirement; 2) $\approx 46\%$ failed one of the two attention checks;¹⁰² 3) a small portion of them failed to pass the quality control process by Cint; 4) the remaining 20% exited the survey before completing it.¹⁰³

B.5.2 IR Professionals Surveys

In partnership with William and Mary’s (W&M) Teaching and Research in International Politics (TRIP) (Avey et al., 2023), we sent survey invitations to three groups of international affairs professionals: 5,383 IR scholars at US universities and colleges; 3,579 senior government officials who served during (at least) the Bush II, Obama, and/or Trump administrations; and 3,690 staff employed by major U.S.-based think tanks with a focus (though not necessarily exclusive) on international affairs. For each of the IR professional, TRIP sent invitations via email. In total, 805 international relations scholars, 281 current/former government officials, and 261 think tank

¹⁰⁰At the end of our consent form, we included a paragraph that read: ‘**I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I certify that I am at least 18 years of age. I also confirm that I am a current resident of the United States.** (Note: this does NOT refer to citizenship or legal status; only whether you presently live in a United States state or any of its territories.)’, and the respondent may choose between ‘I agree’ to continue the survey or ‘I disagree’ to terminate it immediately. (Bolding reflects the actual formatting displayed to respondents.) On the same page, as soon as a respondent selects ‘I agree’, a question asking their date of birth appears: ‘[p]lease confirm your date of birth to start the survey.’

¹⁰¹See the LUCID [Institutional Review Board \(IRB\) Methodology](#) for details. LUCID Marketplace was acquired by Cint in 2021

¹⁰²In order to examine the effectiveness of attention check questions, we calculate the average demand for shadow topic topics, and find that 30.26% of respondents who passed both attention check questions expressed interest in baseline shadow topics, similar to the 30.24% of respondents who completed the entire survey. A similar share of interest, 28.36%, is shown in the framed shadow topic previews among those who passed the attention check, as well as among those who completed the survey (28.37%).

¹⁰³There are several reasons for the high attrition rate. The experiment is embedded in our longer survey, which takes about 25 minutes to complete. We include knowledge questions on international events, which may lead to respondents quitting the mid-survey if they become bored or distracted.

staffers responded to the survey; of these, 88%, 78%, and 74% participated in the shadow topic experiment.¹⁰⁴ Approximately 10.6% of international affairs professionals participated overall. To prevent duplication across IR professionals and interviewees, we compare two lists by cross-checking each individual name in the interviewee list against those in the IR Professionals through the R code. Only 4 IR Professionals who were invited to take the survey were among the interviewees. Although these 4 people were interviewed for the research, none responded to TRIP survey request.

IR scholars consistent of current/former faculty in political science departments (or their equivalents) with transnational research interests (including including international political economy, international security, and foreign policy).¹⁰⁵ We exclude faculty who only list comparative political economy, area studies, or comparative politics as their research interest(s). Using US News and World Report rankings, W&M compiled a list of every IR professor on the faculty of these schools or institutions. In order to collect professors' information, they searched the websites of political science departments (by any name) as well as affiliated schools of international relations and public policy. If a school website does did not list a professor's area of expertise or classes taught, W&M contacted the departments directly by phone and email to obtain their contact information.

The foreign policymakers worked across approximately 17¹⁰⁶ federal departments and independent agencies during the administrations of George W. Bush, Barack Obama, and Donald Trump. Respondents were determined to be in-sample using one of the four quarterly publications of the Federal Yellow Book for each year of these administrations. These publications list government officials in leadership positions of all known offices, delineated by the respective department. Officials who held positions equivalent to the 'assistant/deputy director' level and above were considered in-sample across all departments in which officials were determined to work on issues related to national security policy, international trade, and international development policy Avey et al. (2022, 2023). To survey the established sample, we conducted web-based searches to collect contact information. To obtain non-public information, we attempted to contact potential respondents via the 'Contact Us' forms embedded on websites and/or general phone numbers or email addresses associated with the organization in which the individual is affiliated.

Finally, a think tank professional with an international relations focus is a member of the staff of a set of identified major think tanks based. Qualifying think tanks were those listed in the Global Go To Think Tank's lists of the top think tanks in the U.S. by the Think Tanks and Civil Societies Program (McGann, 2021), including *Top Foreign Policy and International Affairs Think Tanks*, and *Top Defense and National Security Think Tanks*, which met the following three conditions: they are 1) based in the United States, 2) produce research, analysis, or advice on international relations or U.S. foreign policy, and 3) are not based at a primarily academic institution. A total of 75 think tanks focused on IR were compiled by W&M. Researchers and other personnel working on U.S. foreign policy and other international issues were included in this category as were leadership staff. Because an exhaustive list of think tank professionals does not exist, all individuals were identified manually. Specifically, each individual was manually selected and included in our sample if they: 1) had an official affiliation at the think tank and 2) produced research, analysis, or advice relating to international relations or U.S. foreign policy.

¹⁰⁴Engagement figures are based on respondents answering at least one question.

¹⁰⁵Political scientists who study or teach IR in professional schools also qualify.

¹⁰⁶This number varies across years following changes to bureaucratic structure.

B.6 Shadow Topic Article Previews

Table 1: Shadow Topic Previews

Topic	Framing	Title in Experiment	Article Source	Image Source
AfCFTA	Baseline	As the world wavers on free trade, Africa embraces it	(Naidoo, 2019)	(Tato, 2019)
AfCFTA	Info-graphic	African free trade deal projected to lift 30 million out of extreme poverty, new study shows	(Maliszewska et al., 2020a)	(Maliszewska et al., 2020b)
AfCFTA	Firsthand Account	We sit down with several female Ugandan small business owners to learn about how they expect Africa’s new free trade agreement to affect their businesses	(African Union, 2022; United Nations Development Programme, 2021)	(Folly, 2021)
Bottom Trawling	Baseline	Bottom trawling harms the world’s oceans and its climate	(Steadman et al., 2021; Sala et al., 2018)	(Rotman, 2015)
Bottom Trawling	Info-graphic	Loss of \$560 billion caused by bottom trawling due to non-targeted catches, says new research	(Cashion et al., 2018; Steadman et al., 2021)	(National Fisheries Science Center, 2023)
Bottom Trawling	Firsthand Account	Clinging to life, Pokey the turtle barely survived trawling nets. We meet with Pokey’s medical team in Turkey and learn more about the costs of this fishing technique.	(Einhorn, 2021; Readfearn, 2022)	(Chias, 2015)
Indoor Cooking	Baseline	The hidden air pollution in homes around the world	(World Health Organization, 2022b; Nicole, 2014)	(Rathore, 2017)
Indoor Cooking	Info-graphic	‘Dirty cooking’ causes four million premature deaths annually, according to newly collected data	(Plumer, 2014; World Health Organization, 2022b)	(UNDP, 2016)
Indoor Cooking	Firsthand Account	We sit down with Sita Bai, one of many thousands of mothers globally suffering after years of ‘dirty cooking’ smoke inhalation	(Nijhuis and Johnson, 2017)	(Johnson, 2017)
Elder Abuse	Baseline	Elder abuse happens often and is a global phenomenon; how to spot the signs where you live	(World Health Organization, 2022a)	(CasarsaGuru, 2017)

Continued on next page

Table 1: (Continued) Shadow Topic Previews

Topic	Framing	Title in Experiment	Article Source	Image Source
Elder Abuse	Info-graphic	1 in 10 elders surveyed around the world report being abused in the past year, researchers find	(World Health Organization, 2022a)	(Los Angeles County Elder Abuse Forensic Center and USC School of Gerontology, 2015)
Elder Abuse	Firsthand Account	We sat down with Katherine, an 82-year-old Haitian who describes her struggles with physically abusive grandsons and her efforts to prevent others from suffering as well	(Merrilees, 2019)	(World Health Organization, 2022c)
‘Period Poverty’	Baseline	Around the world, many lack access to pads and tampons. What are governments doing about it?	(World Bank, 2018; Cardoso et al., 2021)	(Gariépy, 2021)
‘Period Poverty’	Info-graphic	Globally, 500 million lack access to menstrual products, according to new research	(World Bank, 2018; Elevationweb and Elevationweb, 2023)	(Menstrupedia, 2017)
‘Period Poverty’	Firsthand Account	We sit down with a Nepalese school girl who explains the cultural stigma around menstruation in her community	(IFRC, 2022; Ward, 2022)	(Patrzalek, 2022)
Loss of Indigenous Languages	Baseline	How many endangered languages are there in the world and what are the chances they will die out completely?	(Walsh, 2005; United Nations, 2018; Vaughan-Lee, 2014)	(Solomon, 2022)
Loss of Indigenous Languages	Info-graphic	Every 2 weeks around the world, 1 indigenous language dies out, researchers estimate	(Kwan, 2022; OHCHR, 2019)	(WordFinder by YourDictionary, 2022)
Loss of Indigenous Languages	Firsthand Account	We sit down with Marie Wilcox, an indigenous woman seeking to save her native language	(Seelye, 2021; Vaughan-Lee, 2014)	(Vanessa, 2014)
Long-term Refugee Displacement	Baseline	The invisible tragedy facing long-term refugees	(United Nations High Commissioner for Refugees, 2020b)	(Marcou, 2022)
Long-term Refugee Displacement	Info-graphic	9 million refugees have been displaced worldwide for over ten years, according to new research	(United Nations High Commissioner for Refugees, 2020a, 2022)	(Mosel, 2016)
Long-term Refugee Displacement	Firsthand Account	We sit down with a 72-year-old Congolese refugee who is one of thousands unable to return home for decades	(The UN Refugee Agency, 2023)	(Maule-finch, 2017)

B.6.1 U.S. Residents Experiment Design

Table 2: Non-Shadow Topics: U.S. Residents

Topic	Source Article Title	Title in Experiment	Article Source	Image Source
New iPhone	Apple Insider Reveals Global iPhone 14 Price Increases	Newest Leaks About iPhone 14 and iPhone 14 Pro	(Kelly, 2022)	(Yuryev and Renders by Shailesh, 2022)
Brisk Walking	Going for a walk? Study says minimal exercise can lower risk of depression	Brisk walking may lower risk for depression, study suggests	(Gleeson, 2022)	(Sean Gallup, 2021)
Taliban Attacks	Taliban: Car bomb near Kabul mosque kills 7, wounds 41	Taliban: Mortar attacks in Helmand kill 3, wounds 12	(Noroozi and Faiez, 2022)	(Noroozi, 2022)
Economic Recession	What a Recession Actually Is—And How to Know If the U.S Is Entering One	The U.S. is facing a mild recession; here’s what that means for your portfolio	(Burga, 2022)	(Shutterstock, 2021)
NYC Shooter	Man pleads not guilty to NYC subway train shooting	New York City shooter decides to go through with mental evaluation	(Hays, 2022)	(Dietsch, 2022)
Pitt-Jolie Lawsuit	Brad Pitt says Angelina Jolie ‘sought to inflict harm’ with vineyard sale	Judge is expected to drop Brad Pitt’s suit against Angelina Jolie over vineyard	(BBC News, 2022)	(Duval, 2022)
Pet Wellness	There’s big business in health supplements — for your pets	Supplements for your pets are a huge business	(Thomas Heath, 2019)	(Getty Images, 2020)
Pelosi Taiwan Visit	China cuts off vital US contacts over Pelosi Taiwan visit	China halts climate, military and anti-drug ties with the U.S. over Pelosi’s Taiwan visit	(Knickmeyer, Miller and Rising, 2022)	(Taiwan Presidential Office, 2022)
Petrochemical Pollution	Where Republicans Are Starting to Worry About Big Oil	Republicans are starting to worry about the petrochemical industry	(Haines, 2021)	(Locher, 2022)
James Webb space telescope	James Webb image reignites calls to rename telescope amid links to LGBT abuses	NASA’s latest response to controversy over Webb telescope’s name	(Lu, 2022)	(Gutierrez, 2021)
Monkeypox	WHO again considers declaring monkeypox a global emergency	New monkeypox cases confirmed	(Cheng, 2022)	(CDC, 1997)
Meta Privacy Concerns	Nebraska woman charged with helping daughter have abortion	Facebook’s role in Nebraska abortion case raises post-Roe privacy questions	(Funk, 2022)	(Wiegmann, 2022)

Table 2: (Continued) Non-Shadow Topics: U.S. Residents

Topic	Source Article Title	Title in Experiment	Article Source	Image Source
California Megaflood	Risk of catastrophic California ‘megaflood’ has doubled due to global warming, researchers say	Risk of catastrophic ‘megaflood’ has doubled due to global warming, researchers say	(Sahagún, 2022)	(San Francisco Chronicle/Hearst Newspapers, 2021)
Lottery Sale	What the \$1.3 Billion Mega Millions Jackpot Reveals About the Economy	\$1.3 Billion Mega Millions Jackpot Reveals New Insight about consumer choices	(Kelce and Lukpat, 2022)	(Sancya, 2022)
Anne Heche Biography	Heche will be laid to rest at historic Hollywood cemetery	Anne Heche’s biography hits \$1500 for one copy	(Dalton, 2022)	(Strauss, 2022)
U.S. Heat Waves	More dangerous heat waves are on the way: See the impact by Zip code	More dangerous heat waves are on the way: See the impact by ZIP code	(Muyskens et al., 2022)	(Muyskens et al., 2022)
College Football	Six college football freshmen ready to burst onto the scene, make immediate impact in 2022 season	Top freshman stands out from one of the biggest college level teams	(Jeyarajah, 2022)	(Schaben, 2021)
Pennsylvania Fall Foliage	Timing A Fall Foliage Trip Will Be Trickier This Year—Here’s Where And When To Go	Breathtaking drone footage captures the vibrant colors of Pennsylvania in fall	(Kelleher, 2022)	(Potemkin, 2020)
E-Bay Comic Books Surge	Comic-book sales had their best year ever in 2021 — and this year is on pace to be even better. Here’s what’s behind the surge, from manga to ‘Dog Man.’	Ebay looks to cash in on comic books boom	(Clark, 2022)	(Connect, 2017)
Drugs along U.S.-Mexico Border	Mexican cartels exploiting border chaos to smuggle fentanyl into US	Over 538 pounds of cartel drugs stopped along U.S.-Mexico border	(Vincent, 2022)	(Olson, 2014)
Enduring COVID Effects	Opinion A new study offers important clues about the impact of long covid	A new study offers important clues about the impact of ‘long Covid’	(Editorial Board, 2022)	(Raedle, 2022)
Chernobyl Radiation	Radiation levels near the Chernobyl plant are within safe limits, the nuclear agency chief says	Chernobyl radiation levels elevated, but remain within safe limits	(Bigg, 2022)	(Prickett, 2022)
U.S. Demographics	The census proves the US is diversifying. Here’s how – in five charts	Recent census data prove the U.S. population is diversifying	(Chang, 2021a)	(Chang, 2021b)
U.S. Army Recruitment	Army recruiting crisis results in soldier shortage, record enlistment bonuses	U.S. Army continues to face recruiting shortfalls	(Baldor, 2022)	(Ford, 2019)

B.6.2 IR Professionals Experiment Design

Table 3: Non-Shadow Topics: IR Professionals

Topic	Source	Article Title	Title in Experiment	Article Source	Image Source
Pelosi Visit	Taiwan	China cuts off vital US contacts over Pelosi Taiwan visit	China halts climate, military and anti-drug ties with the U.S. over Pelosi’s Taiwan visit	(Knickmeyer, Miller and Rising, 2022)	(Taiwan Presidential Office, 2022)
Monkeypox		WHO again considers declaring monkeypox a global emergency	New monkeypox cases confirmed	(Cheng, 2022)	(CDC, 1997)
Chernobyl Radiation		Radiation levels near the Chernobyl plant are within safe limits, the nuclear agency chief says	Chernobyl radiation levels elevated, but remain within safe limits	(Bigg, 2022)	(Prickett, 2022)
Taliban Attacks		Taliban: Car bomb near Kabul mosque kills 7, wounds 41	Taliban: Mortar attacks in Helmand kill 3, wounds 12	(Noroozi and Faiez, 2022)	(Noroozi, 2022)
Racism & Climate Emergency		Climate emergency is a legacy of colonialism, says Greenpeace UK	Systemic racism: A major contributor to the climate emergency globally	(Gayle, 2022)	(Valcic, 2021)
Van Gogh		A hidden self-portrait of Van Gogh has been discovered. Here’s what you can see so far	Van Gogh’s hidden self-portrait successfully extracted from under recognized painting	(Davis, 2022)	(Hanna, 2022)
Indigenous Groups Reunion		Vatican says they’re gifts; Indigenous groups want them back	Indigenous groups reunite with their artifacts from the Vatican	(Winfield, 2022)	(Borgia, 2022)
Ukrainian Maternity Ward		‘It’s Like Parallel Realities’: Rituals of Life and Death Blur in a Vibrant Ukrainian City	Life amid war: Inside the Ukrainian maternity ward next to a military cemetery	(Specia, 2022)	(Lukatsky, 2022)
UK Responses		China Exerting Growing Influence Over Global Tech Standards, UK Lawmakers Warn	UK proposes new measures to re-engage in global technology and development conversations	(Zhang, 2022)	(Edwards, 2018)
Panda <i>An An</i>		An An, World’s Oldest Giant Male Panda in Captivity, Dies at 35	Autopsy results released following death of world’s oldest male giant panda in Hong Kong	(Young, 2022)	(Cheung, 2015)

Continued on next page

Table 3: (Continued) Non-Shadow Topics: IR Professionals

Topic	Source Article Title	Title in Experiment	Article Source	Image Source
Monarch Butterfly	Leading Wildlife Monitor Puts Monarch Butterflies on Its Endangered List	Monarch butterfly declared endangered after precipitous population drop in Mexico	(Einhorn, 2022)	(Coury, 2021)
G-7 Summit	U.S. and G-7 Allies Detail Infrastructure Plan to Challenge China	Researchers project G-7 infrastructure plan doomed to fail unless amended	(Leary and Parti, 2022)	(Smialowski, 2022)
Nigeria Murder	Nigerian student beaten, burned to death over ‘blasphemous’ text messages	Nigerian college reopens, ignoring backlash months after student is murdered	(Ibrahim, 2022)	(Suleiman, 2022)
Japan Earthquake	7.4-magnitude earthquake hits off Fukushima, Japan, killing 4, injuring more than 90	Powerful quake shakes Japan, but no casualties reported	(Yamamoto and Burke, 2022)	(Earthquake Monitor, 2021)
Myanmar Protest	Myanmar court convicts Suu Kyi on more corruption charges	New protests break out after Myanmar’s conviction of Suu Kyi on corruption charges	(Peck, 2022)	(The Associated Press, 2021)
Global Supply Chains	The structure of the world’s supply chains is changing	Global supply chains changed drastically to a point of no return	(The Economist, 2022)	(The Economist, 2022)
Ethiopia Inflation	Ethiopia’s Inflation Rate Drops For First Time in Four Months	Ethiopia’s inflation rate hits record high	(Malingha, 2022)	(Chiba, 2021)
Facebook’s Misinformation	Strike four: Facebook misses election misinfo in Brazil ads	Facebook failed to detect election-related misinformation in ads ahead of Tunisia’s election	(Ortutay, 2022)	(Ruvic, 2021)
Cyberattack	Cyberattack steals passenger data from Portuguese airline	Cyberattack steals passenger data from a major Germany railway company	(Associated Press, 2022)	(Bimmer, 2021)
Kenyan Election	Kenya election result: William Ruto defies the odds for victory	President William Ruto faces new election challenges from opposition leader	(Musambi, 2022)	(Ram, 2022)
Boat Sunk	UN says boat capsizes off Libya, 35 dead or presumed dead	Dozens of migrants killed as boat sinks off Libyan coast	(Magdy, 2022)	(Morenatti, 2017)

B.7 Covariates and Pre-Registration Operationalizations

For the U.S. resident survey and IR professional surveys, we describe the individual level covariates included in the analyses. For both populations, we provide the exact questions used in the surveys below to capture demographic information.¹⁰⁷

Amongst U.S. residents, we captured their news media engagement by first identifying the five media outlets the respondents collectively reported engaging with most for foreign affairs news, producing binary indicators for each of these five outlets (in descending order): `cnn`, `fox.news`, `cbs.news`, `nbc.news`, `new.york.times`.¹⁰⁸ We controlled for respondents' knowledge of international affairs, assessed by asking them a series of general and, separately, specific knowledge questions (randomly assigned from large sets of general and specific knowledge questions) about international affairs, captured by `g_q_score` and `s_q_score`. Relatedly, we include a separate measure of knowledge of foreign countries constructed from responses to questions in which respondents were asked to identify the names of highlighted countries displayed on maps: `map_score`. We assessed how moderate/extreme their views are on various foreign policy issues (e.g. their support for/opposition to the United States potentially rejoining the JCPOA) generating a general score from from them: `p_response`. We also generate a score based on indicated support for refugee admissions: `policy_refugee_n`. We include a control variable based on responses to a questions about whether any particular international event (or set of events) has had a significant influence on any respondents choices of educational pursuits, career choices, etc: `Q795`. We controlled for responses to whether they voted in the 2020 presidential election: `Vote_2020`; whether U.S. foreign policy decisions influence their voting choices: `vote_influence`; and whether they consider themselves Republican, a Democrat, Independent or something else: `Partisan_ID`.

For international affairs professionals, based on their responses to a question about their primary source(s) of information about international events/affairs, we generated seven binary variables reflecting choices across news source types: i) `Internet_News_Sources`, ii) `News_Aggregators`, iii) `Television`, iv) `Major_Newspapers`, v) `Major_International_News`, vi) `Magazines`, vii) `Social_Media_News`. Given space limitations across surveys, questions used to generate other covariates are specific to specific groups of these professionals. Next, we describe the community-specific covariates that were added to regression specification in which estimates were generated for each group separately.

For each set of professionals, we included a set of questions specific to their work. In the IR scholar specific regression, we include variables capturing their sub-field and academic rank: `qg_93`, `qg_92`. For the current/former senior government officials, we included controls for rank, years of government service, and primary job responsibility given by `rank`, `Q5.x`, and `Q6.x`, respectively. For the think tank staffers, we included covariates capturing level of position (`Q6.x`) and primary job responsibility (`Q356`).¹⁰⁹ For the current/former senior government officials and

¹⁰⁷In the U.S. residents survey, although we pre-registered including hours worked per week as one of the covariates, we do not include it because only 49.51% answered the question. This is because many of the respondents are students, retired, etc. Importantly, given random assignment to treatment, we note that this and several modification described in this section affect only efficiency and do not influence our causal assessments.

¹⁰⁸We planned during pre-registration to control for a respondent's news media consumption by adding 'three traditional news sources... that a respondent accesses the most for international affairs'. We did not anticipate the wide variety of news outlets respondents provided, and including them all is impractical. Thus, we adopt this more parsimonious approach.

¹⁰⁹In the pre-registration, we indicated that we would control for primary professional affiliation. However, this variable leads to fitted probabilities in the model. Thus, we substituted with this alternative variable, which does not.

think tank staffers, we developed a measure of media engagement. First, we identified for each group the five media outlets they reported engaging with the most as well as the five they reported avoiding the most.¹¹⁰ We then constructed a variable (`media_trend`), which indicates whether a given professional either engages with or avoids (or both) one of the top five outlets. For these two communities, we also constructed a variable capturing travel patterns. Specifically, in our surveys of these populations, we displayed a set of countries randomly drawn from the complete set of world countries and asked which, if any, they had travelled to during their time in service. As before, for each group, we identified the set of top countries, creating an indicator variable that captures whether a given professional traveled to one of those top foreign destinations: `country_travel`.

¹¹⁰Top five media engaged by current/former senior government officials are, in descending order: *Washington Post*, *New York Times*, *Wall Street Journal*, *The Economist*, and *CNN*. For think tank staffers, they are: *New York Times*, *Washington Post*, *Financial Times*, *BBC*, and *Wall Street Journal*. The top five media avoided by current/former senior government officials are, in descending order: *Fox News*, *CNN*, *New York Times*, *MSNBC*, and *Breitbart News*. For think tank staffers, they are: *Fox News*, *Russia Today*, *Breitbart News*, *MSNBC*, and *One America News (OAN)*.

Variable		U.S. Residents Survey Questions
Age		Please confirm your date of birth to start the survey.
Race/Ethnicity		1. Are you of Hispanic, Latino, or Spanish origin? 2. Choose one or more races that you identify with ...?
Gender		Which gender do you most closely identify with?
Education		What is the highest level of education you have completed?
Income		What's your entire household income range in last year before taxes? Please give your best estimate if you are not sure.
State		In which state do you currently reside?
Veteran		Have you ever served on active duty in the United States Armed Forces, military reserves, or National Guard?
Party Identification		Generally speaking, to what extent do you consider yourself a Republican, a Democrat, an Independent or what? If Democrat or Republican, would you call yourself a strong or weak Democrat or Republican?
Employment		Which statement best describes your current employment status?
Foreign Profession		Are you employed in a profession in which your work is influenced by foreign affairs, or are you enrolled in a degree program directly related to the study of international affairs (e.g. international relations, international economic, international public health)?
Vote 2020		Did you vote in the 2020 presidential election?
Vote Influence		To what extent do U.S. foreign policy decisions influence your voting choices (e.g. for candidates running for Congress, for the U.S. presidency)?
Knowledge of international affairs		[The score a respondent gets by answering the general and specific questions regarding international affairs.]
Knowledge of foreign country		[The number of foreign countries that a respondent can identify based on a map highlighting a given country.]
Primary source(s) of information		Reflecting this issue, what was your primary source(s) of information about these events? Please select all that apply.
Variable		IR Professionals Survey Questions
Common Covariates		
Age		What is your age?
Race/Ethnicity		What is your race/ethnicity?
Education		What is your highest level of education?
Party Identification		Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?
Economic Attitude		Which of the following best describes your positions generally on economic issues? [‘Very liberal’, ‘Somewhat liberal’, ‘Middle of the road’, ‘Somewhat conservative’, ‘Very conservative’]
Social Attitude		Which of the following best describes your positions generally on economic issues? [‘Very liberal’, ‘Somewhat liberal’, ‘Middle of the road’, ‘Somewhat conservative’, ‘Very conservative’]
Primary source(s) of information		What are your main source(s) of information about international events/affairs? Please select up to 3.
Media Engagement*		Please list by name the top three news media outlets you personally engage with the most (news websites, newspapers, news channels).
Media Avoidance*		Are there any traditional news sources (news websites, newspapers, news channels) that you actively avoid or refuse to follow or access? Please List by name any that come to mind.
Country Travelled*		Which of the following countries did you travel to for business during your time in government service? Please select all that apply.
IR Faculty Specific Covariates		
Subfield		What is your primary subfield within politics or political science, or are you not a political scientist?
Academic Rank		What is your current status within your home department?
IR Official Specific Covariates		
Rank		Which of the following most accurately describes your highest rank in the U.S. government?
Working experience		For how many years have you worked in the U.S. government? If you have worked there for less than one year, please write a zero (0).
Job responsibility		Thinking about your most recent position, which of the following best describes your primary job responsibility?
IR Think Tank Staff Specific Covariates		
Rank		Which of the following best describes the level of your position at ...?
Job function		What is the primary function of your current position within ...?

Note: The *media engagement*, *media avoidance* and *country travelled* questions were only asked in the current/former senior government officials and think tank staffer surveys.

B.8 Pre-Registration Errata

B.8.1 Two Erroneously Unregistered Frames

The U.S. residents experiment was carried out during a survey that was administered on a daily basis over a number of months. This relatively slow rolling nature of survey administration allowed us to pause some framing techniques when they hit target sample sizes, adding others to test their effects. Mid-survey, we paused administration of the ‘*engagement brings change*’ and ‘*optimistic*’¹¹¹ framings, replacing them with a ‘*public (social media) discourse*’ framing. Before doing so, we updated our pre-registration accordingly. Later, we decided to introduce two additional framings: ‘*national identification*’ and ‘*personal/community identification*’. Our intention was to update the pre-registration again beforehand. However, entirely by mistake, we omitted this step. Once we recognized our error, we considered simply not including any results generated using those non-registered framings. However, when these new frames were introduced, the probability that a respondent received a given framing technique changed. Thus, including these two unregistered frames did affect the number of respondents who would otherwise have received the registered frames. Thus, we thought that it would be more appropriate to err on the side of complete disclosure and report this error. Therefore, the results using these frames are included in the results as well. Importantly, the two additional frames make no difference. We find that, just like across the other pre-registered frames, shadow topic demand is substantial and invariant across these frames as well.

B.8.2 Discarded Statistical Strategies and Tests

Two final amendments relate to our unexpected and important finding that our *ex ante* expectations of low shadow topic interest were incorrect. Instead, as we show, the framings made little difference: interest in shadow topics is substantial and largely invariant across framings. Because we initially expected respondents to infrequently choose shadow topic previews, our focus was on the possible influence of frames to increase interest. Thus, we reported two planned tests in the pre-registration that we no longer carry out as they are no longer relevant.

First, we indicated that in addition to generating linear probability and logistic regression model result, we would generate conditional logistic regression results because of ‘potential incidental parameter issues that can result from including fixed effects in logistic regressions...’ By construction, predicted probabilities cannot be generated from conditional logistic regression results; thus, it is no longer the most appropriate model given our focus is now on the underlying probability of shadow topic selection, not the framing coefficients. We exclude such results accordingly but continue include the OLS regression results, as pre-specified.

Second, we indicated that we would assess whether and to what extent identified treatment effects (again, here defined as those resulting from the application of framings) persisted (or diverged) across shadow topics. For the same reason, we no longer carry out this test.¹¹²

¹¹¹The ‘*optimistic*’ is named as ‘*optimism in the face of cost*’ in pre-registration, but they refer to the same framing technique.

¹¹²Though, we would be happy to supply such test results should referees wish to see them regardless.

C Summary Statistics

C.1 U.S. Residents Survey

U.S. Respondents Demographics

			U.S. Respondents Demographics		
Gender	5366		Education	5371	
... Female	2950	54.98%	... Less Than High School	77	1.43%
... Male	2044	38.09%	... High School	648	12.06%
... Non-binary	28	0.52%	... Some College (No Degree)	828	15.42%
... Other	3	0.06%	... Associate	505	9.4%
...	341	6.35%	... Bachelor's	1509	28.1%
Age	5383		... Master's	1010	18.8%
... [18,25)	326	6.06%	... Professional	174	3.24%
... [25,35)	1426	26.49%	... Doctoral	278	5.18%
... [35,45)	1342	24.93%	...	342	6.37%
... [45,55)	733	13.62%	Ethnicity	5350	
... [55,65)	814	15.12%	... White	3972	74.24%
... ≥ 65	742	13.78%	... Black or African American	551	10.3%
Partisanship	5175		... Asian	209	3.91%
... Democrat	2438	47.11%	... American Indian or Alaska Native	120	2.24%
... Republican	1223	23.63%	... Native Hawaiian or Pacific Islander	10	0.19%
... Independent	1063	20.54%	... Other	149	2.79%
... Other	97	1.87%	...	339	6.34%
...	354	6.84%	Hispanic or Latino	5359	
Income	5259		... Yes	748	13.96%
... Less than \$20K	536	10.19%	... No	4274	79.75%
... \$20K to \$40K	791	15.04%	...	337	6.29%
... \$40K to \$60K	640	12.17%	Ancestry Overseas	5326	
... \$60K to \$80K	543	10.33%	... Yes	715	13.42%
... \$80K to \$100K	482	9.17%	... No	4270	80.17%
... \$100K to \$150K	724	13.77%	...	341	6.4%
... \$150K or more	1200	22.82%	Foreign Profession	5281	
...	343	6.52%	... Yes	643	12.18%
Employment	5294		... No	3199	60.58%
... Government	180	3.4%	... I am neither employed nor a student	1112	21.06%
... Private Sector	2860	54.02%	...	327	6.19%
... Self-employed	359	6.78%	Foreign Live	5321	
... Student	104	1.96%	... Yes	937	17.61%
... Retired	698	13.18%	... No	4052	76.15%
... Not working	747	14.11%	...	332	6.24%
...	346	6.54%	Foreign Visit	5309	
Veteran	5336		... Yes	2668	50.25%
... Yes	502	9.41%	... No	2311	43.53%
... No	4483	84.01%	...	330	6.22%
...	351	6.58%			

C.2 IR Professionals' Survey

IR Professionals' Survey Demographics

Expertise Variable	University faculty		Government official		Think tank specialist	
	Count	Percentage	Count	Percentage	Count	Percentage
Gender	710		216		193	
... Female	199	28.03%	43	19.91%	47	24.35%
... Male	499	70.28%	170	78.7%	144	74.61%
... Prefer not to say	12	1.69%	3	1.39%	2	1.04%
Partisanship	713		212		193	
... Democrat	490	68.72%	93	43.87%	106	54.92%
... Republican	35	4.91%	46	21.7%	22	11.4%
... Independent	157	22.02%	68	32.08%	57	29.53%
... Other	31	4.35%	5	2.36%	8	4.15%
Age	686		211		189	
... 25-34	22	3.21%	2	0.95%	15	7.94%
... 35-44	175	25.51%	18	8.53%	27	14.29%
... 45-54	184	26.82%	43	20.38%	34	17.99%
... 55-64	175	25.51%	69	32.7%	45	23.81%
... 65-74	93	13.56%	63	29.86%	51	26.98%
... 75-84	34	4.96%	16	7.58%	16	8.47%
... 85-94	2	0.29%	0	0%	1	0.53%
... 95+	1	0.15%	0	0%	0	0%
Race/Ethnicity	805		281		261	
... White	572	71.06%	171	60.85%	149	57.09%
... Non-white	78	9.69%	18	6.41%	27	10.34%
... Mixed	20	2.48%	6	2.14%	7	2.68%
... No data	135	16.77%	86	30.6%	78	29.89%
Education	714		217		196	
... Bachelor's	1	0.14%	12	5.53%	9	4.59%
... Master's	12	1.68%	108	49.77%	55	28.06%
... Professional	0	0%	49	22.58%	13	6.63%
... Doctoral	700	98.04%	37	17.05%	115	58.67%
... Other	1	0.14%	11	5.07%	4	2.04%

IR Faculty Specific

Variable	Count	Percentage
IR Faculty Level/Rank	802	
... Chaired Full Professor	87	10.85%
... Full Professor	265	33.04%
... Emeritus	48	5.99%
... Associate Professor	244	30.42%
... Assistant Professor	75	9.35%
... Visiting Instructor/Visiting Assistant Professor	6	0.75%
... Lecturer or Senior Lecturer	27	3.37%
... Adjunct	24	2.99%
... Other	26	3.24%

Government Officials Specific

Variable	Count	Percentage
Position Rank	280	
... Senate confirmable policy or department/agency leader	62	22.14%
... Political appointee not-confirmable	59	21.07%
... SES-level civil servant	62	22.14%
... Professional at the GS/GG 15/Band 5 level	52	18.57%
... Professional at the GS/GG 13/Band 4 level	2	0.71%
... Military officer	14	5%
... Other	29	10.36%
Field	281	
... Security	140	49.82%
... Trade	84	29.89%
... Development	57	20.28%

Think Tank Specific

Variable	Count	Percentage
Position Level	260	
... Junior	2	0.77%
... Associate	15	5.77%
... Mid-level	39	15%
... Senior	154	59.23%
... Board Member	7	2.69%
... Other	43	16.54%

D Primary Results and Robustness Check

Table 9: U.S. Residents' Interest in 'Shadow Topics' – Short Model

	<i>Framings:</i>											
	Original Framing	Shadow Topic	Governmental Discourse	Condensed Presentation	Engagement Brings Change	Quantitative Presentation	Optimistic	Firsthand Account	Well-Known Issue Comparison	Public Discourse	Personal/Community Identification	National Identification
Shadow Topic Selection	0.304*** (0.011)	0.304*** (0.011)	0.304*** (0.011)	0.304*** (0.011)	0.253*** (0.023)	0.304*** (0.011)	0.253*** (0.022)	0.304*** (0.011)	0.304*** (0.011)	0.318*** (0.013)	0.300*** (0.013)	0.300*** (0.014)
Alternative Framing Influence	-0.020* (0.012)	-0.008 (0.016)	-0.018 (0.016)	-0.027* (0.016)	-0.012 (0.033)	-0.039** (0.016)	-0.027 (0.032)	-0.003 (0.016)	0.011 (0.016)	-0.028 (0.019)	-0.047** (0.021)	-0.020 (0.021)
Observations	15,084	3,389	3,347	3,346	699	3,343	721	3,402	3,333	2,351	1,944	1,954
R ²	0.0002	0.0001	0.0004	0.001	0.0002	0.002	0.001	0.00001	0.0001	0.001	0.003	0.0005
Adjusted R ²	0.0001	-0.0002	0.0001	0.001	-0.001	0.002	-0.0004	-0.0003	-0.0002	0.0005	0.002	-0.00003

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 10: U.S. Residents' Interest in 'Shadow Topics' – Saturated Model

	<i>Framings:</i>											
	Original Framing	Shadow Topic	Governmental Discourse	Condensed Presentation	Engagement Brings Change	Quantitative Presentation	Optimistic	Firsthand Account	Well-Known Issue Comparison	Public Discourse	Personal/Community Identification	National Identification
Shadow Topic Selection	0.290*** (0.012)	0.290*** (0.012)	0.290*** (0.012)	0.290*** (0.012)	0.255*** (0.025)	0.290*** (0.012)	0.255*** (0.025)	0.290*** (0.012)	0.290*** (0.012)	0.299*** (0.014)	0.284*** (0.015)	0.284*** (0.015)
Alternative Framing Influence	-0.018 (0.013)	-0.006 (0.017)	-0.011 (0.018)	-0.029 (0.017)	-0.030 (0.036)	-0.034* (0.017)	-0.052 (0.035)	-0.009 (0.018)	0.015 (0.018)	-0.028 (0.021)	-0.041* (0.023)	-0.008 (0.023)
International Headlines Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Discrete Headlines Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Treatment Interactions	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	15,084	3,389	3,347	3,346	699	3,343	721	3,402	3,333	2,351	1,944	1,954
R ²	0.004	0.004	0.005	0.006	0.004	0.005	0.008	0.006	0.003	0.008	0.008	0.005
Adjusted R ²	0.003	0.003	0.003	0.004	-0.003	0.004	0.001	0.005	0.002	0.006	0.005	0.002

Note:

*p<0.1; **p<0.05; ***p<0.01

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