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

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## 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 for stories on these topics may significantly exceed their contemporary supply.

# 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 underreported 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

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[1]Throughout 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*.

[2]Interviewees 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 (some largely unintuitive) limit the set of international issues that are reported on (selection on capability). This is a clear departure from existing scholarship on international affairs reporting.

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.

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 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

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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.)

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-registered[3] 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 $\approx 0.922$ articles per conflict death in Israel/Palestine and $\approx 0.230$ articles per conflict death in Sudan.[7]

Yet, other deadly conflicts fall further in the shadows. For instance, Shaver et al. (2023) document significant, ongoing violence in Pakistan's Balochistan province—fueled in part by

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

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

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

[6]To generate this estimate, we used Media Cloud, a multi-university collaboration, that queries the content of news articles published online by a way range of 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 deriviative 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 familiartity querying text corpora will likely note that this approach is likely to result in some number of false positives. If we instead limit out 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.)

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

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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; Dietrich 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) 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

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[8]Beyond 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 et al. (2017).

[9]More 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?'

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 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 ≈47% and ≈63% of cases.[10][11]

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 et al., 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 et al., 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

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

[11]These 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.

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 scare, 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 et al. (2022); Segev (2015); Arango-Kure et al. (2014); Chopra et al. (2023); Simonov and Rao (2022); Iyengar et al. (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

A central qualitative contribution of this work is to highlight the significant heterogeneity in editorial reporting considerations across major 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 leading outlets' international reporting. Many requested (personal/organizational) anonymity. We accordingly limit their identities but note that they work(ed) for numerous organizations found by Erdos & Morgan (2015) as the most influential amongst professionals engaged on defense and national security, or trade/global economic issues—including 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 international reporting variation: 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 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 editorial leader is different in terms of how they approach coverage decisions."*[13]

Clear is the importance of heterogeneity 1) *across* organizations and 2) amongst individuals *within* them. We reflect on both. At the organizational level, audiences targeted by outlets with foreign affairs reporting vary significantly as do the methods by which outlets seek to assess their efforts' efficacy. One interviewee described 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

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[12]Parkinson (2023) describes these 'editorial bias' and 'access bias'. Shaver et al. (2022) adopt 'editorial selection' and 'selection on capability'.

[13]Interviewee-role #291, President and CEO of the Radio Television Digital News Association, also echoed by another (interviewee-role #12, *Buzzfeed News* reporter). (Hereafter 'interviewee-role' given by number only for succinctness.)

off of this news?"'[14] Another compared coverage decisions across major wire services: "A lot of [*Reuters'*] coverage was driven towards a business audience... [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***.... [The company's] financial health has given it the luxury of being able to decide how it is going to cover the world and where.*'[18][19]

Relatedly, a senior editor described the importance of newsroom 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 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 worldwide.[22]

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[14]#43, journalist for a major news organization.

[15]#13, former *Reuters* journalist.

[16]#150, former cable news executive.

[17]#292, former director for digital media in *WCBS-TV* and *CBS* Television Stations Group, describing coverage in New York in particular.

[18]#46, Staff writer at *the New York Times Magazine* and former *Wall Street Journal* writer. Bolding applied by the authors for emphasis.

[19]Another *New York Times* interviewee (#39) confirmed this.

[20]#311, Amelia Newcomb, Managing Editor, *The Christian Science Monitor*.

[21]#287, junior editor at an international affairs related publication.

[22]#293, senior staff writer with a major economics and politics magazine/newspaper.

Nor are their efforts to track whether/how well they respond to demand homogeneous. For some, "[i]t's about attracting eyeballs and ears to your broadcast or digital stories... to be as high in the ratings... to get as many unique visitors and video views to your website..."[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 decionmaking, 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 of 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 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 who was a big Latin America person and now that [region is] a gap in our

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[23] #292, former director for digital media in *WCBS-TV* and *CBS* Television Stations Group.

[24] #287, junior editor at an international affairs related publication.

[25] E.g. #311, 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.

[26] #293, senior staff writer with a major economics and politics magazine/newspaper.

[27] Though, 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...' (#291, President and CEO of the Radio Television Digital News Association).

[28] #307, journalist with a major wire service.

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 may be 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 costs[32], logistical impediments[33], government censorship[34]; and threats to the safety of journalists[35] are factors commonly cited by interviewees. They described significant variation, for instance, in their ability to access conflict settings around the world – with some, like Haiti, Syria, and Yemen exceedingly difficult to access and others like Libya and 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. Interviewees points to various, more nuanced explanations. Path dependencies appear to have created particular patterns of supply. One 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

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[29] #287, junior editor at an international affairs related publication.

[30] #292, former director for digital media in *WCBS-TV* and *CBS* Television Stations Group.

[31] #39, journalist with the *New York Times*.

[32] #35, reporter for an international news agency.

[33] #74, sub-regional news director for a major news agency; also, #13, former *Reuters* journalist; also, #47, journalist for a major news organization; also #271, freelance reporter for the *Washington Post* and other outlets.

[34] #235, journalist working for the *New York Times*.

[35] #11, former *New York Times* reporter; #30, *Reuters* reporter in Latin America; also, #224, French freelance journalist; also, #285, Mexican/French freelance journalist who has reported for big U.S. media.

[36] #4, journalist with a major wire service; #170, freelance journalist who worked with various major North American outlets; and #307, journalist with a major wire service.

*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]

Others 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; etc.

Consistent with these descriptions, in a recent analysis of contemporary reporting patterns, 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 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 despite the proliferation of information and communication technologies and social media potentially expected to erode structural barriers to international news flow. We note the clash with expectations that 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 et al., 2009, p. 4).

Instead, as Chang (2009, p. 14-16) observed, even as the world has grown increasingly

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[37]#46, staff 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.

[38]#39, journalist with the *New York Times*; #150, former cable news executive; and #311, Amelia Newcomb, Managing Editor; *The Christian Science Monitor*.

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 intervie-
wee described from a 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, even
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]

## 4.3  Joint Influences of Editorial Selection & Selection on Capability

A third, even subtler set of factors that emerges from our interviews concerns the impor-
tant role that "intersectionality" plays in the lack of coverage of many major international issues
receive. We define intersectionality as the blending of two or more issues/issue areas, which,
on their own might attract news coverage, but once combined, result in stories that are much
less likely be to covered. Our analyses of these cases suggest this happens for various reasons,
which we group under two broad themes. 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/or journalists. Consequently,
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 assigned to cover such issues in the first place.

As one global development public relations professional explained when describing devel-
opment and humanitarian issues that tend to fall through the cracks: "[A given issue] really
has to correspond with what the beat is for the reporters... [particularly] when you talk about
news coming from low and middle-income countries."[40] In short, many major issues that occur

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[39]#271, freelance reporter for the *Washington Post* and other outlets.
[40]#128, global development public relations professional.

in low and middle-income countries simply fall outside the purview of journalists assigned to those countries, a problem exacerbated, they continued, 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."

For example, interviewees from the World Diabetes Foundation described significant underreporting of 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.[41] Thus, while media might report significantly on chronic diseases in their health pages, and they might report on war in the international pages, the example issue falls through the cracks nearly entirely as it does not cleanly fit within either focus area.

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 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..."[42]*

In other cases, the difficulty comes from relatively complex subject material. Rather than engaging in more detailed reporting to clearly convey the issue, journalists may ultimately avoid such topics as they/their editors instead focus on content more readily 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

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[41] #189, representatives of the World Diabetes Foundation.

[42] #182, Media 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."

the complicated nature of walking readers through the issue, requiring them to first understand the historical presence of Armenians in Syria and so forth:

> *"[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."*[43]

Collectively, the numerous and often independent heterogenous 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.

# 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.[44]

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

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[43]#190, international affairs professional at Anti-Defamation League.

[44]We 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 scantly 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.

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.[45] Very rarely did interviewees not share a shadow topic with us.[46] 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 consequences 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.)[47]

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[45]The general language used to ask this question is provided in Appendix B.1.

[46]When 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.

[47]Indeed, 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

To do so, we designed an online survey experiment intended to mirror news preview displays on the leading pages of news outlets' websites.[48] 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,[49] 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 content to produce final previews in consultation with news media professionals.[50]

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 survey[51], 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

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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.

[48] For 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).

[49] As 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.

[50] In Appendix C.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.

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

racial identifications; ages; educational backgrounds; and employment statuses. About half of respondents reported having traveled internationally. In Appendix D.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/former[52] 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 tanks. Additional details about these groups and the process by which they were identified and contacted can be found under Appendix C.5.2, D.2 and in Avey et al. (2023).[53]

Amongst the international relations professionals, we received a total of 1,347 survey responses.[54] 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 envi-

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[52]A 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.

[53]There 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.

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

ronmental 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.[55]

## 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. *cbsnews.com*, *foxnews.com*, *washingtonpost.com*).[56][57] As described below, in addition to "shadow 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

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[55]Appendix D.2 reports the basic information about the three IR professionals that participated in our survey.

[56]For 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 C.4 for more details.

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

then simply asked to select their preferred article from amongst the set of previews.[58][59] 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 C.1 for demonstrations of both.)[60]

[FIGURE 1 and 2 ABOUT HERE]

Of the three news previews simultaneously displayed, one featured shadow topic news content[61], 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, 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.[62] 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.

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.[63] We also

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[58] The instruction reads as '[p]lease choose your preferred article amongst these short stories.'

[59] The 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.)'.

[60] The 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.

[61] The 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 B.2 for additional description of these shadow topics, Appendix C.6 for selected AfCFTA news previews.)

[62] See Appendix C.6.2 for additional details.

[63] Edits were applied only to the extent required to reflect the global nature of the shadow topic accurately.

generated eleven alternative shadow topic previews to which different frames were applied.[64] 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 C.2).[65] 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.[66] 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.[67] However, using actual former headlines news article previews as our starting point ensures that 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

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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.

[64]These 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 C.2 for details).

[65]The 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.

[66]See Appendix C.3 for the complete list and selection process.

[67]For 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.

display order; and, finally, randomization of headline news preview controls.[68]

## 5.5 Statistical Testing

We estimate demand for shadow topics by the probability of their selection (S) by respondent $i$ during survey round $r$[69], 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:

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

Here, $\mathbf{X}_i$ denotes respondents' demographics.[70] Shadow topic fixed effects are given by $\gamma_s$.[71] 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. 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.[72]

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[68]See Appendix C.4 for more information about the randomization process.

[69]$r \in \{1, 2, 3\}$ 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.

[70]For 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 C.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 C.7 for specific questions in the surveys.

[71]For 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 C.5 for details in survey implementation.

[72]Please see Appendix C.8 for discussion of several deviations from the study's pre-registrations, and Appendix E for primary regression result.

# 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.[73] 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, chosing shadow topics in $\approx$36.62% of cases.[74] (See Figure 3.)

[FIGURE 3 ABOUT HERE]

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 Figure 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 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

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[73]Please see Appendix C.5 for details on survey response rates and other details about survey implementations.

[74]Results 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.

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.[75][76][77]

ii. For one quarter of U.S. resident respondents, we asked them to explain why they chose the articles they did.[78] We then manually inspected their responses, subsetting the response to those who offered plausible answers and regenerating results.[79] 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 adminis-

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[75]The 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.

[76]Per 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.

[77]We 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.

[78]Following 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?'.

[79]If 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.

tered 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.

[FIGURE 4 ABOUT HERE]

Third, for the survey of U.S. residents, results are robust to including a series of political 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 C.7. Results are effectively unchanged when these additional covariate adjustments are applied, see Appendix D.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).[80] Again, we compare "shadow topics" previews to

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[80]In the accompanying R code, we detail the specific categorization choices we make.

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 ABOUT HERE]

Fifth, related to the preceding point, Muralidharan et al. (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 11) 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.

# 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 et al., 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 international 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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# Appendix

# Contents

# A  'Primary Figures'

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.

→

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 C.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 that is of most interest to you. (Simply select a **preferred** article and then click the arrow to proceed.)

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

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

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.

**New monkeypox cases confirmed**

Typical presentation of monkeypox, shown in a 1997 file photo. (CDC/Reuters)

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.

**Facebook failed to detect election-related misinformation in ads ahead of Tunisia's election**

Facebook election monitoring has failed for the fourth time. (Reuters)

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 C.6.2 for a complete list of non-shadow topic previews displayed to IR professionals.
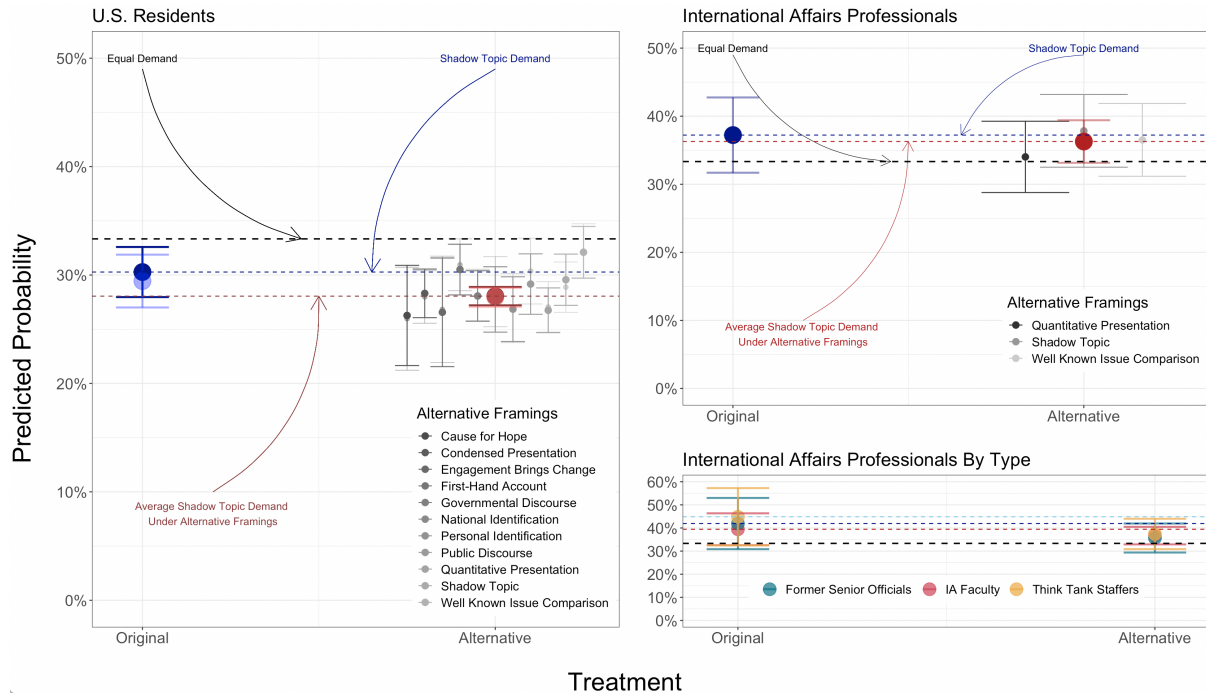
Figure 3: This figure depicts significant estimated demand for "shadow topics" news article amongst both the U.S. residents and international affairs professionals. Clockwise from left: The first plot displays the predicted probability of 'shadow topic' article selection under the original framings (blue) as well as under the alternative framings (red) (for corresponding regression results see Tables 9 and 10). The second plot shows the same results for the international affairs professionals (see corresponding regression results in Table 18). Finally, the third plot disaggregates results across the three sets of international affairs professionals (see corresponding regression results in Table 19). Overall, all three plots show significant and highly stable interest in 'shadow topic' article previews relative to leading headline news items.
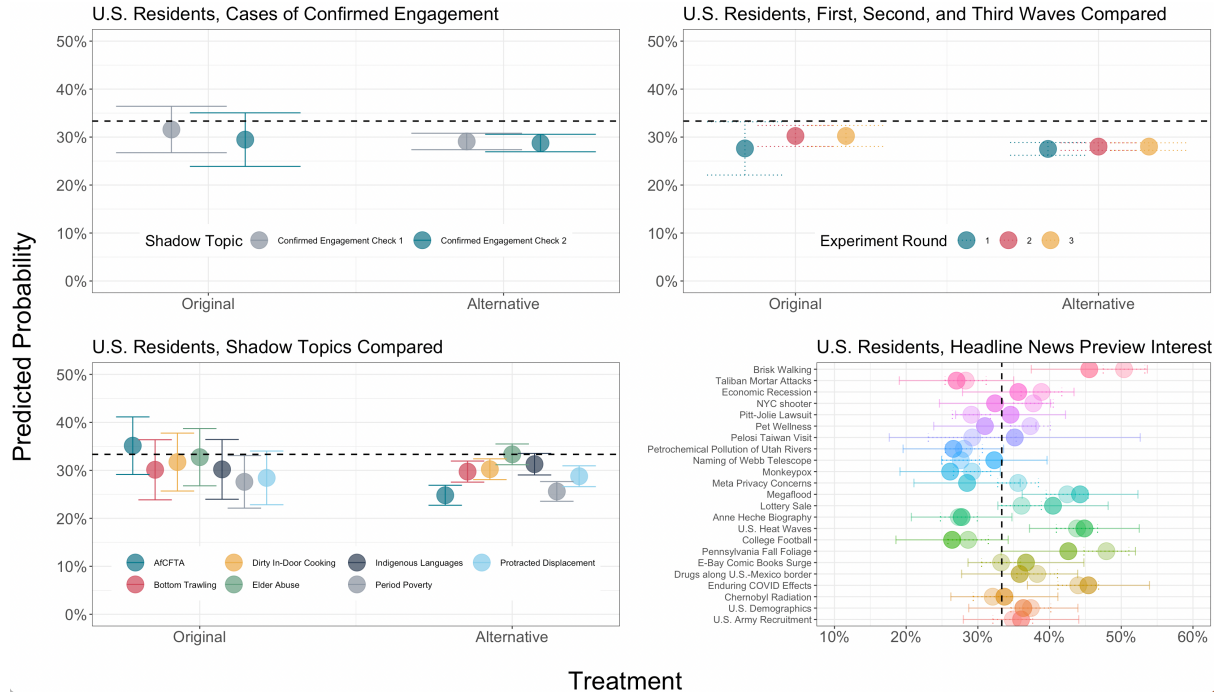
Figure 4: This figure displays various experimental estimates. Clockwise from top left: The first and second plots display the predicted probabilities of 'shadow topic' selection under both the original and modified framings (average). The first plot includes only those individuals who provided responses describing their answer choices (see corresponding regression results in Table 16). The second plot displays the probabilities disaggregated by survey round (see corresponding regression results in Table 17). The third image displays the predicted probabilities at which each of the alternative headline news articles were chosen (with corresponding regression results given in Tables 12 and 13, respectively). Finally, the last image displays predicted probabilities disaggregated by 'shadow topic' (see 14 and 15 for corresponding regression results). Collectively, the results provide strong evidence that the primary results are not the result of respondents choosing answers at random.
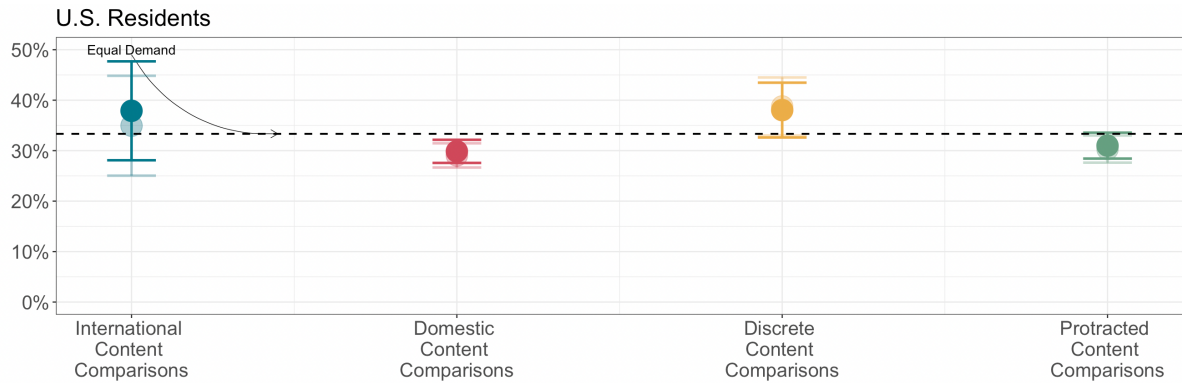


Figure 5: This figure displays 'shadow topic' demand estimates when compared with headlines news previews that are 1) international only; 2) domestic only; 3) discrete events only; and 4) protracted events only (see corresponding regression results in Table 20).

5

# B  "shadow topics"

## B.1  'Shadow Topic' Identification

To identify shadow topics—and more generally investigate the causes of underreporting on major global issues—we carried out approximately 180[81] in-depth semi-structured interviews with international affairs professionals as well as news media professionals engaged in the international news reporting/production. Interviewees consistent 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 system[82] (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 organizations[83] (e.g. Médecins Sans Frontières, Mercy Corps, MSI Reproductive Choices, Save the Children, and the World Wildlife Fund); 3) major philanthropic organizations[84] (e.g. the Gates Foundation); 4) think tanks and research institutes[85] (e.g. the Atlantic Council, The Council on Strategic Risks, and the Institute for Economics and Peace); and 5) diplomatic staff[86] (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.

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[81]At 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.

[82]The 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.

[83]The 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.

[84]Our 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).

[85]To 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.

[86]The 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.

## B.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.[87] 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)[88], biodiversity and ecosystem degredation (Pusceddu et al., 2014), sendiment resuspension, whose resulting mass is ' approximately the same as the sediment mass supplied to the continental shelves through the world's rivers' Oberle et al. (2016), amongst other effects. Since 2010, we estimate that bottom trawling has received some 231 collective refernces 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 as well 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, received 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 (Mos, 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 betweem 2010 and 2022 while indigenous language loss received a fraction of this attention.

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

**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.

## B.3  Selected Shadow Topic Article Previews

## B.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 identifed references to period poverty with the following query ['period poverty" OR 'menstrual poverty"], which would identify all articles containing either of these two phrases.[89] 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 2022[90]

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.

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[89]When 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.

[90]Media Cloud's dataset only goes back to 2010.

Dock workers pause while loading sacks by crane onto a cargo ship at port in Mombasa, 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 Mombasa, 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



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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
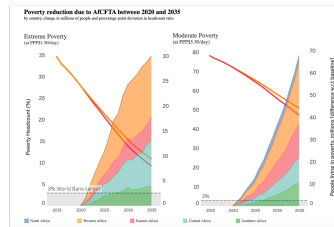


Source: World Bank

**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 Mombasa, 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 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

# C  Survey Design

## C.1  Survey Experiment Administration

Respondents were asked to select one preferred article from three news previews. Figures 1 and 2 provide examples.[91]. 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*'[92]. 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 C.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.[93] 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.

## C.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

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[91]Figures 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.

[92]Bolding and italicization used to describe instruction given to respondents reflect the actual formatting displayed to respondents.

[93]Respondents 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 know 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?*'.[94]

**'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?*'.[95]

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

## C.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 C.6.1 and C.6.2.

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[94]This frame was not pre-registered. Please see Appendix C.8.1.
[95]This frame was not pre-registered. Please see Appendix C.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.[96]

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.

## C.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.[97][98] 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.

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[96]Several 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.

[97]For 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. 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.

[98]Framings 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.

## C.5  Survey Implementation

### C.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 did 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.[99] 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.[100]. 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 D.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) ≈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) ≈46% failed one of the two attention checks;[101] 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.[102]

### C.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

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[99] At 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.'

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

[101] In 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%).

[102] There 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.[103] 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).[104] 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 17[105] 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.

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[103]Engagement figures are based on respondents answering at least one question.
[104]Political scientists who study or teach IR in professional schools also qualify.
[105]This number various across years following changes to bureaucratic strucutre.

## C.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) |

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-ffinch, 2017) |

### C.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 et al., 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) |

### C.6.2 IR Professionals Experiment Design

Table 3: Non-Shadow Topics: IR Professionalss

| Topic | Source Article Title | Title in Experiment | Article Source | Image Source |
|---|---|---|---|---|
| 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 et al., 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 *An An* | 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) |

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) |

## C.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.[106]

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`.[107] 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`).[108] For the current/former senior government officials and

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[106]In 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.

[107]We 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.

[108]In 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.[109] 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 dispayed 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`.

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[109]Top 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?<br>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?<br>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<br>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?<br>['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?<br>['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.

## C.8 Pre-Registration Errata

### C.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'*[110] 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.

### C.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.[111]

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[110]The *'optimistic'* is named as *'optimism in the face of cost"* in pre-registration, but they refer to the same framing technique.

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

# D  Summary Statistics

## D.1  U.S. Residents Survey

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% | | | |

## D.2 IR Professionals' Survey

IR Professionals' Survey Demographics

| Expertise | University faculty | | Government official | | Think tank specialist | |
|---|---|---|---|---|---|---|
| Variable | 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% |

# E   Primary Results and Robustness Check

In this section, because shadow topic selection is given by the intercept term, results are typically displayed without covariate adjustments for ease of interpretation (otherwise readers would need to calculate results specific to subgroups by summing across various intercept terms generated with fixed effects). Accordingly, Figures 3, 4, 5 are our preferred means of conveying results as they succinctly depict all magnitude and uncertainty estimates with covariate adjustments applied.

## Table 9: U.S. Residents' Interest in "shadow topics" – Short Model (Linear Probability Models)

| | Dependent variable: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | | | | | | |
| | (All Framings) | (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*** | 0.304*** | 0.304*** | 0.304*** | 0.253*** | 0.304*** | 0.253*** | 0.304*** | 0.304*** | 0.318*** | 0.300*** | 0.300*** |
| | (0.011) | (0.011) | (0.011) | (0.011) | (0.023) | (0.011) | (0.022) | (0.011) | (0.011) | (0.013) | (0.013) | (0.014) |
| Framing Influence | −0.020* | −0.008 | −0.018 | −0.027* | −0.012 | −0.039** | −0.027 | −0.003 | 0.011 | −0.028 | −0.047** | −0.020 |
| | (0.012) | (0.016) | (0.016) | (0.016) | (0.033) | (0.016) | (0.032) | (0.016) | (0.016) | (0.019) | (0.021) | (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 |
| R² | 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 R² | 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" – Short Model (Logit)

| | Dependent variable: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | | | | | | |
| | (All Framings) | (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 | −0.827*** | −0.827*** | −0.827*** | −0.827*** | −1.080*** | −0.827*** | −1.080*** | −0.827*** | −0.827*** | −0.763*** | −0.846*** | −0.846*** |
| | (0.053) | (0.053) | (0.053) | (0.053) | (0.121) | (0.053) | (0.121) | (0.053) | (0.053) | (0.059) | (0.065) | (0.065) |
| Framing Influence | −0.095* | −0.036 | −0.085 | −0.132* | −0.066 | −0.190** | −0.149 | −0.013 | 0.052 | −0.133 | −0.234** | −0.097 |
| | (0.056) | (0.075) | (0.076) | (0.076) | (0.176) | (0.077) | (0.175) | (0.075) | (0.075) | (0.091) | (0.103) | (0.101) |
| Observations | 15,084 | 3,389 | 3,347 | 3,346 | 699 | 3,343 | 721 | 3,402 | 3,333 | 2,351 | 1,944 | 1,954 |
| Log Likelihood | −9,036.859 | −2,071.203 | −2,030.982 | −2,015.684 | −391.066 | −1,994.969 | −396.917 | −2,086.047 | −2,062.239 | −1,446.481 | −1,150.750 | −1,179.113 |
| AIC | 18,077.720 | 4,146.405 | 4,065.964 | 4,035.368 | 786.132 | 3,993.938 | 797.834 | 4,176.094 | 4,128.479 | 2,896.962 | 2,305.499 | 2,362.226 |

Note: *p<0.1; **p<0.05; ***p<0.01

Table 11: U.S. Residents' Interest in "shadow topics" – Saturated Model

|  | *Dependent variable:* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | News Headline Selection | | | | | | | | | | | |
|  | (All Framings) | (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*** | 0.290*** | 0.290*** | 0.290*** | 0.255*** | 0.290*** | 0.255*** | 0.290*** | 0.290*** | 0.299*** | 0.284*** | 0.284*** |
|  | (0.012) | (0.012) | (0.012) | (0.012) | (0.025) | (0.012) | (0.025) | (0.012) | (0.012) | (0.014) | (0.015) | (0.015) |
| Framing Influence | −0.018 | −0.006 | −0.011 | −0.029 | −0.030 | −0.034* | −0.052 | −0.009 | 0.015 | −0.028 | −0.041* | −0.008 |
|  | (0.013) | (0.017) | (0.018) | (0.017) | (0.036) | (0.017) | (0.035) | (0.018) | (0.018) | (0.021) | (0.023) | (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

Table 12: Alternative Headline News Article Selection (Linear Probability Models)

| | | | | | | | | | | *Dependent variable:* | | | | | | | | | | | | | |
| | | | | | | | | | | News Headline Selection | | | | | | | | | | | | | |
| | (C1) | (C2) | (C3) | (C4) | (C5) | (C6) | (C7) | (C8) | (C9) | (C10) | (C11) | (C12) | (C13) | (C14) | (C15) | (C16) | (C17) | (C18) | (C19) | (C20) | (C21) | (C22) | (C23) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Headline News Control Selection | 0.359*** | 0.425*** | 0.448*** | 0.335*** | 0.453*** | 0.344*** | 0.455*** | 0.362*** | 0.355*** | 0.283*** | 0.275*** | 0.442*** | 0.366*** | 0.404*** | 0.264*** | 0.322*** | 0.268*** | 0.259*** | 0.262*** | 0.321*** | 0.308*** | 0.357*** | 0.345*** |
| | (0.040) | (0.047) | (0.038) | (0.037) | (0.042) | (0.036) | (0.040) | (0.038) | (0.039) | (0.039) | (0.035) | (0.040) | (0.039) | (0.037) | (0.035) | (0.040) | (0.040) | (0.036) | (0.040) | (0.035) | (0.037) | (0.041) | (0.085) |
| Observations | 1,365 | 1,163 | 1,405 | 1,391 | 1,401 | 1,372 | 1,381 | 1,413 | 1,373 | 1,327 | 1,412 | 1,330 | 1,389 | 1,406 | 1,416 | 1,414 | 1,150 | 1,431 | 1,200 | 1,387 | 1,427 | 1,359 | 256 |
| $R^2$ | 0.00004 | 0.001 | 0.00004 | 0.0001 | 0.0001 | 0.001 | 0.001 | 0.0001 | 0.0005 | 0.002 | 0.00000 | 0.0001 | 0.0005 | 0.001 | 0.0001 | 0.001 | 0.0002 | 0.001 | 0.0003 | 0.001 | 0.002 | 0.0003 | 0.001 |
| Adjusted $R^2$ | −0.001 | 0.0002 | −0.001 | −0.001 | −0.001 | 0.001 | 0.0002 | −0.001 | −0.0003 | 0.002 | −0.001 | −0.001 | −0.0002 | 0.0001 | −0.001 | 0.001 | −0.001 | −0.0002 | −0.001 | 0.0003 | 0.001 | −0.0005 | −0.003 |

*Note:* $^*$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01

*Note:* C1 through C23 refer to headline news controls (briefly summarized) in the following order: "U.S. Army Recruitment", "Pennsylvania Fall Foliage", "U.S. Heat Waves", "College Football", "Chernobyl Radiation", "Enduring COVID Effects", "Pitt-Jolie Lawsuit", "Brisk Walking", "U.S. Demographics", "Economic Recession", "Meta Privacy Concerns", "Anne Heche Biography", "Megaflood", "E-Bay Comic Books Surge", "Lottery Sale", "Petrochemical Pollution of Utah Rivers", "NYC shooter", "Taliban Mortar Attacks", "Monkeypox", "Naming of Webb Telescope", "Pet Wellness", "Drugs along U.S.-Mexico border", "Pelosi Taiwan Visit".

Table 13: Alternative Headline News Article Selection (Logit)

| | | | | | | | | | | *Dependent variable:* | | | | | | | | | | | | | |
| | | | | | | | | | | News Headline Selection | | | | | | | | | | | | | |
| | (C1) | (C2) | (C3) | (C4) | (C5) | (C6) | (C7) | (C8) | (C9) | (C10) | (C11) | (C12) | (C13) | (C14) | (C15) | (C16) | (C17) | (C18) | (C19) | (C20) | (C21) | (C22) | (C23) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Headline News Control Selection | −0.581*** | −0.303 | −0.210 | −0.684*** | −0.188 | −0.646*** | −0.182 | −0.567*** | −0.598*** | −0.930*** | −0.967*** | −0.235 | −0.551*** | −0.390** | −1.026*** | −0.744*** | −1.006*** | −1.050*** | −1.038*** | −0.748*** | −0.809*** | −0.590*** | −0.642 |
| | (0.173) | (0.190) | (0.153) | (0.165) | (0.170) | (0.168) | (0.162) | (0.163) | (0.168) | (0.180) | (0.173) | (0.162) | (0.172) | (0.158) | (0.178) | (0.175) | (0.200) | (0.179) | (0.200) | (0.167) | (0.165) | (0.175) | (0.391) |
| Observations | 1,365 | 1,163 | 1,405 | 1,391 | 1,401 | 1,372 | 1,381 | 1,413 | 1,373 | 1,327 | 1,412 | 1,330 | 1,389 | 1,406 | 1,416 | 1,414 | 1,150 | 1,431 | 1,200 | 1,387 | 1,427 | 1,359 | 256 |
| Log Likelihood | −883.270 | −803.924 | −963.411 | −874.058 | −961.314 | −833.244 | −956.566 | −932.745 | −914.435 | −855.385 | −828.253 | −907.308 | −885.860 | −922.542 | −837.172 | −931.850 | −690.080 | −858.614 | −715.116 | −823.245 | −935.137 | −902.076 | −155.522 |
| AIC | 1,770.539 | 1,611.849 | 1,930.822 | 1,752.116 | 1,926.629 | 1,670.488 | 1,917.132 | 1,869.490 | 1,832.870 | 1,714.769 | 1,660.506 | 1,818.617 | 1,775.719 | 1,849.084 | 1,678.344 | 1,867.700 | 1,384.160 | 1,721.228 | 1,434.232 | 1,650.490 | 1,874.274 | 1,808.151 | 315.043 |

*Note:* $^*$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01

*Note:* C1 through C23 refer to headline news controls (briefly summarized) in the following order: "U.S. Army Recruitment", "Pennsylvania Fall Foliage", "U.S. Heat Waves", "College Football", "Chernobyl Radiation", "Enduring COVID Effects", "Pitt-Jolie Lawsuit", "Brisk Walking", "U.S. Demographics", "Economic Recession", "Meta Privacy Concerns", "Anne Heche Biography", "Megaflood", "E-Bay Comic Books Surge", "Lottery Sale", "Petrochemical Pollution of Utah Rivers", "NYC shooter", "Taliban Mortar Attacks", "Monkeypox", "Naming of Webb Telescope", "Pet Wellness", "Drugs along U.S.-Mexico border", "Pelosi Taiwan Visit".

Table 14: U.S. Residents, Shadow Topics Compared (Linear Probability Models)

| | *Dependent variable:* | | | | | | |
|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | |
| | (AfCTA) | (Bottom Trawling) | (Dirty In-Door Cooking) | (Elder Abuse) | (Loss of Indigenous Languages) | (Period Poverty) | (Protracted Displacement) |
| Shadow Topic Selection | 0.336*** | 0.295*** | 0.300*** | 0.343*** | 0.313*** | 0.272*** | 0.269*** |
| | (0.027) | (0.031) | (0.029) | (0.031) | (0.030) | (0.028) | (0.029) |
| Framing Influence (All) | −0.102*** | −0.005 | −0.008 | −0.011 | −0.001 | −0.019 | 0.010 |
| | (0.029) | (0.032) | (0.031) | (0.032) | (0.032) | (0.030) | (0.030) |
| Observations | 2,207 | 2,124 | 2,210 | 2,161 | 2,118 | 2,126 | 2,138 |
| $R^2$ | 0.006 | 0.00001 | 0.00003 | 0.0001 | 0.00000 | 0.0002 | 0.00005 |
| Adjusted $R^2$ | 0.005 | −0.0005 | −0.0004 | −0.0004 | −0.0005 | −0.0003 | −0.0004 |

*Note:* *p<0.1; **p<0.05; ***p<0.01

Table 15: U.S. Residents, Shadow Topics Compared (Logit)

| | *Dependent variable:* | | | | | | |
|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | |
| | (AfCTA) | (Bottom Trawling) | (Dirty In-Door Cooking) | (Elder Abuse) | (Loss of Indigenous Languages) | (Period Poverty) | (Protracted Displacement) |
| Shadow Topic Selection | −0.681*** | −0.869*** | −0.847*** | −0.650*** | −0.787*** | −0.983*** | −0.998*** |
| | (0.134) | (0.148) | (0.138) | (0.136) | (0.138) | (0.143) | (0.144) |
| Framing Influence (All) | −0.505*** | −0.024 | −0.039 | −0.050 | −0.006 | −0.096 | 0.048 |
| | (0.144) | (0.156) | (0.147) | (0.145) | (0.147) | (0.153) | (0.153) |
| Observations | 2,207 | 2,124 | 2,210 | 2,161 | 2,118 | 2,126 | 2,138 |
| Log Likelihood | −1,224.395 | −1,280.780 | −1,336.141 | −1,375.217 | −1,313.978 | −1,208.866 | −1,263.277 |
| AIC | 2,452.789 | 2,565.560 | 2,676.281 | 2,754.433 | 2,631.956 | 2,421.732 | 2,530.555 |

*Note:* *p<0.1; **p<0.05; ***p<0.01

Table 16: U.S. Residents, Cases of Confirmed Engagement (Logit)

| | *Dependent variable:* | | | |
|---|---|---|---|---|
| | News Headline Selection | | | |
| | *LPM (Columns 1-2)* | | *Logit (Columns 3-4)* | |
| | (Check 1) | (Check 2) | (Check 1) | (Check 2) |
| Shadow Topic Engagement | 0.308*** | 0.292*** | −0.809*** | −0.884*** |
| | (0.023) | (0.026) | (0.111) | (0.127) |
| Framing Influence (All) | −0.021 | −0.007 | −0.099 | −0.036 |
| | (0.025) | (0.028) | (0.118) | (0.135) |
| Observations | 3,306 | 2,709 | 3,306 | 2,709 |
| $R^2$ | 0.0002 | 0.00003 | | |
| Adjusted $R^2$ | −0.0001 | −0.0003 | | |
| Log Likelihood | | | −1,989.701 | −1,620.676 |
| AIC | | | 3,983.402 | 3,245.352 |

| | |
|---|---|
| *Note:* | *p<0.1; **p<0.05; ***p<0.01 |

Table 17: U.S. Residents, First, Second, and Third Waves Compared

| | | | *Dependent variable:* | | | |
|---|---|---|---|---|---|---|
| | | | News Headline Selection | | | |
| | *LPM (Columns 1-3)* | | | *Logit (Columns 4-6)* | | |
| | (Survey Wave 1) | (Survey Wave 2) | (Survey Wave 3) | (Survey Wave 1) | (Survey Wave 2) | (Survey Wave 3) |
| Shadow Topic Selection | 0.269*** | 0.297*** | 0.326*** | −1.001*** | −0.863*** | −0.727*** |
| | (0.026) | (0.018) | (0.017) | (0.132) | (0.084) | (0.080) |
| Framing Influence | 0.009 | 0.002 | −0.048*** | 0.045 | 0.010 | −0.229*** |
| | (0.027) | (0.019) | (0.018) | (0.136) | (0.090) | (0.087) |
| Observations | 5,028 | 5,028 | 5,028 | 5,028 | 5,028 | 5,028 |
| $R^2$ | 0.00002 | 0.00000 | 0.001 | | | |
| Adjusted $R^2$ | −0.0002 | −0.0002 | 0.001 | | | |
| Log Likelihood | | | | −2,967.190 | −3,065.124 | −2,999.571 |
| AIC | | | | 5,938.380 | 6,134.248 | 6,003.141 |

*Note:* $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01

Table 18: Foreign Affairs Professionals' Interest in "shadow topics"

| | *Dependent variable:* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | | |
| | *LPM (Columns 1-4)* | | | | *Logit (Columns 5-8)* | | | |
| | (All Framings) | (Shadow Topic) | (Quantitative Presentation) | (Well-Known Issue Comparison) | (All Framings) | (Shadow Topic) | (Quantitative Presentation) | (Well-Known Issue Comparison) |
| Shadow Topic Selection | 0.363*** | 0.363*** | 0.363*** | 0.363*** | −0.562*** | −0.562*** | −0.562*** | −0.562*** |
| | (0.029) | (0.029) | (0.029) | (0.029) | (0.124) | (0.124) | (0.124) | (0.124) |
| Framing Influence | 0.004 | 0.028 | −0.020 | 0.007 | 0.019 | 0.117 | −0.089 | 0.029 |
| | (0.033) | (0.041) | (0.040) | (0.041) | (0.143) | (0.175) | (0.176) | (0.175) |
| Observations | 1,125 | 555 | 567 | 565 | 1,125 | 555 | 567 | 565 |
| $R^2$ | 0.00001 | 0.001 | 0.0005 | 0.00005 | | | | |
| Adjusted $R^2$ | −0.001 | −0.001 | −0.001 | −0.002 | | | | |
| Log Likelihood | | | | | −739.020 | −367.388 | −367.924 | −371.189 |
| AIC | | | | | 1,482.041 | 738.776 | 739.848 | 746.378 |

*Note:* *p<0.1; **p<0.05; ***p<0.01

Table 19: Foreign Affairs Professionals' Interest in "shadow topics", Disaggregated by Professional Groups

| | *Dependent variable:* | | | | | |
|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | |
| | *LPM (Columns 1-3)* | | | *Logit (Columns 4-6)* | | |
| | (IR Faculty) | (Former Senior Officials) | (Think Tank Staffers) | (IR Faculty) | (Former Senior Officials) | (Think Tank Staffers) |
| Shadow Topic Selection | 0.373*** | 0.333*** | 0.360*** | −0.520*** | −0.693** | −0.575* |
| | (0.036) | (0.065) | (0.069) | (0.155) | (0.289) | (0.295) |
| Framing Influence (All) | −0.0002 | 0.008 | 0.018 | −0.001 | 0.036 | 0.076 |
| | (0.042) | (0.074) | (0.080) | (0.179) | (0.332) | (0.341) |
| Observations | 711 | 221 | 193 | 711 | 221 | 193 |
| R$^2$ | 0.00000 | 0.0001 | 0.0003 | | | |
| Adjusted R$^2$ | −0.001 | −0.005 | −0.005 | | | |
| Log Likelihood | | | | −469.533 | −141.570 | −127.464 |
| AIC | | | | 943.067 | 287.140 | 258.928 |

*Note:* *p<0.1; **p<0.05; ***p<0.01

Table 20: U.S. Residents, Comparisons Across Content by Type: International, Domestic, Discrete, and Protracted

| | *Dependent variable:* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | News Headline Selection | | | | | | | |
| | *LPM (Columns 1-4)* | | | | *Logit (Columns 5-8)* | | | |
| | (International Content Comparisons) | (Domestic Content Comparisons) | (Discrete Content Comparisons) | (Protracted Content Comparisons) | (International Content Comparisons) | (Domestic Content Comparisons) | (Discrete Content Comparisons) | (Protracted Content Comparisons) |
| Shadow Topic Selection | 0.380*** | 0.300*** | 0.365*** | 0.309*** | −0.491** | −0.845*** | −0.554*** | −0.806*** |
| | (0.053) | (0.011) | (0.026) | (0.012) | (0.232) | (0.054) | (0.115) | (0.058) |
| Framing Influence (All) | −0.066 | −0.017 | −0.028 | −0.015 | −0.293 | −0.084 | −0.122 | −0.070 |
| | (0.056) | (0.012) | (0.028) | (0.013) | (0.247) | (0.058) | (0.122) | (0.062) |
| Observations | 701 | 14,383 | 2,980 | 12,166 | 701 | 14,383 | 2,980 | 12,166 |
| R$^2$ | 0.002 | 0.0001 | 0.0003 | 0.0001 | | | | |
| Adjusted R$^2$ | 0.001 | 0.0001 | −0.00000 | 0.00002 | | | | |
| Log Likelihood | | | | | −439.258 | −8,595.204 | −1,910.321 | −7,387.604 |
| AIC | | | | | 882.517 | 17,194.410 | 3,824.642 | 14,779.210 |

*Note:* *p<0.1; **p<0.05; ***p<0.01

# F Ethical Considerations

All human subjects research described in this article was conducted under institutional review board (IRB) approval #UCM2021-125 from the University of California, Merced.

**Interviews:** Prior to our interviews with foreign affairs professionals, they received an informed consent document detailing the study objectives, potential risks/benefits, their right to withdraw from the study at any time, etc. Informed consent was obtained orally (as per the approved protocol) and documented at the time it was provided. Interviewees Additionally, each interviewee was asked for their preferred identification in any/all resulting research products. We clarified that "[s]hould you prefer, you may also choose to remain completely anonymous." Furthermore, we offered all interviewees a one-week follow up period during which to "request any redactions/edits to the information that you supplied during the interview, including that the interview contents in their entirety be deleted." This clause was included to ensure that interviewees were not only comfortable with the terms of their participation in advance of the interview but that they remained so afterward and could amend/delete any/all information shared in case of any concerns.

**Survey Takers:** For the U.S. resident survey takers, we presented the consent form at the beginning of the surveys. In the 'Consent Form', respondents were informed they could decline to take the survey or exit at any time. As our news previews are constructed from real-world stories but are not actual new news stories, we debriefed the respondents at the survey's end to ensure they apprised of this research feature. The debrief reads as follow:

> You were asked to choose some news articles during this survey. The news stories presented to you were not actual news stories pulled from today's headline news. Some of the presented "news articles" were actual previous news stories about which key details were changed to create plausible headlines news articles. Other news items presented were made up entirely. In some cases, photos presented were associated with sources that are not the actual sources of the photos.

> Our research seeks to evaluate how the framing of different issues affects the likelihood of survey respondents expressing interest in engaging with those articles. Specifically, we are interested in learning whether there are particular ways of increasing interest in international affairs issues that have historically received minimal major news media coverage. Doing this required that we present plausibly real news stories for your consideration.

> We thank you for taking the time to help us advance our research! Please make sure to click the button below to submit the survey.

In our IRB application and survey experiment pre-registration, we indicated that respondents would be limited to those 18 years of age or older. To achieve this, we asked respondents 'to confirm during the informed consent process that they are both 18 years of age or older... ending the survey immediately for anyone who does answer in the affirmative'. We then asked for individuals' birthdays to allow us to calculate their ages. When we analyzed the survey data, we found that some individuals had answered that they were 18 years of age or older and thus were allowed to proceed with the survey but then supplied birth dates indicating that they were younger than 18 years at the time of survey completion. We reported this to the IRB and were advised to exclude these individuals, which we have done in the analyses presented in this manuscript. Participants who completed the survey were compensated.[112] U.S. residents' responses are kept confidential and securely stored with access restricted to members of the research team.

For foreign affairs professionals surveyed for our research, informed consent given at the time of the survey similarly made clear that respondents "may exit the survey at any time by closing your browser." Foreign affairs professionals responses are kept confidential and securely stored with access restricted to members of the research team. No compensation was provided to foreign affairs professionals for participating in the surveys.

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

# G   Invitation Email to IR Survey Languages

## G.1   IR Faculty Survey

Dear Colleague,

We write to invite you to participate in the 2022-2023 Teaching, Research & International Policy (TRIP) Faculty Survey. It will take you approximately 30 minutes to complete the survey, which asks a number of questions on the discipline of international relations and current global issues. Once you have started the survey, you can resume where you left off using your invitation link. Your responses will be kept completely confidential.

You may have seen the results of TRIP's previous faculty surveys, the most recent of which can be found on TRIP's Data Dashboard: https://trip.wm.edu/data/dashboard
/faculty-survey. TRIP surveys explore the nature of the relationship between research, teaching, and policy in the field of international relations (IR). This survey records the opinions of IR scholars at colleges and universities around the world. Among other things, it examines which theories, methods, and pedagogical techniques are most prevalent in the IR field. It also explores IR scholars' views on a variety of contemporary and historical foreign policy issues.

## G.2   Foreign Policymaker Survey

[FirstName LastName],

More than a decade ago, Harvard Professor Joe Nye wrote a Washington Post Op/Ed, 'Scholars on the Sidelines,' in which he lamented that many of his colleagues in the academy 'are paying less attention to questions about how their work related to the policy world.' His critique of the academy still rings true today. No doubt, there are many reasons for the continued and even growing lack of interest in 'the real world' among international relations scholars.

Yet this is an era in which a robust body of scholarly work could be of considerable use to policy makers. The U.S. Government is trying to tap academic expertise to understand complex issues through the U.S. Global Development Lab, the Department of Defense's Minerva Initiative, the Intelligence Community's Academic Associates program, and other ventures.

We are a group of scholars at William & Mary requesting your help in identifying when and how academic work in international relations is of use to current and former policy practitioners, like yourself.

We have put together a survey that will help facilitate the 'reappraisal within the academy' that Joe Nye and others have called for, so as to encourage scholars to consider research and analysis that helps leaders make more effective foreign and national security policies.

The survey should take about 30 minutes to complete. We know this is a significant time commitment, but we hope you will think that the work of bringing scholars and practitioners together is as important as we do. The survey is straightforward, on-line, and completely confidential. This is a condition of William & Mary's Institutional Review Board process for approving the survey.

[Take the Survey][113]

If you participate, you will not be pestered with spam or have your contact information given to telemarketers. Your answers will be compared with those of scholars and think tank researchers to highlight the various convergences and divergences between academic thinking about international relations and what practitioners need from scholars.

With a modest investment of your time, you can make a big difference in helping to bridge the gap between academia and policymakers. We value your input and hope you will participate.

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[113]A button that respondent can click to take the survey.

## G.3    IR Think Tank Survey

[FirstName LastName],

We are a group of researchers at William & Mary requesting your help in identifying when and how academic research in international relations is used within organizations like yours.

Although there is a mature and growing literature on the role of think tanks in the policy process, we still know relatively little about the relationship between the academy and think tanks, as the latter develop their own research and policy products that shape the thinking and decisions of policymakers and policy implementers.

The survey should take about 30 minutes to complete. We know this is a significant time commitment, but we hope you will think that the work of bringing scholars and practitioners together is as important as we do. The survey is straightforward, on-line, and completely confidential. This is a condition of William & Mary's Institutional Review Board process for approving the survey.

[Take the Survey][114]

Responses from think tank researchers and other staff will be compared with those of policymakers, journalists, and scholars to highlight the similarities and differences in perceptions about the utility of academic research. This analysis will also help to better understand the role think tanks play in the policy process.

With a modest investment of your time, you can make a big difference in helping to bridge the gap between academia and practitioners. We value your input and hope you will participate.

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