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University of Western Australia, IZA and CESifo

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IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

Terrorism and the Media: The Effect of US Television Coverage on Al-Qaeda Attacks*

Can media coverage of a terrorist organization encourage their execution of further attacks? This paper analyzes the day-to-day news coverage of Al-Qaeda on US television since 9/11 and the group's terrorist strikes. To isolate causality, I use disaster deaths worldwide as an exogenous variation that crowds out Al-Qaeda coverage in an instrumental variable framework. The results suggest a positive and statistically powerful effect of CNN, NBC, CBS, and Fox News coverage on subsequent Al-Qaeda attacks. This result is robust to a battery of alternative estimations, extensions, and placebo regressions. One minute of Al-Qaeda coverage in a 30-minute news segment causes approximately one attack in the upcoming week, equivalent to 4.9 casualties, on average.

JEL Classification: C26, D74, F52, L82

Keywords: Al-Qaeda, media attention, media effects, terrorism, 9/11

Corresponding author:
Michael Jetter
Business School
University of Western Australia
35 Stirling Highway
Crawley 6009, WA
Australia

E-mail: mjetter7@gmail.com

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NON-TECHNICAL SUMMARY

There has been a lot of speculation about the hypothesis that media coverage of terrorist groups can encourage further attacks. This paper investigates the day-to-day coverage of Al-Qaeda on US television news and the group's terrorist attacks post-9/11 until the end of 2015. Aiming to test for a causal effect between media coverage and subsequent attacks, the researcher needs some statistical variation that is able to influence media coverage of Al-Qaeda, but is otherwise unrelated to their attack schedule. I find that when the number of deaths from disasters (natural or technological) anywhere in the world is higher, Al-Qaeda coverage on US television news is lower than expected. In turn, it is difficult to find an intuitive story about how the occurrence of disasters anywhere in the world could affect Al-Qaeda's attack plans (other than via their media exposure). The results suggest that Al-Qaeda coverage on CNN, NBC, CBS, or Fox News actively encourages Al-Qaeda attacks in the upcoming week. One minute of Al-Qaeda coverage in a 30-minute news segment causes approximately one attack in the upcoming week, equivalent to 4.9 casualties, on average. Further, the effect not only affects the timing of attacks, but rather increases the overall number of Al-Qaeda attacks. These results advise caution in the coverage of Al-Qaeda, as it may directly encourage terrorist attacks.

"What the enemies of the United States cannot do, its media is doing that." Osama bin Laden (Scheuer, 2004, p.159).

1 Introduction

Media in its various forms can play a pivotal role in political conflict situations. Radio, television, and newspaper coverage can spur or deter political violence; it can be used as a propaganda tool or simply as a megaphone to spread information across a large audience. For instance, radio programs may have played a crucial role in the rise of the Nazis (Adena et al., 2015), the Rwandan genocide (Li, 2004; Yanagizawa-Drott, 2014), or the recent rise of nationalist anti-Serbian parties in Croatia (DellaVigna et al., 2014). However, less attention has been devoted to a potentially causal link between media coverage and terrorism, although numerous commentators have suggested such dynamics (e.g., see Rather, 2012, Doward, 2015, Lévy, 2016, Rudoy, 2016, Sitt, 2017, or Jacobs, 2017). In August 2016, then-Secretary of State John Kerry remarked that "[p]erhaps the media would do us all a service if they didn't cover it quite as much" (Fox News Insider, 2016).

Today, over 44 percent of US Americans are afraid of a terrorist attack – yet only 22 percent are afraid of *dying*.[1] Another survey suggests as much as half the US population is worried that they or their family will become a victim of terrorism (PRRI, 2015). In reality, of course, the actual likelihood of dying at the hands of a terrorist remains minimal and is roughly comparable to the odds of drowning in one's own bathtub (Mueller, 2006; Sandler, 2015).

One intuitive explanation for these seemingly irrational survey answers corresponds to the idea that media exposure to terrorism increases fears of terrorism (Slone, 2000; Forest et al., 2012), which usually plays into the terrorist group's hands. In particular, increased media attention could directly benefit a terrorist group by (*i*) spreading their message, (*ii*) creating fear in a target population, and (*iii*) recruiting followers (Wilkinson, 1997; Pries-Shimsh, 2005;

[1] In a random sample of 1,541 adults, the "Chapman University Survey of American Fears" 2015 finds 21.9 percent of respondents are afraid of dying, whereas 44.4 percent are afraid of a terrorist attack (see Ledbetter, 2015).

Frey et al., 2007; Walsh, 2010). Thus, media coverage constitutes an important, invaluable tool for terrorists and their campaigns. The following pages present results from an empirical test to analyze whether media coverage of a terrorist group can encourage the execution of further attacks. Are terrorists exploiting the media spotlight and attack more when the eyes are on them?

In particular, I focus on Al-Qaeda's activity from 9/11 until the end of 2015 and the corresponding television news coverage in the US, the group's main enemy (e.g., see the 'letter to America' by Osama bin Laden, Burke, 2002). The economic damages from the 9/11 attacks alone have been estimated to range from US$25-60 billion (Frey et al., 2007, p.12), in addition to the human tragedies and indirect costs (e.g., counter-terrorism efforts).[2] Using detailed data on terrorist attacks, I analyze the day-to-day news coverage of Al-Qaeda in the biggest US television stations. The crucial contribution of this study comes from an attempt to circumvent latent endogeneity problems when trying to identify a *causal* relationship between media coverage of terrorism and subsequent terrorism. Information on disaster deaths worldwide provides plausibly exogenous variation on the daily level that could affect contemporaneous media coverage of Al-Qaeda: Everything else equal, television news may focus less on the group when more people are dying from disasters. Indeed, the corresponding instrumental variables (IVs) measuring disaster deaths emerge as powerful negative predictors of Al-Qaeda coverage. In turn, it remains difficult to argue that Al-Qaeda is in any other way influenced by disasters around the world.

The corresponding results from two-stage-least-squares (2SLS) regressions reveal a positive and statistically significant effect of Al-Qaeda coverage on the number of subsequent attacks by the group. This result emerges consistently for data from CNN, NBC, CBS, and Fox News. In terms of magnitude, raising the relative coverage of Al-Qaeda on a given day by ten percentage

[2]The macroeconomic consequences of terrorist attacks have also been analyzed by Abadie and Gardeazabal (2003), Blomberg et al. (2004), Eckstein and Tsiddon (2004), Llussá and Tavares (2011), and Meierrieks and Gries (2013), among many others. Recently, Brodeur (2015) investigates US data on the county level to show that successful terrorist attacks can reduce the number of jobs available and increase consumer pessimism (see Benmelech et al., 2010, for a similar study on Israel). Studying the Israeli-Palestinian conflict, Gould and Klor (2010) suggest terrorism could actually "cause Israelis to be more willing to grant territorial concessions to the Palestinians." Other relevant studies on the Israeli-Palestinian conflict come from Jaeger and Paserman (2006, 2008) and Jaeger et al. (2012). More generally, terrorism may carry social and political consequences (e.g., see Glaeser and Shapiro, 2002, Dreher et al., 2010, or Gassebner et al., 2011).

points is suggested to cause approximately three to five additional Al-Qaeda attacks in the upcoming week, everything else equal. Thus, assuming a 30-minute running time of the evening news, every minute of Al-Qaeda coverage corresponds to approximately one additional attack in the next seven days, on average. This result is consistent and roughly proportional when extending the time horizon of subsequent attacks to 14, 30, or 60 days. Thus, it is unlikely that planned attacks are merely delayed when news coverage is unusually low. Results from placebo regressions, alternative empirical specifications, and further robustness checks provide additional support for these findings.

The paper proceeds with a summary of the associated literature, sorting the present study into the respective fields of research and sketching the potential mechanism. Section 3 describes the data sources and methodology. Section 4 presents the main empirical findings, whereas Section 5 documents empirical extensions, robustness checks, and placebo regressions. Finally, Section 6 concludes with a short discussion incorporating potential policy recommendations.

2 Background

2.1 The Media and Political Consequences

Recently, several studies have explored the role of the media in historical and contemporaneous conflict situations. For example, DellaVigna et al. (2014) identify the exposure to Serbian nationalistic radio propaganda as a driver of voting for extreme nationalist parties in Croatia; studying the Rwandan genocide, Yanagizawa-Drott (2014) finds radio programs encouraging violence against the Tutsi minority could have been responsible for as much as ten percent of the overall violence; Adena et al. (2015) document the role of the radio in the Nazis' rise to power in 1930 Germany – first hampering that development under the Weimar government and later enforcing the Nazis' influence once Hitler came to power.

In a broader context, the media constitutes a powerful tool to influence political developments and voting. Durante and Knight (2012) study media bias in Berlusconi's Italy and Enikolopov et al. (2011) investigate Putin's Russia, focusing on the effect of independent television news on

voting behavior. Both studies identify substantial influence from media propaganda. Gentzkow and Shapiro (2004) discuss the media's role in attitudes toward the US in the Muslim world. Gerber et al. (2009) find that a randomly assigned prescription of the *Washington Post* or the *Washington Times* increases support for the Democratic candidate in the US state of Virginia, concluding that media exposure matters.[3] Excellent summaries about media effects on consumers and voters are provided by DellaVigna and Gentzkow (2010) and Puglisi and Snyder (2015).

2.2 The Media and Terrorism: Mechanism

An important distinction between the media's role in terrorism and the conflict settings discussed above relates to the implied mechanism. In the respective conflict settings, the media can facilitate the spread of propaganda and information to influence people's political attitudes and beliefs. Terrorist organizations, however, choose "their timing in order to maximise media attention" (Rohner and Frey, 2007, p.130) and may strike more when media attention is already on them. Thus, media coverage is not necessarily used explicitly to advance specific goals (which may also be possible, however) but terrorist groups may aim to exploit the media platform they currently have. Interestingly, this goal of *maximizing* media coverage may stand in contrast governments' desire to attack 'when the world is not watching', as suggested by Durante and Zhuravskaya (2015) in their recent study on the Israeli-Palestinian conflict.

Contrary to that, terrorist organizations generally rely on the media to spread their message, generate fear in a target population, and recruit followers (Wilkinson, 1997; Pries-Shimsh, 2005; Frey et al., 2007; Walsh, 2010). In fact, most of the time, terrorist attacks are not even aimed at specific victims but are conducted to scare and convey a message (Frey and Luechinger, 2003; Krueger and Malečková, 2003; Frey et al., 2007). And some groups have been effective

[3]Other media effects on people's behavior have been found (*i*) in teenage pregnancy rates after the introduction of the MTV show *16 and Pregnant* (Kearney and Levine, 2015), (*ii*) in families' behavior regarding domestic violence, son preference, and women's autonomy in rural India (Jensen and Oster, 2009), and (*iii*) in the context of initial public offerings (IPO), where media coverage can influence a "stock's long-term value, liquidity, analyst coverage, and institutional investor ownership" (Liu et al., 2014). Dahl and DellaVigna (2009) show that violent movies may *decrease* violent crimes via a substitution effect, at least in the short run.

in drawing substantial media coverage, which has become a vital part of most Western media outlets. Studying the case of Israel, Melnick and Eldor (2010, p.965) conclude that if one wanted to purchase the media coverage terrorists receive free of charge, the corresponding amount would rival "advertising budgets of some of the world's largest corporations." In fact, Section 3.1.2 and Table 2 will show that Al-Qaeda has received more news coverage on US television than China and Russia *combined* since 9/11.

A natural question then becomes whether the amount of media coverage dedicated to groups like Al-Qaeda could encourage them to conduct further attacks. If terrorist groups indeed aim to maximize their media exposure, then a necessary condition of this hypothesis states that a group is covered more when immediately preceding coverage has been high, everything else equal. Thus, once the spotlight is on Al-Qaeda, for example, the group may be encouraged to conduct further attacks in the expectation that the corresponding media attention would also be higher.[4] Why would this be the case? In practical terms, journalists and reporters, as well as news consumers, may already be familiar with the group's agenda and recent operations which may make it easier to cover a new attack. More generally, media outlets may follow a certain path dependency or agenda setting, where once a topic is in the media spotlight the likelihood of additional coverage is raised.

Although it is difficult to prove such dynamics, previous research has taken steps in that direction. For example, Larcinese et al. (2011) detect substantial agenda-setting power by US newspapers when it comes to economic news (e.g., unemployment rates or inflation) and Chiang and Knight (2011) show the media can influence voting decisions.[5] As early as 1972, McCombs and Shaw (1972) discuss the agenda-setting power of mass media outlets. More recently, Scheufele and Tewksbury (2007) summarize the underlying dynamics of three distinct media effects models: Framing, agenda setting, and priming. In the context of the present paper, the closest mechanism corresponds to agenda setting (framing and priming focus more on *how*

[4] In general, "[m]edia organizations tend to report more heavily on large-scale, dramatic events... and those involving conflict or 'bad news'" (see Baum and Zhukov, 2015, and citations therein).

[5] Mullainathan and Shleifer (2005), Duggan and Martinelli (2011), and Gentzkow et al. (2015b) formalize theoretical foundations of the market for news with a focus on consumers and voting.

the media presents a given topic, as opposed to the *if*). Indeed, I find a strong path dependency for coverage of Al-Qaeda and other prominent topics in US television news, i.e., the coverage of a topic yesterday or in the prior week is a strong predictor of news coverage today. These correlations will be discussed in more detail in Section 3.1.2.

2.3 The Media and Terrorism: Existing Literature

However, to date, we have little scientific evidence on the hypothesis that terrorist organizations are attacking more 'when the world is watching.' Most notably, Rohner and Frey (2007) demonstrate Granger causality between terrorist attacks and media attention using monthly data from the *New York Times* (*NYT*) and the *Neue Zürcher Zeitung*, after Nelson and Scott (1992) found no such evidence. However, inherent endogeneity concerns are preventing us from drawing conclusions that allow for a causal interpretation. Most importantly, an omitted variable bias remains difficult to resolve since a number of characteristics associated with the exact conflict situation can drive both media coverage and ensuing terrorism. As an example, consider Osama bin Laden's video messages to the US, announcing a wave of attacks: Media coverage is likely to soar, and, if the announcement is of substance, attacks will follow. Alternatively, if security efforts are increased following the announcement, attacks may be prevented. Either way, an ordinary regression analysis of the number of attacks in period $t+1$ on media coverage in period t would not reveal causality.

Trying to circumvent these endogeneity concerns, Jetter (2015) uses natural disasters in the US as an exogenous variation crowding out contemporaneous coverage of any terrorist attacks worldwide (also see Jetter, 2014, for a more detailed explanation of the data). The results suggest a positive and statistically meaningful effect of *NYT* coverage of a terrorist attack on subsequent attacks in the same country. However, media attention is measured via a proxy of the number of *NYT* articles that mention the attacked country's name (similar to Baum and Zhukov, 2015), as it remains difficult to derive an exact search algorithm that is consistent across *all* terrorist attacks and groups worldwide.

The present paper intents to provide a much more exact identification of media coverage,

focusing on Al-Qaeda, one of the most prominent and deadliest terror groups worldwide that at its heart opposes the US. For example, Osama bin Laden writes in his 'letter to America' that "[t]he American people are the ones who employ both their men and their women in the American Forces which attack us" (Burke, 2002). This anti-US agenda also provides an intuitive reasoning for why Al-Qaeda may specifically care about media coverage in US television outlets, if any.

3 Methodology and Data

3.1 Data Sources

The data for this study are derived from three sources: The Global Terrorism Database (GTD), the Vanderbilt Television News Archive (VTNA), and the International Disaster Database, commonly know as EM-DAT. In the following, I introduce each dataset in turn, focusing on how they will be used in the empirical analysis.

3.1.1 The Global Terrorism Database (GTD)

The GTD includes detailed information on terrorist attacks worldwide on the daily level from 1970 to 2015. Crucially for this study, each attack features information about the perpetrator group name (variable *gname*) if that information is known. Focusing on Al-Qaeda attacks (spelled Al-Qaida in the GTD), I consider the timeframe from September 12, 2001 (after 9/11), until December 31, 2015, when the most recent edition of the GTD ends. Although founded as early as 1988, Al-Qaeda really only appears on the international scene with 9/11. Before that, the GTD only records six Al-Qaeda attacks, one of which constitutes the 1998 US embassy bombings. Since 9/11, however, Al-Qaeda is listed as the responsible group for 1,849 terror attacks.[6]

[6] I collect attacks from all group names that contain the phrase 'Al-Qaida' – the spelling used in the GTD for the group. This includes the following 12 groups (with the number of attacks in parentheses): Al-Qaida in the Arabian Peninsula (AQAP, 893), Al-Qaida in Iraq (635), Al-Qaida in the Islamic Maghreb (AQIM, 235), Al-Qaida (49), Al-Qaida in Yemen (12), Al-Qaida in Saudi Arabia (7), Al-Qaida in the Indian Subcontinent (7), Sympathizers of Al-Qaida Organization (4), Jadid Al-Qaida Bangladesh (JAQB, 3), Al-Qaida Network for Southwestern Khulna Division (2), Al-Qaida Organization for Jihad in Sweden (1), and Al-Qaida in Lebanon (1).

Given the role of media coverage in this study, it is important to highlight how the GTD collects data. The database only records a terrorist attack if it has been reported by some press outlet anywhere in the world, which could introduce a bias into the data. For example, when major newsworthy events are occurring (such as a natural disaster), the GTD could miss a contemporaneous terrorist attack if the media focused on the other event. Although possible in theory, this appears unlikely when reading the GTD codebook (START, 2016), which indicates that information is drawn from "media articles and electronic news archives, and to a lesser extent, existing data sets, secondary source materials such as books and journals, and legal documents" (pages 3 and 4). Thus, media outlets are not the only sources. Further: "The process begins with a universe of over one million media articles on any topic published daily worldwide". Thus, it is unlikely that a terrorist attack remains completely unreported. Indeed, the data suggest that the number of deaths from disasters on a given day is orthogonal to the number of terrorist attacks documented in the GTD (see Section 3.2.2). Nevertheless, I can of course not completely eliminate the possibility of the GTD not including all Al-Qaeda attacks.

The top row of Table 1 displays summary statistics for Al-Qaeda attacks per day since 9/11 (5,224 days from 9/12/2001 until 12/31/2015). On average, the group conducted approximately one attack every three days and the most violent day has come on April 19, 2012, with 43 attacks. The second row summarizes the main dependent variable throughout the upcoming empirical analysis: The number of Al-Qaeda attacks over a seven-day timespan.

Figure 1 visualizes the worldwide distribution of those attacks. The countries most affected are Yemen (896 attacks), Iraq (629), Algeria (176), Mali (33), and Pakistan (22). To get a better idea of the timing of Al-Qaeda activity, the left graph in Figure 2 plots all 1,849 attacks over time. 2012 was the most violent year averaging 1.4 attacks per day.

3.1.2 The Vanderbilt Television News Archive (VTNA)

To measure television news coverage of Al-Qaeda in the US – the major enemy of the group – I access the VTNA, available under https://tvnews.vanderbilt.edu/. The VTNA describes itself as "the world's most extensive and complete archive of television news", where the "core

Table 1: Summary statistics of main variables. All variables are daily averages.

Variable	Mean	(Std. Dev.)	Min.	Max.	N	Source[a]
Al-Qaeda attacks	0.35	(1.50)	0	43	5,224	GTD
Al-Qaeda attacks in subsequent 7 days	2.48	(4.68)	0	52	5,217	GTD
Total CNN coverage in seconds	4,930	(14,200)	10	176,340	4,396	VTNA
Total ABC coverage in seconds	3,040	(7,876)	10	146,170	4,894	VTNA
Total NBC coverage in seconds	2,099	(7,776)	10	142,180	4,593	VTNA
Total CBS coverage in seconds	2,184	(8,236)	150	146,010	4,126	VTNA
Total Fox News coverage in seconds	3,496	(11,349)	10	194,040	3,538	VTNA
CNN Al-Qaeda coverage (share × 100)	4.59	(11.54)	0	100	4,396	VTNA
ABC Al-Qaeda coverage (share × 100)	3.01	(9.76)	0	98.74	4,894	VTNA
NBC Al-Qaeda coverage (share × 100)	4.95	(11.28)	0	100	4,593	VTNA
CBS Al-Qaeda coverage (share × 100)	5.06	(11.44)	0	100	4,126	VTNA
Fox News Al-Qaeda coverage (share × 100)	1.96	(8.14)	0	100	3,538	VTNA
Deaths from disasters in 10,000	0.22	(5.07)	0	250	5,224	EM-DAT

Notes: [a]Sources: GTD = Global Terrorism Database (based on LaFree and Dugan, 2007), *VTNA* = Vanderbilt Television News Archive (VTNA, 2016), EM-DAT = International Disaster Database (Guha-Sapir et al., 2014).

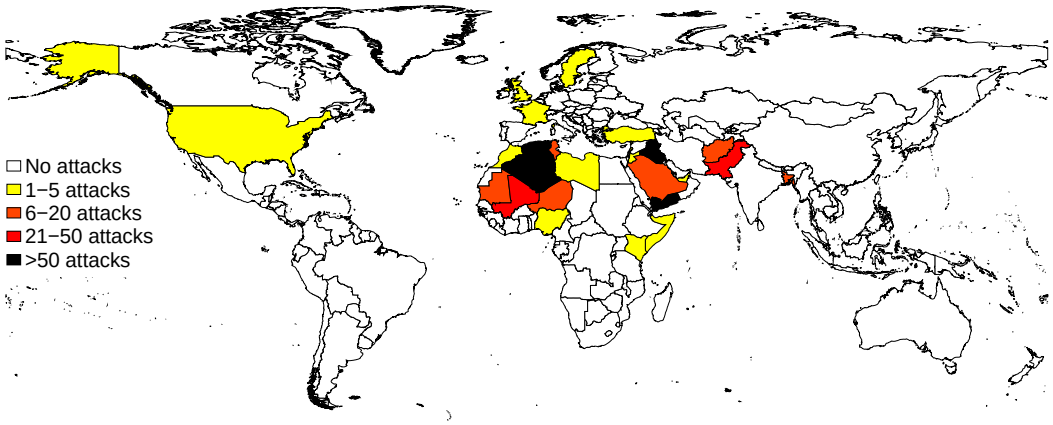

Figure 1: Al-Qaeda attacks from September 12, 2001, until December 31, 2015.

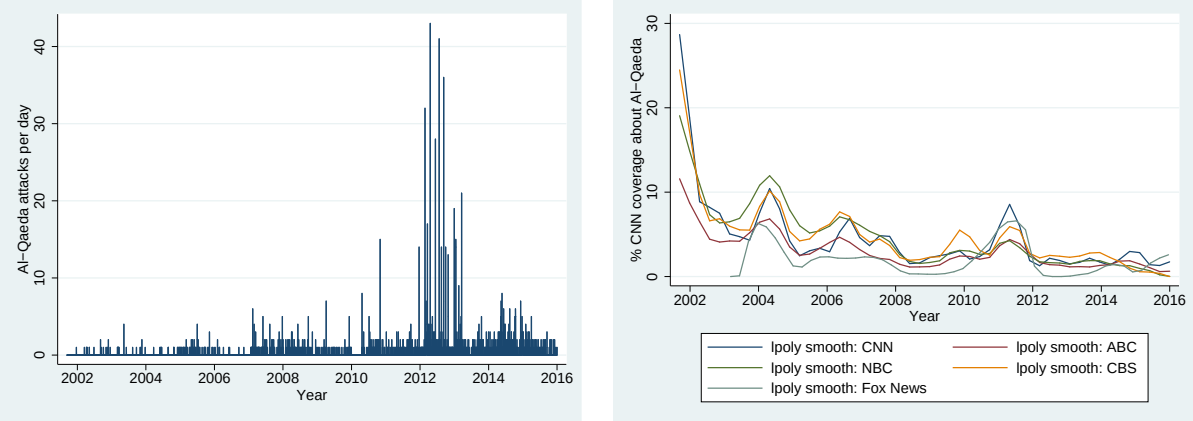

Figure 2: Al-Qaeda attacks over time (left) and media coverage of Al-Qaeda over time (right).

collection includes evening news from ABC, CBS, and NBC (since 1968), an hour per day of CNN (since 1995) and Fox News (since 2004)." Thus, the data do not include *all* coverage from the 24-hour news channels CNN and Fox News, but consistently include the 30-minute evening news of ABC (ABC World News Tonight), NBC (NBC Nightly News), and CBS (CBS Evening News).

Rows (3) – (7) of Table 1 summarize the total daily coverage available, ranging from 2,099 seconds (equivalent to 34.98 minutes) for NBC to 82.2 minutes for CNN. The daily number of news segments on CNN over that time averages 68 (not displayed), indicating that the mean length of a news segment spans approximately one minute and 12 seconds. It is also important to note that, in some cases, the coverage available exceeds 24 hours, which can be the case when a 'Special Program' is aired. All derived results are virtually identical when excluding such observations (available upon request). Further, the VTNA lacks data for approximately 16 percent of days in the case of CNN and similar for the other outlets (note that Fox News is only available since 2004, however). A closer look at the data reveals that most of the missing observations are weekends. Section 5.5 discusses results from robustness checks, showing that such missing data are unlikely to drive the empirical findings.

Rows (8) – (12) turn to the coverage dedicated to Al-Qaeda. In particular, I code every news segment as coverage of the terrorist group that includes one of the following terms either in the headline or abstract provided by the VTNA (upper- and lower-case spellings): *bin Laden, bin*

Ladin, Qaeda, and *9/11*.[7] For example, one headline on September 3, 2006, reads "Terrorism / Al-Qaeda Tape". A thorough search through the VTNA reveals that alternative spellings, such as Al-Qaida, are not employed. I then calculate the share of the total daily news coverage on a given station that covers Al-Qaeda by dividing the total seconds of Al-Qaeda coverage by the total coverage on the same station that day. Table 1 shows that, on average, between two percent (Fox News) and five percent (NBC and CBS) of the daily coverage consists in news about Al-Qaeda. In fact, on some days, *all* news coverage focused on Al-Qaeda, indicated by the maximum value of 100 percent reached by all media outlets except ABC (98.74).

The right graph of Figure 2 visualizes a Kernel-weighted polynomial smoothing of Al-Qaeda coverage by each station over time. Not surprisingly, coverage has been extraordinarily high following 9/11 across all news programs and generally coverage is quite comparable across outlets. This is further emphasized by the correlation coefficients of Al-Qaeda coverage across the five media outlets, reaching values between 0.37 and 0.55 (referred to the appendix Table A1).

Further, Table 2 puts these statistics in perspective to other prominent terms, such as famous politicians and major countries that are relevant to the US. Not surprisingly, sitting presidents are reported on much more frequently with the average daily coverage peaking at 37 percent (Fox News coverage of Obama). However, coverage of *Clinton* (which may include Bill, Hillary, and Chelsea) remains less than Al-Qaeda coverage across all outlets, with the exception of ABC. The same applies for *New York City* (exception: ABC and Fox News), *China*, *Russia*, *Canada*, and *Mexico*. These comparisons highlight how much media exposure Al-Qaeda has received on US television news programs since 9/11.

Finally, an important feature of the hypothesis laid out in Section 2.2 relates to the path dependency or agenda-setting power of news coverage, i.e., whether coverage yesterday can influence coverage today. To see whether that is the case with Al-Qaeda coverage and the terms presented in Table 2, I conducted OLS estimations, regressing the coverage of the respective topic on day t on the coverage of the same topic on day $t-1$. The corresponding results for

[7] All results are consistent when only employing those keywords in the headline of the news segment. However, the instrumental variables lose some of their explanatory power, generally producing F-values of approximately four when testing for their insignificance.

Table 2: Average share of daily coverage for various terms.

Search term	CNN	ABC	NBC	CBS	Fox News
Al-Qaeda or *bin Laden*	4.59	3.01	4.95	5.06	1.96
Bush (before 01/20/2009)	20.73	18.48	16.96	14.97	17.19
Obama (since 01/19/2009)	31.76	15.57	18.79	19.81	37.08
Clinton	3.91	4.02	2.97	2.56	1.78
Putin	0.36	0.39	0.68	0.39	0.13
New York City	3.01	3.73	3.54	3.52	2.59
China or *Chinese*	0.81	1.34	1.42	1.46	1.01
Russia	1.67	1.54	2.03	1.65	1.17
Canada	0.67	3.01	0.73	0.51	0.43
Mexico or *Mexican*	2.74	2.13	2.32	2.14	1.72

CNN coverage are presented in Panel A of Table 3, and using any of the other four outlets produces consistent findings (available upon request). For Al-Qaeda coverage, the regression controls for the number of Al-Qaeda attacks today and over the past three days, in addition to fixed effects for days of the week and months (these fixed effects are also included for the regressions concerning the additional topics). Panel B takes a more extended timeframe for past coverage, averaging the main independent variable over the previous seven days. Throughout all these estimations, the degree of coverage in the immediate past prevails as a strong indicator of coverage today. These results enforce the idea that once a topic enters the media, additional coverage becomes more likely in the subsequent days.

3.1.3 The International Disaster Database: EM-DAT

The last main data source used in this study comes from the EM-DAT database that catalogues disasters worldwide on a daily level with the number of deaths for each individual disaster. In particular, EM-DAT includes natural and technological disasters if at least one of the following criteria is fulfilled (Guha-Sapir et al., 2014): (*i*) Ten (10) or more people reported killed, (*ii*)

Table 3: Results from OLS regressions, predicting CNN coverage of specific topics on day t with CNN coverage of the same topic on day $t-1$.

Dependent variable: CNN coverage of...	Al-Qaeda	Bush	Obama	Clinton	New York City	China	Russia	Putin	Canada	Mexico
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Using CNN coverage yesterday										
CNN coverage yesterday	0.408^{***}	0.331^{***}	0.527^{***}	0.374^{***}	0.304^{***}	0.252^{***}	0.413^{***}	0.275^{***}	0.088^{*}	0.545^{***}
	(0.034)	(0.018)	(0.018)	(0.037)	(0.045)	(0.075)	(0.054)	(0.089)	(0.047)	(0.048)
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Al-Qaeda attacks[a]	yes									
N	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917
Panel B: Using average CNN coverage over past 7 days										
Average CNN coverage on days $t-7$ until $t-1$	0.658^{***}	0.721^{***}	0.833^{***}	0.706^{***}	0.367^{***}	0.304^{***}	0.560^{***}	0.396^{***}	0.169^{***}	0.804^{***}
	(0.043)	(0.025)	(0.018)	(0.044)	(0.066)	(0.101)	(0.080)	(0.145)	(0.052)	(0.043)
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Al-Qaeda attacks[a]	yes									
N	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917	3,917

Notes: Robust standard errors are displayed in parentheses. * $p<0.10$, ** $p<0.05$, *** $p<0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

hundred (100) or more people reported affected, (*iii*) declaration of a state of emergency, or (*v*) call for international assistance.

Further, the EM-DAT classifications state that "[t]he natural disaster category is divided into 5 sub-groups, which in turn cover 15 disaster types and more than 30 sub-types. The technological disaster category is divided into 3 sub-groups which in turn cover 15 disaster types." The respective sub-groups for the natural disaster category are geophysical (e.g., earthquakes or volcanic activity), meteorological (e.g., storms or extreme temperature), hydrological (e.g., flood or landslide), climatological (e.g., drought or wildfire), and biological (e.g., epidemic or animal accident). The corresponding technological disaster categories are industrial (e.g., explosion or chemical spill), transport (e.g., air or water), and miscellaneous (e.g., collapse or fire). Further details are provided under http://www.emdat.be/guidelines.

In the empirical analysis, a measure capturing the deaths from such disasters on a given day will serve as an instrumental variable in providing an exogenous variation for Al-Qaeda news coverage. Intuitively, more disaster deaths may crowd out contemporaneous coverage of Al-Qaeda, everything else equal. To create a continuous measure of the impact of disasters, I first divide the total number of deaths from a disaster by the number of days the disaster lasted. For instance, a flood that lasts ten days and causes 100 casualties would translate to ten casualties for each day. Finally, I aggregate those observations on the daily level to produce one measure of deaths from disasters for every day throughout the sample period.

Note that predictable events, such as the soccer World Cup, the Olympics, or elections, would not provide such an exogenous variation since they are much easier to predict by the terrorist group. This is also the reason why a variable measuring the overall news pressure à la Eisensee and Strömberg (2007) does not quite satisfy the desired properties of an exogenous variation in this case.[8] However, disasters (natural and technological) remain more difficult to predict on a systematic basis. For instance, the data show that the number of disaster deaths is

[8] Eisensee and Strömberg (2007) construct a news pressure variable to isolate the effect of media coverage of natural disasters on the US government's relief efforts. In their setting, this variable functions well because natural disasters cannot re-schedule when events such as the Olympics are planned. The present setting of terrorist attacks is different.

not statistically different across days of the week. In terms of different time periods throughout the year, more disaster deaths happen in July than in any other month (12,719 per day) and the empirical analysis will control for month-fixed effects. However, we do not observe statistically more Al-Qaeda attacks in July than in other months.[9] The last row of Table 1 summarizes the corresponding disaster variable, showing that the number of deaths per day averages 2,200. With these data sources in mind, I now turn to laying out the econometric strategy.

3.2 Empirical Methodology

3.2.1 Addressing Endogeneity in a 2SLS Framework

We are interested in estimating the number of Al-Qaeda attacks in a given seven-day period ($t+1$ until $t+7$) as a function of CNN coverage on the day before (day t). With these timeframes, I follow Jetter (2015), but Section 5 provides several alternative definitions. In econometric terms, with *Media coverage* representing one of the five media variables introduced in Section 3.1.2,

$$\sum_{t+1}^{t+7}\big(Attacks\big) = \alpha_0 + \alpha_1\big(Media\ coverage\big)_t + \boldsymbol{x_t'}\alpha_2 + \delta_t \tag{1}$$

would produce an α_1 coefficient that reflects correlation between media coverage and subsequent Al-Qaeda attacks, conditional on the control variables captured by the vector $\boldsymbol{x_{i,t}'}$. Throughout the empirical estimations, $\boldsymbol{x_{i,t}'}$ includes (i) variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$ to control for the contemporaneous level of terrorism (e.g., see Berrebi and Lakdawalla, 2007, for a study of the timing of subsequent terrorist attacks in Israel) and (ii) fixed effects for each day of the week and months. These time-specific parameters are intended to capture any variation in terrorist attacks that could be influenced by religious or cultural habits that are specific to certain time periods, as well as climatic particularities, for example. δ_t constitutes the conventional error term. Throughout the analysis, all estimations are conducted using robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard

[9] In fact, we observe marginally *more* Al-Qaeda attacks in July (0.39 per day) than in other months (0.35 per day) but the difference between both means is not statistically significant (the p-value from a t-test becomes 0.56).

errors. Nevertheless, all results are consistent when employing a continuously-updated GMM estimation (see Table A2 in the appendix, re-estimating the benchmark analysis).

Several endogeneity concerns arise when trying to estimate the *causal* effect of media coverage on subsequent terrorism, as suggested in equation 1. Most importantly, omitted variables become an issue, as it is virtually impossible to capture a conflict situation in its entirety with variables that could affect both media coverage and the occurrence of subsequent attacks. For instance, if Al-Qaeda announces a wave of attacks, television outlets are likely to cover the group, and, if threats are materialized, the number of subsequent attacks may surge.

Not controlling for such developments may artificially introduce an upward bias into α_1 without representing a causal effect of media coverage on terrorist attacks. In turn, a downward bias is also possible if, for example, security efforts were increased after such an announcement, which may increase media coverage and could decrease the number of attacks. Other omitted variables could be related to political events (international, national, regional, or local within any country in which Al-Qaeda is active), anniversaries of infamous attacks (e.g., 9/11) or other noteworthy events for the group, or any other circumstances that may simultaneously affect media coverage and terror attacks.

To circumvent this endogeneity problem, a 2SLS framework can help, provided a suitable instrumental variable can be found. I argue that deaths from disasters worldwide can provide a plausibly exogenous variation if such disasters are unexpected for terrorists and can directly decrease media attention devoted to Al-Qaeda, everything else equal. Labeling the number of disaster deaths on a given day $Disaster\ deaths_t$, the first stage takes on the following form:

$$\big(Media\ coverage\big)_t = \beta_0 + \beta_1\big(Disaster\ deaths\big)_t + \beta_2 \sum_{t-3}^{t-1}\big(Disaster\ deaths\big) + \boldsymbol{x_t'}\beta_3 + \epsilon_t. \quad (2)$$

The estimated value of *Media coverage* is then used in the second stage to predict the number of attacks on days $t+1$ until $t+7$, following equation 1. Throughout the empirical estimations, I will employ variables related to diaster deaths at day t and in the preceding three days as instrumental variables, depending on their explanatory power, i.e., their respective β coefficients.

3.2.2 Excludability of the IV

As with any instrumental variable, the two crucial conditions for its suitability are related to validity and excludability. Addressing the excludability condition, one needs to check whether the number of disaster deaths worldwide can in any way be related to Al-Qaeda missions beyond the suggested channel via Al-Qaeda news coverage. For example, it is possible that terrorists attack less when disasters are wreaking havoc, potentially anticipating that media coverage of an attack would be diminished. If that were the case, then disaster deaths on day t should be a statistically meaningful predictor of the number of Al-Qaeda attacks. Table 4 displays results from four OLS regressions to check whether that is the case, using the sample days for which CNN coverage is available as an example. In column (1), I only use the number of disaster deaths today to predict the number of Al-Qaeda attacks today. However, the respective coefficient does not come close to being statistically significant on any conventional level.

Table 4: Results from OLS regressions, estimating the number of Al-Qaeda attacks per day.

Dependent variable: Al-Qaeda attacks on day t (mean = 0.35)				
	(1)	(2)	(3)	(4)
Disaster deaths on t	-0.002	-0.006		
	(0.006)	(0.007)		
Disaster deaths on $t+1$ until $t+3$			0.000	-0.000
			(0.001)	(0.001)
FE for days of the week and months		yes		yes
N	4,396	4,396	4,396	4,396

Notes: Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Column (2) adds binary indicators for each day of the week and months throughout the year to account for potential heterogeneity along the lines of attacks or disaster deaths. For example, it is possible that attacks are diminished on certain weekdays or months of the year because of cultural or religious considerations, as well as climatic particularities throughout the

year. However, the same result prevails and it appears unlikely that Al-Qaeda terrorists are systematically attacking less when the global death toll from disasters rises.

Finally, columns (3) and (4) check whether disaster deaths in the upcoming days are in any way able to predict terrorist attacks, which could indicate that terrorists are expecting substantial disasters and therefore attacks less. However, I find no evidence for that hypothesis and overall it appears unlikely that Al-Qaeda systematically adjusts its attacks to the number of disaster deaths. I argue that the only channel may occur via decreased news coverage, which will be evaluated in the next Section. Note that the results displayed in Table 4 also address concerns about potentially omitted terrorist attacks in the GTD: If attacks were indeed less likely to be picked up on days with numerous deaths from disasters, then the respective coefficients should turn negative and statistically significant. However, that is not the case.

4 Main Empirical Findings

Table 5 displays the main results of the 2SLS analysis. Panel A reports the second stage coefficients for Al-Qaeda coverage in the respective outlet and Panel B documents the first-stage results. For CNN and Fox News, I employ two instrumental variables with the number of disaster deaths on day t and on days $t-3$ until $t-1$, whereas for ABC coverage, none of the instrumental variables produces a statistically meaningful coefficient in the first stage. For data from the NBC and CBS, only the latter produces a statistically powerful predictor in the first stage. Note that all regressions control for the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$, as well as fixed effects for each day of the week and months. Panel C shows an array of statistical test results to evaluate the performance of the instrumental variables.

Beginning with CNN coverage of Al-Qaeda in column (1), the second stage produces a positive coefficient that is statistically significant on the five percent level. In terms of magnitude, raising Al-Qaeda coverage by ten percentage points is associated with 4.37 additional Al-Qaeda attacks in the upcoming week. If we believe the excludability argument of the instrumental variables, then we can interpret that coefficient as causal. Note that a one standard deviation

Table 5: Results from IV regressions predicting the number of Al-Qaeda attacks on days $t+1$ until $t+7$.

Outlet:	(1) CNN	(2) ABC	(3) NBC	(4) CBS	(5) Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$					
Al-Qaeda coverage on day t	0.437**	-0.126	0.309***	0.277*	0.541**
	(0.220)	(0.252)	(0.112)	(0.154)	(0.218)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*					
Disaster deaths on day t	-0.080*	0.012			-0.085***
	(0.048)	(0.020)			(0.023)
Disaster deaths on	-0.009***	-0.002	-0.036***	-0.017**	-0.007***
days $t-3$ until $t-1$	(0.002)	(0.003)	(0.011)	(0.007)	(0.003)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel C: Econometric statistics					
F-test insignificance of IV	11.88***	0.48	10.11***	5.66**	13.45***
Underidentification test (p-value)	0.048**	0.596	0.003***	0.013**	0.003***
Anderson-Rubin Wald test (p-value)	0.022**	0.160	0.006***	0.202	0.013**
Stock-Wright LM S statistic (p-value)	0.007***	0.001***	0.006***	0.019**	0.007***
Hansen J statistic (p-value)	0.364	0.035**			0.844
Endogeneity test (p-value)	0.006***	0.350	0.006***	0.020**	0.005***
N	4,393	4,889	4,590	4,123	3,538

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

increase in CNN coverage (11.54, see Table 1) would lead to five Al-Qaeda attacks, everything else equal. This corresponds to more than a one standard deviation increase in attacks. In terms of their statistical characteristics, the corresponding results are reassuring: The F-statistic for the insignificance of the IV passes the commonly applied threshold level of ten (Stock et al., 2002; Stock and Watson, 2012); the under-identification test suggests the model to be identified with a p-value of less than 0.05; the null hypothesis of the endogenous regressor being irrelevant is rejected; and the over-identification test (Hansen J statistic) produces an insignificant p-value, providing confidence that the set of instruments is appropriate (see Baum et al., 2007, for a detailed explanation of the corresponding test statistics).[10]

Moving to ABC coverage of Al-Qaeda in column (2) produces less insightful results as the IVs do not emerge as useful predictors of Al-Qaeda coverage. The respective conclusions do not change for different variations of lagged disaster deaths or just using one of the suggested instruments.

Column (3) turns to the NBC and in this case the measure of disaster deaths in the preceding three days emerges as a negative and statistically powerful predictor of Al-Qaeda coverage in the first stage. Consistent with the findings for CNN coverage, the second stage produces a positive coefficient for Al-Qaeda coverage in predicting subsequent attacks. Interestingly, a quantitative interpretation would suggest a comparable magnitude: A one standard deviation increase in coverage (11.28 percentage points) is predicted to produce 3.5 additional attacks in the subsequent week. In other words, every additional minute of Al-Qaeda coverage in the 30-minute evening news leads to one additional attack. The respective results are similar for CBS coverage, with the results displayed in column (4). Note that the IV turns weaker and the derived F-test for insignificance produces a value of 5.66. Nevertheless, the fact that the derived coefficient in the second stage suggests a similar magnitude is creating additional comfort in the generality of the result.

Finally, column (5) re-estimates the IV structure for using Al-Qaeda coverage by Fox News.

[10]Further, testing for weak instruments following Finlay et al. (2009) and Finlay et al. (2013) produces statistically significant results with the confidence set ranging between 0.006 and 0.868 for the variable of interest.

Here again, the second stage produces a positive and statistically meaningful coefficient that suggests a one standard deviation increase in coverage relates to more than four Al-Qaeda attacks in the upcoming week. Overall, the consistency with which this result emerges, both in terms of statistical and economic relevance, strengthens the idea that media coverage of Al-Qaeda actively encourages the group to attack more.

To provide a better intuition of the magnitude of the second stage effects, Figure 3 visualizes the derived coefficients for CNN, NBC, CBS, and Fox News, the outlets for which the IV proves to be useful. In particular, I multiply the respective mean coverage (displayed in Table 1) with the respective coefficient, which produces the average number of additional attacks that are theoretically explainable by Al-Qaeda coverage in the news. The respective magnitudes vary between 1.06 (Fox News) and 2.01 additional attacks (CNN). Taken literally, this implies that between one and two of the average 2.48 Al-Qaeda attacks in a given seven-day period are caused by media coverage, or 40 – 80 percent. This translates to 4.8 – 9.4 casualties from Al-Qaeda attacks in an average week of attacks (11.8 casualties).

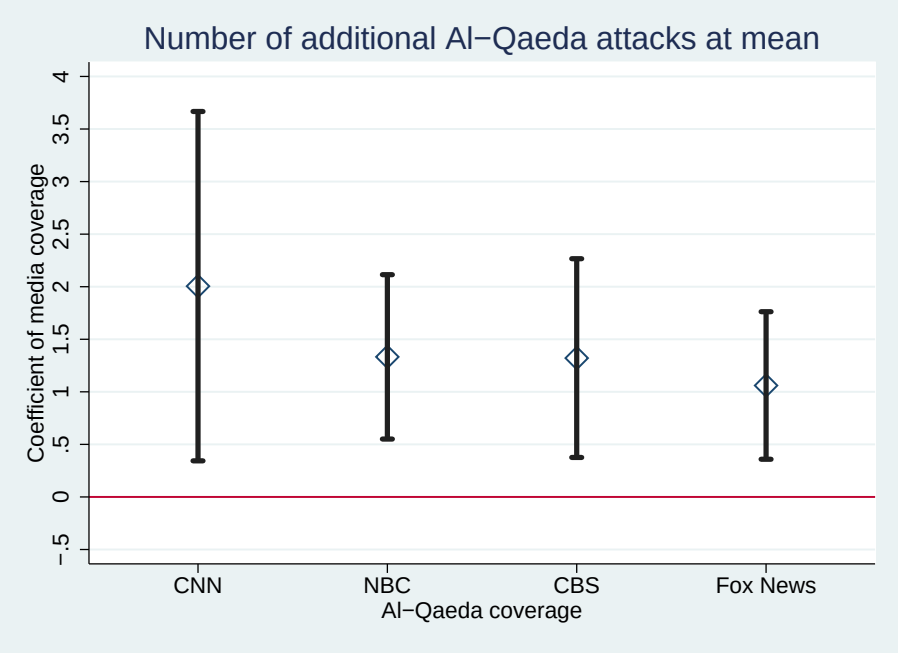

Figure 3: Predicted additional Al-Qaeda attacks, visualizing the coefficients derived in Table 5 at the mean of each media coverage variable. Two-sided 95 percent confidence intervals are displayed.

Nevertheless, the variable definitions employed in Table 5, as well as the timeframes used for future and past attacks, can appear ad-hoc and the following pages present results from a number of alternative estimations and placebo regressions to evaluate the robustness of the results suggested in Table 5.

5 Alternative Estimations, Robustness Checks, and Placebo Regressions

Tables 6 through 8 present results from several alternative estimations, addressing the definition of the two key variables: Al-Qaeda coverage and the dependent variable of subsequent Al-Qaeda attacks. Section 5.4 turns to results from placebo regressions and Section 5.5 briefly discusses the outcomes of additional robustness checks, with the corresponding regression results referred to the appendix.

5.1 Alternative Measure of Media Coverage

First, in the regression results displayed in Table 6, I define the main variable of interest as a binary indicator that takes on the value of one if there is at least one news segment on a given day that reports on Al-Qaeda, following the search terms laid out in Section 3.1.2. This alternative definition of media coverage tries to ensure that a few extreme observations, e.g., days where Al-Qaeda coverage approaches 100 percent, are not driving the derived results. Columns (1) – (5) follow the same sequence of media outlets as Table 5 and, as before, disaster deaths on day t and on days $t-3$ until $t-1$ are employed as IVs, depending on their respective strength in the first stage. (If one of the two instrumental variables is not employed, this means it is not statistically significant.)

CNN coverage of Al-Qaeda is suggested to produce four additional attacks in the subsequent week, although the corresponding coefficient narrowly misses the conventional levels of statistical significance with a t-value of 1.64. Further, as before, the suggested IVs are not meaningful predictors of ABC news coverage of Al-Qaeda, prohibiting us from drawing any inferences on

Table 6: Results from IV regressions, predicting the number of Al-Qaeda attacks on days $t+1$ until $t+7$. The respective media coverage variable constitutes a binary indicator for whether Al-Qaeda has been covered on day t.

Outlet:	(1) CNN	(2) ABC	(3) NBC	(4) CBS	(5) Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$					
Al-Qaeda coverage on day t (0/1)	4.151	1.998	5.779***	4.813**	6.564**
	(2.534)	(3.770)	(1.932)	(2.329)	(2.607)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*					
Disaster deaths on day t		0.001		-0.001*	-0.006***
		(0.001)		(0.001)	(0.002)
Disaster deaths on	-0.001***	-0.000	-0.002***	-0.001***	-0.001***
days $t-3$ until $t-1$	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel C: Econometric statistics					
F-test insignificance of IV	19.25***	0.83	11.61***	5.29***	18.96***
Underidentification test (p-value)	0.045**	0.577	0.002***	0.023**	0.008***
Anderson-Rubin Wald test (p-value)	0.156	0.160	0.006***	0.198	0.013**
Stock-Wright LM S statistic (p-value)	0.030**	0.001***	0.006***	0.002***	0.007***
Hansen J statistic (p-value)		0.041**		0.848	0.552
Endogeneity test (p-value)	0.029**	0.698	0.005***	0.002***	0.002***
N	4,393	4,889	4,590	4,123	3,538

Notes: All estimations are conducted using the *ivreg*2 command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
[a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

the causal link between ABC news coverage of Al-Qaeda and subsequent attacks. However, the results for NBC, CBS, and Fox News all confirm the positive and statistically meaningful connection between media coverage and subsequent attacks. Once again, the magnitude of the respective coefficients remains comparable and Al-Qaeda coverage is suggested to cause approximately five to seven additional attacks in the upcoming week.

5.2 Frequency and Nature of Dependent Variable

Second, with the baseline structure of the outcome variable counting attacks over seven days and the sample using daily data, double counting could be a problem. Although adjusting standard errors for heteroskedasticity and autocorrelation can address that problem from an econometric perspective, another option comes from employing one observation per week. Table 7 re-estimates the main results, but only uses observations taken on Saturday. Thus, the question becomes whether Al-Qaeda coverage on Saturday can predict Al-Qaeda attacks in the upcoming week (Sunday through Saturday). The corresponding IV uses one variable measuring the number of disaster deaths from day $t-3$ until day t.

Columns (1) – (5) employ the continuous measure of media coverage, whereas columns (7) through (11) use the binary indicator of Al-Qaeda coverage. The IVs for these estimations are statistically powerful for all media outlets except CNN. The second stage results produce coefficients that are statistically significant on the five percent level throughout all estimations in which the instruments become valid. Once again, the quantitative implications remain largely consistent and comparable to the findings displayed in Tables 5 and 6. When using the continuous measure of coverage, coefficients between 0.267 (NBC) and 0.470 (Fox News) are derived, whereas the binary media variable produces estimates between 4.721 (Fox News) and 6.283 (ABC).

Third, columns (6) and (12) in Table 7 address concerns about the count nature of the outcome variable, employing a GMM Poisson model with continuous endogenous covariates (command *ivpoisson* in Stata, following Hall, 2005). I use CNN coverage as an example here, but results are consistent when using the other media outlets (with the exception of ABC, where

Table 7: Robustness checks, estimating the number of Al-Qaeda attacks on days $t+1$ until $t+7$. Columns (1) – (5) and (7) – (11) use 1 observation per week; columns (6) and (12) display results from employing an IV poisson GMM framework (employing the *ivpoisson* command in Stata, following Hall, 2005).

Media variable used:	Coverage (share)						Coverage (0/1)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Outlet:	CNN	ABC	NBC	CBS	Fox News	CNN	CNN	ABC	NBC	CBS	Fox News	CNN
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$												
Al-Qaeda coverage	0.190	0.396**	0.267***	0.351**	0.470**	0.052***	-2.239	6.283**	5.277***	5.173**	4.721**	1.460***
	(0.294)	(0.158)	(0.076)	(0.148)	(0.235)	(0.012)	(3.888)	(2.776)	(1.444)	(2.109)	(2.310)	(0.521)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes		yes	yes	yes	yes	yes	
FE for days of the week and months						yes						yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*												
Disaster deaths on days $t-3$ until t	-0.207	-0.057***	-0.096***	-0.058***	-0.036***		0.018	-0.004***	-0.005***	-0.004***	-0.004***	
	(0.171)	(0.013)	(0.026)	(0.013)	(0.010)		(0.016)	(0.001)	(0.001)	(0.001)	(0.001)	
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes		yes	yes	yes	yes	yes	
FE for days of the week and months						yes						yes
Panel C: Econometric statistics												
F-test insignificance of IV	1.47	18.91***	13.54***	18.55***	11.65***		1.28	15.08***	14.11***	21.04***	15.72***	
N	378	503	621	461	479	4,393	378	503	621	461	479	4,393

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p<0.10$, ** $p<0.05$, *** $p<0.01$. [a]Includes a variable measuring the number of Al-Qaeda attacks on days $t-6$ until t.

the instruments remain powerless). Note that the derived coefficients are consistent with the baseline conclusion.

5.3 Time Dimension of Subsequent Attacks and Potential Delaying of Attacks

Fourth, Table 8 turns to the measurement of the dependent variable of subsequent attacks, using CNN coverage as an example. All results are robust to using NBC, CBS, or Fox News coverage and the corresponding results are referred to Table A3. Choosing the upcoming week to measure subsequent attacks can be considered as an arbitrary timeframe and for the discussed findings to remain valid, results should be confirmed for alternative time periods. Table 8 shows results from choosing several alternative timeframes. Columns (1) – (3) and (7) – (9) display results from estimating attacks in the subsequent 10, 14, and 30 days. The derived coefficients are consistent with the main findings and magnitudes are largely proportional to the initial findings from Table 5, once we consider the additional days included for the dependent variable.

Columns (4) – (6) and (10) – (12) investigate whether Al-Qaeda attacks are merely delayed when coverage is low. Up to now, the evidence presented is consistent with two alternative explanations: The *overall* number of attacks could be affected by Al-Qaeda coverage or attacks could simply be delayed. For instance, assume a natural disaster is capturing the news on day t, thereby decreasing Al-Qaeda coverage. The group may recognize that coverage is currently low and postpone scheduled attacks. In turn, if Al-Qaeda coverage was extraordinarily high on a given day, attacks that are planned for the future could potentially be conducted earlier to exploit that media platform. If that were the case, then media coverage would simply affect the *timing* of attacks, but would have no meaningful influence on the overall number of attacks.

To check for that possibility, I estimate the number of Al-Qaeda attacks on days $t + 15$ until $t + 30$ in columns (4) and (10). If attacks were merely re-scheduled according to Al-Qaeda coverage, we may expect a *negative* and statistically precise coefficient associated with Al-Qaeda coverage in these estimations. However, that is not the case and, in fact, the derived coefficients remain positive. Extending that timeframe further to $t + 45$ or even $t + 60$ days also produces

Table 8: Extending the timeframe of the dependent variable (number of Al-Qaeda attacks) up to $t + 60$.

Media variable used:	CNN coverage (share)						CNN coverage (0/1)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dep. var.: Al-Qaeda attacks in ... days	10	14	30	15-30	15-45	15-60	10	14	30	15-30	15-45	15-60
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$												
Al-Qaeda coverage	0.839**	1.237**	2.238**	1.000**	2.063*	3.172**	12.901**	18.768**	30.565*	11.746	20.529	45.655*
	(0.348)	(0.509)	(0.943)	(0.469)	(1.170)	(1.363)	(5.769)	(8.374)	(15.847)	(8.029)	(18.330)	(25.733)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*												
Disaster deaths on day t	-0.080*	-0.080*	-0.081*	-0.081*	-0.081*	-0.090*	-0.002	-0.002	-0.002	-0.002	-0.002	-0.004
	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Disaster deaths on days $t-3$ until $t-1$	-0.009***	-0.009***	-0.009***	-0.009***	-0.009***	-0.009***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Panel C: Econometric statistics												
F-test insignificance of IV	11.90***	11.91***	11.90***	11.90***	11.87***	12.33***	12.32***	12.34***	12.34***	12.34***	12.10***	13.54***
N	4,391	4,389	4,375	4,375	4,365	4,354	4,391	4,389	4,375	4,375	4,365	4,354

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

positive coefficients, thereby producing no evidence for the idea that attacks are merely re-scheduled depending on Al-Qaeda coverage. Rather, media coverage of Al-Qaeda appears to produce a positive effect on the *overall* number of Al-Qaeda attacks.

To visualize the time dimension of attacks and potential delays, Figure 4 displays regression coefficients for the four media outlets where the IV produces a meaningful statistical variation in the first stage: CNN, NBC, CBS, and Fox News. Each graph presents coefficients for the first 7, 8, 9, 10, 11, 12, 13, and 14 days, as well as the first 21 and 28 days; further, the final three coefficients displayed in each graph consider the timeframes 15 – 22 days, 15 – 30 days, and 15 – 60 days. Note that the derived coefficients does not turn negative in any of these estimations – rather, the positive relationship is confirmed and remains statistically significant for most timeframes of future attacks and outlets. Thus, it appears likely that Al-Qaeda coverage affects the overall number of attacks and not just the timing of attacks.

5.4 Placebo Regression Results

As another robustness check for the benchmark results, I also conduct placebo regressions. Specifically, instead of predicting attacks in the upcoming week, I re-estimate the main regressions from Table 5 when using Al-Qaeda attacks in the *preceding* three days as an outcome variable. Intuitively, we should expect a null effect in the second stage as it would be quite counterintuitive to see Al-Qaeda news coverage on day t *causing* Al-Qaeda attacks on days $t-3$ until $t-1$. Table 9 displays the derived results, where columns (1) through (4) employ the continuous measure of media coverage and columns (5) through (8) focus on the binary indicator. However, we quickly see that a relatively precisely estimated null effect emerges in all estimations with t-values well below one. Thus, as expected Al-Qaeda coverage today is not able to predict attacks yesterday once I use disaster deaths in the first stage to predict Al-Qaeda coverage.

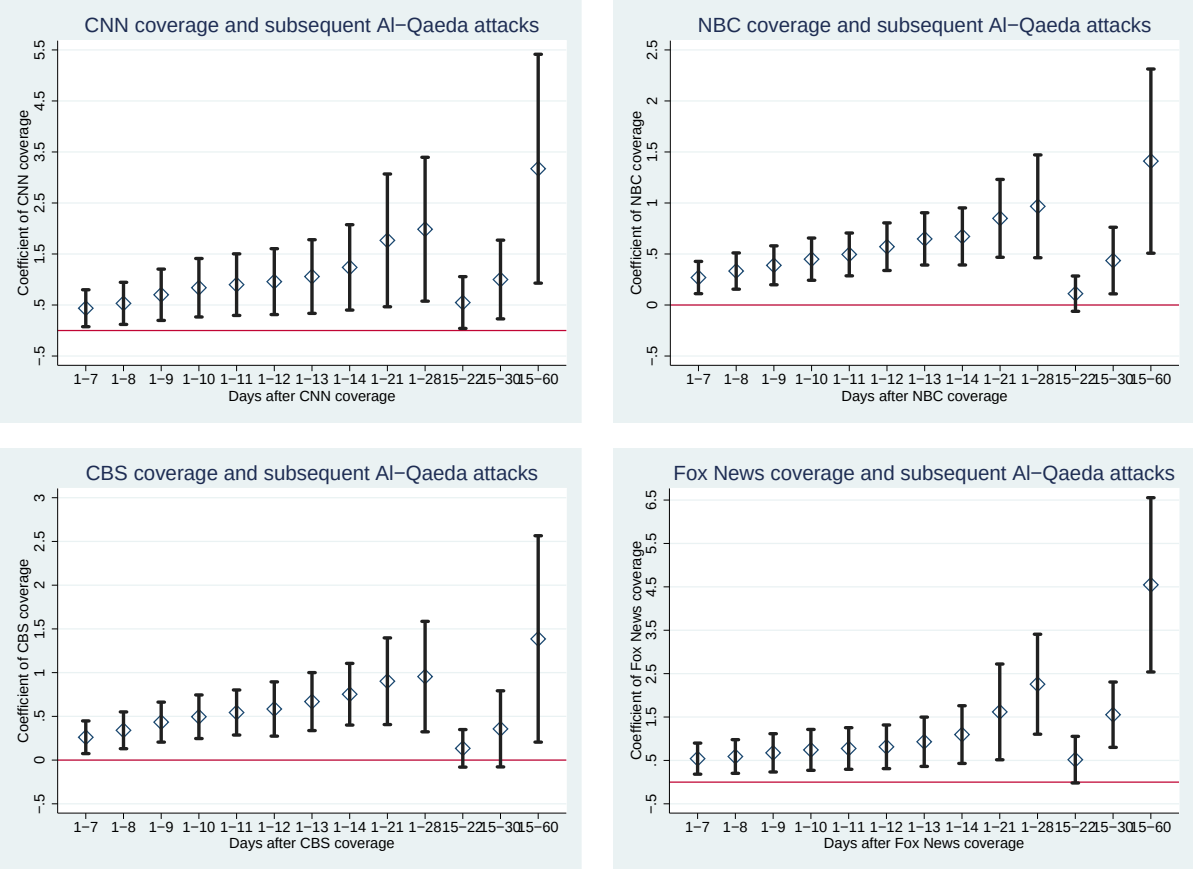

Figure 4: Displaying coefficients of the respective media coverage variable from regressions estimating the number of Al-Qaeda attacks up to 60 days after the initial Al-Qaeda coverage. The full set of control variables from Table 5 are included in all regressions. All coefficients display two-sided 95 percent confidence intervals.

Table 9: Displaying results from placebo regression, using the number of Al-Qaeda attacks on days $t-3$ until $t-1$ as an alternative outcome variable.

Media variable used:	Coverage (share)				Coverage (0/1)			
Outlet:	(1) CNN	(2) NBC	(3) CBS	(4) Fox News	(5) CNN	(6) NBC	(7) CBS	(8) Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t-3$ until $t-1$								
Al-Qaeda coverage	-0.310	-0.018	0.008	-0.437	-4.089	-0.366	0.142	-4.659
	(0.453)	(0.148)	(0.171)	(0.758)	(6.828)	(3.059)	(2.878)	(8.445)
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*								
Disaster deaths on day t	-0.087*			-0.090***	-0.003			-0.006***
	(0.047)			(0.021)	(0.004)			(0.001)
Disaster deaths on days $t-3$ until $t-1$	-0.009***	-0.037***	-0.017**	-0.006**	-0.001***	-0.002***	-0.001**	-0.001***
	(0.002)	(0.012)	(0.007)	(0.003)	(0.000)	(0.001)	(0.000)	(0.000)
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel C: Econometric statistics								
F-test insignificance of IV	11.19***	9.83***	5.43**	14.92***	11.43***	11.09***	6.52**	22.76***
N	4,396	4,593	4,126	3,538	4,396	4,593	4,126	3,538

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option $r\,bw(1)$ in Stata). * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

5.5 Further Robustness Checks

Finally, a number of additional robustness checks have been conducted and this section briefly summarizes the corresponding findings.

5.5.1 Missing VTNA Data

One concern about the robustness of the discussed results may come from the fact that the VTNA does not report news data for every day since 9/11.[11] If the relationship between Al-Qaeda coverage and subsequent attacks on those days was systematically biased in one direction, then the baseline results could be misleading. Although the main estimations control for fixed effects of each weekday to account for such a possibility, I also conduct two additional tests.

First, I compare the Google Trends indicator for *Al-Qaeda* on days with missing observations on the respective television outlets to those days where VTNA data are available. If days with missing VTNA information featured substantially more or less Google searches on Al-Qaeda, this could indicate a potential selection issue with the VTNA data. Specifically, I focus on weekends as they have produced the most missing observations and the corresponding comparisons are displayed in Table 10.[12] In four outlets, the missing Saturdays and Sundays are not statistically different from those Saturdays and Sundays that are available in the VTNA. Only for Fox News do we observe a statistically meaningful difference with Google searches being lower on those weekends where VTNA data are missing.

Second, to further test for any anomalies related to the missing observations, I create two additional data sets with alternative assumptions about data on missing days. Table A4 in the appendix displays results when coding all days with missing VTNA data (*i*) as a complete lack of Al-Qaeda coverage (coverage = 0) or (*ii*) as full coverage of Al-Qaeda (coverage = 1). The resulting coefficients for media coverage all remain positive and statistically significant on the five percent level. Thus, it appears unlikely that days with missing VTNA data are systematically driving the benchmark findings.

[11] A request to the VTNA on potential reasons remained unanswered.

[12] For CNN, 727 of the 828 missing days occurred on weekends (88 percent); ABC: 318 of 330 (96 percent); NBC: 223 of 631 (35 percent); CBS: 533 of 1,098 (49 percent); Fox News: 305 of 884 (35 percent).

Table 10: Summary statistics for Google Trend topic search of *Al-Qaeda*. Displaying mean values of the Google Trends index (from 0 – 100, relative to surrounding 6-month period).

Outlet:	CNN	ABC	NBC	CBS	Fox News (since 2004)
Missing (Sunday)	21.26	22.98	22.96	21.08	17.17
Non-missing (Sunday)	20.44	20.66	20.61	20.72	22.10
T-test missing = non-missing (p-value)	0.53	0.28	0.24	0.78	0.00***
Missing (Saturday)	20.08	18.80	21.80	18.59	17.08
Non-missing (Saturday)	19.68	20.41	19.53	20.66	20.80
T-test missing = non-missing (p-value)	0.76	0.25	0.19	0.12	0.01**

5.5.2 Past Al-Qaeda Attacks

Another robustness check evaluates the role of past Al-Qaeda attacks. Recall that the main analysis controls for two variables measuring attacks on day t and days $t-3$ until $t-1$. This may seem an ad-hoc definition and I want to ensure it does not drive any of the findings. To more fully account for the role of past attacks that may influence contemporaneous media coverage and future attacks alike, I include eight control variables for attacks on day t, $t-1$, $t-2$, $t-3$, $t-4$, $t-5$, $t-6$, and $t-7$. The corresponding results are consistent with the baseline findings and are referred to Table A5.

5.5.3 The Role of US Presidential Elections

Next, given Al-Qaeda has become a substantially politicized topic in the US, it is possible that electoral campaigns are influencing both media coverage of the group and attacks alike. For example, extensive coverage of Al-Qaeda may highlight defense topics in the election campaign, which may cater toward specific candidates. If a media outlet favored certain candidates, they could choose to air more or less material on Al-Qaeda throughout election campaigns. For instance, Larcinese et al. (2011) reveal partisan bias in economic news depending on the party

affiliation of the sitting President; DellaVigna et al. (2007) detect a 'Fox News effect' in Presidential elections, where exposure to Fox News could have convinced a meaningful number of citizens to vote Republican.[13]

Indeed, a simple comparison of the number of Al-Qaeda attacks during presidential election campaigns in the US (following timeframes suggested by Puglisi, 2011) shows an increased frequency with a daily average of 0.63, as opposed to 0.34 on regular days. The difference between these means is statistically significant on the one percent level. However, no difference in Al-Qaeda coverage across all five media outlets can be detected.

To test whether controlling for presidential election campaigns can influence the benchmark findings, I re-estimate Table 5 when including binary indicators for election campaigns taking place and whether the sitting president comes from the Republican party (to control for potential party dynamics in media coverage of terrorism). The corresponding results are consistent with the main findings and are referred to Table A6 in the appendix. Thus, Presidential election campaigns in the US are unlikely to be driving the empirical results presented in this paper.

6 Conclusions and Policy Discussion

This paper tests the hypothesis that Al-Qaeda coverage in US television news affects the execution of subsequent Al-Qaeda attacks. To circumvent the latent endogeneity problem in the relationship between media coverage and subsequent terrorism, I use the number of disaster deaths worldwide as an instrumental variable in a 2SLS framework. Intuitively, more disaster deaths may crowd out Al-Qaeda coverage, everything else equal, and the data largely support that intuition.

Analyzing post-9/11 data until the end of 2015 produces evidence that is consistent with the idea that Al-Qaeda is systematically attacking more when news coverage is higher. This result emerges for media attention in four major US media outlets: CNN, NBC, CBS, and Fox

[13] Gentzkow et al. (2015b, 2006); Gentzkow and Shapiro (2010); Gentzkow et al. (2015a) provide detailed theoretical and empirical analyses on the relationship between the media, political actors, and voters. Leeson (2008) investigates the role of media freedom in citizens' political knowledge and their political participation.

News. (The instrument does not provide sufficient statistical variation for ABC coverage.) The corresponding magnitude is sizeable: Each minute of Al-Qaeda coverage in a 30-minute news program encourages approximately one additional attack in the next seven days, on average. Various robustness checks, extensions, and placebo regressions provide additional support for this result. Importantly, the results suggest that attacks are not merely postponed if coverage is low, but rather we observe a net decrease in the number of attacks.

Taken literally, the associated policy recommendations would be straightforward: Regulate reporting on terrorist groups, such as Al-Qaeda, and maybe even ban reporting entirely. Of course, such drastic measures cannot be reconciled with a strong commitment to press freedom and likely do not present a socially desirable solution, since they may produce substantial (and likely negative) externalities. However, journalists and news program directors may be well advised to re-think the extent to which terrorism is covered. A simple look at the VTNA data reveals that Al-Qaeda has received more coverage than China and Russia *combined* since 9/11.

Thus, a potential solution could relate to media representatives' awareness that increased coverage could actively lead to detrimental consequences. Indeed, 'self-imposed' media guidelines have become relevant in other domains where reporting could produce negative consequences from a societal perspective. As an example, one may consider the media's treatment of suicides: It is well understood that sensationalist coverage of a suicide can encourage copycats. Thus, journalists are advised to "decide whether to report," "modify or remove information that may increase risk" and "present information about suicide in ways that may be helpful" (e.g., see Mindframe, 2014, King, 2010, and Reporting on suicide, 2017). Such examples may provide a useful starting point for a discussion on how to avoid the encouragement of terrorist attacks via increased media coverage. For instance, the French newspaper *Le Monde* has recently decided to stop publishing photos and names of terrorists (Borger, 2016) which has lead to some discussion (e.g., see McKenzie, 2016).

In this context, further research could also analyze the content of news segments and potentially be able to distinguish which types of coverage are particularly harmful or even helpful. I leave these ideas for future projects.

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Appendix

Table A1: Correlation of Al-Qaeda coverage across media outlets.

Variables	CNN	ABC	NBC	CBS	Fox News
CNN Al-Qaeda coverage (share of coverage × 100)	1.00				
ABC Al-Qaeda coverage (share of coverage × 100)	0.49	1.00			
NBC Al-Qaeda coverage (share of coverage × 100)	0.48	0.46	1.00		
CBS Al-Qaeda coverage (share of coverage × 100)	0.50	0.48	0.55	1.00	
Fox News Al-Qaeda coverage (share of coverage × 100)	0.55	0.48	0.37	0.38	1.00

Table A2: Re-estimating main regressions from Tables 5 and 6, but using a continuously-updated GMM estimation (option *cue r* in Stata command *ivreg2*).

Media variable used:	Coverage (share)				Coverage (0/1)			
Outlet:	(1) CNN	(2) NBC	(3) CBS	(4) Fox News	(5) CNN	(6) NBC	(7) CBS	(8) Fox News
Panel A: 2nd stage predicting Al-Qaeda attacks on days $t-3$ until $t-1$								
Al-Qaeda coverage	0.382**	0.309***	0.277*	0.524***	5.953**	5.779***	4.658*	6.059***
	(0.179)	(0.112)	(0.154)	(0.197)	(3.035)	(1.932)	(2.584)	(2.331)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel B: 1st stage predicting respective *Al-Qaeda coverage*								
Disaster deaths on day t	-0.080*	-0.036***		-0.085***	-0.002			-0.006***
	(0.048)	(0.011)		(0.023)	(0.004)			(0.002)
Disaster deaths on days $t-3$ until $t-1$	-0.009***	-0.266***	-0.017**	-0.007***	-0.001***	-0.002***	-0.001***	-0.001***
	(0.002)	(0.056)	(0.007)	(0.003)	(0.000)	(0.001)	(0.000)	(0.000)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel C: Econometric statistics								
F-test insignificance of IV	11.88***	10.11***	5.66***	13.45***	12.31***	11.61***	6.84***	18.96***
N	4,393	4,590	4,123	3,538	4,393	4,590	4,123	3,538

Notes: * $p<0.10$, ** $p<0.05$, *** $p<0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

Table A3: Extending the dependent variable to the number of Al-Qaeda attacks up to $t + 60$ for NBC, CBS, and Fox News. For NBC and CBS, the instrumental variable is disaster deaths in $t - 3$ until $t - 1$; for Fox News, the instrumental variables are disaster deaths in t and in $t - 3$ until $t - 1$.

Media variable used:	Coverage (share)						Coverage (0/1)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dep. var.: Al-Qaeda attacks in ... days	10	14	30	15-30	15-45	15-60	10	14	30	15-30	15-45	15-60
Panel A: NBC coverage												
Al-Qaeda coverage	0.487***	0.719***	1.241***	0.522**	0.777	1.629***	9.107***	13.454***	23.231***	9.777**	14.534	30.504***
	(0.149)	(0.201)	(0.374)	(0.220)	(0.480)	(0.615)	(3.391)	(6.488)	(3.997)	(8.887)	(11.168)	
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
F-test insignificance of IV	10.11***	10.11***	10.11***	10.11***	10.12***	10.13***	11.61***	11.61***	11.62***	11.62***	11.62***	11.66***
N	4,590	4,588	4,584	4,584	4,581	4,578	4,590	4,588	4,584	4,584	4,581	4,578
Panel B: CBS coverage												
Al-Qaeda coverage	0.500**	0.717***	1.087**	0.371	0.438	1.330	8.409**	12.056***	18.286*	6.231	7.362	22.341
	(0.195)	(0.263)	(0.546)	(0.333)	(0.748)	(0.955)	(4.465)	(9.570)	(5.796)	(12.828)	(16.748)	
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
F-test insignificance of IV	5.66**	5.65**	5.65**	5.65**	5.66**	5.68**	6.84***	6.84***	6.83***	6.83***	6.84***	6.88***
N	4,123	4,121	4,119	4,119	4,117	4,116	4,123	4,121	4,119	4,119	4,117	4,116
Panel C: Fox News coverage												
Al-Qaeda coverage	0.743***	1.095***	2.649***	1.554***	3.364***	4.546***	9.213***	13.483***	31.041***	17.554***	36.713**	51.591***
	(0.286)	(0.404)	(0.796)	(0.458)	(1.235)	(1.220)	(4.674)	(9.986)	(6.258)	(16.001)	(16.639)	
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
F-test insignificance of IV	13.45***	13.45***	13.46***	13.46***	13.48***	13.01***	18.96***	18.96***	19.00***	19.00***	19.05***	17.99***
N	3,538	3,537	3,533	3,533	3,529	3,526	3,538	3,537	3,533	3,533	3,529	3,526

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t - 3$ until $t - 1$.

Table A4: Robustness checks, alternatively coding missing days as zero coverage of Al-Qaeda (columns 1 – 4) or complete coverage of Al-Qaeda (columns 5 – 8).

Manipulation:	Coding missing as no coverage (=0)				Coding missing as full coverage (=1)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outlet:	CNN	NBC	CBS	Fox News	CNN	NBC	CBS	Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$								
Al-Qaeda coverage	0.282**	0.250**	0.261**	0.440**	0.310**	0.217**	0.282**	0.527**
	(0.117)	(0.100)	(0.127)	(0.197)	(0.127)	(0.100)	(0.135)	(0.238)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*								
Disaster deaths on day t	-0.008*			-0.007**	-0.006			-0.005
	(0.005)			(0.003)	(0.005)			(0.003)
Disaster deaths on days $t-3$ until $t-1$	-0.010***	-0.017***	-0.013***	-0.006***	-0.010***	-0.016***	-0.012***	-0.005***
	(0.002)	(0.004)	(0.003)	(0.002)	(0.002)	(0.004)	(0.003)	(0.002)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes	yes	yes	yes
Panel C: Econometric statistics								
F-test insignificance of IV	11.24***	19.49***	16.54***	8.60***	11.07***	14.72***	13.95***	5.73***
N	5,217	5,217	5,217	5,217	5,217	5,217	5,217	5,217

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.

Table A5: Robustness checks, adding further lags of Al-Qaeda attacks with eight variables measuring attacks on days $t-7$ until day t.

Outlet:	(1) CNN	(2) ABC	(3) NBC	(4) CBS	(5) Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$					
Al-Qaeda coverage	0.307*	-0.042	0.272***	0.209	0.413**
	(0.167)	(0.142)	(0.101)	(0.144)	(0.174)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*					
Disaster deaths on day t	-0.094*	0.012			-0.094***
	(0.049)	(0.020)			(0.025)
Disaster deaths on days $t-3$ until $t-1$	-0.009***	-0.002	-0.037***	-0.017**	-0.007***
	(0.002)	(0.003)	(0.012)	(0.007)	(0.002)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel C: Econometric statistics					
F-test insignificance of IV (p-value)	12.56***	0.55	10.52***	5.86**	14.66***
N	4,393	4,889	4,590	4,123	3,538

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p<0.10$, ** $p<0.05$, *** $p<0.01$.
[a]Includes 8 variables measuring the number of Al-Qaeda attacks on days $t-7$ until t.

Table A6: Re-estimating Table 5, controlling for binary indicators that measure presidential election campaigns in the US and the party affiliation of the sitting president (following Puglisi, 2011).

Outlet:	(1) CNN	(2) ABC	(3) NBC	(4) CBS	(5) Fox News
Panel A: 2^{nd} stage predicting Al-Qaeda attacks on days $t+1$ until $t+7$					
Al-Qaeda coverage on day t	0.943*	-0.779	0.766***	0.911***	1.053***
	(0.555)	(1.002)	(0.289)	(0.351)	(0.272)
Election campaign	4.473***	1.481	3.216***	5.497***	4.192***
	(1.631)	(1.576)	(0.843)	(1.395)	(0.959)
Republican president	-6.145***	-1.172	-6.404***	-5.849***	-2.690***
	(1.972)	(2.236)	(1.382)	(1.273)	(0.361)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel B: 1^{st} stage predicting respective *Al-Qaeda coverage*					
Disaster deaths on day t	-0.072	0.016			-0.083***
	(0.053)	(0.019)			(0.022)
Disaster deaths on	-0.005**	0.001	-0024**	-0.011*	-0.006**
days $t-3$ until $t-1$	(0.002)	(0.003)	(0.011)	(0.006)	(0.002)
Al-Qaeda attacks[a]	yes	yes	yes	yes	yes
FE for days of the week and months	yes	yes	yes	yes	yes
Panel C: Econometric statistics					
F-test insignificance of IV	4.19**	0.39	5.23**	3.30*	11.97***
N	4,393	4,889	4,590	4,123	3,538

Notes: All estimations are conducted using the *ivreg2* command in Stata with robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors (option *r bw*(1) in Stata). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes 2 variables measuring the number of Al-Qaeda attacks on day t and on days $t-3$ until $t-1$.