DISCUSSION PAPER SERIES

Captivating News in Colombia

Juan P. Aparicio
Michael Jetter

DISCUSSION PAPER SERIES

IZA DP No. 13834

Captivating News in Colombia

Juan P. Aparicio
University of Western Australia

Michael Jetter
University of Western Australia, IZA and CESifo

NOVEMBER 2020

ABSTRACT

Captivating News in Colombia*

What motivates kidnapping decisions by rebel groups? This paper studies news coverage of a proposed prisoner exchange program (the Acuerdo Humanitario; AH) in connection with FARC (Revolutionary Armed Forces of Colombia) kidnappings in the early 2000s. We propose that AH News nourished the FARC's expectations of such an agreement, thereby altering their actions. Empirically, to circumvent latent endogeneity, we access disasters in countries hosting large numbers of Colombians as exogenous variation crowding out AH News. We find AH News systematically shifted the FARC's attention away from financial kidnappings (hostage-taking for ransom purposes) to political kidnappings (hostages subject to a potential prisoner swap). Neither news slant (articles supporting the AH) nor informational content drive results – rather, an explanation consistent with agenda setting appears most plausible. Further, AH News led to (i) more FARC killings of politicians; (ii) fewer non-kidnapping-related FARC attacks; (iii) more governmental press releases; and (iv) fewer military attacks on the FARC. Overall, AH News shifted the FARC's and the government's conflict strategy towards de-escalation while limiting casualties, at least in the short run.

Corresponding author:
Michael Jetter
University of Western Australia
8716 Hackett Drive
Crawley 6009, WA
Australia
E-mail: mjetter7@gmail.com

1   Introduction

Between 2002 and 2008, when former-presidential candidate Íngrid Betancourt was held captive by the *FARC*, Colombia led the world in kidnappings. In those 7 years, the country recorded 213 political kidnappings (hostages seized for political purposes) and 2,727 financial kidnappings (seized for ransom). The average political hostage spent 622 days deep in the Colombian rainforest (Caballero Reinoso, 2013), and only 73 of 213 eventually returned home. Today, after the 2016 peace agreement, the *FARC*'s kidnapping practices remain a primary topic of interest for the peace and reconciliation committee (JEP, 2018).[1] Understanding what motivated the *FARC*'s unprecedented hostage-taking operations constitutes an important, yet largely unexplored empirical question, both within the scientific literature and among the general Colombian populace.

In the following pages, we suggest that news coverage dedicated to the *Acuerdo Humanitario* (*AH*), a proposed prisoner exchange program, systematically influenced the *FARC*'s operations. Consistent with an agenda-setting narrative (McCombs and Shaw, 1972; Iyengar and Kinder, 2010), *AH News* may have fueled the *FARC*'s expectations of a prisoner exchange agreement coming to fruition. The concept of agenda-setting was initially introduced within communications research to illustrate the power media companies hold in determining "how much importance to attach to that issue" (McCombs and Shaw, 1972; Iyengar and Kinder, 2010; also see Larcinese et al., 2011, and King et al., 2017, for recent agenda setting studies within the United States). Consequently, the *FARC* would update their expectations regarding the 'value' of political kidnappees after *AH News* and shift their attention from financial to political kidnappings.

We first formalize this idea by modeling the *FARC*'s decision-making process to conduct political and financial kidnappings. Crucially, political – but not financial – kidnappees would constitute valuable 'bargaining chips' to free *FARC* prisoners if the *AH* were to materialize. To test this hypothesis, we analyze daily data from February 23, 2002 to July 2, 2008 (the period of Betancourt's capture). Yet, simply correlating the number of political (or financial) kidnappings with preceding *AH*-related news coverage

---

[1]Among the 7 agenda items of the peace and reconciliation tribunal (the *Jurisdicción Especial Para La Paz*), the first concerns "[r]etención ilegal de personas por parte de las *Farc*-EP" (JEP, 2018), which translates to "[i]llegal retention of people by the *Farc-EP*."

is unlikely to uncover causal relationships for two reasons. First, the expectation of looming kidnappings may elicit public discussion about the *AH* (reverse causality). And second, unobservable developments (such as secretive communications between the government and the *FARC* or other societal, economic, and political developments) could simultaneously affect *AH*-related news *and* the *FARC*'s subsequent kidnapping operations (omitted variable bias). As expected, the corresponding statistical tests confirm substantial endogeneity problems.

To circumvent these threats to identification, we exploit the quasi-random occurrence of disasters in countries that host numerous Colombian emigrants.[2] We hypothesize that *AH News* in *El Tiempo* (Colombia's most prominent daily newspaper and our main proxy for Colombian news) diminishes on days with more disaster deaths in such countries. The data show firm statistical support for that hypothesis. In turn, our identification strategy assumes that disaster deaths abroad would not meaningfully affect the *FARC*'s kidnapping operations through other channels. Further supporting this assumption is the fact that disaster deaths abroad remain orthogonal to (i) contemporaneous *FARC* kidnappings and (ii) preceding *AH* coverage.

The main estimation results consistently suggest political kidnappings increase because of *AH News*. In turn, financial kidnappings become less frequent, as predicted by our hypothesis. These findings receive support from a battery of robustness checks, exploring alternative (i) timeframes, (ii) data sources for kidnappings and news, (iii) timeframes (e.g., President Uribe's tenure), and (iv) definitions of the instrumental variable, as well as carefully accounting for contemporaneous and past kidnappings, autocorrelation, and time-specific confounders. In our benchmark specification, one *AH*-related article is projected to raise the number of political kidnappings to 2.9 times its daily average in the subsequent ten days, while decreasing the number of financial kidnappings by one third.

We then explore other conflict-related activities by the *FARC* and the Colombian government after *AH News*. Recorded *FARC* attacks on politicians intensify, potentially signalling unsuccessful kidnapping attempts, while attacks on the Colombian military become less frequent. The Colombian government, on the other hand, publishes more press releases while toning down the frequency of military operations

---

[2]Our main estimation employs disasters in the top 10 destination countries for Colombian emigrants. Results are consistent when expanding that list (see Appendix Table A1).

against the *FARC*. These results suggest *AH News* de-escalated violent encounters from both sides in the short run, while shifting the *FARC*'s focus towards political targets. Nevertheless, our identification strategy remains unsuitable to delineate long-term implications of *AH News* (see Section 4.4 for a more detailed discussion).

Finally, we specify our estimations by distinguishing between types of *AH News*. First, we check whether the informational content of the respective news piece matters. For example, if an article revealed novel *AH*-relevant developments, this could explain the *FARC*'s change in strategy. However, we find no evidence to support that explanation. Second, we explore the 'slant' of *AH News* to distinguish articles that are generally supportive of the *AH* from those that are not. Interestingly, we do not find meaningful differences along those lines either, as both types of news elicit a shift from financial to political kidnappings.

Finally, to further test for an explanation consistent with an agenda setting mechanism, we identify those *AH* articles that explicitly mention those kidnappees who would be subject to the *AH*: The members of the military and public servants being held by the *FARC*. In Colombia, this group became known as *the Exchangeables* (*los Canjeables* in Spanish). Although statistical precision diminishes in these estimations, we find evidence to suggest those articles were particularly powerful in generating the identified shift in the *FARC*'s kidnapping strategy. Nevertheless, even *AH News* that do not explicitly mention *the Exchangeables* produce findings consistent with our main estimates.

Overall, this paper speaks to three distinct areas of research: (i) News media effects in conflict settings, (ii) understanding internal dynamics of rebel groups, and (iii) the long-standing Colombian conflict. First, agenda-setting effects of news media have long been suggested among communication scholars (McCombs and Shaw, 1972) and buttressed by experimental evidence (Iyengar and Kinder, 2010). Nevertheless, attention has largely been restricted to non-conflict-related settings, such as political views and political engagement (e.g., see King et al., 2017, for recent evidence from the US).[3] Perhaps closest to our setting, Iyengar and Monten (2008) find Iraqi insurgents attack more when the US media reports on US withdrawal intentions from Iraq. Combined with the evidence presented here,

---

[3]The concept of agenda setting should not be confused with scientific inquiries into media *slant*, *persuasion*, or *propaganda* (see Section 2.3). We explore the content of *AH News* in Section 4.6.

these findings illustrate that news coverage of a conflict-relevant topic alone can influence the actions of insurgent groups in powerful ways.

Second, we hope to advance our understanding of within-group dynamics of rebel and terrorist groups (see Blattman and Miguel, 2010, and Gaibulloev and Sandler, 2019, for comprehensive overviews of the existing literature). To date, little empirical evidence exists concerning the inner operational dynamics of such organizations. For instance, one of Blattman and Miguel's (2010) four pleas for future research observes that "more detailed information on rebel organization and decision making would be useful."[4] Specifically, why do such groups choose particular attack and target types? Our paper highlights specific news coverage as a potential driver of such decisions within the Colombian setting. While Jetter (2017, 2019) uses a more basic identification strategy based on disasters (also see Garz and Pagels, 2018) to suggest media attention can incentivize terrorist attacks in general, this paper introduces a particular topic that, once in the news, may be able to lead a group to systematically change their operational dynamics.[5] These results may help policymakers and society leaders predict and potentially prevent attacks, e.g., by safeguarding potential targets based on contemporary media topics. These results may also inspire research into using the media to de-escalate violent situations (see Section 4.4).

Third, we contribute to the growing political economy literature aiming to understand and empirically explore the drivers of the Colombian conflict and the associated implications for politics and society (Dal Bó et al., 2006; Dube and Vargas, 2013; Arjona, 2014; Fergusson et al., 2016; Fergusson et al., 2020). The Colombian media has been an important actor in the evolution of the conflict, at times bringing together armed groups and politicians (Fergusson et al., 2013). To the best of our knowledge, we are the first to present evidence suggesting the *FARC*'s actions are responsive to media coverage. The corresponding insights may prove useful for researchers and policymakers interested in links between the media and conflict developments in Colombia.

---

[4]Blattman and Miguel (2010, p.26) also write that "future cross-country empirical work should achieve more credible causal inference by focusing on a single, or small number of, exogenous conflict determinants and plausible instruments for them rather than running horse races between many endogenous variables."

[5]In a related context, Durante and Zhuravskaya (2018) find counter-terrorism operations by the Israeli military are particularly timed to *avoid* international news coverage, presumably to avoid being seen as an aggressor.

2 Background and Theoretical Motivation

2.1 Kidnappings in the Colombian Conflict

The Colombian conflict began in the early 20th century with a period marked by rampant partisan violence – an episode known as *La Violencia*. In the 1980s, with the uprising of modern guerrilla structures, hostage-taking became a widespread phenomenon (Feldmann and Hinojosa, 2009; Las2orillas, 2013).[6] The upper-class guerrilla group *M-19* started conducting kidnappings to deliver propagandistic messages as part of their broader struggle to "represent" the people against corrupt politicians. It was not long before more traditional guerrilla groups, such as the *FARC* and the *National Liberation Army* (*Ejército de Liberación Nacional, ELN*), also turned to abductions, unleashing a kidnapping epidemic (Briggs, 2002; Fattal, 2018).

For the *FARC*, kidnappings became both a way to exert political pressure and a reliable source of income (Caballero Reinoso, 2013). While Colombia recorded 2,000 kidnappings in 1998 alone, that number almost doubled two years later (Moor et al., 2002). By that time, Colombia accounted for 40 percent of all kidnappings worldwide, almost twice as many as the next-highest three countries combined (data from the GTD, 2020). The *FARC* routinely performed random stops, poetically labeled *pescas milagrosas* (*miraculous draught of fish*) as an ironic reference to the Bible passage in which Jesus calls his disciples *fishers of men*. Soldiers would go from car to car, checking people's identity to determine if they were worth kidnapping (Suárez, 2000; Moor et al., 2002; Clark, 2004; Caballero Reinoso, 2013).[7]

In addition to the financially-motivated kidnappings that fueled the *FARC*'s criminal operations, political kidnappings became an important element of the conflict. The idea of bringing *FARC* soldiers back from prison fitted their military approach at a time in which the armed group believed they could finally take power from the government. This was perhaps best exemplified when, in a slip of the tongue during an interview with Colombia's biggest news magazine, "El Mono Jojoy" (Víctor Julio Suárez Rojas, *FARC*'s second in command) admitted that their upcoming strategy would be spearheaded by the abduc-

---

[6]Gabriel García Márquez dedicated an entire book (*Noticia de un secuestro – News of a kidnapping*) to an infamous kidnapping episode by Pablo Escobar in 1990, predating our time period of interest (Márquez, 2014). Fearing extradition to the US, Escobar kidnapped ten prominent Colombians as 'bargaining chips.'

[7]The documentary *Miracle Fishing* describes the year-long ransom negotiations with the *FARC* to release the American journalist Thomas Hargrove (BBC News, 2020).

tion of important political leaders, hoping that such high-profile cases would coerce the government into accepting an *AH*: "[i]f the *AH* cannot be achieved, we will have to make sure some of the political class accompany the captive soldiers[...]" (Semana, 1999).[8]

2.2 Íngrid Betancourt's Abduction

It was under these conditions that the government of Andrés Pastrana decided to negotiate over a peace agreement with the *FARC* in 1999. However, continuous violent incidents hindered progress (Moor et al., 2002; Pachico, 2011). On February 20, 2002, negotiations finally broke down when the *FARC* hijacked Senator Jorge Eduardo Géchem's airplane, taking him hostage while freeing the crew (Semana, 2016). Three days later, then-presidential candidate Íngrid Betancourt rushed to the municipality that hosted the peace talks in an attempt to calm down the community. However, she was intercepted by a *FARC* checkpoint and taken into captivity.

Betancourt's kidnapping marked an inflection point in the conflict, as she became the symbol of *FARC* kidnappees (Pizarro Leóngomez, 2011; Caballero Reinoso, 2013). Her release became a primary policy goal, not only for the Colombian government but also for the international community (Clark, 2004; Feldmann and Hinojosa, 2009; Tenenboim-Weinblatt, 2013). Public rallies, especially in France (Betancourt also holds the French citizenship), led then-president Nicolas Sarkozy and other prominent international figures to call for an *AH* that would ensure Betancourt's return from captivity (Libération, 2007; Le Figaro, 2008). Eventually, the Colombian army rescued Betancourt more than six years after her capture on July 2, 2008 in *Operación Jaque* (*Operation Check* or perhaps better translated as *Operation Checkmate*), in which armed forces posed as part of the International Red Cross to gain access to a group of hostages (Aguilera Peña, 2006; Semana, 2008; Feldmann and Hinojosa, 2009).[9]

Our main estimations study the period in which Betancourt was held hostage because her kidnapping sparked the concept of a prisoner exchange program in which the government would free *FARC* members in exchange for the release of political hostages, such as Betancourt (Ramos, 2005; Aguilera Peña,

---

[8]The original Spanish expression was " Si no se puede la ley de canje, tocara que algunos de la clase política acompañen a los soldados, para que salgan en el canje. Es la única forma. Si no quieren por las buenas tocara por otros medios."

[9]The Colombian army posing as part of the International Red Cross raised protests from several international organizations, including the Red Cross itself (El Espectador, 2008).

2006; Feldmann and Hinojosa, 2009; Puyana, 2009). Numerous political manifestations and press articles started discussing the *AH* as a first step towards a second round of peace talks (Ramos, 2005; Aguilera Peña, 2006; Bouvier, 2007, 2008; Feldmann and Hinojosa, 2009; Puyana, 2009).[10] Notably, such an *AH* never materialized.

2.3 Agenda Setting

Early communications scholars introduced the concept of agenda setting, describing the idea that editors and journalists can often determine what is newsworthy (McCombs and Shaw, 1972; Iyengar and Kinder, 2010; Cohen, 2015). By deciding on what makes the news (and what does not), media outlets can influence which issues are relevant in the public debate (and which are not).[11] Importantly, agenda setting only relates to whether a topic is in the news – not a particular viewpoint or slant on said topic. While agenda setting simply concerns telling an audience "what to think *about*" (emphasis in original; see Iyengar and Kinder, 2010, and references therein), media slant, persuasion, and propaganda constitute deliberate attempts to change opinions on a matter.

An emerging empirical literature has produced evidence of the media's agenda-setting power in politics, with most applications coming from the US (DellaVigna and Kaplan, 2007; Larcinese et al., 2011; Clinton and Enamorado, 2014; King et al., 2017; Martin and Yurukoglu, 2017). For example, Enke (2020, p.1363) finds "participants [in a laboratory experiment] exclusively consider information that is right in front of them," while "unobserved signals do not even come to mind." In our setting of Colombia in the early 2000s, we propose that news coverage dedicated to the *AH* systematically turns public attention to the prisoner exchange agreement the *FARC* were seeking to achieve with the Colombian government. By driving public attention to the *AH* concept, the news media may (perhaps inadvertently) have advanced the *FARC*'s main talking point and nourished their expectations of an *AH* (ABC, 2009; Semana, 2009).

---

[10]For example, Nicolas Sarkozy expressed in an interview that "France's obsession is for Íngrid Betancourt to be returned healthy and as soon as possible to her family in the shortest possible time" (EFE, 2007). Betancourt's photograph remained on the facade of the Parisian townhall until the day she was released.

[11]Although related dynamics may well be altered by the recent emergence of social media as novel communication channels, our period of analysis is largely set in a pre-social-media world.

2.4 Theoretical Motivation

2.4.1 Framework and Assumptions

We first formalize our hypothesis of how *AH*-related news coverage could have systematically influenced the *FARC*'s kidnapping decisions. Denote the number of political kidnappings with κ, whereas financial kidnappings are counted by γ (with $\kappa, \gamma \geq 0$).[12] With p denoting the price of 'production' of κ and the price for γ being normalized to one, the *FARC*'s budget constraint becomes

$$p\kappa + \gamma = B, \tag{1}$$

where B represents the group's 'kidnapping budget.' Assume the *FARC*'s utility function to be additive with

$$U(\kappa, \gamma) = \pi\kappa^{\alpha} + \gamma, \tag{2}$$

where π (with $0 < \pi < 1$) constitutes the perceived probability of the *AH* becoming a reality; α (with $0 < \alpha < 1$) governs a gradually decreasing profitability of additional political kidnappings, consistent with anecdotal evidence implying that even if the *AH* was to materialize, 'returns' from political hostages would likely have been decreasing as their number grows (Caballero Reinoso, 2013). For example, if political kidnappees were seen as exchange currency for the *AH*, they would 'devalue', resembling an inflationary process.[13]

2.5 Maximizing Utility

Rearranging the budget constraint in terms of γ allows us to express the *FARC*'s utility function as a factor of κ only:

$$U(\kappa, \gamma) = \pi\kappa^{\alpha} + B - p\kappa. \tag{3}$$

---

[12]We refer to Selten (1988) for an early game-theoretic approach to a rational understanding of financial kidnappings. Sandler and Scott (1987) provide an early empirical assessment of terrorists' success in kidnappings.

[13]Our core result would also hold if $\alpha > 1$, i.e., if we assumed that additional kidnappees would become more valuable as their number grows.

Choosing κ to maximize (3) yields

$$\kappa^* = \left[\frac{\alpha\pi}{p}\right]^{\frac{1}{1-\alpha}}. \tag{4}$$

It is now straightforward to see that $\frac{\partial\kappa^*}{\partial\pi} > 0$, i.e., a higher perceived likelihood of the *AH* materializing increases the number of political kidnappings.

> *Hypothesis I*: An increase in the perceived likelihood of the *AH* coming to fruition increases the number of political kidnappings pursued by the *FARC*.

The solution for κ^* can also be used to understand how financial kidnappings, γ^*, respond to a change in π. Substituting κ^* into the budget constraint, isolating γ^*, and exploring how a change in π may affect the optimal number of financial kidnappings shows that $\frac{\partial\gamma^*}{\partial\pi} < 0$, i.e., increased chances of the *AH* are associated with fewer financial kidnappings.

> *Hypothesis II*: An increase in the perceived likelihood of the *AH* coming to fruition decreases the number of financial kidnappings pursued by the *FARC*.

3 Data and Empirical Strategy

Data for our main analysis come from three sources: The *Centro Nacional de Memoria Histórica* (*CNMH*), the *El Tiempo* online archive, and the *EM-DAT* international disaster database. In additional analyses, we access data from the *Global Terrorism Database* (*GTD*), the *Global Database of Events, Language, and Tone* (*GDELT*), and press releases from the president's office (Table A4). Table 1 documents summary statistics for daily data from February 23, 2002 until July 2, 2008, producing 2,322 observations.

3.1 Kidnapping Data

The *CNMH* constitutes the main database for conflict-related events in Colombia, from which we isolate events coded as hostage-taking and ascribed to the *FARC*. To capture political kidnappings, we follow

9

Table 1: Summary statistics for all 2,322 days from February 23, 2002 until July 2, 2008 ($N = 2,322$ for all variables).

Variable	Mean	(Std. Dev.)	Min.	Max.	Source[a]
# of political kidnappings	0.09	(0.66)	0	15	*CNMH*
# of financial kidnappings	1.17	(2.26)	0	28	*CNMH*
# of *AH News* articles	0.44	(0.97)	0	8	*El Tiempo*
Disaster deaths	221	(2,251)	0	30,075	*EM-DAT*

Notes: [a] *CNMH*= Centro Nacional de Memoria Histórica; *El Tiempo*= *El Tiempo* online archive (accessing titles and subtitles of each article); *EM-DAT*= International Disaster Database.

the *FARC*'s own criteria, i.e., members of the military and public servants (Caballero Reinoso, 2013). Financial kidnappings are comprised of civilians, i.e., those who would not be relevant for an *AH*.

While in theory the concepts of political and financial kidnappings are not necessarily mutually exclusive, in practice, politicians and members of the military were set apart as a group referred to as *the Exchangeables* (*"los Canjeables"*; Castillo and Balbinotto, 2012; Caballero Reinoso, 2013). That name explicitly refers to these victims' eligibility for a potential *AH*. In our period of interest, the *CNMH* reports 213 political kidnappings on 102 days and 2,727 financial kidnappings on 1,086 days.

3.2 Media Data

To derive a nationally representative proxy for media attention devoted to the *AH*, we access the full archive of *El Tiempo*, Colombia's largest daily newspaper. Over the past two decades, when 71 percent of Colombians indicated reading newspapers (El Tiempo, 2000; Córdoba, 2016), *El Tiempo* alone has captured 38 percent of the readership.

To capture *El Tiempo* articles that discuss the *AH*, we exploit the fact that the corresponding terminology has remained rather unique in the Colombian news environment. In particular, we identify articles that contain any of the following keywords in their title or subtitle: *Acuerdo humanitario*, *canje humanitario*, or *intercambio humanitario*. These terms have been used interchangeably and uniquely refer to the concept of a prisoner exchange program between the government and the *FARC*. Figure A5 displays

a Markov chain of words used by the *FARC* in their official press releases, where these keywords form a distinct node, indicative of their joint relevance. We carefully ensure that upper- and lower-case spellings are captured, as well as accents (e.g., íntercambio). In our time period of interest, we find 1,019 such *AH*-related articles, equivalent to 0.44 articles per day (see Table 1).

Although false positives are unlikely with the *AH* having received such unique terminology, we also manually browsed all 1,019 articles to ensure they truly concern the *AH*. However, we cannot guarantee that these keywords capture *all* articles referring to the *AH*, i.e., the possibility of false negatives remains. However, if there were such articles, it would be difficult to construct a narrative in which such measurement error could systematically bias our analysis, especially because we exploit exogenous variation from disasters abroad. In other words, the frequency of *AH* articles that do *not* contain any of the keywords above in their title or subtitle would need to be correlated with disaster deaths abroad for such measurement error to produce biased estimates. We believe that to be unlikely. Nevertheless, we also explore estimations that include the basic term *canje* in our set of keywords to detect *AH News*. Here again, the corresponding results remain consistent (see Appendix Table A1).[14]

Analyzing *Google Trends* from the earliest available data in January 2004 allows us to explore whether agenda setting indeed occurs with respect to the *AH* in Colombia. What we find is that topic searches for *Acuerdo Humanitario* are substantially elevated on the day after *AH News* (but not before), even after we account for time-specific confounders. The corresponding estimates are available in Figure A4.

3.3 Disaster Data

Finally, we access the *EM-DAT* database for disaster deaths in countries that are likely to make Colombian news headlines. Our main estimations focus on disaster deaths in the ten countries with the most Colombian immigrants (Wikipedia, 2019): The United States, Venezuela, Spain, Chile, Canada, Panama, Ecuador, Italy, France, and Mexico. Robustness checks using alternative definitions beyond the top ten

---

[14]Including *canje* as an additional keyword adds 151 new articles to the existing 1,019 *AH* articles, for a total of 1,170 and a daily average of 0.5 articles.

countries produce consistent results (see Table A1). These countries experienced 579 disasters in our period of interest, and Table A2 documents all deaths by country and disaster type.

To capture the severity of disasters, we assign the number of deaths to the entire period of the respective disaster. For example, a disaster that lasted three days leading to ten deaths is assigned ten deaths for each of the three days. On an average day, disasters drew as many as 221 deaths. To curb the influence of particularly deadly days, we apply the natural logarithm to that variable. Specifically, we convert disaster deaths to $Ln(1 + disaster\ deaths)$ to preserve days with zero disaster deaths (of which there are 756). Nevertheless, results are consistent when employing alternative definitions or when removing individual countries and disaster types (see Figure A1 and Table A1). (For the interested reader, Appendix Figure A2 visualizes long-term time trends of kidnappings, *AH* news coverage, and disaster deaths.)

3.4 Empirical Strategy

In the main estimations, we regress the average daily number of kidnapping victims on days $t + 1$ until $t + 10$ on the number of *AH* news segments published on day t, separately for political and financial kidnappings. *A priori*, it remains unclear how long the *FARC* may need to respond to *AH News* (if at all), which prompts us to explore alternative timeframes in Section 4.3. Formally, we estimate

$$\frac{(Kidnappings)_{t+1,...,t+10}}{10} = \beta_0 + \beta_1(AH\ News)_t + \boldsymbol{X}_{\boldsymbol{t}}'\beta_2 + \epsilon_t, \tag{5}$$

where β_1 constitutes the main coefficient of interest. $\boldsymbol{X}_{\boldsymbol{t}}'$ represents a vector of control variables, including (i) fixed effects for each weekday, month, and year; (ii) linear and squared time trends at the daily level; and (iii) measures for the dependent variable on days $t - 1$ and t to account for contemporaneous kidnapping operations. Throughout our analysis, contemporaneous measures of the dependent variable largely remain statistically irrelevant (coefficients available upon request). However, the time-specific covariates aim to capture unobservable statistical variation in *AH News* and *FARC*-related activities that could independently affect kidnappings, such as negotiations with the government, as well as the inherent variation in the number of articles published and particularities of seasons or weekdays.

Figure A2 visualizes the variation in *AH News* by weekday, month, and year, revealing meaningful heterogeneity along those dimensions.

ϵ_t constitutes the conventional error term, and throughout the analyses all regressions calculate robust, heteroskedastic-, and autocorrelation-consistent (HAC) standard errors, adjusting for a lag of one day. Exploring potential autocorrelation, we find that neither political nor financial kidnappings are systematically predictable by such events in the preceding days (see Table A3). Nevertheless, our results are consistent if we control for either type of kidnappings in the preceding ten days, for example.

To address latent endogeneity concerns associated with *AH News* in equation (5), we first predict *AH News* with the disaster death variable introduced in Section 3.3, conditional on the familiar set of covariates from equation (5):

$$(AH\ News)_t = \alpha_0 + \alpha_1 (Disaster\ deaths)_t + \boldsymbol{X}_t' \alpha_2 + \delta_t. \tag{6}$$

The predicted value of $\widehat{AH\ News}_t$ is then used in the second stage to predict *FARC* kidnappings, following equation (5). We now turn to the predictive power and the exclusion restriction pertaining to the instrumental variable of disaster deaths.

3.5 Predictive Power of Disaster Deaths

Figure 1 visualizes the relationship between disaster deaths and *AH* articles. In Figure 1**(a)**, we consider a univariate relationship, whereas Figure 1**(b)** incorporates all time-specific covariates introduced in equation (5). In both cases, we derive a negative correlation, consistent with the idea that *AH*-related news are systematically less prevalent in *El Tiempo* when disasters are killing more people in countries relevant to Colombians. Time-specific covariates increase statistical precision to isolate the link between disaster deaths and *AH News*. In both Figure 1**(a)** and Figure 1**(b)**, we derive a statistically powerful correlation, as the underlying regressions produce p-values of 0.003 and 0.000 for the negative coefficient associated with disaster deaths.[15]

---

[15]To explore the crowding-out effect of disaster deaths on *AH* articles, Figure A3 presents this relationship for an increasing number of countries. We find that the link loses statistical precision when more countries – that are presumably of lesser interest to Colombian news – are added.
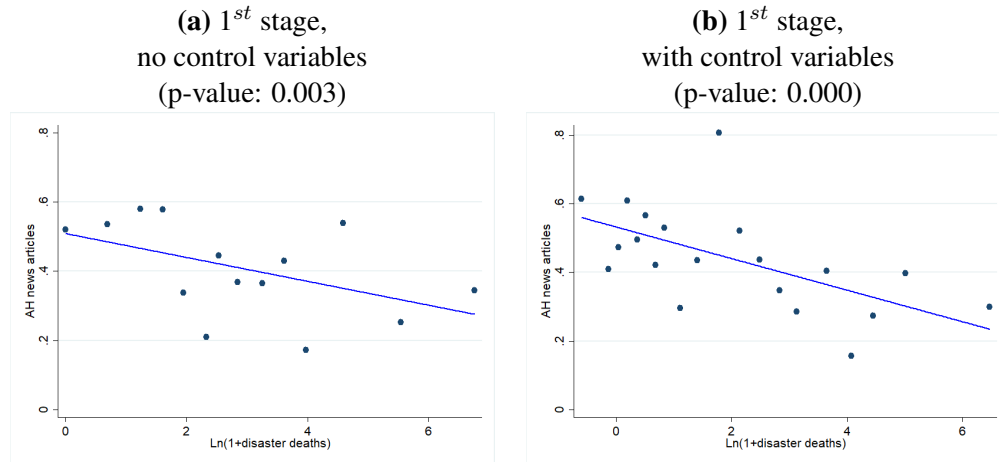
(a) 1st stage,
no control variables
(p-value: 0.003)

(b) 1st stage,
with control variables
(p-value: 0.000)

Figure 1: Binned scatterplots, predicting *AH News* articles (y-axis) with disaster deaths. The full set of control variables includes fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t-1$ and t.

Figure 2 displays results from a reduced form estimation, where we directly predict subsequent kidnappings with disaster deaths, conditional on the familiar time-specific regressors and contemporaneous measures of the respective dependent variable. In Figure 2**(a)**, we study political kidnappings, while Figure 2**(b)** addresses financial kidnappings. In both cases, we identify a precisely estimated relationship that conforms with our initial hypothesis: With more disaster deaths abroad come fewer political kidnappings and more financial kidnappings by the *FARC* in the subsequent ten days. The results from Figure 2**(a)** are consistent when excluding days with disaster deaths for the point on the far-right, producing a p-value of 0.006.

3.6 Exclusion Restriction for Disaster Deaths

Figure 3 addresses the exclusion restriction in evaluating whether disaster deaths abroad are correlated with kidnappings on the same day. If that were the case, then *AH News* coverage would be an unlikely candidate to explain the relationship between disasters abroad and kidnappings. This is because, intuitively, it appears unlikely that the *FARC* would be able to adjust their kidnapping patterns within the same day, indicating that other unobservable dynamics may be at work.

Throughout Figure 3, we derive statistically insignificant coefficients for our disaster death variable, whether we consider political or financial kidnappings and whether we account for time-specific con-
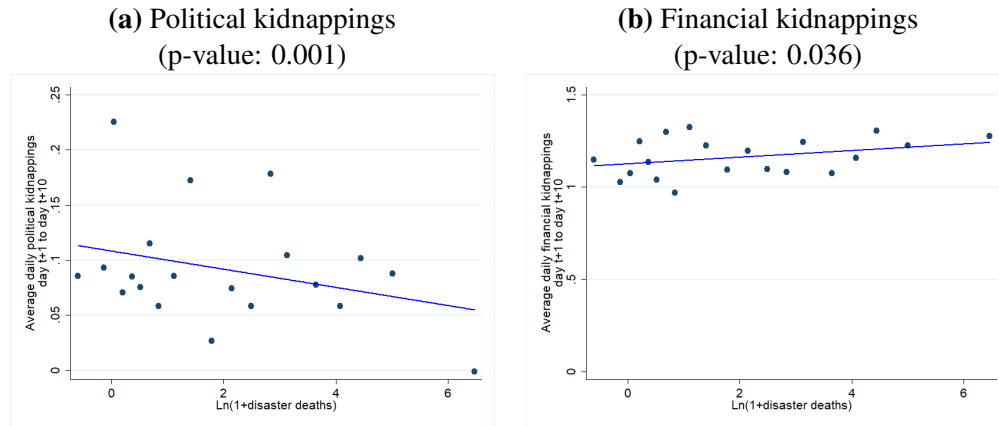
(a) Political kidnappings
(p-value: 0.001)

(b) Financial kidnappings
(p-value: 0.036)

Figure 2: Binned scatterplots, predicting kidnappings in the subsequent ten days with disaster deaths. All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t - 1$ and t).

founders or not. P-values range from 0.338 to 0.968, i.e., the relationship remains statistically indistinguishable from zero at any conventional levels. These results provide further support for our identifying assumptions.

4   Empirical Findings

4.1   Main Results

Table 2 reports our main regression results. Columns (1) and (2) predict political kidnappings in the subsequent ten days, first in a basic OLS framework and then through our suggested identification strategy based on disaster deaths abroad. Columns (3) and (4) pursue the same sequence to predict financial kidnappings. Panel A documents the main coefficient of interest associated with *AH News*, while Panel B shows the first-stage coefficient related to disaster deaths. Finally, Panel C informs about a variety of statistical characteristics relevant for the first stage and endogeneity. All regressions in Table 2 include the full set of control variables.
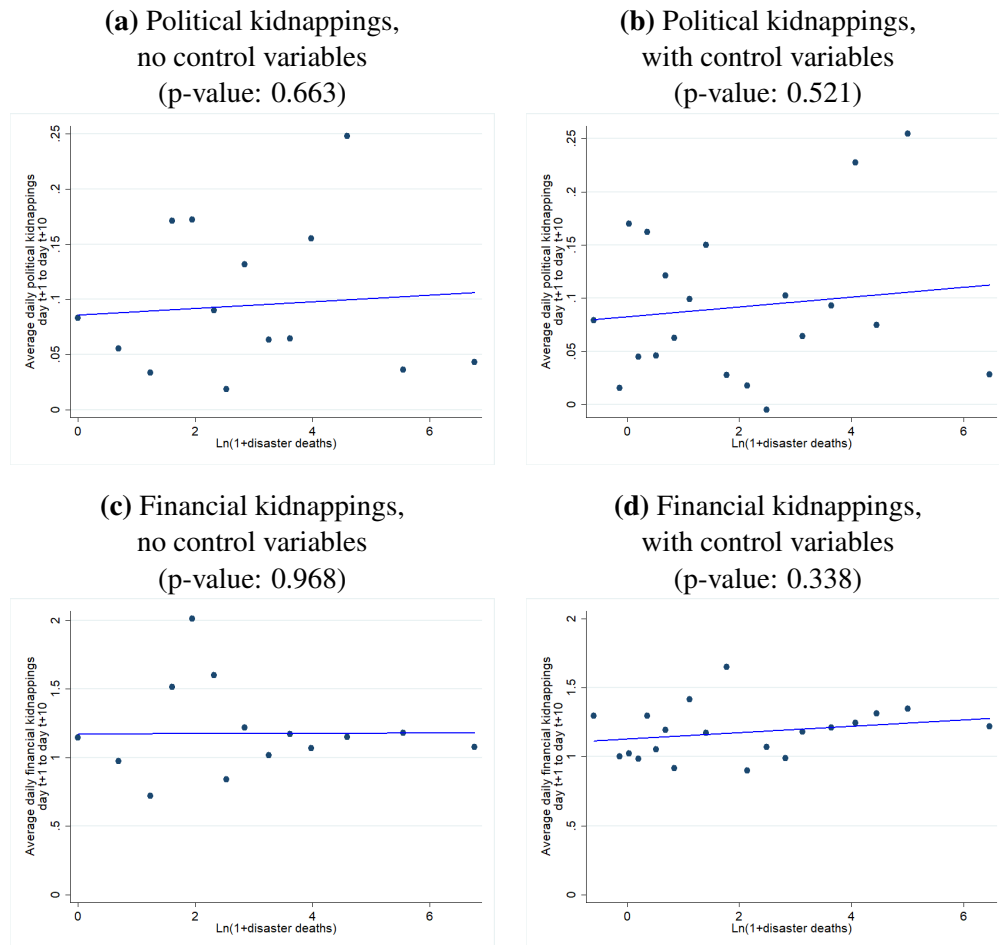
Figure 3: Binned scatterplots, predicting kidnappings with disaster deaths on the same day. The full set of control variables include fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t - 1$ and t.

Table 2: Main results, predicting kidnappings on days $t + 1$ until $t + 10$.

Dependent variable:	Political kidnappings$_{t+1, ..., t+10}$ /10		Financial kidnappings$_{t+1, ..., t+10}$ /10	
	(1)	(2)	(3)	(4)
Estimation method:	OLS	IV	OLS	IV
Panel A: Main results				
# of *AH News* articles$_t$	-0.009***	0.179***	0.008	-0.384**
	(0.003)	(0.059)	(0.009)	(0.160)
Control variables[a]	✓	✓	✓	✓
Panel B: 1st **stage, predicting # of *AH News* articles**				
Ln(1 + disaster deaths)$_t$		-0.046***		-0.046***
		(0.010)		(0.010)
Control variables[a]		✓		✓
Panel C: Statistical properties (p-values displayed unless indicated otherwise)				
F-statistic insignificance of IV		22.400		23.220
Stock-Wright S statistics[b]		0.000***		0.002***
Weak IV test (Wald)[c]		0.002***		0.016**
Kleibergen-Paap rk LM statistic[d]		0.000***		0.000***
Endogeneity test[e]		0.000***		0.004***
N	2,322	2,322	2,322	2,322

Notes: In columns (1) and (3), Newey-West standard errors (lag of one) are reported in parentheses; in columns (2) and (4), kernel-based autocorrelation-consistent (AC) and heteroskedastic and autocorrelation consistent (HAC) standard errors are reported. * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. [a]Includes fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t - 1$ and t. [b]Following Stock and Wright (2000). [c]Following Magnusson (2010). [d]Following Kleibergen and Paap (2006). [e]Following Hayashi (2000) and Wooldridge (2016), we test whether endogenous regressors are exogenous. Statistical significance indicates variables must be treated as endogenous.

4.1.1 Political Kidnappings

In column (1), we learn that, conditional on the comprehensive set of covariates, *AH News* exhibit a marginally *negative* correlation with subsequent political kidnappings. However, once we employ disaster deaths abroad in the first stage in column (2), that coefficient turns positive and statistically significant at the one percent level. As expected, disaster deaths constitute a strong negative predictor of *AH News* in the first stage (see Panel B), and the corresponding statistics displayed in Panel C indicate a powerful first stage, with an F-statistic surpassing the 10% level critical values suggested both by Stock and Yogo (2002) and Montiel and Pflueger (2013). Importantly, we find substantial evidence for endogeneity, which further supports our concerns about interpreting the correlation between *AH News* and subsequent political kidnappings as causal (final row of Panel C).

In terms of magnitude, the results from column (2) produce powerful implications. Although we need to be careful not to over-interpret magnitudes from an instrumental variable setting (because of *local* as opposed to global average treatment effects; see Angrist and Pischke, 2008), a back-of-the-envelope calculation of effect sizes might be informative. Multiplying the respective coefficient with the mean number of *AH News* articles (0.179×0.44) produces a magnitude of 0.079. Such an effect would correspond to 88 percent of all political kidnappings (mean of 0.09; see Table 1). Thus, *AH News* are suggested to be a powerful driver of political kidnappings. Nevertheless, this hypothetical scenario assumes decreasing *AH News* from its average to *zero*, i.e., a substantial deviation from the mean and a potentially unrealistic simulation.

4.1.2 Financial Kidnappings

Turning to financial kidnappings in columns (3) and (4), we also derive interesting differences between an ordinary correlation and applying our identification strategy based on disaster deaths. The basic correlation, conditional on the full set of covariates, identifies a statistical null effect with a marginally negative coefficient (p-value of 0.411). Were we to stop here, the conclusion would indicate no meaningful link between *AH News* and subsequent *FARC* kidnappings for ransom purposes.

However, once we employ disaster deaths abroad to isolate exogenous variation in *AH News* in column (4), the corresponding coefficient becomes statistically significant at the five percent level (p-

value of 0.016) and increases substantially in absolute magnitude. Again, we find a powerful first stage, with an F-statistic surpassing the 10% level critical values suggested both by Stock and Yogo (2002) and Montiel and Pflueger (2013). Statistical tests for endogeneity (final row of Panel C) suggest the simple correlation from column (3) cannot be interpreted as causal. In terms of effect size, we again consider the mean *AH News* coverage (0.44 articles on an average day) to find that *AH*-related news may be able to explain a decrease of 0.17 financial kidnappings per day, equivalent to 14-15 percent of all financial kidnappings. Although we again advise caution in over-interpreting these magnitudes, they nevertheless indicate a meaningful reduction in financial kidnappings as a consequence of *AH News* coverage. These findings are consistent with the hypotheses derived in Section 2.4.

4.2   Robustness Checks and Placebo Estimations

Building on the main specifications from columns (2) and (4) of Table 2, we conduct a range of alternative specifications to explore their robustness. Specifically, results are consistent when (i) controlling for kidnappings further in the past (e.g., ten days prior), as well as the alternative type of kidnappings; (ii) considering the time period of Uribe's presidency (e.g., see Acemoglu et al., 2020, for references on Uribe's particularly strong stance against the *FARC*); (iii) employing alternative definitions of disasters (i.e., the Richardson scale) or using the inverse hyperbolic sine instead of the natural logarithm (Richardson, 1960; Burbidge et al., 1988; Strömberg, 2007);[16] (iv) accessing alternative data sources for political kidnappings (the *GTD*) or news coverage (from the *GDELT*); (v) including 'canje' into the set of keywords to capture *AH News*; (vi) manually discarding those articles that are not referring to the *AH*; (vii) employing an expanded set of countries relevant for disaster deaths; and $(viii)$ removing particular countries or disaster types.

The corresponding results are referred to Figures A1, as well as Tables A1 and A3. Finally, we find no statistical relevance in placebo estimations when predicting *past* kidnappings on the day before the corresponding *AH News* (see Table A1). These findings further lend credence to our identification strategy.

---

[16]On the Richardson scale, a disaster gains one integer for each digit on its death toll. For example, a disaster that kills 1-9 people is assigned a magnitude of one; a disaster that kills 10-99 people is assigned a magnitude of two (see Burbidge et al., 1988).

4.3 Timeframe of Effect

We now turn to exploring the timeframe with which *AH News* may affect the *FARC*'s kidnapping decisions. Our benchmark estimations implicitly assume a window of ten days, although there exists no clear theoretical model that would prescribe a particular time window to plan and execute kidnappings. To ensure that our results are not spurious and to further investigate the length of any potential effects, we replicate the main estimations from columns (2) and (4) of Table 2 with varying time windows associated with the dependent variable.

Figure 4 visualizes the corresponding coefficients associated with *AH News*. Each plotted coefficient is derived from a full regression that uses the predicted values for *AH News*, following our identification strategy. The corresponding time period for the dependent variable is denoted along the x-axis.

The results show that political kidnappings, displayed in Figure 4**(a)**, intensify systematically until approximately three weeks after *AH News* coverage. After that, the effect gradually reverts back to zero. Once we aim to predict political kidnappings up to 100 days after the initial *AH News*, we are unable to derive statistically meaningful coefficients. Turning to financial kidnappings in Figure 4**(b)**, we find a statistically significant reduction for up to 6 months. These results are consistent with the characterization of kidnapping practices presented by Caballero Reinoso (2013), in which financial kidnappings are described as a well-established industry, with up to nine recognizable phases. Hence, any alteration to the undertaking of financial kidnapping practices may well linger for a considerably longer period of time.

4.4 Additional Conflict-Related Outcomes

We now consider *FARC* activities beyond kidnappings, as well as conflict-related actions taken by the Colombian government. Following our familiar identification strategy based on disaster deaths abroad, Figure 5 displays findings from the respective second stages. The corresponding results are sorted by sign and magnitude from left to right, beginning with positive *AH News* effects.

Figure 5 begins with predicting *FARC* attacks against politicians, as well as *FARC* assassinations of political victims. In both cases, we derive positive coefficients, confirming the increased focus on political victims as a consequence of *AH News*. It is possible that events coded as attacks on or assassinations
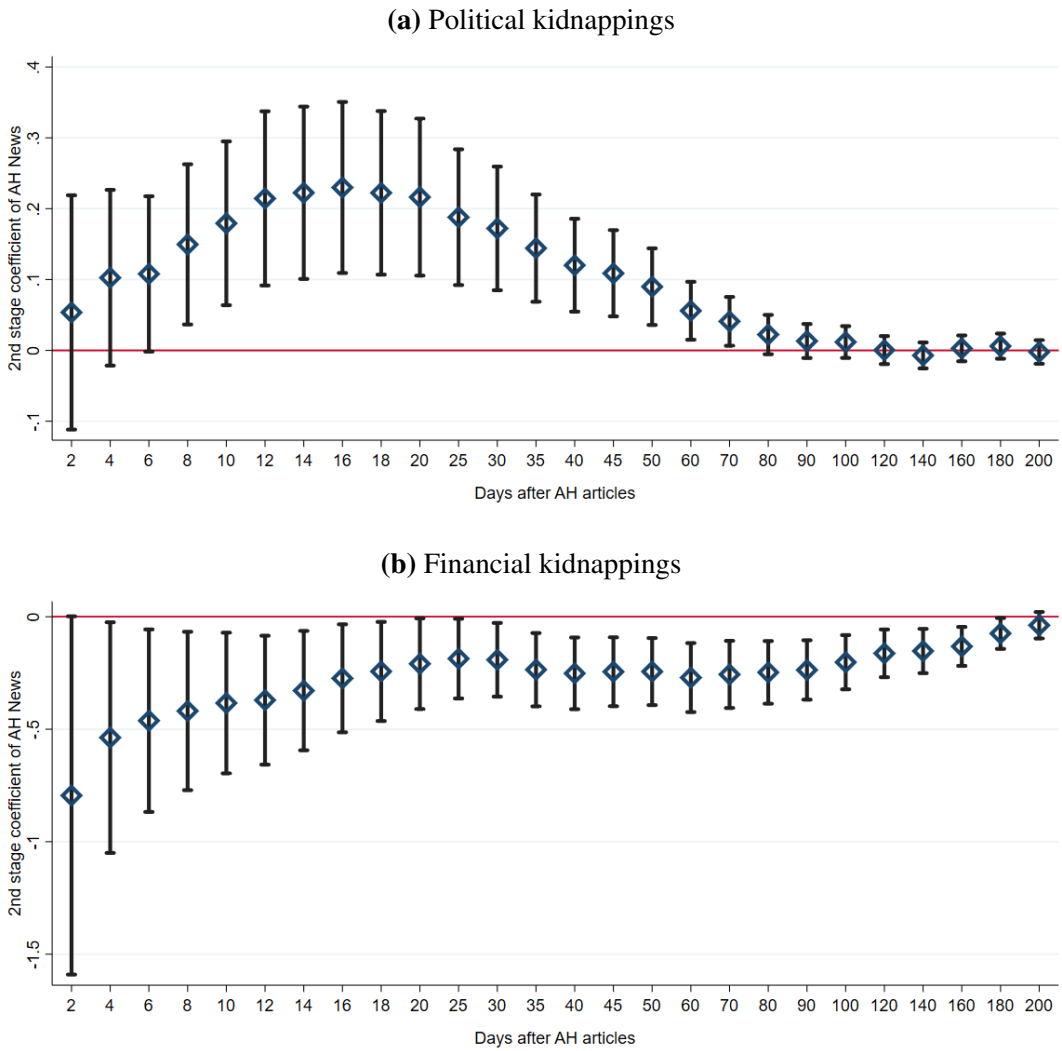
20

(a) Political kidnappings

(b) Financial kidnappings

Figure 4: Predicted additional kidnappings for various timeframes of the dependent variable. All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t-1$ and t). Two-sided 95 percent confidence intervals are displayed.
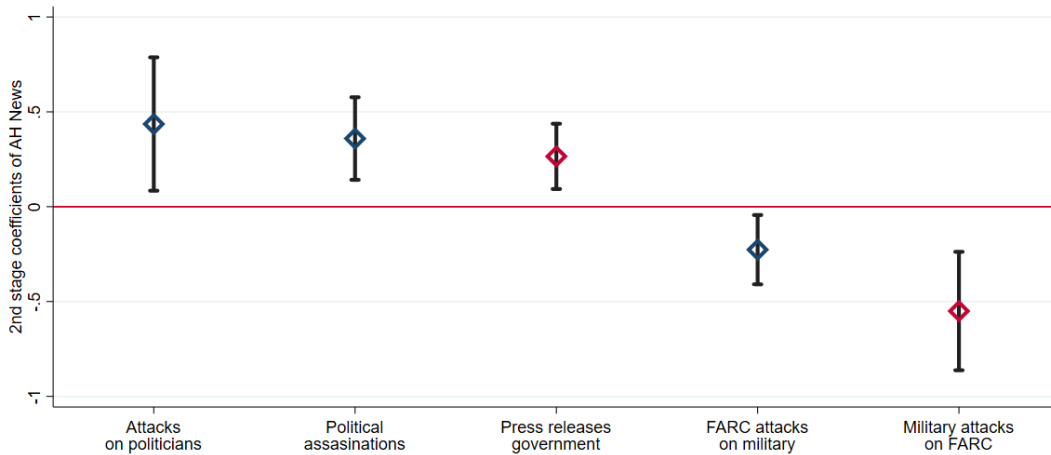
Figure 5: Predicted effects of *AH* articles on different conflict-related variables. Blue markers denote *FARC* actions, whereas red markers denote government actions. All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t - 1$ and t). Two-sided 95 percent confidence intervals are displayed.

of political figures constitute failed kidnapping attempts – an explanation that would be consistent with anecdotal evidence (e.g., see Grupo de Memoria Histórica, 2013). In turn, the penultimate coefficient displayed in Figure 5 informs us that *AH News* also lead to fewer *FARC* attacks against the Colombian military.

The third coefficient concerns governmental press releases. What we find is a positive and statistically meaningful estimate (p-value of 0.003), implying the Colombian government emphasizes communication right after the emergence of *AH*-related news. This result is perhaps most informative in combination with the final coefficient displayed in Figure 5, where we predict government attacks against the *FARC*. Here, we identify significantly fewer such operations after *AH News* (p-value of 0.001).

Taken together, these results provide evidence to imply *AH News* de-escalated the conflict, at least in the short run. With both the *FARC* and the government competing over public support, neither may want to be seen as the aggressor while diplomatic options (such as the *AH*) are discussed in the public sphere (Moor et al., 2002; Caballero Reinoso, 2013). Nevertheless, other explanations of these results are of course possible and one should interpret these results carefully.

Overall, the results from Figure 5 and Table 2 allow for a basic back-of-the-envelope calculation of total *AH News* effects. In sum, each article is suggested to be responsible for an overall reduction of 5.4 violent instances and 3.6 fewer deaths in the subsequent ten days.[17] Thus, one may be tempted to assign *AH News* net positive consequences. Nevertheless, one needs to be careful to not neglect other consequences that are difficult to measure and that our identification strategy is not able to explore fully. For example, on average, a political kidnappee was five times more likely to be killed in captivity and remained in captivity 15 times longer than a financial kidnappee. Further, diminished military intensity may ultimately have benefitted the *FARC* in the long run – a development that was also suspected during the failed 1999 peace talks (e.g., see Castillo and Balbinotto, 2012). Finally, when interpreting magnitudes (rather than statistical significance) it is important to recall that we employ *El Tiempo* as a *proxy* for the universe of Colombian news.

4.5 Government Attitudes Towards the *AH*

To better understand the Colombian government's attitude towards the *AH*, we then conduct a text analysis of all 1,702 governmental press releases throughout our time period of interest. In particular, we employ the *Linguistic Inquiry and Word Count* (*LIWC*; Tausczik and Pennebaker, 2010) software to measure the degree of negative emotions in those 100 press releases that refer to the *AH* and those 1,602 press releases that do not in our period of interest. Although these distinctions are basic, notable differences may provide us with some indication about the government's stance towards the *AH*.

Figure 6 displays the corresponding means, where we first capture the index representative of negative emotions altogether, before breaking this down into the *LIWC* components of anxiety, anger, and sadness. We consistently identify more negative sentiment in press releases that concern the *AH*, with a particular spike in anger-related terminology. These results confirm that the government may not have been content with the concept of an *AH*.

---

[17] Violent instances constitute the combination of attacks on politicians ($+4.3$), *FARC* attacks (-2.2), government attacks (-5.5), political kidnappings ($+1.8$), and financial kidnappings (-3.8). Deaths in these calculations only come from political assassinations ($+3.6$), i.e., deaths in combat are not captured.

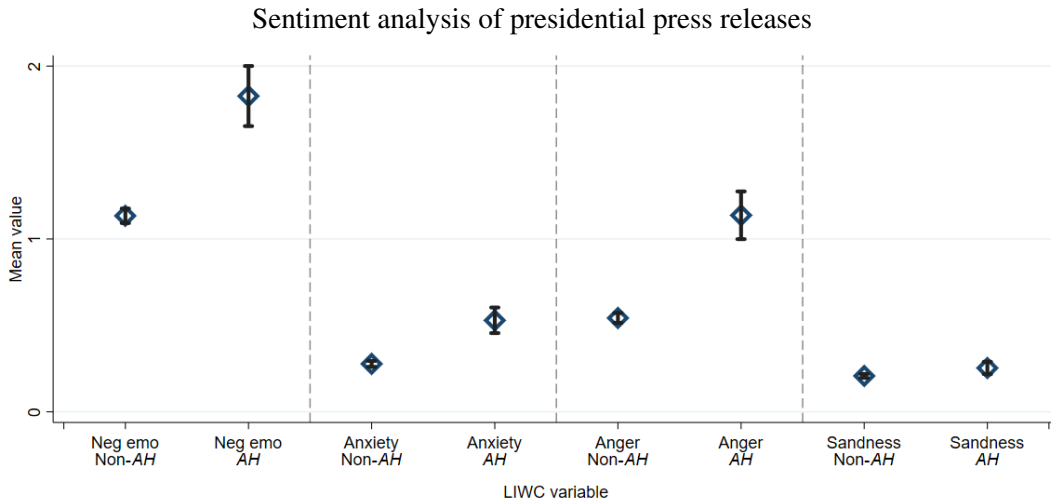Sentiment analysis of presidential press releases

Figure 6: Mean value of *LIWC* characteristics, comparing presidential press releases discussing the *AH* to those that do not.

4.6 Alternative Explanations

4.6.1 Novel Information and News Slant

In our final set of estimations, we explore the content of *AH News*. Our general interpretation of the results proposes an agenda-setting narrative in which *AH News* focus public attention on the proposed prisoner exchange program. However, it is also possible that only particular *AH News* segments trigger the identified responses. Specifically, we identify two alternative explanations: New information and slant. First, those *AH News* segments that convey novel information may drive results, communicating breaking developments relevant for the *AH*. And second, articles that appear supportive of the *AH* could drive effects, which would be an explicit channel to influence public opinion and thereby encourage the *FARC* to adjust their behavior, potentially expecting a higher likelihood of the *AH* materializing.

To explore these possibilities, we engaged the help of Colombian research assistants, asking them to code the content of all 1,019 *AH*-related news articles. In particular, we asked them to distinguish between articles that convey novel information and those that do not, as well as whether the respective article appears noticeably supportive of or opposed to the *AH*. We then conducted regressions that employ these subsets of *AH News* only, again following our familiar identification strategy based on disaster deaths abroad.

Figure 7 documents the corresponding findings, where all estimations account for the full set of covariates. The only difference between the displayed coefficients is which type of *AH News* we capture. Moving from left to right, we first depict the benchmark coefficient from column (4) of Table 2 as a reference point. The following two estimates distinguish between articles that do and do not contain novel information pertaining to the conflict, as coded by our research assistants. Interestingly, we identify no statistically meaningful differences, as both types of *AH* articles produce the familiar positive (negative) and statistically significant estimate when predicting political (financial) kidnappings.

After that, we distinguish between *AH News* segments that our research assistants identified as supportive of and opposed to the *AH* in separate regressions. Again, the corresponding results do not suggest meaningful differences, neither when predicting political nor financial kidnappings. This implies that the particular slant of the news segment may not be the driving force.

4.6.2 Articles Discussing *The Exchangeables*

For the final estimations in Figure 7, we isolate those *AH News* segments that explicitly refer to *the Exchangeables*, i.e., those kidnappees who would be subject to a potential *AH*. We code *AH News* referring to the *Exchangeables* to contain any of the following keywords either in their title or subtitle: *Politicos* (politicians), *policias* (policemen), *soldados* (soldiers), *militares* (members of the military), *uniformados* (uniformed, a term commonly used to describe members of the military), *Canjeables* (*Exchangeables*). As with our main set of keywords, Figure A6 displays a Markov chain of words used by *El Tiempo* in *AH* articles, where these terms form a distinct node, indicative of their joint relevance. The *FARC* consistently advanced the narrative that the Colombian government was responsible for the *Exchangeables*' time spent in captivity because of their refusal to engage in talks about the *AH*. Thus, *the Exchangeables* constituted the *FARC*'s main topic of interest related to the *AH*.

The corresponding results from Figure 7 illustrate that mentioning *the Exchangeables* draws a stronger reaction, both when it comes to the rise in political kidnappings and the reduction in financial kidnappings. However, confidence intervals enlarge as the first stage predictive power of disaster deaths for these particular *AH News* remains weaker (f-statistics of 8.51 and 9.01 for Figures 7**(a)** and 7**(b)**, re-

(a) Political kidnappings

(b) Financial kidnappings
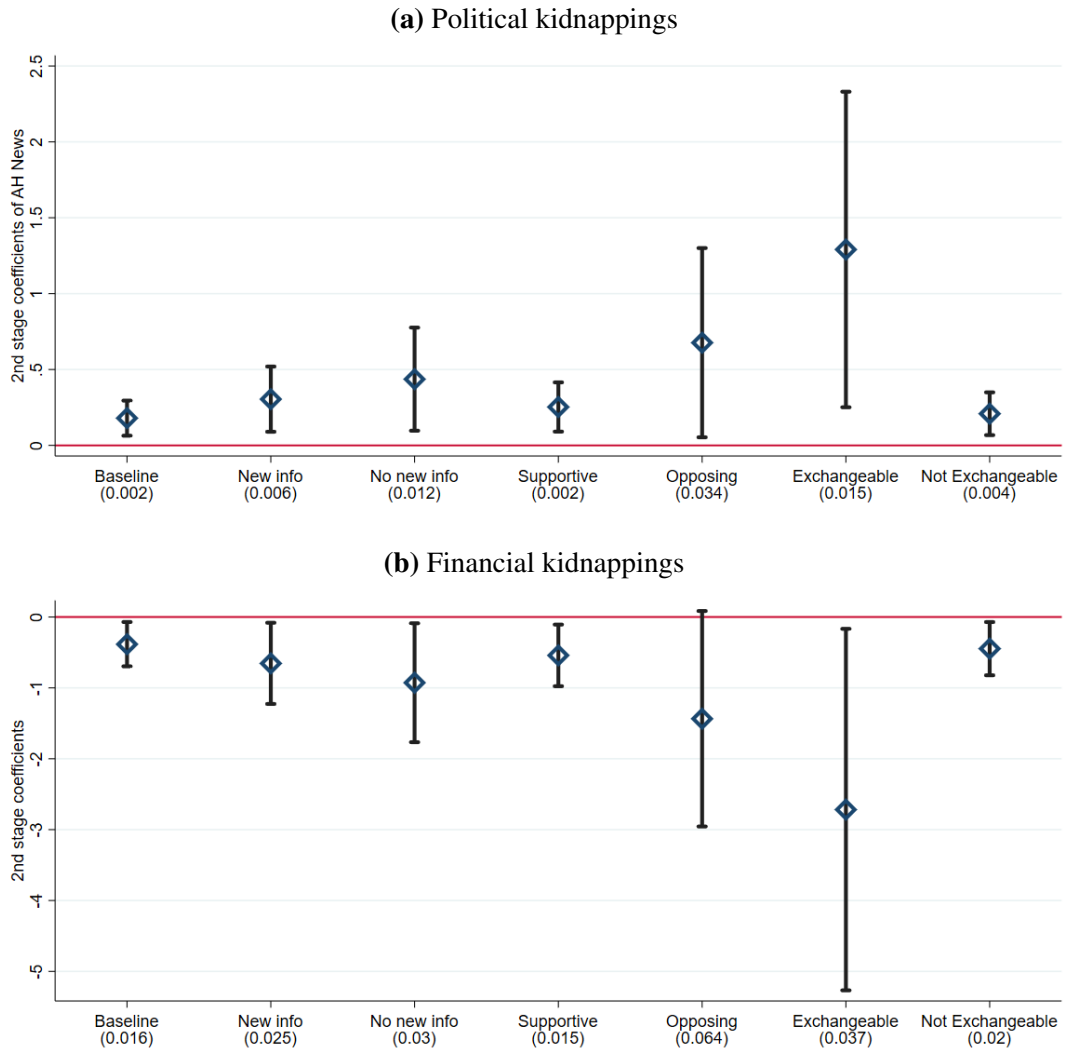
Figure 7: 2nd stage coefficients from predicting political kidnappings (top) and financial kidnappings (bottom). All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t-1$ and t). Two-sided 95 percent confidence intervals are displayed. P-values for the coefficient of interest associated with *AH News* are displayed in parentheses below each estimate.

spectively). This indicates that *AH*-related articles discussing *the Exchangeables* were less likely to be crowded out by disasters abroad.

In turn, the final estimates of Figures 7**(a)** and 7**(b)** suggest smaller absolute point estimates that are more precisely estimated (f-statistics of the first stages of 18.54 and 19.16). Thus, even *AH News* that do not explicitly mention *the Exchangeables* elicit the *FARC*'s shift from financial to political kidnappings.

5 Conclusion

The empirical evidence presented in this paper suggests the *FARC* systematically adjusted their kidnapping operations as a consequence of news coverage dedicated to the *Acuerdo Humanitario* (*AH*) – a proposed prisoner exchange program with the Colombian government that eventually never materialized. To identify causality, we draw exogenous variation in *AH News* from the occurrence of disaster deaths in those countries that host the largest numbers of Colombian émigrés. The corresponding results find political kidnappings systematically increased after *AH News*, while financial kidnappings became less frequent. Overall, we find a net decrease in violence as a consequence of *AH News* in the short run, both from the *FARC* and the Colombian government.

Of course, our study faces limitations, and we want to briefly discuss what we believe are the most relevant ones. First, our identification strategy produces a *local* average treatment effect, i.e., we only exploit statistical variation in *AH News* stemming from disaster deaths abroad. One should keep that limitation in mind, particularly when interpreting magnitudes. Second, our identification strategy is suitable to isolate short run effects, but it remains difficult to make concise statements about long run dynamics. Nevertheless, we do find evidence to suggest the derived effects operate for several months – a result that may offer valuable insights into the *FARC*'s operational planning procedures. Third, our study is particular to Colombia and to the time period of Íngrid Betancourt's kidnapping, when the *AH* was frequently discussed. Thus, one should carefully evaluate which segments of our study may or may not extend to other settings in which news coverage and terrorist decision-making may intersect.

Overall, we hope this study enhances our understanding of the inner operations of rebel and terrorist groups, inspiring further research in that direction.

References

ABC (2009). Las FARC piden a la Cumbre de las Américas medios para lograr un «acuerdo humanitario». (Accessed: 25 September 2020).

Acemoglu, D., Fergusson, L., Robinson, J., Romero, D., and Vargas, J. F. (2020). The perils of high-powered incentives: evidence from Colombia's false positives. *American Economic Journal: Economic Policy*, 12(3):1–43.

Aguilera Peña, M. (2006). Canje o fusilamiento: los presos políticos en las guerras del siglo XIX. *Análisis Político*, 19(58):35–68.

Angrist, J. D. and Pischke, J.-S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton university press.

Arjona, A. (2014). Wartime institutions: A research agenda. *Journal of Conflict Resolution*, 58(8):1360–1389.

BBC News (2020). 'We were students negotiating with armed guerrillas for my father's life'. (Accessed: 31 October 2020).

Blattman, C. and Miguel, E. (2010). Civil War. *Journal of Economic Literature*, 48(1):3–57.

Bouvier, V. (2008). *Colombia's crossroads: The FARC and the future of the hostages*. United States Institute of Peace.

Bouvier, V. M. (2007). *New Hopes for Negotiated Solutions in Colombia*. US Institute of Peace.

Briggs, R. (2002). Hostage, Inc. *Foreign Policy; Washington*, pages 28–29.

Burbidge, J. B., Magee, L., and Robb, A. L. (1988). Alternative Transformations to Handle Extreme Values of the Dependent Variable. *Journal of the American Statistical Association*, 83(401):123–127.

Caballero Reinoso, C. A. (2013). *Una sociedad secuestrada*. Centro Nacional de Memoria Histórica, Bogotá, first edition. OCLC: ocn964866735.

Castillo, M. and Balbinotto, G. (2012). Las FARC y los Costos del Secuestro (FARC and the Costs of Kidnapping). *Revista de Economía Institucional*, 14(27).

Clark, M. L. (2004). War Takes (Tomas de Guerra); The Kidnapping of Ingrid Betancourt. *Delaware Review of Latin American Studies*, 5(2).

Clinton, J. D. and Enamorado, T. (2014). The national news media's effect on Congress: How Fox News affected elites in Congress. *The Journal of Politics*, 76(4):928–943.

Cohen, B. C. (2015). *Press and foreign policy*. Princeton university press.

Córdoba, G. G. (2016). *Los periódicos más leídos en Colombia* [Radio broadcast]. Caracol Radio.

Dal Bó, E., Dal Bó, P., and Di Tella, R. (2006). "Plata o Plomo?": Bribe and Punishment in a Theory of Political Influence. *The American Political Science Review*, 100(1):41.

DellaVigna, S. and Kaplan, E. (2007). The Fox News effect: Media bias and voting. *The Quarterly Journal of Economics*, 122(3):1187–1234.

Dube, O. and Vargas, J. F. (2013). Commodity Price Shocks and Civil Conflict: Evidence from Colombia. *The Review of Economic Studies*, 80(4):1384–1421.

Durante, R. and Zhuravskaya, E. (2018). Attack when the world is not watching? US news and the Israeli-Palestinian conflict. *Journal of Political Economy*, 126(3):1085–1133.

EFE (2007). Sarkozy pide por televisión al jefe de las FARC que liberen a Ingrid Betancourt.

El Espectador (2008). Gobierno reconoce que utilizó emblema de la Cruz Roja en Operación Jaque. (Accessed: 25 September 2020).

El Tiempo (2000). El Tiempo, el periódico más leído. (Accessed: 25 September 2020).

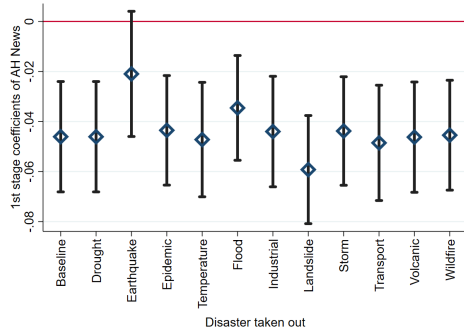Enke, B. (2020). What you see is all there is. *The Quarterly Journal of Economics*, 135(3):1363–1398.

Fattal, A. L. (2018). *Guerrilla Marketing: Counterinsurgency and Capitalism in Colombia*. University of Chicago Press. Google-Books-ID: fuF0DwAAQBAJ.

Feldmann, A. E. and Hinojosa, V. J. (2009). Terrorism in Colombia: Logic and Sources of a Multidimensional and Ubiquitous Phenomenon. *Terrorism and Political Violence*, 21(1):42–61.

Fergusson, L., Querubin, P., Ruiz, N. A., and Vargas, J. F. (2020). The Real Winner's Curse. *American Journal of Political Science*.

Fergusson, L., Robinson, J. A., Torvik, R., and Vargas, J. F. (2016). The Need for Enemies. *The Economic Journal*, 126(593):1018–1054.

Fergusson, L., Vargas, J. F., and Vela, M. (2013). Sunlight Disinfects? Free Media in Weak Democracies. *Documento CEDE*, (2013-14).

Gaibulloev, K. and Sandler, T. (2019). What we have learned about terrorism since 9/11. *Journal of Economic Literature*, 57(2):275–328.

Garz, M. and Pagels, V. (2018). Cautionary tales: Celebrities, the news media, and participation in tax amnesties. *Journal of Economic Behavior & Organization*, 155:288–300.

Grupo de Memoria Histórica (2013). *¡Basta ya! Colombia, memorias de guerra y dignidad: informe general*. Centro Nacional de Memoria Histórica, Bogotá, second edition.

GTD (2020). Global Terrorism Database (GTD). (Accessed: 27 February 2020).

Hayashi, F. (2000). Econometrics. *Princeton University Press. Section*, 1:60–69.

Iyengar, R. and Monten, J. (2008). Is There an "Emboldenment" Effect? Evidence from the Insurgency in Iraq. Working Paper 13839, National Bureau of Economic Research.

Iyengar, S. and Kinder, D. R. (2010). *News that matters: Television and American opinion*. University of Chicago Press.

JEP (2018). Caso 1: Retención ilegal de personas por parte de las Farc-EP. (Accessed: 25 September 2020).

Jetter, M. (2017). The effect of media attention on terrorism. *Journal of Public Economics*, 153:32–48.

Jetter, M. (2019). The inadvertent consequences of al-Qaeda news coverage. *European Economic Review*, 119:391–410.

King, G., Schneer, B., and White, A. (2017). How the news media activate public expression and influence national agendas. *Science*, 358(6364):776–780.

Kleibergen, F. and Paap, R. (2006). Generalized reduced rank tests using the singular value decomposition. *Journal of Econometrics*, 133(1):97–126.

Larcinese, V., Puglisi, R., and Snyder, J. M. (2011). Partisan bias in economic news: Evidence on the agenda-setting behavior of U.S. newspapers. *Journal of Public Economics*, 95(9):1178–1189.

Las2orillas (2013). Los once secuestros que más han impactado a Colombia. (Accessed: 25 September 2020).

Le Figaro, L. S. e. (2008). Nicolas Sarkozy pret a aller chercher Ingrid Betancourt. (Accessed: 25 September 2020).

Libération (2007). Ingrid Betancourt: les FARC en appellent à Sarkozy. (Accessed: 25 September 2020).

Magnusson, L. M. (2010). Inference in limited dependent variable models robust to weak identification. *The Econometrics Journal*, 13(3):S56–S79.

Márquez, G. G. (2014). *News of a Kidnapping*. Penguin UK.

Martin, G. J. and Yurukoglu, A. (2017). Bias in cable news: Persuasion and polarization. *American Economic Review*, 107(9):2565–99.

McCombs, M. E. and Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2):176–187.

Montiel, J. L. and Pflueger, C. (2013). A robust test for weak instruments. *Journal of Business & Economic Statistics*, 31(3):358–369.

Moor, M., Zumpolle, L., and International, A. N. P. C. (2002). *La industria del secuestro en Colombia:¿ un negocio que nos concierne?* Pax Christi Holanda.

Pachico, E. (2011). Can the FARC still train their soldiers? (Accessed: 25 September 2020).

Pizarro Leóngomez, E. (2011). *Las FARC (1949-2011): De guerrilla campesina a máquina de guerra*. Grupo Editorial Norma.

Puyana, A. C. H. (2009). Análisis del acuerdo humanitario como alternativa de negociación para lograr la libertad de los secuestrados políticos en Colombia. *Revista de Paz y Conflictos*, 158(2):82–98.

Ramos, A. (2005). La necesidad de un acuerdo humanitario en Colombia. *papel político*, (18):221–233.

Richardson, L. F. (1960). *Statistics of deadly quarrels*. Boxwood Press.

Sandler, T. and Scott, J. L. (1987). Terrorist success in hostage-taking incidents: An empirical study. *Journal of Conflict Resolution*, 31(1):35–53.

Selten, R. (1988). A simple game model of kidnapping. In *Models of Strategic Rationality*, pages 77–93. Springer.

Semana (1999). Si no hay canje habra que traer politicos. (Accessed: 25 September 2020).

Semana (2008). Jaque mate: la operación perfecta. (Accessed: 25 September 2020).

Semana (2009). FARC pide presidentes dialoguen sobre acuerdo humanitario. (Accessed: 25 September 2020).

Semana (2016). La acción que acabó con el Caguán. (Accessed: 25 September 2020).

Stock, J. H. and Wright, J. H. (2000). GMM with Weak Identification. *Econometrica*, 68(5):1055–1096.

Stock, J. H. and Yogo, M. (2002). Testing for weak instruments in linear iv regression. Technical report, National Bureau of Economic Research.

Strömberg, D. (2007). Natural Disasters, Economic Development, and Humanitarian Aid. *Journal of Economic Perspectives*, 21(3):199–222.

Suárez, A. R. (2000). Parasites and Predators: Guerrillas and the Insurrection Economy of Colombia. *Journal of International Affairs*, 53(2):577–601.

Tausczik, Y. R. and Pennebaker, J. W. (2010). The psychological meaning of words: Liwc and computerized text analysis methods. *Journal of language and social psychology*, 29(1):24–54.

Tenenboim-Weinblatt, K. (2013). The management of visibility: Media coverage of kidnapping and captivity cases around the world. *Media, Culture & Society*, 35(7):791–808.

Wikipedia (2019). Colombians. (Accessed: 13 September 2019).

Wooldridge, J. M. (2016). *Introductory econometrics: A modern approach*. Nelson Education.

A   Appendix

A.1   Appendix Figures
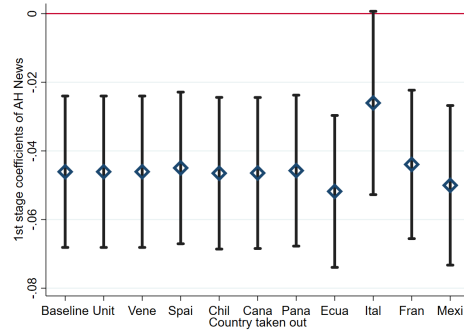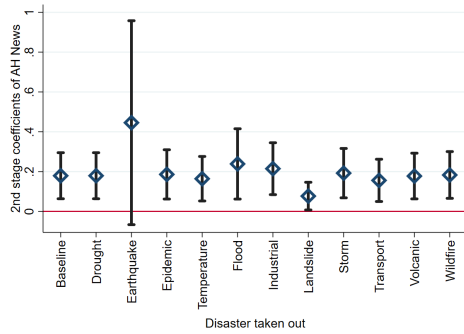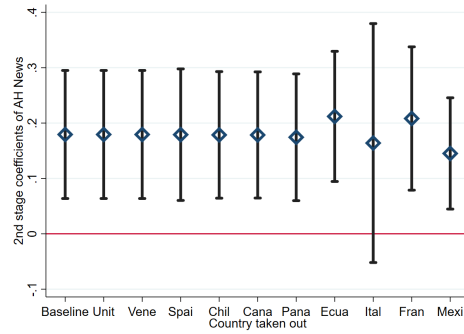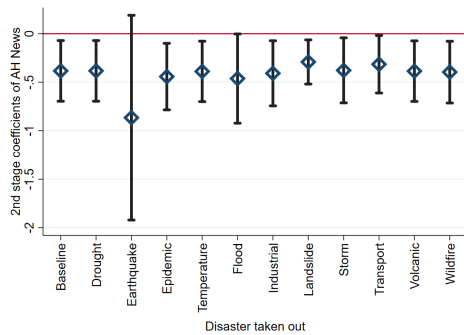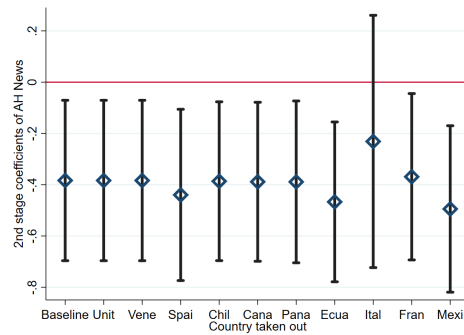
Figure A1: Displaying 1st and 2nd stage coefficients when removing individual disaster types (left) or countries (right). All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day; measures for the dependent variable on days $t-1$ and t). Two-sided 95 percent confidence intervals are displayed.
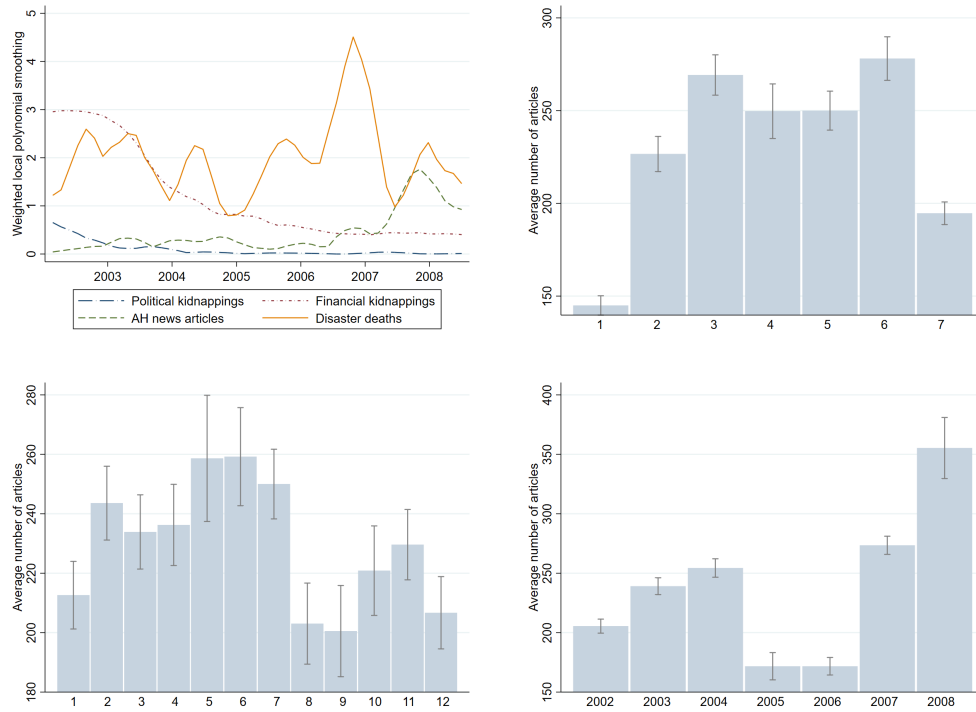
Figure A2: Top left: Long-term developments of main variables, using kernel-weighted local polynomial smoothing regressions. Top right and bottom: *AH News* articles published in *El Tiempo* by day of the week, month, and year.
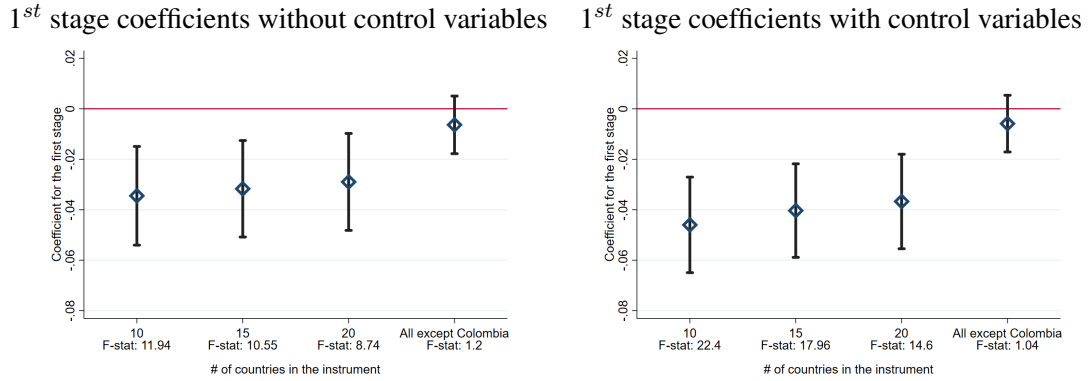
Figure A3: Displaying 1st stage coefficients when using different number of countries for the instrument. The full set of control variables include fixed effects for each weekday, month, and year, linear and squared time trends by day; measures for the dependent variable on days $t-1$ and t. Two-sided 95 percent confidence intervals are displayed.
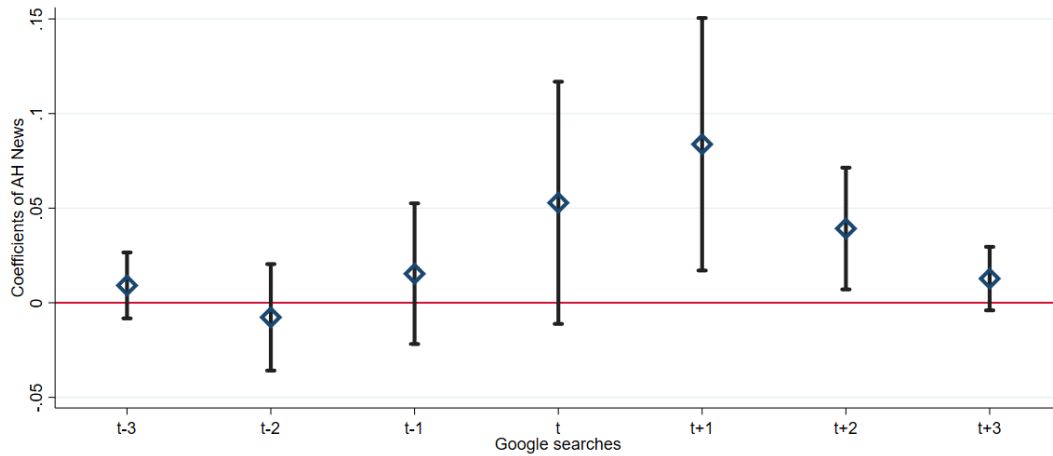
Figure A4: Correlation between *Google* searches for the topic *Acuerdo humanitario* and *AH* articles. All estimations include the full set of control variables (fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on the previous two days). Two-sided 95 percent confidence intervals are displayed.

Figure A5: Markov chain between words used in *FARC* press releases. The red ellipse encircles the node containing the keywords used to denote *AH* articles. Displaying relationships with a Pearson correlation coefficient of 0.5 or larger.

Figure A6: Markov chain between words used by *El Tiempo* in *AH* articles. The red ellipse encircles the node containing the keywords used to denote articles mentioning *the Exchangeables*. Displaying relationships with a Pearson correlation coefficient of 0.2 or larger.

A.2 Appendix Tables

Table A1: Results from various robustness checks.

	Controlling for kidnappings of past ten days (1)	Controlling for other kidnappings of past ten days[b] (2)	Timeframe full Uribe presidency[c] (3)	Employing inverse hyperbolic sine for disaster deaths (4)	Employing Richardson scale for instrument (5)	Kidnapping data from GTD[d] (6)	News data from GDELT[e] (7)	Including the keyword *canje* to capture AH News (8)	Disaster deaths from the 15 top countries for Colombian emigrants (9)	Disaster deaths from the 20 top countries for Colombian emigrants (10)	Placebo predicting kidnappings on previous day (11)
Panel A, predicting average daily political kidnappings from days $t+1$ until $t+10$											
# of *AH News* articles$_t$	0.172***	0.186***	0.043**	0.180***	0.184***	0.045***	0.694**	0.203***	0.233***	0.265***	-0.058
	(0.058)	(0.060)	(0.020)	(0.062)	(0.071)	(0.017)	(0.270)	(0.072)	(0.077)	(0.091)	(0.121)
Control variables[a]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F-test insignificance of IV	22.131***	22.636***	26.935***	21.177***	16.383***	21.969***	10.476***	15.826***	17.960***	14.600***	22.459***
N	2,322	2,322	2,157	2,322	2,322	2,322	2,322	2,322	2,322	2,322	2,322
Panel B, predicting average daily financial kidnappings from days $t+1$ until $t+10$											
# of *AH News* articles$_t$	-0.382**	-0.400***	-0.209*	-0.390**	-0.455**		-1.507**	-0.433**	-0.555***	-0.613***	-0.486
	(0.154)	(0.156)	(0.114)	(0.165)	(0.192)		(0.706)	(0.189)	(0.212)	(0.243)	(0.536)
Control variables[a]	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
F-test insignificance of IV	25.168***	24.424***	27.275***	21.969***	17.015***		10.022***	16.481***	18.949***	15.440***	23.099***
N	2,322	2,322	2,157	2,322	2,322		2,322	2,322	2,322	2,322	2,322

Notes: Kernel-based autocorrelation-consistent (AC) and heteroskedastic and autocorrelation consistent (HAC) standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. [a]Includes fixed effects for each weekday, month, and year, linear and squared time trends by day, as well as measures for the dependent variable on days $t-1$ and t. [b]In Panel A, estimation includes a measure for financial kidnappings of the past ten days, whereas the estimation displayed in Panel B includes a measure for political kidnappings of the past ten days. [c]Timeframe begins with Uribe's first presidency on August 7, 2002. [d]The *Global Terrorism Database* includes data for political kidnappings but not financial kidnappings. [e]News reports about the *AH* are taken from the *Global Database of Events, Language, and Tone (GDELT)*.

Table A2: List of disaster deaths in 10 countries with largest number of Colombian immigrants. Overall, these countries experienced 579 disasters between February 23, 2002 and July 2, 2008.

Disaster type	United States	Venezuela	Spain	Chile	Canada	Panama	Ecuador	Italy	France	Mexico
Drought	0	0	0	0	0	0	0	0	0	0
Earthquake	2	118	0	11	0	0	28	1,464	0	9,509
Epidemic	0	162	0	0	46	0	0	0	20	52
Extreme temperature	444	0	0	2	0	0	0	15	43	547
Flood	112	30,197	63	138	24	1	364	294	34	190
Industrial accident	108	343	147	0	0	0	0	0	30	774
Landslide	0	164	0	0	0	0	185	2,218	9	0
Miscellaneous accident	1,046	58	30	0	0	0	0	13	45	113
Storm	1,027	100	3	4	54	0	0	79	104	649
Transport accident	1,023	532	191	0	0	0	221	1,391	519	926
Volcanic activity	0	0	0	6	0	0	6	0	0	0
Wildfire	20	0	0	10	2	0	0	13	0	0

Table A3: Autocorrelation of kidnappings.

Dependent variable:	# of political kidnappings$_t$		# of financial kidnappings$_t$	
	(1)	(2)	(3)	(4)
Dependent variable$_{(t-1)}$	0.052	0.049	0.014	0.019
	(0.101)	(0.101)	(0.031)	(0.031)
Dependent variable$_{(t-2)}$	0.099	0.094	0.068	0.070
	(0.120)	(0.113)	(0.066)	(0.067)
Dependent variable$_{(t-3)}$	-0.358	-0.360	-0.165**	-0.149*
	(0.379)	(0.380)	(0.084)	(0.081)
Dependent variable$_{(t-4)}$	0.597	0.587	0.016	0.020
	(0.535)	(0.527)	(0.144)	(0.139)
Dependent variable$_{(t-5)}$	-0.352	-0.356*	-0.089	-0.087
	(0.221)	(0.211)	(0.193)	(0.177)
Dependent variable$_{(t-6)}$	0.395**	0.417**	-0.051	-0.049
	(0.170)	(0.177)	(0.239)	(0.224)
Dependent variable$_{(t-7)}$	0.100	0.086	0.158	0.109
	(0.182)	(0.176)	(0.289)	(0.274)
Dependent variable$_{(t-8)}$	-0.326	-0.303	-0.429	-0.439
	(0.265)	(0.249)	(0.307)	(0.290)
Dependent variable$_{(t-9)}$	-0.856**	-0.827*	0.597	0.551
	(0.415)	(0.423)	(0.373)	(0.354)
Dependent variable$_{(t-10)}$	1.015**	0.698*	0.553**	-0.233
	(0.412)	(0.401)	(0.238)	(0.239)
Control variables^a		✓		✓
N	2,322	2,322	2,322	2,322

Notes: Newey-West standard errors are displayed in parentheses, assuming autocorrelation with the previous day. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. ^{a}Includes two variables measuring time trends (linear and squared), as well as fixed effects for each weekday, month, and year.

Table A4: Additional summary statistics for all 2,322 days from February 23, 2002 until July 2, 2008 ($N = 2,322$ for all variables).

Variable	Mean	(Std. Dev.)	Min.	Max.	Source[a]
# of attacks on politicians	1.09	(1.66)	0	19	*CNMH*
# of political assassinations	1.15	(1.30)	0	10	*CNMH*
# of government press releases	0.73	(0.95)	0	6	President's office
# of *FARC* attacks on the military	0.74	(1.02)	0	7	*CNMH*
# of military attacks on the *FARC*	0.94	(1.41)	0	9	*CNMH*
# of new info *AH News* articles	0.27	(0.68)	0	7	*El Tiempo*
# of no new info *AH News* articles	0.17	(0.52)	0	6	*El Tiempo*
# of supportive *AH News* articles	0.26	(0.69)	0	6	*El Tiempo*
# of opposing *AH News* articles	0.14	(0.46)	0	5	*El Tiempo*
# of Exchangeables *AH News* articles	0.05	(0.22)	0	3	*El Tiempo*
# of no Exchangeables *AH News* articles	0.39	(0.91)	0	8	*El Tiempo*
Disaster deaths except for drought	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for earthquake	200	(2,243)	0	30,075	*EM-DAT*
Disaster deaths except for epidemic	220.15	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for extreme temperature	218	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for flooding	45	(247)	0	9,507	*EM-DAT*
Disaster deaths except for industrial accident	220	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for landslide	209	(2,248)	0	30,075	*EM-DAT*
Disaster deaths except for storm	216	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for transit	218	(2,251)	0	30048	*EM-DAT*
Disaster deaths except for volcanic	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for wild fire	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for United States	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Venezuela	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Spain	220	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Chile	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Canada	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Panama	221	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Ecuador	214	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Italy	193	(2,247)	0	30013	*EM-DAT*
Disaster deaths except for France	220	(2,251)	0	30,075	*EM-DAT*
Disaster deaths except for Mexico	214	(2,243)	0	30,075	*EM-DAT*
Richardson scale	1.23	(1.08)	0	5	*EM-DAT*
# of political kidnappings (*GTD*)	0.03	(0.18)	0	3	*GTD*
# of *AH News* articles (*GDELT*)	0.04	(0.43)	0	12	*GDELT*
Disaster deaths top 15 countries	231	(2,254)	0	30,075	*EM-DAT*
Disaster deaths top 20 countries	233	(2,254)	0	30,075	*EM-DAT*
Disaster deaths all countries, except Colombia	3,476	(9,445)	0	201,294	*EM-DAT*
Google Trends AH	0.36	(1.05)	0	13.56	*Google Trends*

Notes: [a]*CNMH*= Centro Nacional de Memoria Histórica; President's office= Information and Press office of the presidency of Colombia; *El Tiempo*= El Tiempo online archive (accessing titles and subtitles of each article); *EM-DAT*= International Disaster Database; *GTD*= Global terrorism database; *GDELT*= GDELT project; *Google trends*=Searches for *AH* as a topic from 2004 onwards.