

From headline to lifeline: does news set agenda for policy?

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Abstract

Purpose – *This paper is an investigation of the volume, nature and tone of news media coverage of the federal Lifeline Program from its inception to 2018. It aims to examine whether news media coverage is correlated with significant episodes of reform in the program.*

Design/methodology/approach – *Using the ProQuest Major Dailies database, articles covering the “Lifeline Program” were analyzed. Specifically, a quantitative codebook was developed, based on the literature, and four coders were trained to systematically analyze the 124 articles that discussed the program between 1985 and 2018.*

Findings – *The findings suggest that reforms in the program were preceded by significantly higher volumes of media coverage; however, the analysis is unable to confirm that negative media coverage has a stronger agenda setting effect. In addition, no significant difference was found between positive and negative news stories in their use of research-based information.*

Originality/value – *This study is interdisciplinary in its ability to combine policy and journalism studies as a mechanism to understand the relationship between the two forces.*

Keywords *Public policy, Content analysis, Internet access, Lifeline program*

Paper type *Research paper*

Introduction

As of 2018, 89 per cent of American adults used the internet, while 65 per cent owned broadband internet service at home (Pew Research Center, 2018a). Meanwhile, 95 per cent of Americans now own a cell phone of some kind, and 75 per cent own a smart phone (Pew Research Center, 2018b). The internet and related telecommunications access have embedded themselves in Americans’ daily life, from households to the workplace and from business to public service. Yet today, there are around 11 per cent of Americans who are unconnected to the digital age, according to a Pew Research Center survey (Anderson *et al.*, 2018).

These unconnected Americans have been a persistent concern of American telecommunications and broadband policy. Starting from 1985 during the Reagan administration, the Federal Communication Commission (FCC), the US agency charged with regulating communications services, launched the Lifeline Program, which initially aimed at “providing discount on phone service for qualifying low-income consumers” to bridge the gap in telecommunications access (Federal Communications Commission, 2012, para. 1). The existence of a digital divide is a problem, not just in the USA. By exploring the US Lifeline Program, this paper may provide diverse aspects of the right to information and digital access to those in the USA and beyond.

In 1996, Lifeline became part of a suite of universal service programs supported by the new Universal Service Fund. In 2005, the Bush administration expanded the Lifeline Program to support wireless services (FCC, 2005; Mariani, 2016). Recently, in the context

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of growth in broadband technology and in response to growing demands among the unconnected community, the FCC modernized the Lifeline Program to include broadband as a supported service (FCC, 2016). However, the Lifeline Program has also seen its share of controversies. In 2012, in the background of persistent media reports of waste, fraud and abuse, the FCC introduced a verification system and the National Lifeline Accountability Database to weed out duplicated accounts and ineligible subscribers from the program. In 2013, the FCC's Lifeline Eligibility Verification Order required carriers verify the eligibility of Lifeline subscribers before activating their services. In 2016, the FCC created the Federal Lifeline Broadband Provider (LBP) process for the designation of Eligible Telecommunications Carriers (ETCs), and, after the move, it attracted criticism largely along party lines, reversed itself in March 2017.

A persistent mark of each of these events in the Lifeline Program has been media coverage, both in the trade press and the mainstream media. News media are the gatekeepers and agenda setters in the process of public affairs (White, 1964; McCombs and Shaw, 1976). Various studies have pointed out that news media have a strong impact on changing public opinion and altering political discourse, while contributing to the policy itself and also the process of policy-making (Abroms and Maibach, 2008; Tan and Weaver, 2009). For instance, Yanovitsky (2002) identified that greater media attention to the issue of drunk driving leads to pressure on policymakers. In the case of the Lifeline Program, the news media have emphasized some positive outcomes, for instance, bridging the homework gap for schoolchildren (Kang, 2017), even as they highlighted the waste, fraud and abuse issues of the Lifeline Program (Ante, 2013; Blinder, 2013). Also, while the FCC was considering scaling back the Lifeline Program under the current chairman Ajit Pai (FCC, 2017), news media also brought up negative impacts on tribal lands, low-income households and other marginalized communities (Brodkin, 2017; Kastrenakes, 2018).

The potential role that news coverage played in the history of the Lifeline Program cannot be minimized. As Williams and Schoonvelde (2018) argue, media coverage can strongly influence the policy preferences of key actors in policy debates and can therefore influence policy outcomes. Through an examination of data derived from the Policy Agenda Project, Williams and Schoonvelde (2018) conclude that if media coverage on policy is absent, the public attention to policy outcomes is significantly reduced. However, a thorough review of the scholarly literature showed that there was no systematic study of the role of news media coverage on the evolution of the Lifeline Program. In fact, most articles in the agenda setting literature (surveyed below) focus on the interactions of the media, public and policy agendas in discrete and time-bound policy actions. There are few precedents in the literature for a study that addresses a policy or program over years and decades.

Accordingly, this study examines news media coverage of the Lifeline Program via the volume, type and nature of the news media coverage, across different episodes of reforms and modernization by the FCC from the inception of the program in 1985 to the present. In doing so, this study asks whether there is a possible connection between the volume and nature of newspaper coverage and the timing of policy initiatives. This long-term analysis affords us the lens to unpack the relationship between media coverage and policymaking. To examine the news coverage on Lifeline Program, this study adopts content analysis as the method using the full population of news stories on Lifeline in the ProQuest Major Dailies database, from the program's beginning.

The next section reviews literature on the Lifeline Program as well as agenda setting, to identify the parameters for the study. We conclude this section with our research questions. In the next section, we introduce our content analysis methodology. Results, and the conclusions and discussion follow.

Literature review

Lifeline Program

The Lifeline Program was established in 1985 in the immediate aftermath of the AT&T divestiture, a breakup of the largest telecommunications system in the USA[1]. The program was motivated by the concern that the end of cross-subsidies from long-distance to local service would negatively impact subscription prices, leading to a drop off in access among low-income households. Through the program, each eligible household was provided a monthly subsidy to be routed through an ETC, a telecommunications company authorized to participate in the program.

Almost from its inception, the Lifeline Program has been marred by a number of controversies, among them allegations of waste, fraud and abuse, as well as persistently low subscription rates. Though the program specified criteria of eligibility – participation in one of the federal low-income assistance programs such as Medicaid, the Supplemental Nutrition Assistance Program (SNAP) or Supplemental Security Income – some states only required participants to self-certify resulting in some fraudulent claims (FCC, 2004). There have also been well-documented instances of some service providers (especially mobile resellers) signing up subscribers without proper verification to claim subsidies from the program. A second problem often mentioned is the persistently low subscription rates among the eligible population, with only a third of eligible households enrolling in the program (Hauge *et al.*, 2007). Various explanations for this have been put forward for this including lack of information, the small amount of the subsidy (less than \$20 in most states, including federal support and state assistance), the burden of proof of eligibility, the social stigma associated with receiving public assistance, the lack of interest, etc. Regulators have also sought to implement policies that will encourage eligible households to participate, while weeding out ineligible households fraudulently enrolling in the program.

In response to these controversies, the Lifeline Program has been reformed a number of times. A chronology of major reforms is as follows, based on the summary by the Universal Service Administrative Company (USAC, various years; USAC, 2017') and the outline in Author (2018). One of the first expansions was the addition of Linkup in 1987, which provides a one-time payment to an eligible household to pay for installation charges (Makarewicz, 1991). In 1996, the Telecommunications Act mandated all states to participate in the program and provided federal matching funds to any state funding support. In 2000, the FCC issued the Twelfth Report and Order, which strengthens the support for telephone access in Native American and Alaskan tribal lands. In 2005, Lifeline subsidies were permitted to be used for either wireline or mobile phones (Hauge *et al.*, 2009). In 2008, non-facilities-based carriers were allowed to be listed as ETCs, enabling them to receive Lifeline subsidies (Conkling, 2015). In 2012, a major reform, primarily intended to curb waste, fraud and abuse, was unveiled putting in place a verification system to ensure that each household availed of only one supported service and creating a National Lifeline Accountability Database to weed out duplicated accounts and ineligible subscribers from the program. In 2013, the FCC issued the Lifeline Eligibility Verification Order, which codifies the requirement that carriers verify the eligibility of the Lifeline subscribers before activating their services.

The latest round of Lifeline reforms was in 2016. The FCC's Third Report and Order initiated a further set of reforms, allowing the \$9.25 monthly subsidy to be used for broadband services; capping the Lifeline budget at \$2.25bn; creating a "National Verifier," to take on the responsibility of determining the eligibility of households to participate in the program; initiating a streamlined federal LBP process for the designation of ETCs; and amending the FCC's rules to remove state-specific eligibility criteria for Lifeline support. However, in March, 2017, the FCC reversed itself and announced that it will no longer be approving ETCs, and handing back the authority to do so to the states. Chairman Ajit Pai argued that

Congress granted the authority to designate ETCs to state regulators, and not the FCC, under Section 214 of the Communications Act (FCC, 2017).

News coverage and public policy

As stated in the introduction, this paper is an exploration of the news media coverage of the Lifeline Program, and any potential impact of the timing of coverage on the policy process. An extensive literature is available that addresses the impact of media coverage on policymaking. For example, ever since McCombs and Shaw's seminal Chapel Hill Study, the agenda setting function of mass media coverage of political issues has been extensively researched (McCombs and Shaw, 1972). In a very succinct summary, agenda setting theory states that an issue covered in the media (the media agenda) influences public awareness, perception and knowledge of that issue (the public agenda) and eventually the issues that are dealt with in the policy sphere (the policy agenda).

However, later studies showed that not all issues display the same dynamic interactions between the public, media and policy agendas, which "sometimes lead, and sometimes follow" (Soroka, 2002, p. 281). The difference in dynamics is linked to a number of characteristics: issue attributes, nature of the coverage and nature of the policymaker. Therefore, media have been found to influence public opinion and policymakers, policymakers and public interest also impact media coverage (Van Aelst *et al.*, 2013). We cite extensively from Walgrave and van Aelst's (2006) research in the summary below.

First, agenda setting effects are linked to issue attributes. In general, issues that are "obtrusive," that is, "issues that the public experiences directly" (Soroka, 2002, p. 281), are less influenced by the media agenda. The media's power increases when the public has no direct knowledge or experience of the issue and have to rely on media accounts for their information (Walgrave and van Aelst, 2006). Finally, new issues are more likely to demonstrate stronger media influence than long-running issues. A breaking news story of a "focusing event" can change public opinions and perceptions of the issue (Bishop, 2013).

Second, the nature of the coverage also has an influence. "Unambiguous reporting, clearly defining the problem and pointing towards solutions might bear more agenda setting power" (Walgrave and van Aelst, 2006, p. 94) than balanced, ambiguous or tentative coverage. Negative news coverage has a greater impact on the policy agenda than positive news (Baumgartner *et al.*, 1997). The type of media outlet in which the coverage appears also matters: newspapers have a greater influence on the policy agenda than television or radio coverage (Walgrave and van Aelst, 2006). The coverage area of the outlets also matters. The national "prestige press" and "newspapers of record" have historically covered national policy and regulatory affairs, while local newspapers have given greater coverage of issues affecting consumers. However, recently newsrooms have faced economic constraints, resulting in fewer staff and consolidations (Firmstone, 2016), which has disproportionately affected poor communities (Wahl-Jorgensen, 2019). Staffing losses have resulted in reductions in local coverage and growing reliance on news agencies, which also cover national news (Martin and McCrain, 2018). As such, the difference between local coverage and national coverage has narrowed.

However, it may be noted that the number of media outlets has proliferated after Walgrave and van Aelst (2006) conducted their research summary: it is debatable whether newspapers have the same influence they once did, and whether agenda setting power has been ceded to online media. See for example, recent studies on the agenda setting power of social media (Feezell, 2018; Russell Neuman *et al.*, 2014; Rogstad, 2016). Vargo and Guo (2017) suggest that *The New York Times* and *The Washington Post* no longer control the agenda. Rather, there is a complex relationship between major newspapers, online partisan media, emerging media and others, where the flow of information is not one-directional; they influence each other.

Third, the nature of the policymaker affects the agenda setting process. Issues that are considered the exclusive domain for a policymaker (for example, foreign policy for the US President) are more likely to show the influence of the media agenda on the policy agenda. Institutional rules for decision-making, internal functioning of decision-making bodies and political balance of power can affect the agenda setting dynamics (Walgrave and van Aelst, 2006).

In this paper, we examine the timing of various policy reforms in the Lifeline Program and the volume, type (expert opinion, reportage, etc.) and nature (positive or negative) of the mass media coverage. To do so, we use the methodology of content analysis. The subsection below reviews the existing literature on content analysis in policy studies.

Content analysis and policy research

Content analysis as an analytical technique is defined as “a research technique for the objective, systematic and quantitative description of the manifest content of communication” (Berelson, 1952, p. 18). The “content” in the term refers to the cultural artifacts, and the “analysis” here means “a mapping of non-numeric artifacts into a matrix of statistically manipulable symbols” (Roberts, 2001). The technique was developed through a pioneering series of propaganda studies during the First and Second World Wars (Lasswell, 1938; Lasswell and Leites, 1965). Currently, besides communication researchers, other social scientists and even commercial analysts, adopt content analysis to examine a wide range of research topics, including news accounts, journals, transcripts of speech, hearings and interviews, movies, billboards, etc. (Howland *et al.*, 2006). Along with the development of computational technique, computers and certain software are used as important tools for coding and documenting, including both quantitative and qualitative content analyses (Krippendorff, 2018). Moving to the era of big data, computational methods are frequently used in content analysis in term of massive data sets, for instance, social media platforms like Twitter (Lewis *et al.*, 2013). However, the limitation of content analysis has also been pointed out by some scholars, as it could only “describe message characteristics or identify relationship among message characteristic” (Neuendorf, 2001, p. 53).

Since the beginning of the application, content analysis as an analytic tool has been entangled with the policy research. As Lasswell (1968) points out, content analysis is appropriate for policy research because it is “well adapted to the task of providing data about fundamental trends in realizing the policy goals of development” (p. 60) and also “capable of bringing into the open changes among value orientations and institutional evaluations” (p. 65). In the past, the examination of message content, including congressional documents, government webpages and media coverage on TV, newspapers, etc., to inform policymaking and governance has been conducted in various studies related to US policy on state, federal and international level (Taber, 1992; Huebner *et al.*, 1997; Bengston *et al.*, 1999; Musso *et al.*, 2000; Neuendorf, 2001; Howland *et al.*, 2006). Methodologically, Howland *et al.* (2006) proposed the mechanism bridging the news media content analysis and the policy science analytic framework, developed from Lasswell's (1968, 1972) model.

Despite this extensive research on media agenda setting in policy research, to the best of our knowledge, no study has investigated the long-term relationship between news coverage and policy making in the context of the Lifeline Program.

Research questions

To remedy the gap in the literature on media agenda setting in the Lifeline Program, this study will investigate news media coverage of the Lifeline Program, specifically the volume, type and nature of the news media coverage, across different episodes of reforms and modernization by the FCC from the inception of the program in 1985 to the present. It also seeks to study any possible connection between the volume and nature of the coverage on

the timing of policy initiatives. Therefore, three research questions are identified for the study, as given below:

- RQ1.* Since the program's inception, how many news articles have covered the Lifeline Program and how has this changed over time?
- RQ2.* What is the nature of the coverage, in terms of type (expert opinion, reportage, etc.), and nature (positive or negative) and how has this changed over time?
- RQ3.* What is the connection, if any, between the volume and nature of coverage, and the timing of policy initiatives in the Lifeline Program?

Methodology

Sampling

The ProQuest Major Dailies database and the search term "Lifeline Program" were used to sample articles for the current investigation. The ProQuest Major Dailies provides access to the most widely read newspapers in the USA including the five most respected US national and regional newspapers: *The New York Times*, *The Washington Post*, *Los Angeles Times*, *Chicago Tribune* and *The Wall Street Journal*. These sources are newspapers of record. Therefore, these news stories are thus likely to be the most widely read, both by the public and policymakers. This search resulted in 269 articles. Given the small number of articles that were retrieved, it was decided that the entire population would be used for the analysis.

Establishing intercoder reliability

Based on the past literature on the Lifeline Program, a codebook was developed to code for relevant themes and attributes of the articles in the sample. Many of the variables are simple nominal measures that capture whether a theme is present. Take for example the variable "BENEFICIARY." If the article contains a quote from someone who is a beneficiary of the program, then this would be coded as a present. During in-person and remote training sessions, four coders were trained in the process of content analysis. This involves going through sample units and clarifying the codebook, as needed.

Next, reliability, or rather consistency of the coders, was established. Utilizing a random sample of at least 10 per cent of the articles in a sample is a common method for establishing intercoder reliability. Therefore, we utilized a random number generator in order to pull a subset of the sample ($n=30$) to establish intercoder reliability. Each coder then coded the same subset of the sample, and intercoder reliability was calculated to ensure that the coders were in fact consistently capturing each variable. Nominal variables had a reliability score of Krippendorff's alpha ranging from 0.80 to 1. Ordinal variables had a reliability of 0.90. Finally, using Rosenthal's formula, ratio variables had a reliability score of 0.99. Several variables that did not meet the threshold of 0.80, a quality standard for intercoder reliability (Lombard *et al.*, 2003), were removed from the analysis. Descriptions of each variable, their level of measurement, and their reliability scores are presented in [Table I](#).

After intercoder reliability was established, the sample was divided amongst the four coders and each coded 25 per cent of the sample (67 articles each). Articles that were not on topic or were not primarily concerned with the Lifeline Program were removed from the population. In addition, duplicate articles were also removed from the population. That is, articles were only coded once, even if they were published verbatim multiple times (which happens for wire service stories). After removing units from the sample that did not meet the goals of the study, there were 124 remaining articles for examination.

Table I Description of variables			
<i>Variable name</i>	<i>Description</i>	<i>Level of measurement</i>	<i>Reliability</i>
Outlet	Publication outlet of the article	Text entry	N/A
Date	Date article was published (MM/DD/YYYY)	Text entry	N/A
Fraud	Contains topic "fraud"	Nominal	0.84
Phone	Contains topic "access to phone"	Nominal	1
Internet	Contains topic "access to the internet"	Nominal	0.94
Violence	Contains topic "domestic violence"	Nominal	1
Politician	Contains quote from a politician/elected official	Nominal	0.80
FCC	Contains quote from representative of the FCC	Nominal	0.86
Beneficiary	Contains quote from a beneficiary of the program	Nominal	1
Research	Cites a research study or research institute	Nominal	1
Provider	Mentions a specific telecommunications provider	Nominal	0.87
Name	Name of the telecommunications provider	Text Entry	N/A
Tone	Tone of the article (Negative, Neutral, Positive)	Ordinal	0.90
Title	Word count of title	Ratio	0.99
Length	Number of words in article	Ratio	0.99

Results

RQ1 addresses the volume of articles covering the Lifeline Program. As stated, there were 124 articles published on the Lifeline Program from 1984 to September 2018 when the articles were collected. Articles ranged in length from 83 words to 2,422 words ($M=571.1$, $SD = 323.6$). [Table II](#) presents the descriptive statistics of the nominal variables used in the study, reporting the frequency of each theme or concept and the corresponding percentage of occurrences. Each of these themes is not mutually exclusive. Therefore, an article can contain several of these themes. Further descriptive analyses are presented below.

A prevalent theme is access to phones, which is not surprising given the objectives and goals of the Lifeline program, where 93.5 per cent ($n = 115$) of articles contained this theme. Few articles, 3.3 per cent, mention how the Lifeline Program serves victims of domestic violence. This will be further examined in the discussion section. In addition, just 13 per cent of articles include a quote, either direct or indirect, from a beneficiary. That is, only 16 articles in the population included the voice of someone who actually benefits from the program. The most common providers discussed in the articles were TracFone, AT&T and Verizon, with 19, 16 and 9 occurrences, respectively.

Of the 124 articles in the population, 11 each (8.9 per cent) were published in *The Wall Street Journal*, *The Wall Street Journal* (Online) and *The New York Times*. Surprisingly, *The Washington Post*, the "hometown newspaper" for the FCC, published only four stories on

Table II Prevalence of nominal themes		
<i>Variable</i>	<i>Frequency</i>	<i>(%)</i>
Fraud	38	30.6
Phone	116	93.5
Internet	52	42.3
Violence	4	3.3
Politician	28	23
FCC	41	33.3
Beneficiary	16	13
Research	27	22
Provider	67	54.5

the Lifeline Program during the review period. [Figure 1](#) presents this information, as well as on the numbers published in other leading outlets on this topic.

RQ1 also asks how coverage has changed over time. [Figure 2](#) presents the number of articles with the topic “telephone access” over time. To compare, [Figure 3](#) presents the number of articles with the topic “internet access” over time, and [Figure 5](#), those mentioning “fraud.”

[Figure 5](#) presents the number of articles published on the Lifeline Program in each calendar year since 1985. The number of articles covering the Lifeline Program peaked in 2016, the number of articles has significantly fluctuated over time. It may be seen that periods of regulatory activity were anticipated and sometimes followed by increased coverage of Lifeline in the newspapers. The number of news stories in the trailing 12-month period prior to a reform was 5.1, significantly higher than a mean of 1.4 for years in which there were no reforms ($t\text{-stat} = 2.22$, $df = 11$, $p = 0.048$; assuming unequal variances). Therefore, expectation of a reform may trigger additional news coverage, leading up to the reform. The period after 2012, in which there was heightened concern about waste, fraud and abuse in the program (see [Figure 4](#)) also saw an increase in news coverage as well as regulatory activity.

RQ2 explores the tone of the coverage. While about 24 per cent of the articles with a neutral or positive tone about the program cited research, only about 18 per cent of the articles which criticize the program did the same. [Table III](#) presents the tone of articles by articles

Figure 1 Number of articles per outlet

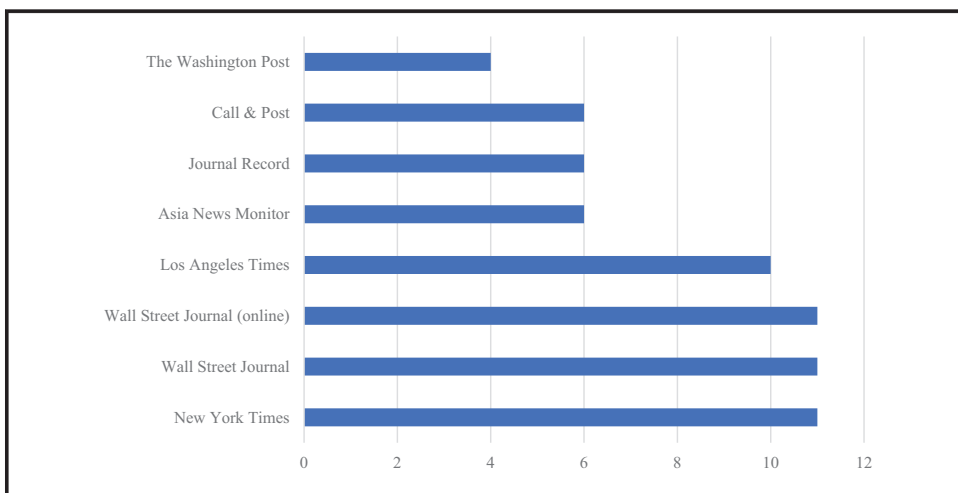


Figure 2 Articles mentioning telephone access

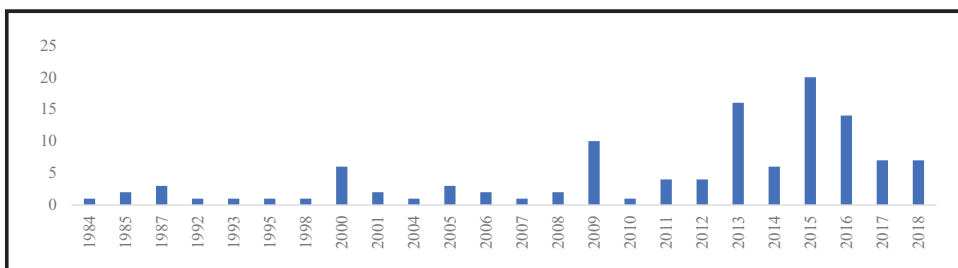


Figure 3 Articles mentioning internet access

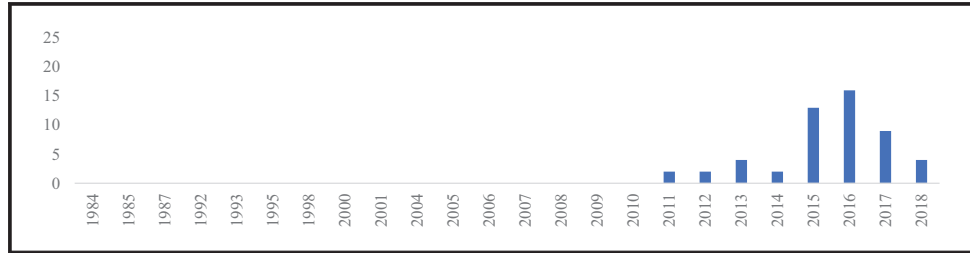


Figure 4 Articles mentioning fraud

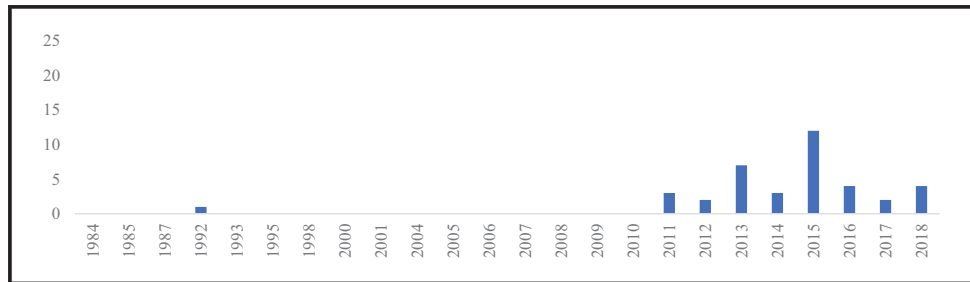
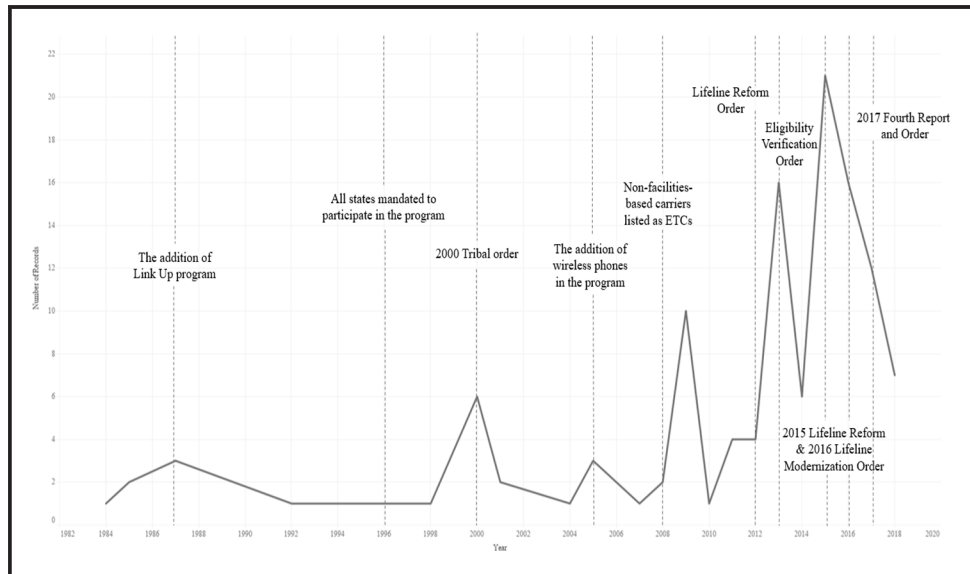


Figure 5 Volume of news coverage and the timeline of lifeline reforms



that include research from an academic study or research institute and those that do not. However, a chi-square test for the difference between negative, neutral and positive articles in their propensity to cite research showed that the rates were not significantly different ($\chi^2 = 0.48$, $df = 2$, $p = 0.78$).

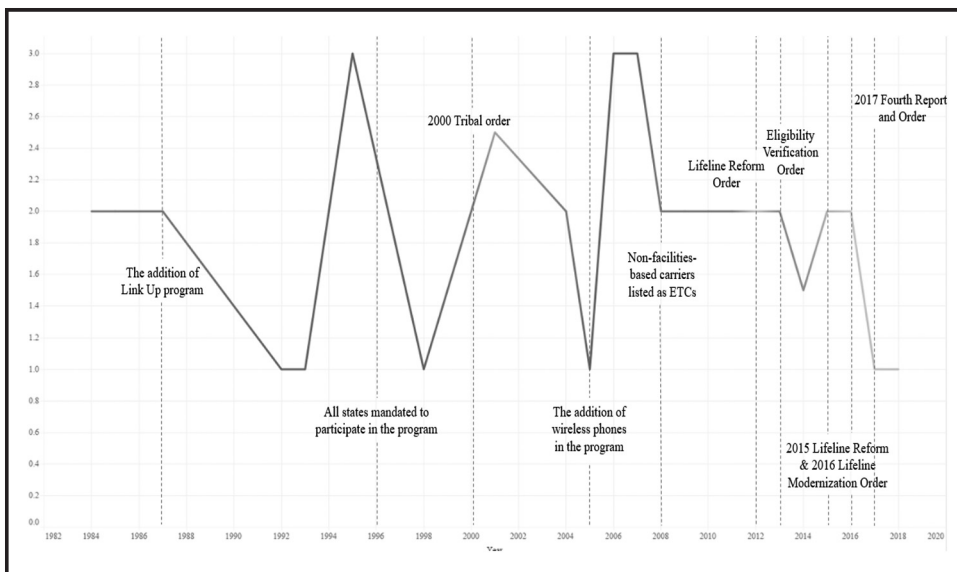
Table III Research citation and tones

Tone	Articles not citing research	Articles citing research	Total articles	% citing research
Negative tone	28	6	34	17.6
Neutral tone	44	13	57	22.8
Positive tone	25	8	33	24.2
Total	97	27	124	21.8

Figure 6 presents the average tone of articles published over time. Positive tones are coded as 3, neutral tones as 2 and negative tones as 1. There are variations in average tone over time, as depicted in this Figure. From this, we can compare when there are substantial changes in the number of articles published as well as tone.

Finally, RQ3 explores the relationship between the amount and nature of coverage and the timing of policy initiatives. It may be noted that time periods prior to several major reforms were marked by higher-than-average volume of coverage: for example, the 1987 addition of Linkup, the Tribal Order in the year 2000, the 2005 extension of Lifeline to mobile phones, the 2008 listing of non-facilities-based carriers as ETCs, the 2012 and 2013 reforms, the 2016 Lifeline Modernization Order and the 2017 withdrawal of the LBP program. However, there were exceptions too: the 1996 mandate extending Lifeline to all states was not marked by a single news article mentioning Lifeline. However, this is understandable since Lifeline reform in 1996-1997 was implemented as part of a much larger rewriting of telecommunications law in the USA, which of course drew significant attention.

Following prior research that indicated that negative news coverage has a stronger impact on the policy agenda than positive news coverage (Baumgartner, Jones, and Leech, 1997), we also tested whether the tone of news articles differed between trailing 12-month periods with a reform or without a reform. However, we found no significant difference in tone between 12-month periods ending in a reform (1.96) and those

Figure 6 Average tone of the article and the timeline of lifeline reforms

without a reform (2.19). Since “2” represents neutral coverage, we conclude that news coverage was neutral in years with a reform, and slightly positive in years without a reform.

Conclusion and discussion

To explore the media coverage of the Lifeline Program and examine any potential association of the timing of news coverage on the policymaking regarding the program, a content analysis was conducted on all the articles published on the subject of Lifeline in US newspapers from 1984 to 2018. Our analysis suggests the existence of a dynamic relationship between media coverage and policymaking regarding the Lifeline Program. Meanwhile, the analysis also reveals some critical characteristics about the coverage of the Lifeline Program in newspapers, which are worth the attention of policymakers and media advocacy practitioners. This section provides a summary of the main findings and discusses the implications of the study.

During the 35 years under examination, only 124 articles were published in newspapers countrywide. Without comparing to the volume of newspaper coverage of other similar federal programs, it is premature to conclude that the Lifeline Program has been insufficiently covered. However, it is noteworthy that from 1984 to 1998, there were only ten articles published in newspapers. This is in line with [Rose and Baumgartner \(2013\)](#) who found that news attention to poverty reached historic lows in the 1980s and again in the mid-2000s. Given that the internet penetration rate was only 30.1 per cent in 1998[2], it is reasonable to expect that newspapers remained an important source of information until the late 1990s. During this period, on average, less than one newspaper article was published per year on the program. This may explain the observation in the literature that many potential beneficiaries were not even aware of the program – a contributory factor behind low enrollment rates. [Daponte et al. \(1999\)](#) found that people did not enroll in the food stamp program, now referred to as SNAP, due to lack of information. Therefore, similarly, the finding that so few articles have been published about the Lifeline Program could show a lack of coverage of policy or a lack of coverage of policies focused on helping the poor.

In general, newspaper coverage of the Lifeline Program has increased since the year 2000. During the 2000s and 2010s, the average number of articles published per year increased to three and nine, respectively. Nevertheless, our analysis shows that the increase in the coverage was far from a steady one. In many cases, a sharp increase was followed immediately by a decline in the number of news articles the following year. Although a thorough thematic analysis is beyond the scope of this study, it is noticeable that several of the sharp increases in the number of articles preceded the FCC’s reforms of the program. On the one hand, the closely matched timing of the policy reforms and media coverage suggests that newspapers in general made prompt updates in their reporting about the program. On the other hand, however, the immediate decline in the coverage after the reform could be a warning sign that there is a lack of continuing and devoted interest in the program among reporters. Follow-through on major policy initiatives is necessary to monitor whether programs are performing as expected and to advocate for mid-course corrections to policy in case they are not. In the case of Lifeline, such a follow-through in media coverage was lacking, except in the case of fraud and abuse (see below).

Several topics were prevalent themes in the examined articles. First, more than 90 per cent of the coverage contains the topic “access to telephones.” Even after the 2016 Lifeline reform, which initiated support for broadband services, access to telephones remained a prominent topic in the news coverage of the program. According to [Pew Research Center \(2018a, 2018b\)](#), in January 2018, 5 per cent of Americans still did not have cellphones. Therefore, the continuing framing of the Lifeline Program as a federal plan to support

telephone access is very necessary to help close the remaining telephone access gap in the country.

The support for internet services is another prominent topic covered in the articles. The central message of the 2016 Lifeline reform is well reflected in the news coverage, as all the articles published in 2016 contains the topic “access to the internet.” Moreover, as early as 2011, some articles had already started advocating the inclusion of internet services in the program. In 2015, more than 50 per cent of the articles opined that the program should address internet services. The timing of the coverage and the FCC’s final decision suggests that at least in the inclusion of internet services in the Lifeline Program, the mass media showed a considerable agenda setting effect on the policy decision-making.

The third most frequently covered topic is the fraud in the implementation of the program. On the one hand, the media showed some agenda setting effects on policymaking, since an abrupt increase in the number of articles containing the topic of fraud in the program was observed in 2011, the year before the FCC issued the Lifeline Reform Order, which introduced several measures to tackle the waste and fraud in the program. On the other hand, 84 per cent of the articles containing the topic about frauds were published after 2012. The remarkable increase in reports exposing fraud after the FCC addressed the issue shows the recursive effect of policymaking on media coverage. The emergence of news coverage of fraud then further influenced future policymaking, partially reflected in the 2015 and 2016 Lifeline reform orders, which introduced several additional measures to combat fraud in the program. The pattern of media coverage about fraud in the program and policymaking suggests that a virtuous circle has been established where the media first exposed the problem, the policymaking agency tackled the issue, the media followed up by exposing more of the problem, and then policymakers made further actions to solve the issue.

According to [Walgrave and van Aelst \(2006\)](#), the media are able to influence the policy sphere not only by the topics in the news coverage but also through the nature of the coverage. In this study, we examined the tone, or attitudes, toward the program in the articles. The result shows that about 46 per cent of the articles maintained a neutral, balanced tone, with the rest equally distributed between negative and positive attitudes. A closer examination reveals that six out of the ten critical reforms identified by the FCC and previous studies took place when the attitudes revealed in the news coverage were turning into negative and criticizing ones or immediately after the year when all the reports expressed negative attitudes. However, a comparison of mean tones did not provide sufficient evidence to conclude in favor of [Baumgartner et al. \(1997\)](#) hypothesis about the power of negative news coverage to influence policy: further investigation is needed to investigate this plausible effect.

Besides a force propelling the policy change, the media could also reflect public opinion regarding changes in the policy. Among the ten critical reforms identified, only two, the 2000 Tribal Order which strengthens the support for Native American Tribes and the 2005 reform which added cellphones to the supported services list, were followed by an increase in the articles showing a positive view about the program. This finding implies that policies with specific focus, clearly communicated goals and a well-defined beneficiary group are better received by the news media. In comparison, the change in 1996 which required the participation of all states and the comprehensive reform in 2012 could, arguably, benefit the public to a greater degree. However, these changes were not followed by an improving view of the program. It is possible that the comprehensive nature and the lack of specific goals and beneficiary groups were the partial cause. A counter-example to this explanation is the 2016 Modernization Order, which had a clearly defined focus – to include broadband in the list of supported services – but was not followed by favorable news coverage. Noticeably, in 2017, the FCC introduced several measures which are believed to have reduced support for broadband services ([Tomer and Shivaram, 2017](#)). Since negative

coverage of the 2017 action followed closely on the heels of the 2016 Reform, the potential positive impact on positive news coverage of the 2016 reforms might have been offset. The preponderance of evidence therefore suggests the conclusion that clearly communicated goals and identifiable beneficiary populations lead to positive news coverage. The FCC and other regulatory organizations might seek to communicate information on goals and beneficiaries in a proactive and programmatic way, in order to gain positive news coverage for their policy initiatives.

In addition to the dynamic between media coverage and policymaking, some other findings are also worth further discussion. First, compared to FCC representatives and politicians, the beneficiaries of the program were cited less often in the articles. According to a USAC estimate, only 28 per cent of the eligible households participated in the program in 2017. As a means to encourage participation, more stories based on the experience of beneficiaries should be used in the news coverage to show how the Lifeline Program could enhance life quality. Second, since 2009, citations to research studies have become more prominent in the news articles. Nevertheless, compared to articles with a neutral attitude or a praising tone, articles which shows negative attitudes about the program are less likely to cite research. Although our analysis suggests that the reforms often followed negative public opinions about the Lifeline Program, it has long been lamented that there is a disconnect between public disapproval, which is at least partially reflected by mass media and policymaking (Sigillo and Sicafuse, 2015). Because policymakers are more likely to respond to opinions backed by concrete evidence and careful elaboration (Sutcliffe and Court, 2005), news reports which express negative views about the policy could benefit from relying more on using research to support their argument.

Limitations of the study

The conclusions and implications of the study should be considered under the context of its limitations. First, although the timing of the news coverage and of policymaking suggests the existence of dynamic interactions between news reports and reforms of the Lifeline Program, further analysis is needed to confirm whether the reforms indeed directly addressed the issues raised in the media coverage. Second, only the articles that explicitly focused on the Lifeline Program were included in our analysis. Some articles, for example, the ones which merely mention the program in passing, were discarded. Although these articles are not exclusively focused on the Lifeline Program, they could still convey some critical information. Next, content analysis only examines content on the surface and does not explore the underlying ideological messages within content. Future analyses can be conducted by using qualitative methods, such as thematic analysis, to explore this content from a different lens. Last, due to the failure to establish intercoder reliability, some variables, such as any identification of groups which help people access the support and the party affiliation of the politicians cited in the articles, were not used in the final analysis. Although it is not uncommon to delete variables in content analysis due to lack of reliability, the exclusion of these variables does limit the scope of our inquiry.

Notes

1. For a comprehensive history of the AT&T divestiture, please see Crawford (2013).
2. The data on the percentage of population using the internet can be obtained from the World Bank Databank, (<http://databank.worldbank.org/data/reports.aspx?source=2&series=IT.NET.USER.ZS&country>).

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Further reading

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