

The Conditional Nature of Presidential Agenda Influence on TV News: The Case of Education

AMBER E. BOYDSTUN
University of California, Davis

RENS VLIEGENTHART
University of Amsterdam, The Netherlands

MARSHALL L. BAKER
University of California, Davis

The president's ability to influence media attention is crucial to theoretical understandings of institutional agenda setting. We add a key caveat: The conditional nature of how presidential attention influences media attention to a given issue. We highlight two conditioning variables: the president's party and the degree of public concern for the issue. Presidential influence on media is enhanced when his or her party "owns" the issue. But since public concern about an issue tends to prompt saturated media coverage, strong public concern mitigates presidential influence on the media. We test these ideas by examining presidential and television attention to education, 1974–2007. Using time-series models, we find support for our hypotheses, with implications for political communication research and applied political strategy.

Keywords: agenda setting, president, media, education

Three days after entering office in 2001, President George W. Bush announced his plan for education reform. The No Child Left Behind Act of 2001 marked the widest overhaul to the American education system since the Elementary and Secondary Education Act of 1965.¹ The administration did not advance this policy quietly. In introducing the No Child Left Behind Act through a flurry of announcements, President Bush described the reform package as "the cornerstone of my administration" (Cain & Archibald, 200, para. 14).

Amber E. Boydston: aboystun@ucdavis.edu

Rens Vliegenthart: r.vliegenthart@uva.nl

Marshall L. Baker: mlbaker@ucdavis.edu

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¹ See U.S. Department of Education at <http://www2.ed.gov/nclb/overview/intro/index.html>.

By contrast, education was an important policy issue for President Bill Clinton, but arguably not as important as it would later be for President Bush. The Clinton administration produced no policy initiative approaching the magnitude of No Child Left Behind, and although Clinton talked about education a fair amount, he gave the issue much less attention than Bush later would. Comparing the first eight months of the two presidencies (so as to capture the pre-9/11 period for Bush) using the Public Papers of the President data that we describe below, Bush spent four times as much agenda space on education as did Clinton.² So keen was the Bush administration on the success of its education policy, even amidst more immediate foreign policy considerations, that in 2004 the Department of Education paid prominent conservative pundit Armstrong Williams \$241,000 to promote the Bush education initiatives in the news (Kurtz, 2005).

Yet the media did not pick up on education in proportion to the attention given the issue by these two presidents. Network TV gave barely half as much airtime to education during Bush's presidency as it did during Clinton's presidency, based on data we introduce below.³ Even when we look at the first eight months of the Bush administration when Bush was unveiling the No Child Left Behind policy (again, before 9/11 shifted available agenda space), there was 14% less network news coverage about education compared with Clinton's first eight months.⁴ Why? While we can only go so far in inferring from a president's attention to an issue a desire to draw media (and, thus, public) attention to the issue, it is reasonable to consider President Bush's attention to education as a strategic "going public" endeavor (Kernell, 2006). In this framework, why was Bush less successful at influencing the media agenda than Clinton?

The discrepancy in the levels of media coverage paid to education during these two presidencies points to a larger question underpinning theories of agenda setting: What variables condition the influence of one agenda (e.g., presidential attention) on another (e.g., the media)?

To be clear, presidents do not always want their attention to an issue to get picked up by the media. Indeed, much of a president's communication occurs behind the scenes, operating intentionally out of view of the media and the public. Scholars such as Beasley (2010) and Nelson (2008) describe the important role these intergovernmental "unitary executive" functions play, in tandem with the publicly aimed "rhetorical presidency" that presidents use by going public. Still, presidents routinely employ a rhetorical presidency approach—taking their messages to the public, via the press—when they think public

² We can compare the levels of attention the two presidents gave to education by searching for the word *education* within the UCSB Public Papers of the President archive (Peters & Woolley, 2007). Bush made 4,052 references during his first eight months, representing on average 0.4% of his agenda space (i.e., all words in his presidential papers) during this period, compared with 2,840 references by Clinton, representing 0.1% of his agenda space. Even considering the full presidencies, with the Bush administration spending vast agenda space on Afghanistan and Iraq, Bush still gave a slightly higher proportion of his total attention to education (0.266% of his agenda space) than did Clinton (0.235% of his agenda space).

³ Network TV spent 44 hours on education during Bush's administration, compared with 82 hours for Clinton.

⁴ About six hours during Bush's first eight months, compared with seven hours for Clinton.

support might help their policy aims (Campbell & Jamieson, 2008), even if their ultimate efforts of swaying public opinion and policy are not always successful (Edwards, 2006). And in recent decades especially, presidents have strong incentives (and opportunities) to use rhetorical presidency tactics to maintain a nearly constant presence in the spotlight—what Scacco and Coe (2016) call the “ubiquitous presidency”—to promote their policy goals. Thus, it is important to understand the precise nature of how the media respond to the president’s frequent use of going public. Is presidential influence on media attention static, such that a one-unit increase in presidential attention to a given issue yields the same effect on the media agenda, regardless of circumstance? Or, as we suspect, does presidential influence on the media vary according to not only the type of issue at hand but also within a single issue on other key factors?

We argue that presidential agenda influence on the media is conditional on at least two important variables. Drawing from past political communication literature described below and focusing on the policy issue of education, we discuss how and why the president’s party and the degree of public concern about education should condition the effect of presidential attention to education on media attention to the issue. Building from previous studies in issue ownership and agenda setting, we expect Democratic presidents to have more agenda influence in the case of education due to that party’s perceived ownership of the issue. We also expect all presidents to have more success influencing media attention to education when the public is not already highly concerned about the issue. High public concern commonly marks periods of saturated news coverage about the issue in question, often when the president has already had some influence on media and public awareness, thus leaving little room for additional presidential influence on the media.

We test these ideas in the case of education by examining monthly presidential attention to education from 1974 to 2007 (using publicly aimed presidential statements, drawn from Peters and Woolley’s *Public Papers of the President* [2007]) and comparing this series to network television news coverage of education during this same time period (using data from the *Vanderbilt Television News Archives* [2007]). Using time-series analysis, we test the degree to which—and conditions under which—presidential attention drives television attention to education. We find support for our hypotheses that the party of the president and the degree of public concern both condition presidential influence.

Our findings matter because they speak to our democratic notions of a free press. Past research has unpacked the institutional hold the president and other elites can have on media coverage (Bennett, 1990; Bennett, Lawrence, & Livingston, 2007; Glazier & Boydston, 2012). Understanding the forces that condition executive influence helps to cast in sharper detail the conceptual edges of the media’s autonomy.

The Conditionality of Presidential Agenda Influence

The extent to which the agendas of political actors and institutions hold systemic influence over one another has long been a tenet of political communication research (Baumgartner & Jones, 2009; Edwards & Wood, 1999; Eshbaugh-Soha & Peake, 2005; Kingdon, 1995; Schattschneider, 1960). Many studies have focused in particular on the interplay between the president’s agenda and other agendas. By virtue of the executive capacity and inherent newsworthiness of the presidency, presidents have the

potential to wield strong agenda-setting influence in general (Baumgartner & Jones, 2009; Cohen, 1995; Kingdon, 1995; Light, 1999) and on the media in particular (Eshbaugh-Soha & Peake, 2011; Lee, 2014). As Kingdon (1995) surmises, "no other single actor in the political system has quite the capability of the president to set agendas" (p. 23).

Yet many scholars also point to the conditional nature of the president's agenda-setting powers (e.g., DiMaggio, 2015; Entman, 2003; Peake & Eshbaugh-Soha, 2008), in line with other work showing the conditional nature of agenda influence between, say, public opinion and presidential policy making (Canes-Wrone & Shotts, 2004) or media attention and government attention (Walgrave & Van Aelst, 2006). As described below, past studies suggest that presidential agenda influence should vary both (1) across issue type and (2) according to key contextual variables within a given issue. Although we are interested in both forms of conditionality, our study focuses on the latter form, examining factors that condition the president's agenda influence on media attention to a particular policy issue.

Conditionality Across Issues

Scholars have long known that the politics of agenda influence vary by policy type (Gormley, 1986; Lowi, 1972). Several U.S. studies have investigated how the president's agenda influence varies across policy issues (Edwards & Wood, 1999; Eshbaugh-Soha & Peake, 2004; Hill, 1998; Lowi, 1972; Peake & Eshbaugh-Soha, 2008; Wood & Peake, 1998). Generally, the media and the president appear to exert mutual agenda influence on each other, but the directions and level of influence vary by issue. In examining presidential influence on media attention in particular, scholars have found that presidential influence is different for domestic versus foreign policy issues; presidents have the ability to shape media attention in the case of foreign policy issues (DiMaggio, 2015; Entman, 2004), but they tend to have a greater degree of agenda influence over the media in the case of domestic issues (e.g., Edwards & Wood, 1999).

Within domestic policy issues, scholars have found additional factors of between-issue variance in the degree of presidential agenda influence on the media. For example, Eshbaugh-Soha and Peake (2004) find that although presidential attention has a unidirectional influence on media attention in the case of clean air policy, the direction of influence reverses in the case of domestic farm policy; in the case of civil rights, the relationship is mutually reinforcing. And Wanta and Foote (1994) find that presidents have a weaker influence on media attention for issues on which other sources offer detailed information (e.g., economic issues).

Studies have considered why the degree of presidential influence might vary between foreign and domestic issues and, within the domain of domestic issues, by the specific issue at hand. For example, presidents may have more influence on the media in the case of more salient issues (e.g., clean air policy and civil rights) because news outlets tend to cover these issues episodically (Boydston, 2013). By contrast, complex issues (e.g., domestic farm policy) do not lend themselves to presidential influence on the media because news outlets tend to pick up on complex issues only during tumultuous events, to which the president has an obligation to react (Eshbaugh-Soha & Peake, 2004). Additionally, each president's specific policy agenda affects these interinstitutional agenda-setting relationships. Presidents

may be more easily influenced by media attention concerning issues they deem especially important (Edwards & Wood, 1999). That said, a president may have “the best chance of increasing the media’s attention” (Eshbaugh-Soha & Peake, 2004, p. 177) to a policy issue if it was not already in the news.

Conditionality Within Issues

Turning to the focus of our study, scholarship on issue ownership (e.g., Petrocik, Benoit, & Hansen, 2003) and agenda influence (e.g., Eshbaugh-Soha & Peake, 2011) points to variables that might affect presidential influence on media attention within a given issue. Most prominent among these variables are issue ownership and public concern.

Although the nature of agenda influence varies across issues, as discussed, we expect that the conditioning roles of issue ownership and public concern apply across most issues. We focus on the issue of education to guide our discussion and empirical analyses of these conditional effects. Working with a single policy issue necessarily limits the generalizability of our study, but it allows us to perform a detailed test of our hypotheses. We pick education as our issue of study because it offers an excellent test case for our hypotheses regarding issue ownership and public concern. Unlike many issues, the partisan “ownership” of education is clear, thus allowing a clean test of our hypothesis that a president whose party owns the issue at hand will have a stronger influence on media attention to that issue. Obviously, it would be exciting to test this hypothesis across multiple issues, including Republican-owned issues. But our study marks an important first step in establishing the validity of our hypothesis. And with regard to our hypothesis that presidential agendas’ influence on the media will be weakened when the public is already highly concerned about an issue, education serves as a tough test case because it is a (relatively) low-salience domestic issue.⁵ Yet unlike other low-salience issues we might examine (e.g., agriculture), education is unquestionably an issue of value to citizens and politicians alike. The fact that education is rarely cited as the most important problem (MIP) facing the nation by more than 3% of people surveyed does not mean Americans do not care about education; it only means that, relative to other perceived problems, education does not tend to be at the top of the list. Finally, Graham (2005) argues that changes in education policy are driven by political power and agenda control. Thus, testing the idea that the president’s ability to turn media attention toward education policy is conditioned by both the president’s party and the level of public concern has important practical implications for an important issue that affects all Americans.

In the sections that follow, we focus on two variables that we expect to condition the president’s ability to influence the amount of television coverage devoted to education.

⁵ According to Gallup’s “most important” problem measure coded by Policy Agendas Project topics (see <http://www.comparativeagendas.net/us>) and analyzed by month with missing month values imputed, between 1974 and 2007 education was cited as the most important problem facing the nation by an average of 2.7% respondents (standard deviation = 3.0%). Of these monthly Gallup values, nearly a quarter (22.3%) contained no respondents who identified education as the most important problem facing the country. In nearly half the months (45.8%), fewer than 1% of respondents named education the most important problem.

Presidential Party as a Conditioning Variable

Presidents' party affiliations should affect their ability to influence the media agenda. In general, media responsiveness to presidential attention to an issue should depend in part on the degree of association or competency the president—by virtue of party affiliation—is perceived as having on that issue in the eyes of the public; that is, whether the president's party owns the issue (Petrocik, 1989; Petrocik et al., 2003; Walgrave, Lefever, & Tresch, 2012). It thus makes sense that the media would give more attention to presidential discussion of an issue when the president has perceived ownership of that issue, since news outlets have incentives to produce news that resonates with consumers' understanding of the political world (Hayes, 2008). Past studies have suggested that a president's agenda-setting influence on the media is stronger for issues owned by the president's party (Cummins, 2010; Eshbaugh-Soha & Peake, 2011; Holian, 2006), though this notion has never been tested in the direct form we offer here.

In the case of education, Petrocik et al. (2003) argue that the issue is unequivocally owned by the Democrats. Although politicians from both sides of the aisle speak about education, the public views Democrats as being better suited to handling the issue. The notion that Democrats own education is supported by Lakoff's (2014) discussion of education as a powerful issue signaling freedom and empowerment, placing it squarely in the liberal ideological camp. In some instances, deep-rooted stereotypes about issue ownership among the public may even make it counterproductive for Republican presidents to rely on education as a platform issue (Norpoth & Buchanan, 1992). Given that Democrats are perceived as being more closely associated with education, we suspect that the party of the president conditions presidential influence over television news coverage of education.

H1: The president's attention to education will have a stronger effect on television attention to education when the president is a Democrat.

Public Concern as a Conditioning Variable

Past studies have pointed to public concern as an important element in shaping the ability of policy agendas to influence one another (Edwards & Wood, 1999; Eshbaugh-Soha & Peake, 2011; Iyengar & Simon, 1994; McCombs, 2004). Of particular relevance, Eshbaugh-Soha and Peake (2011) show that presidents have a greater influence on public opinion (via the media) when the public does not have a strong preexisting interest. Yet no studies have directly tested whether public concern conditions presidential agenda-setting influence on the media. We contend that the president's influence on media attention to a given issue differs depending on the extent to which that issue is already on the public's radar. We might expect that when an issue is high on the public's list of most important problems, the president would have an easier time driving media attention to the issue. Indeed, the president may even be able to incite public concern over an issue, driving media coverage in turn (Cohen, 1995).

However, in the case of issues of relatively low salience, such as education, we expect public concern to mitigate the president's agenda influence on the news.⁶ Education is a topic that resonates with most Americans in some form, but it tends to fly under the radar of most Americans' top policy concerns.⁷ When education does become a "hot" item of public concern, this concern by itself helps spur media attention to the issue (Boydston, 2013; Gans, 2004; Hamilton, 2004; Hoskins, McFayden, & Finn, 2004). Often, such surges in public concern for low-salience issues occur in the wake of focusing events (Birkland, 1997; Birkland & Lawrence, 2009). Existing high levels of public concern about otherwise low-salience issues tend to coincide with media agendas already saturated with attention to that issue, thereby making presidential attention redundant (Hilgartner & Bosk, 1988). In this saturated media environment, the president's influence should be smaller.

Importantly, our expectation that public concern negatively conditions the president's influence on media attention to an issue like education does not suggest that public concern to the issue thwarts presidential agenda influence. Rather, public concern about an issue often follows presidential attention to that issue (Peake & Eshbaugh-Soha, 2008). Thus, those periods when high public concern moderates the president's influence on the media are often markers of the president's earlier influence. In this way, public concern is a conditioning variable that helps explain variance in the degree of directly measurable president-to-press influence.

H2: The higher the percentage of Americans who list education as the most important problem facing the country, the weaker the influence of the president's attention to education will be on television attention to education.

Additional Considerations

Institutional agenda setting is a complicated process and difficult to capture through a few variables. We discuss two additional considerations that, while not included in our analysis, are important components of presidential influence on the press: events and framing.

Events. Events can play a pivotal role in shaping media attention to issues in general, and the degree (and direction) of influence of the president on the media in particular (Bennett et al., 2007; Edwards & Wood, 1999; Lawrence, 2001). An ideal model of the effects of presidential attention to education on news coverage of education would account for events in some fashion. In the case of our study, such a model would control for variance in the underlying "severity" of education as a policy need, as well as any key events that would help explain sudden shifts in attention to the issue (Birkland, 1997). For example, we might control for high school dropout rates as an indication of the pressing need for education reform.

⁶ For example, issues that routinely capture less than 5% of the public's (MIP) concern.

⁷ In fact, few issues are consistently on the public's "most important" radar. For comparison, the monthly Gallup series, 1974–2007, exhibits the following averages, according to data coded by Policy Agendas Project topic (Baumgartner & Jones, 2007): environment, 1.2%; education, 2.7%; energy, 3.0%; health, 6.1%; defense, 8.8%; crime, 9.8%; economy, 38.0%.

However, in line with Edwards and Wood (1999; who do not control for events in their examination of education), we do not include a measure of events in our model for three reasons: one pragmatic and two theoretical. Practically speaking, the most obvious measures of events—for example, dropout rates—would not provide consistent proxies of the underlying need of education policy over time, both due to underlying drift in educational benchmarks over time (changes in standardized tests and grade inflation are just two examples) that likely influence dropout rates and because the economic and social buying power of a high school diploma has sharply declined (Greenstone & Looney, 2011; Ziomeck & Sveck, 1995).

Issue Framing. This article focuses on the attention that the president and the media devote to an important issue in American politics. Of course, beyond the levels of attention each agenda pays the issue, there are many other, more detailed characteristics of attention that might be relevant. Scholars have shown that the *framing* of an issue is important to consider when studying the interaction between politics and media (Entman, 2007; Kriesi & Hänggli, 2010), including the flow of information between the executive and the media (Entman, 2003). For example, the framing literature suggests that media attention is more likely to be drawn to an issue when the issue is discussed using social frames (Goffman, 1974), thematic frames (Iyengar, 1991), metaphorical frames (Benoit, 2001), or frames that reinforce people's view of the status quo (Bolsen, Druckman, & Cook, 2014). Although an examination of presidential (and media) framing of education is beyond the scope of this article, the framing literature supports our contention that (political and media) attention to an issue like education is a prerequisite for policy change (Jones & Baumgartner, 2005) and public opinion change (McCombs & Shaw, 1972).

Data and Method

We employ the following measures, using a monthly level of analysis, 1974–2007.

Presidential Attention

Presidential attention to an issue can be measured in many ways. Some researchers use State of the Union or other national addresses (Cohen, 1995; Peake & Eshbaugh-Soha, 2008). Other scholars argue that the Public Papers of the President, containing all public statements made by the president, is a superior manner to measure presidential attention because it provides a more accurate, fine-grained depiction of the president's agenda (Edwards & Wood, 1999; Eshbaugh-Soha & Peake, 2004). Drawing on this rationale, we use the Public Papers of the President, as archived at UCSB. Because our aim is to examine the effects of the president going public about education on media attention to education, we categorized (manually) all presidential papers from the UCSB archive into two categories: publicly aimed (e.g., national televised addresses, State of the Union speeches) and intergovernmental (e.g., letters to Congress, internal memoranda). Following Eshbaugh-Soha (2016), we employ only the publicly aimed statements in our measure of presidential attention to education. Thus, we measure presidential attention to education by counting the frequency of words related to education used in the president's publicly aimed statements each month.⁸ Our list of keywords draws on past work by Edwards and Wood (1999),

⁸ Using the full set of papers yields the same results (see the Appendix).

but was refined to maximize accuracy based on a series of validity tests (see online Appendix for a complete list of keywords and description of our process).⁹ These validity tests allowed us to account for the evolution of education policy terminology over time.

We employ the total number of words referring to education per month.¹⁰ Figure 1 shows our presidential attention measure over time. As face validity of this measure, we see the tallest spike in this series surrounding the presidential election of 1996; President Clinton made education a key part of his reelection campaign platform that year, laying the groundwork for his call for a “national crusade for education standards” (Clinton, 1997) in his second term—but using rhetoric criticized as being “hollow” (Shapiro, 1998, pp. 45–50). The second tallest spike is in early 2001, when newly elected President Bush introduced his No Child Left Behind policy initiative, calling education his “top priority” (Bush, 2001).

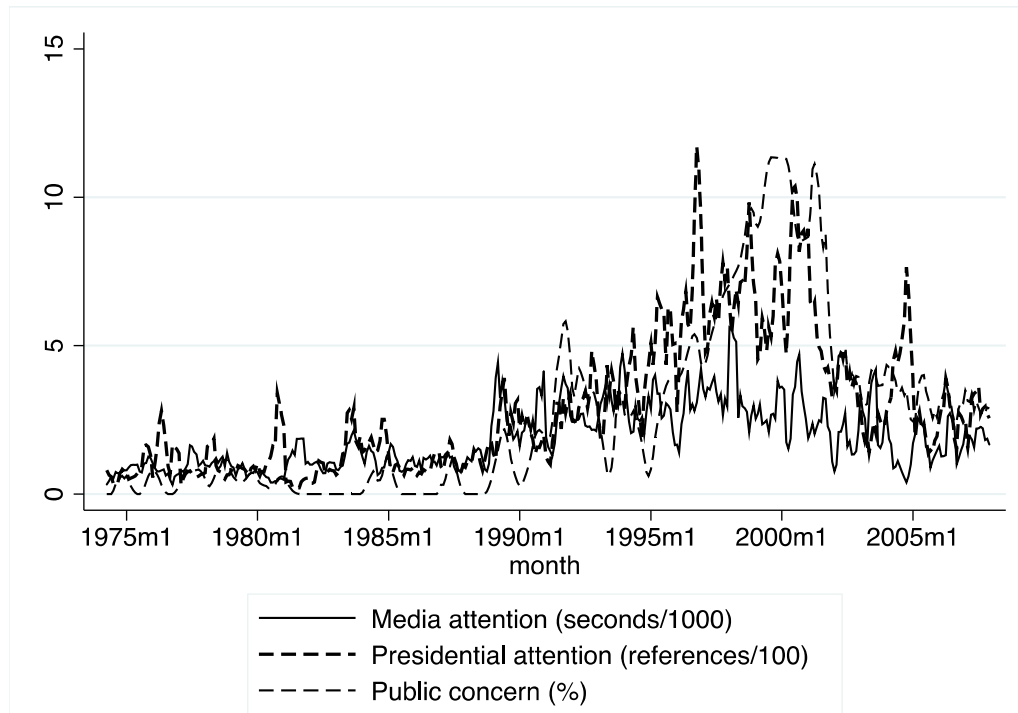


Figure 1. Media attention, presidential attention, and public concern to education.
For reasons of clarity, series are presented as four-month moving averages.

⁹ Our Supplementary Online Appendix can be found by going to <http://www.amber-boydstun.com>.

¹⁰ We use the word as the unit of analysis to account for important variance in the volume of presidential attention. For example, a statement containing 100 references (i.e., words) related to education represents a much stronger agenda cue than a statement mentioning the word *education* once in passing.

Media Attention

We measure media attention to education using television news, following recommendations of scholars before us (e.g., Eshbaugh-Soha & Peake, 2004). Certainly, this measure is not ideal. In today's world, we would prefer to measure media attention through an integrated index of television, print, and online (including social media) attention. However, our goal is to identify the most stable, consistent measure possible for capturing the rise and fall of mainstream media attention over our period of study, 1974–2007. Throughout this time period, television has remained the most popular medium by which the American public receives news, thus allowing us to capture the pulse of national awareness to education (Iyengar & Kinder, 2010; Prior, 2007). And while public reliance on television has shifted as more Americans turn to online news, the political communication pathway of interest here is from the president to the public, via the media. For this pathway, television is the most reliable medium for presidents to communicate their messages to the public (Farnsworth, 2015). Whereas public attention to newspapers has declined, nightly television news remains, as Edwards and Wood (1999) put it, "the most important frequently watched (news) source" (p. 12). Farnsworth and Lichter (2005) echo this point in their discussion of the pivotal role legacy television news outlets have played in spanning the distance between the presidency and the public, in concert with (but with larger audiences than) legacy newspapers. As they say, "newer media sources, including twenty-four hour cable news, the Internet, and a revived talk radio, have not displaced the old" (p. 142).

Specifically, we use the Vanderbilt Television News Archives to locate stories relevant to education, again using a sophisticated keyword search to identify segments related to education.¹¹ Because the division of the news archives into discrete segments allows us to isolate the coverage to a specific issue like education, we calculated media attention not using word frequencies, but rather the number of seconds ABC, CBS, and NBC dedicated to segments containing education-related words each month. Our media attention measure is shown in Figure 1. The tallest spike comes in early 1998, due largely to attention given to President Clinton's education initiatives. Although Clinton did not push the topic as strongly in 1998 as he did in 1997 relative to the rest of his agenda, education was a key agenda item in White House efforts to shift attention away from Monica Lewinsky and was central in his State of the Union address just 10 days after the Lewinsky scandal broke (Clinton, 1998; Owen, 2000). In addition to buzzing about the scandal, the media did pick up on the topic of education.

The Party of the President

We code Democratic president as 1 if the president in a given month was a Democrat, and 0 otherwise.

¹¹ See Appendix for keyword details.

Public Concern

We measure public concern using aggregate public opinion responses to Gallup's open-response MIP question: "What do you think is the most important problem facing this country today?" These open-response answers have been categorized according to the Policy Agendas Project topic coding scheme (see <http://www.comparativeagendas.net/us>), which includes education as a discrete topic area.

Gallup conducts this poll on average every month. In most months, a single survey is conducted, and so we use the observation for that month. In rare cases, two or more surveys are conducted in a single month, in which case we average the survey results to produce that month's observation. In the very rare cases when Gallup skips a month or more, we impute the observation for that month by averaging the surrounding months. Thus, our measure of public concern is the proportion of Gallup respondents who identify education as the most important problem facing the country that month. Theoretically, scores range from zero (no respondents indicate education as their MIP) to 100 (all respondents indicate education), although Table 1 shows that the percentage of Gallup respondent's who cite education as the most important problem never exceeds 15%. Figure 1 also shows this public concern measure surging most notably in 1999 for an extended period following the Columbine High School shootings.

The MIP series is certainly not perfect (Wlezien, 2004, 2005). Gallup has employed variations in question wording over time; the Policy Agendas Project data set contains only variants of the root question listed above, but subtle variations remain and are not distinguished in the series. The standard question asks respondents to identify the most important problem, thereby limiting the usefulness of the series as a measure of public awareness or interest in issues, and the series is compiled based only on each respondent's top response. Thus, although education probably matters a lot to most Americans, this importance is not reflected in the generally low percentage of Americans citing it as the most important problem. Nevertheless, the MIP measure remains the best available and most widely employed proxy of the public agenda (Graefe & Armstrong, 2012; Jones, Larsen-Price, & Wilkerson, 2009; Soroka, 2003). The Policy Agendas categorization of the MIP education responses also comports well with the presidential and media data series we employ.

Table 1 provides descriptive statistics for our dependent and independent variables. We see that both the president and the media pay quite a bit of attention to the issue of education, with monthly averages of 365 words and 1,883 seconds, respectively. In both instances, the standard deviation is considerable. In 35% of the months included in the analysis, there was a Democratic president in office. As already mentioned, education tends to rank as a relatively minor concern to the U.S. population: From 1974 to 2007, on average, 2.7% of the population mentioned it as the most important problem facing the nation. Table 1 shows that education is higher on each of the three agendas during Democratic presidencies than during Republican presidencies during this time period. Democratic presidents, on average, devote more attention to education; and the media tends to pay more attention to education and the public tends to consider education a more important issue during these administrations. Mean comparisons show that differences between Democratic and Republican control of the White House are

statistically significant for all three agendas. As Figure 1 shows, there is considerable variation in each of the variables over time and they have similar pathways. All three peak in second half of the 1990s.

Table 1. Descriptive Statistics.

Variable	N	Mean	SD	Min	Max
<i>Overall</i>					
Media attention (television seconds)	408	1,882.72	1,652.06	0.00	14,140.00
Presidential attention (words)	408	288.04	286.31	4.00	1,574.00
Democratic president (1 = Democrat)	408	0.35	0.48	0.00	1.00
Public concern (percentage of respondents)	408	2.66	3.05	0.00	14.69
<i>Democratic presidents</i>					
Media attention (television seconds)	144	2,335.83	1,928.89	270.00	14,140.00
Presidential attention (words)	144	441.09	371.82	17.00	1,574.00
Public concern (percentage of respondents)	144	4.13	3.73	0.00	11.40
<i>Republican presidents</i>					
Media attention (television seconds)	264	1,635.56	1,423.70	0.00	11,070.00
Presidential attention (words)	264	204.56	178.49	4.00	965.00
Public concern (percentage of respondents)	264	1.86	2.23	0.00	14.70

Model

Our variables are available for the period between January 1974 and December 2007, ranging from the end of Nixon's presidency through the penultimate year of G. W. Bush's second term. Our main purpose is to improve on what we already know about the relationship between the president and the press. Previous studies have used vector autoregression (VAR) analysis to establish the existence of causal relationships. We started with a monthly level VAR analysis that shows that Granger-causing relationships exist between president, media, and public (see the Appendix for results). Here, we move beyond VAR analysis to look at what happens when we focus only on how the effects of presidential attention on media attention are conditioned by two key variables, namely, Democratic president and public concern. Because these conditioning effects cannot be tested within the VAR-framework, for our main analysis we rely on an autoregressive integrated moving average (ARIMA) modeling approach (Box & Jenkins, 1970). Using the ARIMA framework allows researchers to determine the size of an effect that an independent variable has on a dependent variable (Vliegenthart, 2014). The identification of the baseline model is discussed in the Appendix.

The next model we estimate is one that assesses the main effects of presidential attention, Democratic president, and public concern. For all variables, we use lagged values to meet one of the basic requirements of causality—that is, that the cause precedes the consequence. Since we anticipate straightforward linear effects, we do not employ any transfer functions, as often done when, for example, assessing the impact of events in ARIMA models. The final model tests our hypotheses via included interaction terms between presidential attention and public concern, and presidential attention and the party of the president. To find support for H1 (that presidential attention to education will have a stronger influence on television attention when the president is a Democrat), we would need to see a positive and significant coefficient on the interaction between presidential attention and Democratic president. Likewise, to find support for H2 (that presidential attention to education will have a weaker influence on television attention as public concern increases), we would need to see a negative and significant coefficient on the interaction between presidential attention and public concern.

We conducted additional analyses, including several control variables. These variables and the results are discussed in the Appendix. Overall, results do not change with the inclusion of those variables.

Findings

Model 1 in Table 2 provides the baseline model of our ARIMA analysis, not including any explanatory variables. Model 2 provides an assessment of the main effects. We see that presidential attention has a significant, through modest, effect on media attention. As expected, we also find that media attention is responsive to public concern. Each additional percentage of the population mentioning education as the most important problem results in 137 additional seconds of broadcasting time devoted to the issue. Having a Democratic president does not lead to additional attention for the education issue by itself. Overall, the main effects model is superior to the baseline model (change in log-likelihood is 11.45, with $df = 3$, $p < .001$).

Model 3 in Table 2 offers tests of our two hypotheses by looking at the interactions between presidential attention and Democratic president (H1), and then between presidential attention and public concern (H2). Regarding H1, Model 3 shows we can reject the null of nonconditionality; the influence of presidential attention is indeed larger under the condition of a Democratic president. While each additional word that refers to education in publicly aimed statements of a Republican president has no influence on broadcasting time, for a Democratic president, each additional word corresponds with 2.91 additional seconds of airtime. Although less than three seconds of media coverage may seem tiny, recall that presidents tend to use a lot of words. At an average of 288 presidential words related to education per month (as shown in Table 1), we can roughly think of a Democratic president's attention to education as corresponding with nearly 14 minutes of TV coverage per month, equaling half a standard deviation increase in media attention. And recall from Table 1 that, on average, we see less than 32 minutes of TV attention to education per month. For Republican presidents, referring to education does not make a (statistical) difference in terms of receiving additional airtime for the issue.

Table 2. Predicting Media Attention to Education.

	Model 1 Baseline	Model 2 Main effects	Model 3 Interaction effects
Presidential attention		0.597 ⁺ (0.352)	-0.138 (0.743)
Democratic president		233.5 (269.9)	-582.9 (401.4)
Public concern		136.6*** (43.3)	261.4*** (63.3)
Pres. attention* Democratic president			3.047*** (0.922)
Pres. attention* Public concern			-0.305** (0.966)
Constant	1869.8*** (218.0)	1262.2*** (224.1)	1336.7*** (243.8)
ARIMA models			
AR(1)	0.137** (0.0484)	0.0583 (0.0512)	0.0330 (0.0534)
SAR(1)	0.166*** (0.0456)	0.104** (0.0447)	0.0928** (0.0438)
MA(4)	0.113* (0.0490)	0.114* (0.0489)	0.0945+ (0.0506)
MA(5)	0.138** (0.0463)	0.0944* (0.0467)	0.0506 (0.0462)
MA(7)	0.152*** (0.0388)	0.113** (0.0403)	0.108** (0.0399)
Observations	407	407	407
Log likelihood	-3558.20	-3546.746	-3538.927
Ljung-Box Q(20) res	36.60 ($p = .01$)	14.68 ($p = .79$)	12.78 ($p = .89$)
Ljung-Box Q(20) res ²	5.46 ($p = 1.00$)	5.28 ($p = 1.00$)	4.72 ($p = 1.00$)

Note. Standard errors in parentheses. + $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests). Estimations from an ARIMA model with monthly number of seconds of TV as the dependent variable. All independent variables are lagged one month.

H2 is also confirmed: The higher the level of public concern about education, the smaller the influence of presidential attention. With each additional percentage of the population indicating education as the most important problem facing the country, the influence of each presidential reference to education (education-related word) in a publicly aimed statement decreases by 0.305 seconds of television airtime. Again, taking the average amount of attention presidents give to education per month, we can estimate that a shift in public concern from 0% to 5% of the country would decrease the television airtime prompted by the president's words by about 7.3 minutes in a single month. In the scope of television attention across all pressing policy (and nonpolicy) issues, 7.3 minutes can make quite a difference for an issue like education—education advocates, certainly, should care about the size of this conditioning effect. We redid the analysis excluding the insignificant AR(1) and MA(5) term from the equation, and the outcomes are substantively identical to the ones presented in Model 3.

Summary and Discussion

We began our story with an anecdotal puzzle, comparing the attention to education paid by two presidents—Bill Clinton and George W. Bush. While Bush placed a much stronger policy focus on this issue, it was under Clinton's administration that the press picked up more readily on education as a newsworthy issue. Building on past research suggesting as much, we offered a theoretical explanation of this puzzle, namely, the conditional nature of the president's influence on media attention. By virtue of his partisanship, Clinton's ownership of education enhanced the influence of his attention to this issue on corresponding television attention. We also drew our own attention to a key conditioning variable not yet discussed in the context of this specific line of research: public concern. We argued that as the existing level of public concern about an issue like education rises, the media tends to pay increasing attention to that issue irrespective of the president, producing a saturated environment in which presidential influence is muted.

We found support for our expectations regarding the conditioning nature of both these variables—party of the president, and level of public concern—in the case of education. In our time-series models, we found that being a Democrat significantly increases presidential influence on media attention to education, and increased public concern mitigates this influence.

Together, these findings add to our understanding of institutional agenda setting by further delineating the "if X, then Y" nature of the president's agenda influence on the media. The conditioning roles that presidential party and public concern play in the case of education suggest that scholars should account for these—and other—variables in other agenda-setting studies, both within and across policy issues. Our straightforward approach to isolating these conditional effects can, we hope, serve as a template for future studies to add other conditional details to our understanding of interinstitutional agenda setting.

These implications speak also to our understanding of the role of the media in conveying policy information to the public. Whatever our level of normative comfort or discomfort with the idea that the president can drive the media's agenda, we must recalibrate our conclusions based on the conditional nature of this influence. Our study shows that, at least for the issue of education, Americans will not

receive signals from the president via the media in direct proportion to the volume of the signals the president sends. Rather, television news will be more apt to carry Democratic presidents' messages about education to the public than those of Republican presidents, and television news will have a muted response to presidents' education messages when the public is already concerned about the issue. In other words, our study shows—again, in the single case of education—that the media serve not as a consistent filter, but rather as a valve, turning the president's access to the public up or down based on context.

From a political strategy perspective, our study offers prescriptive implications for presidential administrations as well as policy advocates. At least in the case of education—but probably, as we suspect, in comparable domestic policy issues with modest, yet varying levels of attention on policy agendas—all presidents will be best served by reserving their scarce discretionary attention for moments when an issue has fallen off the public's radar; these are the moments when a president can get the most "bang for the buck" in pushing the issue into the media spotlight.

In short, our study offers an additional foothold toward understanding interinstitutional agenda setting, pointing to the conditional nature of presidential influence on the news in the concrete and important case of education. Of course, our study has several limitations, and more work is called for in this line of research. Our contribution is limited most acutely by the fact that we test our hypotheses using only a single issue. Although we have good theoretical reason to expect that both hypotheses would hold across most domestic policy issues, we cannot know without performing those tests. And those tests would be most convincing if they included not only television data, as we use here, but a more expansive set of media data to capture the full range of media attention. Additionally, although our model offered a clean test of our two hypotheses, it fails to account for multiple other factors that surely shape media attention and, potentially, the influence of presidential attention on media attention. Our appendix offers additional analyses controlling for war, the economy, and key pieces of legislation. But we can imagine a host of other factors that would ideally be included, such as other measures of events and, most interestingly, measures of framing and tone. We expect that the variables we consider here—presidential party and public concern—are but two of many variables that together form a (possibly shifting) set of necessary and sufficient conditions for a president to have a significant impact on media attention. Our study adds an important piece to understanding what those necessary and sufficient conditions are, but scholars and policy advocates (not to mention presidents) would benefit from a more comprehensive understanding of all the relevant conditions as they apply across domestic (and foreign) policy issues.

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Appendix

Our Supplementary Online Appendix can be found by going to <http://www.amber-boydstun.com>.