

A Tale of Two Primaries: Iowa and New
Hampshire's Relationship with the Invisible
Primary 2008

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Abstract

To what extent do Iowa and New Hampshire voters either contribute or respond to a candidate's performance within the Invisible Primary? We add to the literature on the role and function of the Invisible Primary by examining the dynamic relationships between national news media exposure and polling and local media exposure and polling in Iowa and New Hampshire. Results suggest that early national polls have some influence in shaping voter support in the early states. However, these states show some influence in shaping national polls as well. We also find that success in both national and state polls are a driving factor of state and national media coverage and not a reaction to it. In sum, Iowa and New Hampshire show some reaction to changes in elements of the Invisible Primary, but also shape these movements.

Have frontloading and the importance of the Invisible Primary limited the individuality and influence of Iowa and New Hampshire? Given candidates' reliance on large national organizations in today's primary system, have Iowa and New Hampshire voters, with their need to select a viable candidate, become increasingly responsive to these national-level considerations? We seek to answer these questions by detailing how two elements of the national Invisible Primary, a candidate's national poll numbers and news media prominence, shape and respond to similar dynamics at the state level among Iowa and New Hampshire voters.

In what follows, we outline our interest in the Invisible Primary and its relation to Iowa and New Hampshire. We then describe our data collection efforts at measuring a candidate's prominence in national and local media coverage and polls.¹ We subsequently turn to a focused analysis that describes the nature of the media prominence and national polling from the summer of 2007 until early January of 2008.

Our results provide a number of clear conclusions. First, to the extent these Invisible Primary components influence Iowa and New Hampshire voters, it is a candidate's national polling numbers, and not national news media prominence, that exhibit a significant influence. Indeed, across all levels, we find that national and local media are mostly followers and not leaders; frequently they do not show any influence on national or state polling numbers.

Furthermore, it is also apparent that a candidate's standing and performance within Iowa and New Hampshire often confer advantages for the national pre-primary campaign. For a number of candidates we find that national news media coverage and poll numbers responded to a candidate's potential to win or lose in Iowa and New Hampshire. These results indicate that Iowa and New Hampshire journalists and voters are not immune to a candidate's viability as a national candidate, and that the states also play a prominent role in shaping the Invisible Primary via national news coverage and polling numbers. Despite the increased importance of a large and front-loaded national campaign, voters and journalists at the national level still appear to be reactive to what Iowa and New Hampshire voters have to say, even before they have the chance to officially say it.

¹Those interested in the broader research project of the Visible Primary as well as details regarding the data collection are encouraged to read our previous paper (Smidt & Christenson 2008) and/or visit the project website <http://visibleprimary.com>

Understanding the Role of the Invisible Primary

What are the mechanisms of the Invisible Primary and what influence does it have on actual nomination contests? While often considered influential, the importance of the early or pre-competition portions of nomination campaigns is not clear. As has been made apparent by the campaigns of John Connally, Howard Dean, and Rudy Giuliani, large campaign funds or leads in national polls do not always translate into primary success. Candidates are human and prone to make strategic mistakes, such as the case of Connally, or run inefficient or lackluster organizations, a claim most recently associated with Hillary Clinton.

Nevertheless, the conventional wisdom is that to win a party's nomination a candidate has to perform well during the time before the contests. The basis for this perception is simple. Nomination campaigns are increasingly being shrunk into what is effectively a national primary. States have moved their nomination contests earlier and earlier within the election year (Cain & Mullin 2002, Mayer & Busch 2003). Candidates now need to effectively compete within a multitude of states soon after the small-scale operations of Iowa and New Hampshire and others.

This was no more apparent than this year when California and New York and as many as 20 other states and one U.S. territory moved up their contest dates to February 5, creating what some in the media termed "Tsunami" Tuesday. To compete within a majority of these states requires extensive organizational support, funding, as well as credibility as a viable candidate.

For the most part, researchers have produced evidence supporting the importance of what Hadley (1976) termed the Invisible Primary. In his own words, the Invisible Primary is "that period of political time between the election of one President and the start of the first state primary to determine the next presidential candidates" (Hadley 1976). This is the time when candidates build up their organizations, establish their political support, and build the funds to finance their operations. Indeed, an examination by Buell (1996) found candidate advantages in fundraising, national media exposure, and early poll standings often were an accurate predictor of primary success, although not perfect. Likewise, Mayer (1996) found that pre-nomination polls are strongly associated with nomination contest performances.

Other scholars also assert the importance of the Invisible Primary but

argue what needs to be won are not polls or money but political elites. In a forthcoming book, Cohen, Karol, Noel & Zaller (N.d., i) argue that “party insiders rather than candidates or voters, dominate presidential nomination contests.” Within their analysis, Cohen et al. detail how endorsements from key political figures are the strongest predictor of a candidate’s primary success and delegate counts, in contrast to advantages in poll standings, fundraising, or media coverage. They also attempt to address issues of endogeneity by estimating what influence early media coverage, early polls, and early fundraising have on each other for the second half of the Invisible Primary (348-353). In total, the weight of their evidence heavily favors an interpretation that party insiders remain a strong determinant of candidate success.

We seek to add to this literature by analyzing how two other aspects of the national Invisible Primary, national news media exposure and national polls, shape and respond to news media coverage and polling levels within the two first nomination contests: Iowa and New Hampshire. We are interested in Iowa and New Hampshire not only because they are the two traditional kingpins in the nomination process, but also because their campaigns and elections are considered to be driven by local campaigning and “retail” politics. The increasing prominence of the Invisible Primary and the specter of a suddenly national campaign threaten to limit this role, especially given the role viability plays in determining voters’ candidate choices (Abramson et al. 1992).

If being an early news media and polling frontrunner is an important component of the Invisible Primary, then we should expect to find it having an influence within this year’s contests for each party. Beyond the increased frontloading, this past year was also the first time since 1952 in which there were no incumbent-administration candidates running within either party. This would suggest that being a frontrunner in the polls and the news media would be a more influential and meaningful force within nomination politics. In combination, two simultaneous campaigns containing no anointed party favorite offer a unique opportunity to evaluate the role of the Invisible Primary within nomination campaigns.

Boon or Bust for the Early States?

The role and influence of Iowa and New Hampshire are less clear in a front-loaded system with an intense pre-nomination campaign. It has long been suggested that frontloading can increase the impact these contests have on nomination campaigns (e.g., Bartels 1988). However, while these two states have traditionally served to bolster and propel candidates onto the national stage, the need for candidates to have a broad-based and well-funded organization for an immediate national campaign might limit each contest's influence and also the import journalists subscribe to such events.

Additionally, an examination of the known factors shaping primary voting behavior suggests the Invisible Primary can compete with and even shape the outcome of Iowa and New Hampshire. Iowa and New Hampshire provide two important advantages on winning candidates: greater information and viability. In terms of information, as Bartels (1988, 80) argues and shows, a "minimal level of familiarity is virtually a necessary condition for supporting any candidate." The news media predominately focus on winners and those candidates who do better than expected (Robinson & Sheehan 1983). Patterson (1980, 45) found that 60 percent of the network news' primary coverage went to the week's primary winner and Just et al. (1996) found this tendency was even greater among local television news primary coverage. This relationship is somewhat explosive as horserace coverage within the media may boost a candidates' respective fundraising levels too (Mutz 1995).

Winning Iowa and New Hampshire is also thought to enhance voters expectations or assessments of popular support for a candidate. Impressions of popular support shape strategic incentives for supporting a candidate, send credible cues, and also influence how voters evaluate a candidate. Voters may not want to waste a vote on a preferred but relatively weak candidate and instead support the most palatable viable candidate (Abramson et al. 1992). Greater expectations also enhances voter evaluations of a candidate's electability in the fall, which improves their overall evaluation of the candidate (Abramowitz 1989). Finally, good poll numbers and a number of endorsements also have a contagion or bandwagon effect that operate beyond strategic incentives (Bartels 1988). For instance, Mutz's (1997) analysis finds that greater levels of public support motivate individuals to assess why a candidate is successful and then reevaluate their own evaluations based on such criteria.

However, the Invisible Primary, in combination with frontloading, may

change how Iowa and New Hampshire interact with these two factors. In terms of information, the compressed primary schedule limits the amount of time between early state contests and when most states vote. While some argue this makes the informational boom from Iowa and New Hampshire more recent in a voter's mind, it may also provide some limitations. With closer campaigns, voters in other states are more likely to encounter contrasting information at the local level if such campaigns are active. With California and other big states on the immediate horizon (and the role of early states less certain) the news media may not focus as long on such victories, in order to keep us with the more condensed timeline.

But perhaps the most intriguing consideration is the role early viability assessments might play on Iowa and New Hampshire voters themselves. If candidates have to compete in a nationwide campaign soon after the primary, then Iowa and New Hampshire voters might be equally influenced by their assessments of which candidate can effectively compete (and win) at such a level. No longer can they be as confident that their choice for president will be able to survive within the forthcoming contests. This would not only be a concern for voters, but local journalists as well, such that they might focus more on those candidates leading at the national level. Of course, an Iowa or New Hampshire win might still enhance candidate chances by providing greater public support and campaign funds. However, these responsive factors still take time to manifest themselves, since such money is effective only if a capable organization is already in place. Therefore, the importance of gaining nationwide political support, exposure, and funding before the early contests is believed to have increased as nomination contests have become more and more frontloaded.

The potential for viability to be an important consideration for early state voting means that winning the national Invisible Primary should have a greater influence on these states' outcomes. Indeed, frontloading and the Invisible Primary have the potential to make these early states increasingly a product of such national factors like national polling, fundraising, and news media prominence. Such a result would counter claims that advocate Iowa and New Hampshire as the last bastions of local "retail" politics, since it may be that such forces are being driven by the larger context of the national campaign.

Evaluating the Invisible Primary's Relationship with Iowa and New Hampshire

We seek to describe and evaluate the dynamics in media coverage and its relationship to candidate support, both nationally and within Iowa and New Hampshire, over the course of the campaign from July 2007 until January 2008. While our interest is in the influence of the Invisible Primary more generally, we focus on news media exposure and polling because these are the two elements of the national Invisible Primary which tap the two seminal influences on primary voting: information and viability.

We address the complicated nature of their relationship by taking a dynamic analysis approach. That is, we seek to explain how changes and movements in the national Invisible Primary relate to changes and movements observed in Iowa and New Hampshire. This approach provides a unique ability to sort out causal relationships by detailing how past movements in one variable relate to future movements in the other. Consequently, we recognize and account for the endogenous relationships that exist between polling and news media coverage.

Such an analysis requires an in-depth understanding of both candidate preference and media coverage at the state and national level. While the former has become increasingly available from a host of pollsters, the latter is decidedly more difficult to capture. To that end, we began the Visible Primary Project, a large scale data collection project on the nature and makeup of electoral news media during the nomination campaign.

News Media Coverage

Few studies endeavor to grasp the role of the traditional and information-abundant medium of newspapers; many of those that have tried to do so have relied on a large and often expensive group of coders (e.g Beck et al. 2002). Modern computing capabilities and the duplication of newspaper articles on websites present an easier alternative. Beginning in July of 2007 we employed daily automated content coding of newspaper websites.² We

²Using LexisNexis other databases, we were able to ascertain a high level of similarity between a paper's print and online content. For evidence of the public's increasing use of online sources, and decreasing reliance on print sources within 2008 see the online Pew Report "Internet's Broader Role in Campaign 2008," January 11, 2008

have collected national and local newspaper articles from the web using an automated retrieval program.

Downloaded information includes the title, the journal, the time, and the content of the article, as well as the time of its posting. The program was written to retrieve information from a nonrandom sample of newspaper websites; collecting articles from all news sites across the country would indeed be worthwhile, but beyond realizable computational space. Given the necessity of a sample, we set out to balance the data collection across a few potential confounders, including timing of the primary, population size of the state, newspaper syndication size, and even the ideological tendencies of the newspapers. Here we focus on the early state nomination contests of Iowa and New Hampshire in an attempt to see what relationship the two contests have with the national Invisible Primary. This subset of data includes over 4,800 articles spanning 184 days.

We analyze both local and national news media attention since past research has suggested that the two kinds of media cover campaigns in different manners (Buell 1987, Just et al. 1996, Shaw & Sparrow 1999, Flowers, Haynes & Crespín 2003). In their analysis of state and national news coverage of the 1992 primary, Haynes & Murray (1998) found candidate spending and visits were much more influential within state coverage than within national news coverage. They also argue that the national news media’s attention to a candidate has a positive influence among local news coverage.

We focus on whether there were noticeable differences between local and national news media attention levels toward candidates and whether the two sources have a different level of influence on local candidate support. For example, if voters in Iowa are more responsive to local than national news coverage, then candidate activities and spending that influence local media coverage might be a more successful way for candidates to gain familiarity and viability leverage. However if national media exposure bestows an influence both on local news coverage and voter opinions, then perhaps there are extensive gains to be had in winning the Invisible Primary within the national media.

In Table 1 we lay out the sources of the news media data collection and some of their basic characteristics. For the early state nomination contests, Iowa and New Hampshire, we rely on the *Des Moines Register* and the *Union Leader*, respectively. These papers hold the largest circulation within each state and are important actors within each state’s contest. Each source also offers frequent coverage of the campaign; this allows us to better measure

Table 1: News Media Sources and Categorization

MEDIA	NEWSPAPER	SOURCE	ARTICLES	SENTENCES
IA	<i>Des Moines Register</i>	Caucus RSS	1045	26821
NH	<i>Union Leader</i>	Primary HTML	594	15145
National	<i>AP Politics Wire</i>	Politics RSS	1667	45465
	<i>Washington Post</i>	Election RSS	402	21163
	<i>New York Times</i>	Politics RSS	640	26600
	<i>Los Angeles Times</i>	Politics RSS	478	20362

changes in their coverage. Comparing their coverage, it appears the *Union Leader* had substantially less articles devoted to the nomination contest than the *Des Moines Register*. However, these articles were, on average, longer and comprised of more content. As such, while not perfect, we are relatively confident these two sources provide us with valuable insight into the nature of each state’s local news media.

In addition, we comprise our measure of national news media content using four sources: the *AP Politics Wire*, the *Washington Post*, the *New York Times*, and the *Los Angeles Times*. Each adds their own dimension to an indicator of the national news media’s focus. The *AP Politics Wire* provides national news media content that is very likely to be distributed nationally. The other three sources provide different glimpses into the focus and content of the more elite national newspapers. Their content is less likely to be distributed nationally, but they remain influential as inner-ring cue-givers who shape the attentions of elites in politics and news organizations.

Measuring Media Salience

For each party, we measure a candidate’s frontrunner status within the news media by simply tabulating the percentage of sentences referring to a candidate out of all sentences referring to a candidate from that party.³ For

³At this time candidate references had to be by name (i.e, no pronoun references) and were measured using a variety of keywords for each candidate’s campaign.

instance, if there are four sentences referencing Democratic candidates that day and two of these also referenced Hillary Clinton, then she would receive a score of 50 percent for that day. This creates a useful summary of a candidate’s relative prominence within each article that also inherently gives greater weight to articles that talk about the candidates more.

Currently, for the national media measure we total it across days of the campaign while ignoring newspaper-based attributes. That is, we do not seek to weigh results in a way that makes each source equal to one quarter of the measure. We did so because the natural distribution of references provided a nice weight in and of itself. While the *AP Politics Wire* carried about four times as many articles as the *Washington Post* or *Los Angeles Times* and about two and a half times as many as the *New York Times*, the article sizes were considerably shorter in the *AP Politics Wire*. As a result, the *AP* contributes roughly 40 percent of the national media measure, with the other three sources each contribute about 20 percent. While our results from an article-based measure are substantively the same, the sentence salience measure provides greater detail and more variance between candidate mentions. We therefore rely on the number of sentences mentioning a candidate in our analyses.

National and Statewide Polls

Our longitudinal media data is supplemented by a myriad of national and statewide polls. Prohibitive costs prevent polling by the same organization over the entire span of the campaign and in every competitive state; rather it is common for various different organizations to purchase questions from a survey house to be administered at a particular time and state. Fortunately, a great deal of these polls ask a slight variant of the same question at different times, namely: “If the Republican/Democrat primary election were held today, who would you vote for - or who are you leaning toward today?” The consistent presence of this question in statewide and national polls provides the opportunity to create time series of electoral preferences across the campaign and in each state of interest. This is especially true for statewide polls from the first two states, New Hampshire and Iowa, and national polls.

Our models of the statewide polls take into account differences in each polls sample size and are capable of controlling for variants of question wording. In addition, when more than one poll is conducted at the same time we model the scores with a decrease in the standard error based on the

combined sample size. Contrary to common practice, we are not concerned with who will win the primary or caucus, but how the electorate collectively changes their favored candidate(s) in response to news media coverage and other external events.

Methods

The use of daily measures of a candidate’s polling level and media prominence suffer from both large levels of sampling error and frequent missing data. In the case of the news media series, we have few missing data but a rather small daily sample. In the case of the public opinion series, the opposite case is true; polls are not taken every day but when they are taken have relatively small levels of sampling error. To accommodate both these problems we specify a Bayesian state-space model to estimate the underlying population parameters.⁴

State-space models, of which the Kalman filter is a variant, typically estimate two structural equations. The first is an *observation model* wherein each day’s observation is specified as a random sample from an underlying parameter and the number of news articles or surveyed individuals are used to calculate the level of uncertainty in the day’s sample. The second equation is the *transition model* wherein we specify and estimate the nature of daily movements in the underlying population parameter. In short, the two equations allow one to take into account both the level of uncertainty in one’s daily observations (or non-observation) and the knowledge of previous and future observations to form a best guess of the underlying parameters.⁵

For instance, within the news article series let y_{it} be the number of observed sentences mentioning candidate i on day t . We specify the observation model as:

$$y_{it} \sim Bin(n_t, \theta_{it})$$

where n_t represent the day’s total number of sentences referencing a candidate from that same party and θ_{it} represents the underlying level of media prominence for candidate i on day t . For ease of estimation, we use the normal

⁴Variants of such methods have frequently been used by scholars to estimate dynamics in polling data (Beck 1990, Stimson 1991, Green, Gerber & De Boef 1999), but are infrequently applied to dynamics in news media coverage.

⁵See Green, Gerber & De Boef (1999) for further description of the intuition, in-depth treatments are found in West & Harrison (1997) and Durbin & Koopman (2001), among others.

approximation of the binomial distribution to estimate the extent of sampling error in each observation.⁶ That is, letting p_{it} represent the observed proportion of news articles referencing candidate i on day t we estimate the following observation equation:

$$p_{it} \sim N(\theta_{it}, \sigma_{it}^2)$$

where

$$\sigma_{it}^2 = \frac{p_{it}(1 - p_{it})}{n_t}$$

In terms of specifying a transition model, as stressed above, the relationship between the media, the electorate and the candidates is not necessarily unidirectional. Rather the primary campaign is often perceived as a self-reinforcing cannibal, whereby the different players feed off one another. As Buell (1996, 11) comments, the “sheer volume of news coverage generally interacts with poll ratings in so reciprocal a fashion that cause and effect are difficult to disentangle.” Thus evaluating their longitudinal relationship answering is not a straightforward task.

To accurately measure the influence the news media have on the public we also estimate and control for the influence state polls might have on media coverage. The resulting system of equations attempts to test for all possible endogenous relationships. To do so we apply a Vector Autoregression (VAR) framework where past values within each candidate series - national news, state news, national polls, and state polls - are regressed on one another (e.g Freeman, Williams & Lin 1989). We estimate these Bayesian VARs (Brandt & Freeman 2006) models separately for each candidate, by each party, within separate Iowa and New Hampshire polling series.

The VAR method specifies the transition models such that each latent or underlying series is regressed on its own past values as well as the past values of other regressors. For instance, on day t Hillary Clinton’s latent level of national news coverage (θ_{NMt}), state news coverage (θ_{SMt}), national public support (θ_{NPt}), and the state’s public support (θ_{SPt}) are expressed as

⁶We base this approximation on the Laplace proportion estimate and resulting confidence interval. The Laplace estimate eliminates instances of proportions being equal to 0 or 1 and thus having no defined standard error. Plus the Laplace estimate provides an advantage in small sample confidence intervals as it closely approximates the score-based test advocated by Agresti & Coull (1998).

follows:

$$\begin{aligned}\theta_{NMt} &= c + \sum_{i=1}^p \beta_{1p} \theta_{NM,t-p} + \sum_{i=1}^p \beta_{2p} \theta_{SM,t-p} + \sum_{i=1}^p \beta_{3p} \theta_{NP,t-p} + \sum_{i=1}^p \beta_{4p} \theta_{SP,t-p} + e_t \\ \theta_{SMt} &= c + \sum_{i=1}^p \beta_{1p} \theta_{NM,t-p} + \sum_{i=1}^p \beta_{2p} \theta_{SM,t-p} + \sum_{i=1}^p \beta_{3p} \theta_{NP,t-p} + \sum_{i=1}^p \beta_{4p} \theta_{SP,t-p} + e_t \\ \theta_{NPt} &= c + \sum_{i=1}^p \beta_{1p} \theta_{NM,t-p} + \sum_{i=1}^p \beta_{2p} \theta_{SM,t-p} + \sum_{i=1}^p \beta_{3p} \theta_{NP,t-p} + \sum_{i=1}^p \beta_{4p} \theta_{SP,t-p} + e_t \\ \theta_{SPt} &= c + \sum_{i=1}^p \beta_{1p} \theta_{NM,t-p} + \sum_{i=1}^p \beta_{2p} \theta_{SM,t-p} + \sum_{i=1}^p \beta_{3p} \theta_{NP,t-p} + \sum_{i=1}^p \beta_{4p} \theta_{SP,t-p} + e_t\end{aligned}$$

Where p represents the number of lagged values included as a regressor within each equation and the vector e_t is distributed multivariate normal with mean zero and covariance matrix Σ . To determine who influences whom, we estimated item response functions (IRFs), which simulate the system-wide influence the change in one series has on future values of all other series. This allows us to test for both direct and indirect significant influences. Furthermore, for the case of New Hampshire, we also add an additional dummy variable to control for post-Iowa effects that are not directly attributed to changes in news media coverage or national polling assessments.

We were able to estimate a VAR for those candidates with consistent polling and media exposure levels over our time frame within either Iowa and New Hampshire. This resulted in separate models for Clinton, Edwards, Obama, and Richardson for the Democrats and Giuliani, Huckabee, McCain, Romney, and Thompson for the Republicans. Each series starts on July 9 and runs to the day before the election for each state. For each series we estimated a BVAR model with 1 lag using the Sims-Zha prior.⁷

Estimation

We derive posterior distribution estimates of each parameter using the Gibbs Sampler. Draws for each latent series θ were calculated using the forward-filtering backward-sampling algorithm (Carter & Kohn 1994, Frühwirth-Schatter

⁷The state-space filtering makes each series extremely smooth. This limits the need to provide additional lags since the two variables are highly correlated, especially in the case of daily data. We use the following hyperparameters: $\lambda_1 = .8$, $\lambda_2 = .5$, $\lambda_3 = 1$, $\lambda_4 = .5$, $\mu_5 = 0$, $\mu_6 = 2$

1994). The simulations converge quickly with little autocorrelation. The first 500 iterations were discarded and the presented estimates are based on a sample of 2000 draws from the posterior distribution of two separate MCMC chains (4000 total).

Results

To get an idea of the nature of media and polling dynamics within both the Democratic and Republican contests, Figures 1-4 present the latent or filtered value of media exposure and polling percentages for each day of our sample. For each figure the top graph presents the estimated dynamics at the national level, while the middle and bottom graphs represent the corresponding estimates for Iowa and New Hampshire.

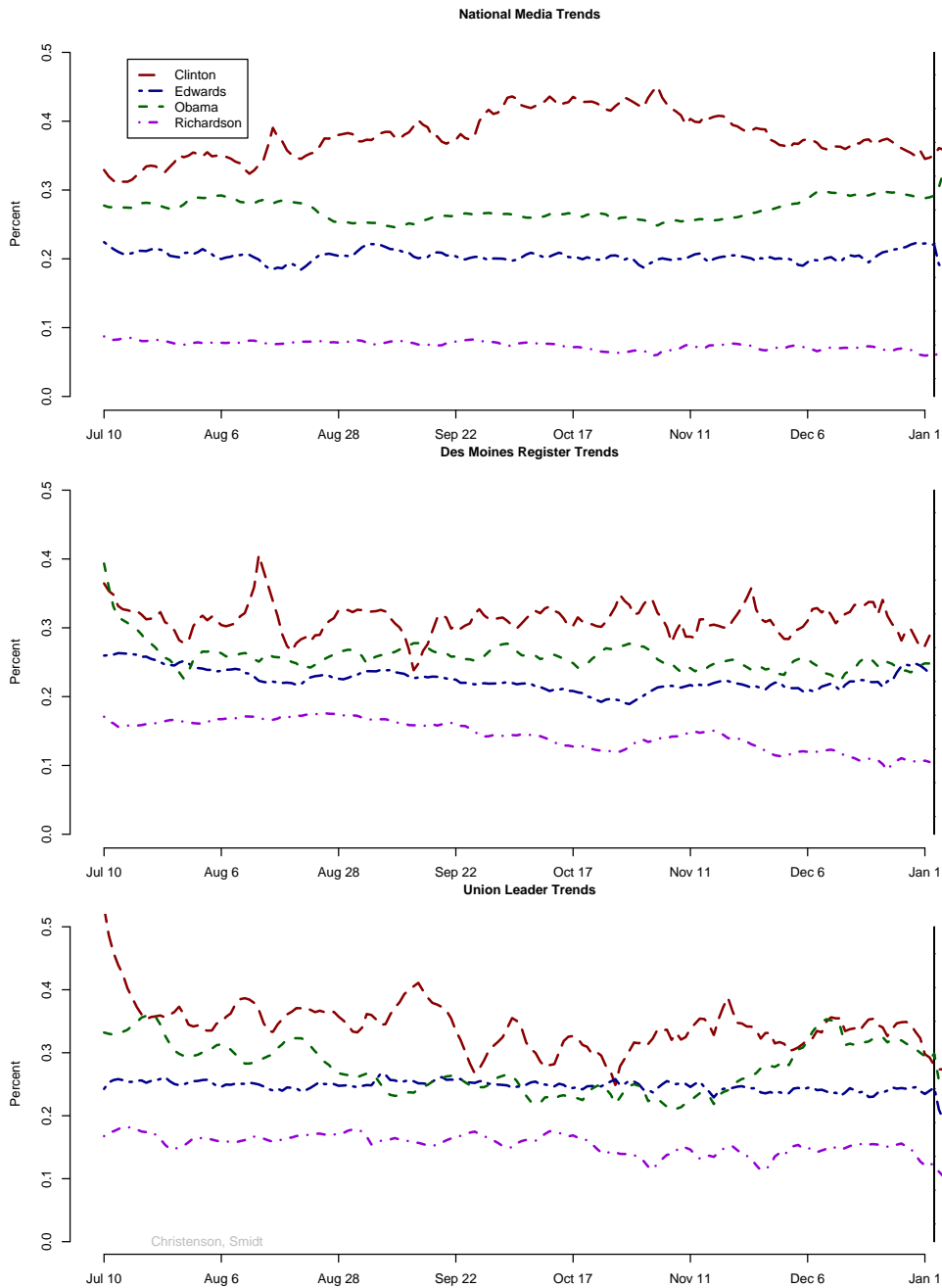
In terms of the Democratic race, a couple observations are apparent at the start. First, not surprisingly, Hillary Clinton was the frontrunner at the national level. In fact, her level of national news media dominance steadily grew until early November, almost to the point where she was mentioned in every other sentence talking about a Democratic candidate. Obama did not begin to approach her levels until after his Iowa win.

Interestingly, when comparing these national levels of news media prominence with exposure rates in Iowa and New Hampshire, one finds that Clinton's advantage was not as strong. She was given relatively less mentions and other candidates, like Bill Richardson, show much greater levels of coverage. This makes some sense since smaller candidates concentrated on campaigning and performing well in these early states. However, it is also apparent Clinton did not show similar gains in local media exposure rates during the fall as she did at the national level.

These movements in news media exposure also show some strong connections to national and local poll numbers. For instance, Clinton's mid-October peak in national media exposure also coincided with her highwater mark in national polling numbers. Likewise, Obama's gains in New Hampshire polling occur at the same time he received more coverage from the *Union Leader*; below we move on to detailing the directional natures of these relationships.

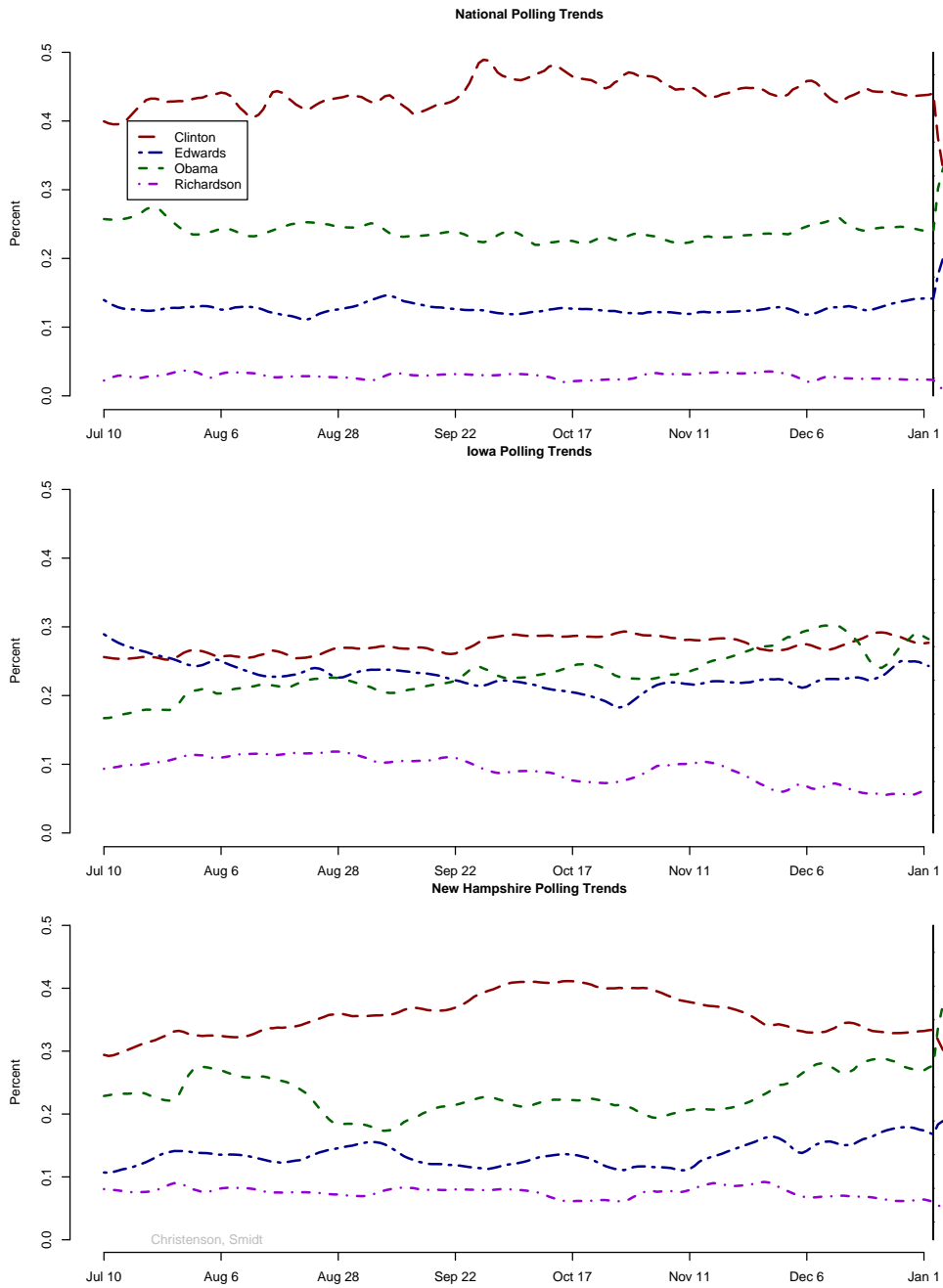
Turning now to the Republican race dynamics, we find a couple of similar relationships. First, Iowa and New Hampshire media content show a similar level of equality in their levels of candidate media coverage. While the first week shows a spike in McCain's media numbers, these are a result of his

Figure 1: Democratic News Media Prominence Dynamics by Media Source



Vertical lines indicate date of Iowa Caucus. *Union Leader* and national media estimates based on New Hampshire VAR results. *Des Moines Register* estimates based on Iowa VAR model results. 15

Figure 2: Democratic Polling Prominence by Population



Vertical lines indicate date of Iowa Caucus. New Hampshire and national polling estimates based on New Hampshire VAR results. Iowa polling estimates based on Iowa VAR model results.

having to partially dismantle his campaign organization and quickly dissipate by the next week. Soon after we find that Romney emerged as a consistent frontrunner in media exposure at the national and Iowa level, while Giuliani showed an advantage for the first half in New Hampshire. But these early state advantages were in no way as great as those differences found at the national level. For instance, at the same time Huckabee was only mentioned in 5 percent of the time in the national media, his Iowa reference rate was up near 20 percent.

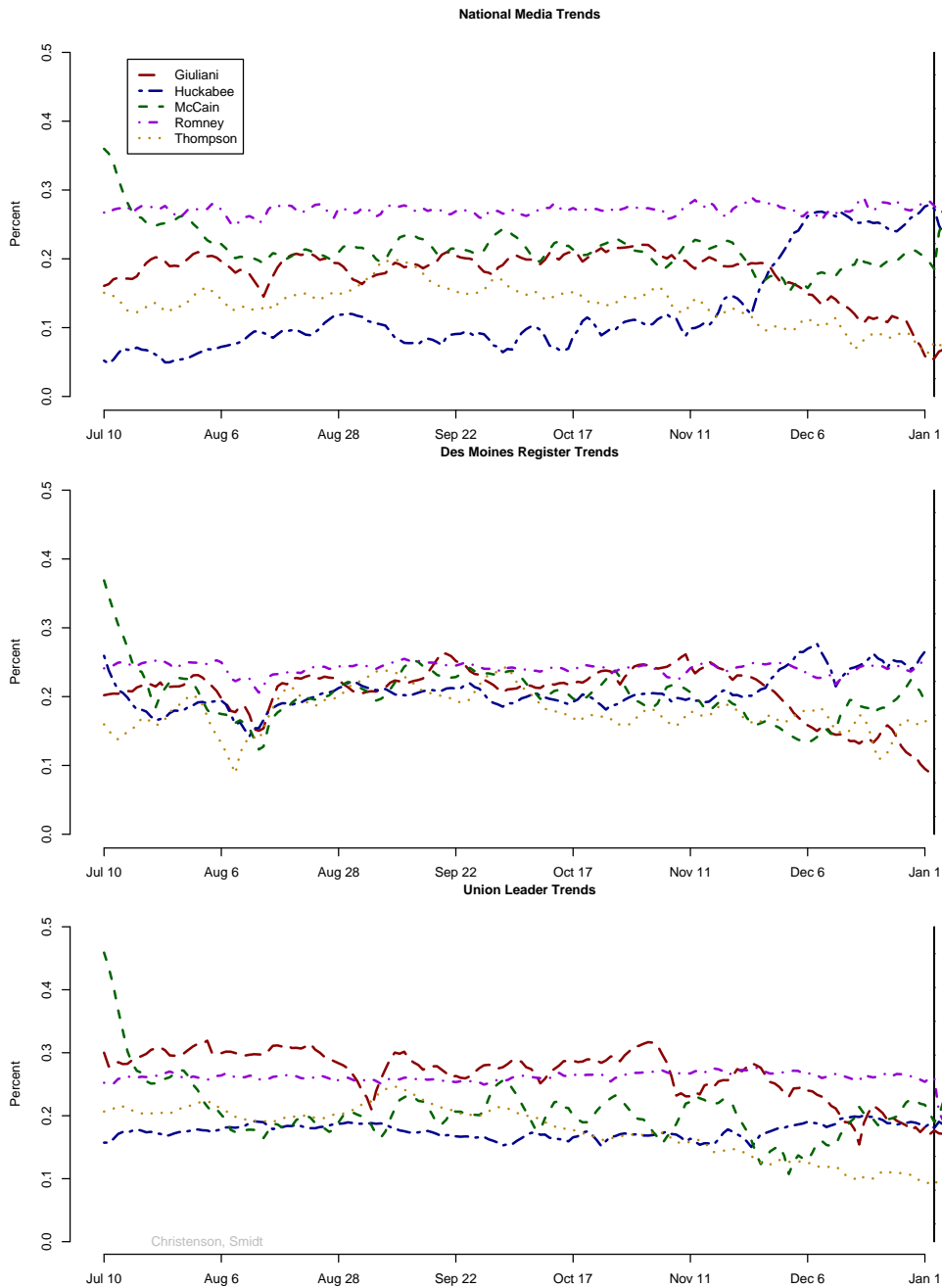
Likewise, we find a similar connection between polling performance and national media exposure. Giuliani's drop in the national and New Hampshire polls strongly coincided with a similar decline in both types of media coverage. We also find Huckabee's Iowa poll numbers pick up the same time his national poll and national media coverage rates pick up.

This movement in Huckabee's numbers serves to demonstrate how Iowa and New Hampshire dynamics show some notable association with movements at the national level. For another instance observe Giuliani's movement during the later half of the campaign. Across all aspects of his media coverage and polling numbers, one can observe a noticeable and steady drop that starts during the early portions of November. Other associations between national and state dynamics are not as coherent. Obama's national poll numbers do not show as equal of gains as are estimated as occurring within Iowa and New Hampshire. As such, there are some definite connections between a candidate's Invisible Primary performance and his or her performance in Iowa and New Hampshire. But simple visual inspection is unable to decipher the exact directional forces that drive such a relationship.

Local or National Dynamics? Polling Numbers and News Exposure

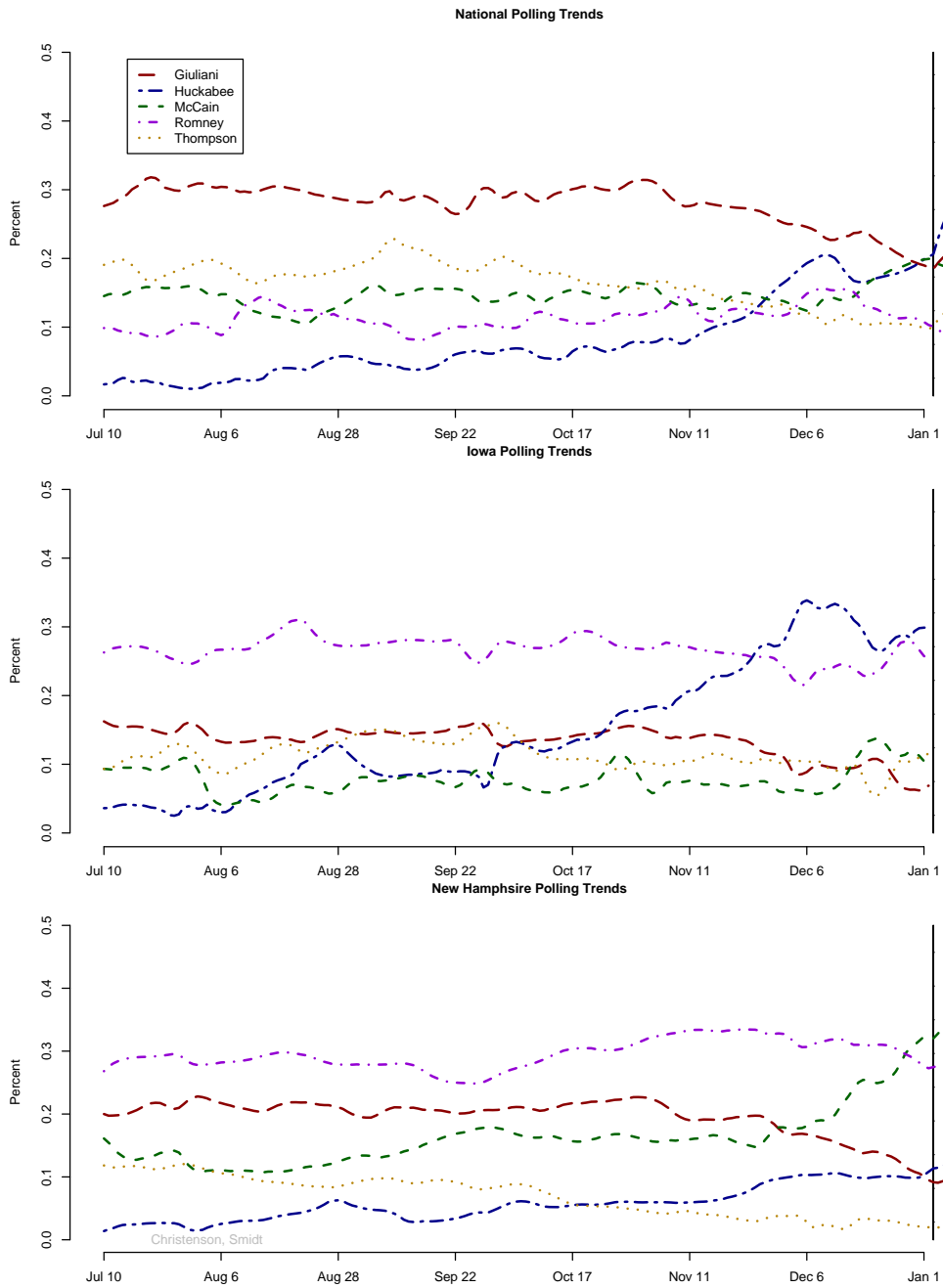
Although they differed in their level of attention, it appears that national and local media show some notable shared dynamics. Such associations are also apparent within national and local polling numbers. Having observed these associations it is interesting to evaluate how they relate to one another. Do local news take cues from the national media in determining what candidate to cover, as they do in other areas (Shaw & Sparrow 1999)? What is the relative influence of polling levels and media exposure in shaping primary dynamics?

Figure 3: Republican News Media Prominence Dynamics by Media Source



Vertical lines indicate date of Iowa Caucus. *Union Leader* and national media estimates based on New Hampshire VAR results. *Des Moines Register* estimates based on Iowa VAR model results. 18

Figure 4: Republican Polling Prominence by Population



Vertical lines indicate date of Iowa Caucus. New Hampshire and national polling estimates based on New Hampshire VAR results. Iowa polling estimates based on Iowa VAR model results.

Our estimates of the VAR transition models allow us to answer questions. By regressing each series as a function of past values of each series we can estimate what effect past movements in one element have on future movements for each of the other series. We estimate these relationships separately for each candidate and each state since we do not expect different relationships to emerge depending on the candidate and the state. For instance, John Edwards was a candidate who spent a great deal of time in Iowa. One might expect national influences to have a greater influence on his numbers in New Hampshire, while his performance in Iowa would be influenced by more local factors.

The National Media’s Lack of Influence

Many scholars argue that national media exposure is an important driving force in primary voting. One would expect to find a similar relationship within the Invisible Primary. As we outlined, the media provide both greater levels of information to voters about candidates and credible signals of regarding a candidate’s viability. However, across all the models we estimated (18 in total) we failed to find a case where increases in national media exposure were significantly associated with future gains in either national or state polling numbers. In short, gaining national news media frontrunner status appears to convey no measurable benefit in the polls.

This is not to suggest such exposure has no benefits. It certainly could be a necessary but not sufficient condition for a candidate’s prospect of winning over supporters. Furthermore, national news media exposure can also have fundraising benefits and would then take some time to indirectly translate into success at the polls. It is just that national news exposure shows no direct association with changes in poll numbers. Instead, and as will be shown shortly, the national media appear responsive to national and early state poll numbers.

National Polling Effects

In contrast to the lack of national media influence, our estimates suggest that movements in the national polls have a clear influence on state voters and national and local media coverage. However, this effect is neither consistent across candidates nor across states.

Table 2 breaks the down the estimated effects of national poll movements

Table 2: Significant National Polling Effects by Candidate and State

Dep. Var.	<i>Model</i>	
	Iowa	New Hampshire
State Polls	Huckabee	Clinton
National News	Huckabee Thompson	Huckabee McCain
State News		Clinton Obama Richardson Giuliani McCain Thompson

Listed names denote significant association (95 BCI excludes zero)

by state and by candidate. In a couple instances, Huckabee in Iowa and Clinton in New Hampshire, we find that increases (decreases) in their national polling numbers were significantly associated with future gains (drops) in their state polling numbers. This would suggest that, for these candidates, doubts or assurances about their national viability was an important component driving their performance in these two early states.

However, the more prevalent influence of changing national poll numbers appears to be in shaping national and local news media coverage of the candidates. What seems most apparent is that the *Union Leader* clearly acted on changing national poll numbers. Whether the newspaper focused less on Richardson, Giuliani, and Thompson as their national poll numbers dropped, or increasingly on Clinton, McCain, and Obama as their national numbers gained, their consistent reaction to the national polls suggests these editors and journalists had their coverage follow the national poll frontrunners. In contrast, the *Des Moines Register* showed no tendency to follow national poll numbers.

Finally, we also find national polling had some effect on the national

news media's attention. As Huckabee gained in his national polling, he also received greater exposure from the national news media. This same relationship was estimated to take place among Thompson and McCain, although not consistently across both models.

The Continued Importance of Iowa and New Hampshire

The results above suggest that these two elements of the national Invisible Primary were not a powerful force driving results in Iowa and New Hampshire. The national media showed absolutely no ability to change state polling levels, while national polling considerations exhibited some tendency to change Iowa and New Hampshire support levels. Furthermore, the greatest influence of national conditions was shown to be on the local news media. In particular, the *Union Leader* often appeared to shift its focus on candidates in response to their national political standing.

Despite these influences, the estimates of Iowa and New Hampshire's influence on the national Invisible Primary campaign indicate the two states remain fairly responsive to their local conditions. Furthermore, they also appear to have important contributions to make in the national pre-primary nomination contest as well. For instance, in contrast to national news media exposure, local news media exposure levels showed much stronger connections to dynamics in public support for a candidate (Table 3). John Edwards, Barack Obama, and John McCain all appeared to have gained (lost) the supporters of New Hampshire in reaction to increased (decreased) local news media coverage. We also find that Mike Huckabee and John McCain (and to some extent Richardson) were able to gain national benefits from their increased local profile. These effects are most likely partially representative of such local media reporting local stories ahead of when they get picked up by the national media.

More interesting is the influence state polls in Iowa and New Hampshire appear to show on the national Invisible Primary (Table 4). For example, Giuliani's successes and failures at the Iowa level translated into successes and failure across all other three variables, at marginal significance levels. His national poll numbers were certainly responsive to his Iowa performances, while to a less degree of certainty, we also find that the *Des Moines Register* and the national news also changed their level of attention to him as a result. This suggests that Giuliani's poor performance in Iowa was a factor that brought the media's focus and his high national poll numbers down.

Table 3: Significant Local News Media Effects by Candidate and State

Dep. Var.	<i>State News</i>	
	Iowa	New Hampshire
State Polls		Edwards Obama McCain*
National Polls		Huckabee
National News	McCain	McCain Richardson*

Listed names denote significant association (95 BCI excludes zero); * indicates marginally significant association (90 BCI excludes zero)

Likewise, there seems to be an interesting give and take between Huckabee’s Iowa and national profiles. As already shown, Huckabee’s national poll numbers did influence his state level numbers, but this was a reciprocal relationship. Huckabee’s performance within Iowa also gave him higher national poll numbers, which in turn strengthened and bolstered his local polling performance. This increase in national polling numbers also improved his national media exposure levels as well.⁸

For further demonstration, examine Figure 5, which shows the effect a 1.8 percent increase in Huckabee’s state polling numbers have on his national polling and media prominence. Following one week after this gain, Huckabee’s state polling numbers are remarkably persistent and still are expected to remain significantly above zero at around 1 percent. Furthermore, his national media and national polling numbers are expected to have gained by .5 percent as the week progressed. This is all in reaction to that one increase of 1.8 percent in Huckabee’s Iowa polling numbers a week before. Clearly, Huckabee’s Iowa success had an influence on his nationwide profile.

These relationships exist for other candidates as well. In terms of national

⁸Although the two factors are significantly related, the system-wide indirect relationship does not pass conventional significant levels.

Table 4: Significant Local Polling Effects by Candidate and State

Dep. Var.	<i>State Polls</i>	
	Iowa	New Hampshire
National Polls	Giuliani Huckabee McCain	Obama*
State News	Edwards Giuliani* Richardson	
National News	Edwards Giuliani*	Clinton Obama

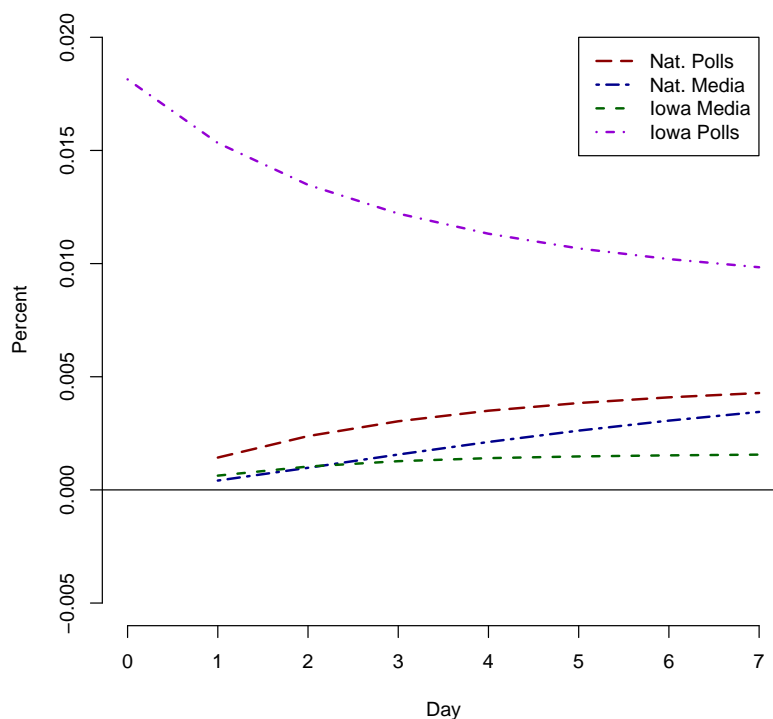
Listed names denote significant association (95 BCI excludes zero); * indicates marginally significant association (90 BCI excludes zero)

poll numbers, we find that the success (or failure) of McCain in Iowa and Obama in New Hampshire also helped (hurt) their national standing.⁹ Not surprisingly, the state media are responsive to local polling numbers a Edwards and Richardson’s coverage in Iowa was directed by their performance in the local polls. Furthermore, we also find that Clinton, Obama, Edwards, and, as already discussed, Giuliani’s national news media prominence were reflective of their polling performance in these early states.

In combination, we find much evidence that the national media are primarily followers, not leaders, during the Invisible Primary. Furthermore, the national media and national polls show a remarkable responsiveness to Iowa and New Hampshire polling numbers. This would indicate that these early states have an important influence on summer and fall performance of many candidates nationally. For example, our estimates find Obama’s apparent surge in December media coverage and polling are most likely attributed to

⁹The Obama relationship cannot be purely attributed to a post-Iowa effect since we add an additional dummy variable in the New Hampshire models to account for that possibility.

Figure 5: Huckabee's National Profile and State Polling Relationship



Dotted lines indicate 95 percent BCI

his improving status in New Hampshire polling numbers.¹⁰ Likewise, Clinton's national media profile rose and fell with her New Hampshire performance in a reciprocal fashion similar to Mike Huckabee in Iowa.

¹⁰The Iowa results for Obama suggest a similar effect but are not significant. We attribute this to an odd polling drop in Obama's late December numbers, corresponding with the holidays, that seem to return to normal during the last week. We believe this movement is disrupting our estimates of the effects of his gains in Iowa polling.

Conclusions

While frontloading has arguably given the Invisible Primary an even greater role in selecting our party nominees, it appears this has not limited the individuality and voice Iowa and New Hampshire have in the process. We found no evidence of a national news media coverage effect on national or local polling numbers as well as a lack of influence on state media coverage. To the extent national-level factors influenced the Iowa and New Hampshire campaigns, it was a candidate's national polling performance which showed the most consistent influence. In particular, a candidate's movement in national polls showed a strong influence on his or her level of exposure in New Hampshire's *Union Leader*, but this effect was not as prevalent in Iowa. Furthermore, these movements in state media exposure rarely had an influence on local polling performance.

National polling numbers, for the case of Huckabee in Iowa and Clinton in New Hampshire, did have an effect on candidate performance in local contexts. This is not surprising since voters face strong incentives to select a candidate who has a good chance of winning the large national contest. However, for many other candidates we did not find evidence that national polling helped their chances in these early states. Giuliani was never able to use his media and polling prominence at the national level to his advantage in Iowa. Likewise, the national fascination with Fred Thompson during the late summer was never able to replicate itself among the voters of Iowa and New Hampshire. In contrast, it appears that candidate performance in the Iowa and New Hampshire polls had a far greater influence on national polling and national media coverage. Regardless of whether Iowa and New Hampshire should logically have such importance, the national media and public still exhibit notable responsiveness to their developments.

While we resist the temptation to judge the merits of the current nominating system, we believe that the evidence validates claims that the results of Iowa and New Hampshire reflect a candidate's success in retail politics. If a candidate succeeds in gaining support among local forces in Iowa and New Hampshire, the nation responds by showing greater interest in his or her campaign. Thus lesser known candidates can still establish themselves on the national stage, by being successful on the hustings of these early states.

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