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American Journal of Political Science, Vol. 46, No. 3. (Jul., 2002), pp. 595-610.

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American Journal of Political Science is currently published by Midwest Political Science Association.

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The Effects of Retail Politics in the New Hampshire Primary

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Presidential candidates devote considerable time and resources to establishing contact with voters through direct mail, telephone banks, rallies and face-to-face campaigning, yet there is little systematic research about the impact of such retail politics on voters. The New Hampshire primary provides an optimal context for examining the consequences of campaign contacts because of its strong tradition of interaction between candidates and voters. Using a unique data set drawn from five surveys conducted during the 1996 New Hampshire primary, we show that candidate contact influences voters' abilities to rate candidates, as well as their information about and favorability toward candidates. The effects of contact, however, are complex. Voters like and know more about the candidates whom they meet, but they also are more likely to experience contact with candidates whom they are predisposed to like.

Candidates devote considerable energy and resources to establishing personal connections with voters. Through targeted mail, telephone banks, public rallies and face-to-face encounters, candidates make contact with voters to reinforce their media messages and create a sense of identification with the electorate. Although these activities are an integral part of most campaign strategies, scholars know relatively little about their impact on voters. Early students of voting behavior tended to dismiss the effects of campaigns altogether (Lazarsfeld, Berelson, and Gaudet 1948; Berelson, Lazarsfeld, McPhee 1954; Campbell et al. 1960). Subsequent research has indicated that campaign events can create momentum for candidates during the nomination process (Bartels 1988) and produce fluctuations in public opinion during the general election campaign (Holbrook 1996). Most scholars investigating campaign stimuli, however, have focused on indirect contacts between candidates and voters through advertising and news coverage (Patterson 1993; Hetherington 1996; Shaw 1999; See Lau et al. 1999 for complete list of citations about attack advertising). Thus, the question remains: Are the time-honored campaign practices involving personal contact still important in an electronic era?

Using the New Hampshire presidential primary as a laboratory to study campaign effects, we find that direct contacts shape how much voters know and like about candidates. Moreover, we demonstrate that these relationships are mutually reinforcing. Voters not only like and know more about the candidates with whom they have campaign contacts, but they also are more likely to experience contact with candidates about whom they have favorable sentiments.

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We would like to thank Larry Bartels, Greg Caldeira, John Geer, Jeff Lewis, Doug Rivers, Dick Winters, and three referees for their helpful substantive and methodological comments. The surveys we use were conducted by Tami Buhr and Linda Fowler for The Rockefeller Center at Dartmouth College and WMUR-TV in Manchester, NH. This article was originally prepared for presentation in July 1999 for the Dartmouth College Conference on Presidential Primaries and is in every way a collaborative effort.

American Journal of Political Science, Vol. 46, No. 3, July 2002, Pp. 595–610

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ISSN 0092-5853

Several studies suggest that voters pay attention to direct contacts with candidates. For example, two different analyses of presidential elections based on aggregate data indicate that the frequency of candidate visits to a state has a strong influence on party vote totals (Jones 1998; Shaw 1999), as well as on turnout (Jones 1998). Experimental work by Gerber and Green (2000) demonstrates a positive effect on turnout from nonpartisan canvassing and direct mail in the 1998 off-year election in New Haven. In addition, congressional scholars have examined personal contact as an integral part of legislators' representational styles (Fenno 1977; Cain, Ferejohn, and Fiorina 1987). They report that contact is positively related to name recognition, recall, and favorable evaluations of candidates (Jacobson 1992) and that it affects vote choice and conditions the influence of campaign spending (Kenny and McBurnett 1997).¹

Campaign contacts are potentially quite important in presidential primaries for several reasons. First, voters typically have little information about many of the candidates in a crowded primary field, and the candidates' lack of party labels may render their personal attributes—their styles, experiences, and communication skills—more salient. Second, primaries occur because factions within a party disagree about core issues, so elite discourse, which is so critical to election outcomes (Zaller 1992), may provide conflicting signals. Third, the prominence of Iowa and New Hampshire in the presidential nominating process requires campaigns to accommodate deeply ingrained local traditions regarding the accessibility of candidates. Finally, the idea that campaigns merely reinforce voter preferences may be less applicable to primaries, because national forces, such as economic performance and presidential popularity, do not appear to affect primary results.

Despite the potential importance of direct contacts in shaping primary outcomes, a dearth of appropriate survey data has hindered scholarly research. The National Election Study has devoted relatively few resources to primary elections since its major study in 1984, and state primary exit polls generally avoid questions that probe for campaign contacts. Moreover, when the NES inquires about campaign contacts in general elections, it asks about *any* candidate rather than asking about specific candidates.²

¹Jacobson included media contact, however, as well as personal, mail, and telephone contact.

²The NES survey indicates high levels of campaign contacts through mail and telephone calls, with 29 percent of voters reporting a telephone call from any campaign in 1996 and 20 percent reporting a call in the 1998 Pilot Study. Fifty-one percent of respondents reported receiving mail from any campaign in 1998. In

To examine how voters process information about candidates derived from personal contacts, we need to assess the direct links between voters and individual candidates and employ a sufficient number of cases to assess the relative efficacy of different types of contact—mail, telephone calls, and face-to-face meetings. Fortunately, we have a unique data set that meets these criteria, which was collected during the 1996 presidential primary in New Hampshire.

New Hampshire is the perfect venue for observing the effects of direct contact. The state's small size, its tradition of town meetings, and its relatively concentrated population along the Massachusetts border create opportunities for pressing the flesh that locals describe as "retail politics." Indeed, Buhr (2000) reported substantial amounts of contact between voters and candidates in 1996. Moreover, the New Hampshire primary receives more coverage than any other state's race and more than most states combined (Buell 1987). One might argue, then, that New Hampshire's primary is the limiting case for examining campaign contacts. If letters, telephone calls and face-to-face meetings do not matter in the Granite State, they are even less likely to have an impact elsewhere.

How Contact Matters

Personal contacts are different from other campaign stimuli in several ways. They not only bypass the filtering and interpreting functions of the news media and political elites, but they also involve nonverbal cues. In addition, some types of direct contact, such as attendance at a rally, involve mobilization effects because voters must do something such as go to the town hall, rather than simply receive a message. For these reasons, contact does more than simply provide information.

Contact seems likely to influence voters' orientation toward candidates in several ways. For example, it may heighten "cognitive engagement" with particular candidates (Zaller 1992, 43) by increasing the probability that voters recollect something about a candidate. Or it may increase the salience of an individual candidate and encourage voters to pay more attention to him or her over the course of the campaign. Furthermore, personal contact may influence voters' dispositions toward candidates by triggering cognitive processes (Popkin 1991) or activating voters' "surveillance systems" (Marcus et al. 2000). When contacts take place within social, religious, or economic organizations, as many do in New Hampshire, the

contrast, only 6 percent of the NES sample in 1996 and 1998 had met any candidate.

sense of connection to the candidate gains force because of preexisting bonds among group members (Berelson, Lazarsfeld, and McPhee 1954; Gerber and Green 2000). Finally, direct contacts may further shape voters' attitudes by reducing their uncertainty about candidates' positions. Recent work in voting behavior suggests that uncertainty affects voters' behavior systematically (Bartels 1986, 1996; Alvarez and Franklin 1994; Alvarez 1998). Thus, if contact increases voters' ability to evaluate candidates, it should increase confidence in voters' placements of candidates on issues.

Direct contact, however, is not something that happens randomly between candidates and voters. Rather, voters have propensities that increase the likelihood they will have contact with particular candidates. First, candidates are most likely to make contact with voters whom they consider potential supporters because of past actions or present affiliations. Second, candidates may vary in the mix of contacts they offer voters, or they may differ in the resources they have available to create contacts. Third, voters may actively seek out candidates who interest them because of something they read or heard from many possible sources. This reciprocal influence is particularly true for face-to-face contact or attendance at a rally because of the effort involved in organizing and participating in such events.

Any analysis of the impact of campaign contacts on voters should account for such endogeneity. Thus, we develop a model that accounts for the nonrecursive nature of the relationship between direct contact and voter information and attitudes. The system of equations estimates the effect of three types of personal contact—receiving mail or telephone calls, or meeting a candidate—on several different dimensions of voters' knowledge and attitudes towards the candidates. At the same time, the system of equations estimates the influence of voters' knowledge and attitudes on the probability that they will meet a particular candidate.

Data, Measurement, and Hypotheses

To test these ideas, we examine respondents' contacts with specific candidates over the course of the 1996 New Hampshire primary. The data are drawn from the WMUR-Dartmouth College Poll, conducted by the Nelson A. Rockefeller Center at Dartmouth College. The WMUR-Dartmouth College Poll consists of five telephone surveys administered between October 1, 1995 and February 15, 1996. The first wave of the survey was conducted from October 1 to 4; the second from October 22 to 25; the third from January 7 to 10; the fourth from January 29 to February 2; and the fifth from February 13

to 15, right before the primary. The sampling procedure was random digit dialing of New Hampshire residential phone numbers. The survey employed a screen for likely voters, which included all Republicans and independents who declared their intention of voting in the primary, as well as Democrats who claimed they would "definitely vote" in the Republican primary election.³ The total number of interviews was 2,296, with each wave generating roughly one-fifth of the total. The survey enables us to control for voter learning at various stages of the primary campaign and to investigate candidate-specific contacts. Thus, it offers an unprecedented opportunity to examine campaign effects among primary voters.

In testing our hypotheses about the relationship between candidate contact and voter dispositions, we confronted a challenge. Given the crowded and uneven field of contestants, only a small percentage of voters had direct contact with some of the ten candidates who initially ran for the Republican nomination. This diminished the likelihood of obtaining interesting results for several candidates.

To address these issues, we adopted two strategies. First, we limited our analysis to the top four performers in the 1996 New Hampshire presidential primary race: Bob Dole, Pat Buchanan, Steve Forbes, and Lamar Alexander. Those excluded include California Representative Bob Dornan and Senators Arlen Specter and Phil Gramm, who had dropped out by January and were removed from subsequent surveys. Additionally, we excluded talk show host and former U.N. Ambassador Alan Keyes (only fifteen people report meeting him as compared to 252 people who report meeting Dole), Senator Richard Lugar, and Ohio businessman Morry Taylor (Lugar and Taylor each had contact with twenty-five respondents). Due to their low ratings in the polls or exit from the race, many of the survey questions were not continually asked about the latter six candidates, therefore limiting our ability to test hypotheses systematically across all candidates.

To ensure that we are not inducing bias into our analysis by limiting it to the top four vote-getters in this election, we ran separate models for each candidate about whom the survey questions were continually asked. The coefficients on the contact variables for the top four performers were not notably different from the rest of the candidates in the race.

Second, in order to examine the general effects of campaign contacts across candidates, we created four separate data sets—one each for Dole, Forbes, Alexander,

³New Hampshire's registration laws allow independents to switch their registration at the polls and then change it back immediately after voting. Partisans may switch thirty days before the election.

and Buchanan—with the contact variable coded according to whether the respondent met that particular candidate. We then stacked the candidate data sets, raising the total N to 9,184. Each respondent has one horizontal vector of information for each of the four candidates under analysis and, therefore, is in the data set four times.

This technique constrains the effect of contact to be the same for each candidate.⁴ Under the condition of constraint, we are able to say that meeting one of the four candidates increases the voter's probability of favoring *that candidate* by some constant percentage, whether the candidate is Bob Dole or Pat Buchanan. Note that it is still the case that meeting Dole should only increase the voter's rating of Dole. Since we are interested in uncovering the general effects of direct contact based on specific candidate-voter contact information, this technique allows us to use all available information and still make general conclusions about contact. Thus, we retain the specificity of voters' contacts with individual candidates, while increasing the variation on the contact variables sufficiently to assess their overall effects in the campaign.⁵

The rest of the models are fully interacted with candidate indicators, so that the other independent variables can have candidate-specific effects with Dole as the omitted category. In addition, the indicator variables for each candidate serve as a control for unobservable differences among the candidates, such as resources, campaign tactics, and personal style.⁶

⁴In standard tests for parameter heterogeneity we cannot reject the null hypothesis that the candidate-specific coefficients on contact are the same as one another except when number of comments is the dependent variable. In this case, it appears that people knew a lot about Dole in general, thus those who met Dole were not able to increase the number of things they could say about him nearly as much as people who met and commented on the other candidates.

⁵Stacking the data means that the N individuals in the data set rated C candidates, yielding NC total independent observations. Note that this is different from simply duplicating N observations C times. Each "duplication" in our approach is not an exact copy of the respondent's original vector of information. Instead, each of the respondent's four vectors of information in the data set has a different candidate identified for the dependent variables. In order to show that the observations are independent, we used 2SLS to predict residuals from each of our models. We then correlated each model's residuals across candidates. We switch from two-stage probit to two-stage least squares here because, in the strict sense, probit models do not generate residuals. The purpose of this test is to show, for example, that voters' ratings of Lamar Alexander were independent of their ratings of Bob Dole. The correlations ranged from .01 to .27. Additionally, due to the possibility of nonindependence of observations, we bootstrapped the standard errors in both stages of the model. Bootstrapped standard errors were not substantially different from White's robust standard errors. The tables report robust standard errors.

⁶We do not have explicit variables in the models regarding the strategies and resources that each candidate brought to New

Dependent Variables

In estimating the reciprocal effects between campaign contacts and voter dispositions towards candidates, we differentiate among the types of contact voters have with candidates. Mass mailings are less personal than telephone calls and face-to-face meetings. In addition, receipt of mass mailings and telephone calls requires little effort from voters, while participation in a rally or conversation with a candidate on the street requires a bigger investment of citizens' time and attention.⁷ For these reasons, we will direct much of our attention to the effects of meeting a candidate or attending a rally.

Our investigation of retail politics focuses on several types of information that voters need before they can vote in a primary contest. This preliminary information includes the following: whether voters are able to rate the candidates in terms of favorability (*ability to rate*); how much voters know about the candidates in the election (*number of comments*); and finally, how voters assess the candidates, overall (*favorability*).

Ability to Rate: As noted earlier, contact may affect preferences by reducing the uncertainty voters have about candidates in general. Following Bartels (1986), we employ the ability to rate a candidate in order to capture uncertainty. We transform this variable into a new measure—one that labels voters as "uncertain" if they cannot rate the candidate at all on this scale and treats voters as "certain" if they can rate the candidate.⁸ We are trying to explain what systematically differentiates the voters who *can* place the candidates from those who *cannot*.

Hampshire because such data are extremely unreliable and they induce unnecessary measurement error. Steve Forbes, for example, a self-financed candidate exempt from reporting requirements, provided no public record of his extremely expensive campaign. In addition, many expenses that go into running primary campaigns are charged to the national campaign or are picked up by advocacy groups. Additionally, most candidates place many of their ads in neighboring Massachusetts in order to stay within the state spending caps. The information on their advertising buys is available only by going to the stations and looking through the public file of ad buy information, which is no longer readily accessible. Further, such variables elucidate between-candidate differences on the supply side of campaign contact. We capture these differences in the fixed effects controls in our model. What we are mainly interested in uncovering is the within-candidate differences in voters' propensities to seek out contact from candidates.

⁷Unlike phone calls and mass mailings, personal contact can be initiated by the voter, which is what makes the endogeneity particularly important and interesting. While voters who receive calls and mail are likely on a list of supporters, it is also likely that these lists are not sufficiently nuanced over the course of the campaign to track voters' changes in favorability towards candidates, therefore making the endogeneity less compelling.

⁸Respondents who rated the candidate as "neutral" were also considered uncertain.

Information: Given the lack of partisan anchors in presidential primaries, we argued above that voters may rely on direct contacts to obtain useful information about candidates. Voters who have met candidates may remember more information than those who did not meet candidates or may be motivated to seek further information. Adasiewicz, Rivlin, and Stranger's (1997) work on free TV time supports this notion, suggesting that candidates promote themselves more aggressively when they are speaking in person or in their own voice, such as at a rally. To measure voters' level of information, we use an open-ended question that asks respondents to say up to five things about each candidate.

Favorability: Finally, we have argued that contact may encourage voters to identify with a candidate or to project positive feelings onto the candidate who has sought them out. Similarly, being interested in a candidate and being positively disposed towards him or her may cause voters to seek out contact with that person. To measure voters' favorability towards the candidates, we use a survey item that asks whether they feel favorable, unfavorable, or neutral towards each candidate.

A summary of the system of equations is shown in Table 1. The equations consist of dependent variables (ability to rate, number of comments, favorability, and met), exogenous independent variables, identifying restrictions, and endogenous regressors. We use a limited information two-stage probit estimation in an effort to account for the endogeneity between meeting a candidate and the other dependent variables.⁹ Following Maddala (1983, 373), the structural system takes the following form:

$$\begin{aligned} Y_1^* &= \delta_{12}Y_2^* + \delta_{13}Y_3^* + \delta_{14}Y_4^* + \beta_1X + \theta_1Z_1 + \varepsilon_1 \\ Y_2^* &= \delta_{21}Y_1^* + \beta_2X + \theta_2Z_2 + \varepsilon_2 \\ Y_3^* &= \delta_{31}Y_1^* + \beta_3X + \theta_3Z_3 + \varepsilon_3 \\ Y_4^* &= \delta_{41}Y_1^* + \beta_4X + \theta_4Z_4 + \varepsilon_4 \end{aligned}$$

Where:

Y_1^* and Y_2^* are unobserved, continuous variables measuring propensity to meet a candidate (Y_1^*) and to rate a candidate (Y_2^*), such that $Y_i = 1$ when $Y_i^* > 1$ and Y_i are dichotomous measures, for $i = 1$ or 2.

Y_3^* and Y_4^* are unobserved, continuous variables measuring propensities to favor a candidate (Y_3^*), or to say more things about a candidate (Y_4^*). These measures are mapped into ordinal, observed

quantities using a series of thresholds as is typical in ordinal probit analysis.

X is a set of exogenous regressors

Z is a set of instruments

For our three dependent variables, ability to rate, number of comments, and favorability, we are interested in whether voters who have had personal contact with candidates differ from those who have not. Are they better able to evaluate candidates? Can they say more about the candidates with whom they have had contact? Do they feel more positively towards them? Recognizing that contact can be both cause and effect with respect to voters' dispositions towards candidates, we offer the following hypotheses.

Ability to Rate: Receiving mail, getting telephone calls, attending rallies, or meeting a candidate in person increases the chances that a voter can rate the candidate on a favorability question, *ceteris paribus*. Similarly, voters who can rate a candidate will be more likely to go to a rally for that candidate or meet that candidate, *ceteris paribus*.

Information: Receiving mail, getting telephone calls, attending rallies, or meeting the candidate in person increases the number of pieces of information voters have about the candidate, *ceteris paribus*. Similarly, the more informed a voter is about a candidate, the more likely he or she is to meet or attend a rally for that candidate, *ceteris paribus*.

Favorability: Receiving mail, getting telephone calls, attending rallies, or meeting the candidate in person increases the chances that a voter is favorable towards the candidate, *ceteris paribus*. Similarly, a voter with a favorable impression of a candidate is more likely to meet or attend a rally for that candidate, *ceteris paribus*.

Identification

In order to account for the hypothesized endogeneity between contact and voter knowledge and attitudes, we use a two-stage probit estimation process. We first obtain reduced form estimates for each endogenous dependent variable and subsequently use these estimates in the second stage of the analysis.¹⁰ To generate consistent final

¹⁰This estimator was first suggested by Grether and Maddala (1982). Lee (1982) and Amemiya (1978) have shown that these estimates are consistent but not efficient. Most scholars ignore the inefficiency resulting from this type of model, and some (Alvarez and Glasgow 2000) have suggested the effect on the standard errors may be minimal. Reduced form estimates are presented in Appendix A.

⁹When we estimate the models using two-stage least squares, we find substantively similar results.

TABLE 1 Summary of Equations

Independent Variables	Dependent Variables			
	Met (Y ₁)	Ability to Rate (Y ₂)	#Comments (Y ₃)	Favorability (Y ₄)
Met _{ij} (Endogenous)		Y ₁	Y ₁	Y ₁
Call _{ij}	X	X	X	X
Mail _{ij}	X	X	X	X
Metro _i	Z			
Turnout _i	Z			
Candidate _j	X	X	X	X
Age _i * Candidate _j	X	X	X	X
Party Identification _i * Candidate _j	X	X	X	X
TV news _i * Candidate _j	X	X	X	X
Newspaper _i * Candidate _j	X	X	X	X
Poll _k	X	X	X	X
Attention to the Campaign _i *Poll _k * Candidate _j	X	X	X	X
Ideology _i * Candidate _j		Z	Z	Z
Education _i * Candidate _j		Z	Z	
# Open Ended Comments _{ij} (Endogenous)	Y ₂			
Ability to Rate _{ij} (Endogenous)	Y ₃			
Favorability _{ij} (Endogenous)	Y ₄			

X indicates an included independent variable and Y indicates an endogenous regressor in the model

Z indicates an identifying restriction

j subscripts candidates, *i* respondents, *k* panels

Met is an indicator for whether respondent met the candidate or went to a rally

Call is an indicator for whether respondent received a call

Mail is an indicator for whether respondent received mail

Age (four categories)

Education (five categories)

Partisan identification (seven-point scale)

TV news and Newspapers measure the respondent's frequency of television (both local and network combined) and newspaper usage

Attention to the campaign (three categories)

Candidate is an indicator (four candidates)

Ideology (seven-point scale)

Metro is an indicator for whether respondent lives in a rural or metropolitan area

Turnout is a self-reported estimate of likelihood of voting in this election

Poll is an indicator of when the respondent was interviewed (five waves)

estimates, however, we must find instruments for each endogenous regressor that are correlated with this variable but uncorrelated with omitted determinants of the dependent variable under investigation.¹¹

Instruments for Meeting Candidates: Our instruments for this type of contact include whether the re-

spondent lives in a metropolitan area and his or her likelihood of voting in this election. Living in a metropolitan area is correlated with meeting a candidate because candidates are simply more likely to visit highly populated areas as compared to rural areas. In contrast, living in New Hampshire's single metropolitan area is not likely to directly affect how much information a person has about a candidate, or how much he or she likes a candidate. As Buell (1987) has shown, New Hampshire's primary receives more media attention than all the other primaries combined. Much of that coverage is on network news programs and is part of what is essentially a single media market. For this reason, we believe that the metropolitan-rural divide is unlikely to affect the

¹¹In terms of alternative instruments for these models, we are somewhat limited by the questions asked in the survey. We did experiment, however, with two alternative specifications. We left likelihood of voting out of the instrumentation for the contact variable with no substantial changes to the results. Additionally, we experimented with time as an instrument for favorability, ability to rate, and number of comments with no substantive change to the results.

TABLE 2 Percentage of Voters who had Contact with Top Four Candidates

	Dole	Buchanan	Forbes	Alexander
Met/Attended Rally	10.98% (252)	4.53% (104)	2.00% (46)	3.75% (86)
Received Mail/Call	30.75% (706)	6.88% (158)	10.63% (244)	9.71% (223)
N=2296				

information environment of the campaign.¹² Similarly, someone who is more likely to vote in an election may also be more likely to seek out contact from candidates or stimulate attention from a campaign simply because of greater interest in the campaign. This, however, is unlikely to directly affect a person's opinions of and knowledge about the individual candidates.

Instruments for Ability to Rate and Number of Comments: To identify the met equation we rely on ideology and education interacted with candidate indicators (which raises the total number of instruments to eight). Voters with higher levels of education are more likely to pay attention to politics. Thus, an increase in education level should lead to an ability to rate a candidate and to say more things about him or her without affecting the likelihood of having contact directly. Ideologues also tend to retain more political information (Converse 1964), so we expect ideology to influence their rating of a candidate and the number of things they can associate with a candidate without directly affecting their probability of experiencing contact.

Instruments for Favorability: To identify the met equation when favorability is of interest, we use only ideology interacted with candidate indicators. Ideology is likely to drive people's opinions about candidates, but all things being equal, it is unlikely to motivate candidate contact. In other words, we do not expect extreme conservatives to be more likely to meet candidates, all else equal, than moderates. Controlling for favorability, ideology itself should not predict contact.

The use of several instruments in each of these equations means that the equations in the system are all over-identified.¹³ In order to statistically evaluate these exclusions, we tested the over-identification by comparing indirect least squares results to two-stage least squares results.

¹²Even the rural parts of New Hampshire receive the Boston media market television stations since cable or satellite television is required in nearly all rural areas of the state.

¹³The over-identification is a result of the interaction of excluded variables with candidate indicator variables. Thus, the interaction terms identify these systems. We expected, a priori, the coefficients on these interactions not to be zero. For example, we would expect

Empirical Results

Table 2 provides a breakdown of levels of contact by both candidate and type of contact for the four major candidates in the primary. The top half of Table 2 details the relationship between candidates and face-to-face contact, and the bottom half of Table 2 presents the data for mail and telephone contact. One might explain the variation in contact across the campaigns based on front-runner status, financial resources, or campaign strategy, among other possibilities. Voters meeting a candidate or attending a rally were five times as likely to meet Bob Dole as Steve Forbes and roughly three times as likely to meet Dole as Lamar Alexander. This is true even though all four candidates staged roughly the same number of events in New Hampshire (between 45 and 51). Similarly, voters receiving mail or a phone call from a campaign were about four times more likely to hear from the Dole campaign than from the Buchanan camp, and about three times more likely to hear from Dole than Alexander.

Additionally, we found that nearly half of likely voters, 49 percent, reported no contact from any campaign during the period from October 1995 to February 1996. In contrast to these findings, national levels of contact are substantially lower. As we noted earlier, the 1996 NES survey reported only 5.9 percent of respondents meeting or attending a rally with any candidate, while 18.5 percent of New Hampshire voters report meeting any of the candidates running in the 1996 primary.

Ability to rate and contact. We turn now to our analysis of the endogeneity among candidate meetings, information, and favorability. Our first test of how contact affects voter attitudes measures the ability of voters to rate the candidates on a favorability scale. We present these results in Column 1 of Table 3. We should note that we necessarily focus our discussion only on the contact variables and direct the reader to Appendix B for the

a respondent's ideology to affect his rating of Buchanan differently from his rating of Alexander. This was confirmed by the reduced form estimates in Appendix A.

TABLE 3 Effects of Candidate Contact on Information and Attitudes
(reporting substantively interesting coefficients only)

Variable	Coefficient (Standard Error)			
	1 Ability to Rate	2 Number of Comments	3 Favorability	4 Met
Met	.55** (.13)	.33** (.11)	.33** (.10)	—
Ability to Rate	—	—	—	.27 (.46)
Number of Comments	—	—	—	.48 (.35)
Favorability	—	—	—	.65** (.24)
Call	-.17 (.10)	.06 (.08)	-.07 (.09)	.30** (.08)
Mail	.08 (.05)	.25** (.04)	.18** (.05)	.04 (.07)
Second Poll	.08 (.05)	.04 (.05)	.01 (.04)	-.15 (.08)
Third Poll	.18* (.08)	.19** (.07)	-.01 (.06)	-.19 (.10)
Fourth Poll	.40** (.11)	.41** (.09)	-.25** (.09)	-.25 (.14)
Fifth Poll	.48** (.15)	.52** (.13)	-.19 (.12)	-.45** (.19)
Buchanan	-.03 (.30)	-.47* (.22)	-1.0** (.26)	.85** (.27)
Forbes	.11 (.33)	-.10 (.28)	.07 (.27)	.05 (.44)
Alexander	-1.0** (.30)	-1.3** (.24)	-.53* (.22)	.98* (.42)
N	8405	8405	8245	8245

Cell entries are two-stage probit coefficients. Standard errors are robust. * $p < .05$; ** $p < .01$

complete estimation results for all variables for each candidate. For example, education, party identification, age, and media viewing habits have effects for some candidates, but not others. We do not discuss those non-contact results here.

The results suggest that candidate contact increases the likelihood that voters can rate a candidate, all else being equal. However, the results in column 4 suggest that being able to rate a candidate does not increase the chance of meeting that candidate, holding other things constant.

Interpreting the marginal effects of contact in a two-stage probit estimation is challenging because the endogenous regressor itself is an underlying, unobserved, continuous variable. To provide an indication of the effect direct contact has on a voter's ability to rate candidates, we calculate the effects of meeting a candidate on a person's ability to rate him or her for two different types

of voters: one who is very likely to have met a candidate, and one who is very unlikely to have met a candidate.¹⁴

Holding all else constant, a voter who is unlikely to meet a candidate has a 43 percent chance of being able to rate that candidate on a favorability scale. This probability increases to 75 percent if the voter is highly likely to meet the candidate. In essence, moving from not meeting the candidate to meeting the candidate increases a voter's chance of rating that candidate by 32 percent. Receiving a telephone call or mail has no effect on the ability to rate a candidate.

¹⁴We label a voter "very likely" to meet a candidate if he or she is in or above the 90th percentile of the distribution for the instrumented contact variable. We label a voter "unlikely" to meet a candidate if he or she is in or below the 10th percentile. This variable has a mean of -1.8, a standard deviation of .59, and a range of -3.7 to .11.

Column 1 also provides estimates for the differences in slopes for each wave of the poll. These findings suggest that time has an influence on people's abilities to rate the candidates, as voters learn about candidates over the course of the primary. Our results complement previous work on voter learning which shows that time is an important campaign element for learning (Gelman and King 1993; Stevenson and Vavreck 2000).

In Table 3, Column 4 we present the results of the effects of a voter's ability to rate a candidate on whether the voter has had direct contact with that candidate. An increase in the ability to rate a candidate does not raise the probability of attending that candidate's rally. For example, a voter who can rate Steve Forbes is not more likely to expend the effort to meet him than a voter who cannot rate Forbes. Receiving a phone call from a campaign, however, does increase a voter's likelihood of meeting the candidate, which makes sense because many campaigns use telephone banks to invite voters to their rallies. Once again, mail has no effect.

Open ended comments and contact. A second and more challenging measure of campaign learning entails how many things voters can recall about the candidates. Most respondents could give at least two or three comments about one of the four major candidates. What is more interesting is that over time, respondents were able to give more comments about the candidates. For example, in the first wave of the poll only 17 percent of respondents could say four things about at least one candidate. In the final wave of the poll, nearly four months later, 29 percent of respondents could say four things about at least one of the candidates. The question of interest for us is whether candidate contact has anything to do with this learning. We present these results in Column 2 of Table 3.

Consistent with our hypothesis, contact influences how much people know about the candidates, *ceteris paribus*. However, knowing or saying a lot about a candidate does not make voters more likely to go to a rally or meet the candidate. The results in Column 2 show that, other things being constant, meeting a candidate increases the number of things a voter can say about the candidate. For example, a voter who is highly likely to meet a candidate has a 45 percent chance of saying at least one thing about the candidate. In contrast, a voter with a low probability of meeting a candidate has only a 27 percent chance of being able to say something—a difference of 18 percent. Further, a voter with a high probability of meeting a candidate has a 26 percent likelihood of recalling two things about that candidate, while a voter with a low probability of meeting the candidate has an 18 percent likelihood of recalling two things—a

difference of eight percent. In sum, contact influences a person's ability to recall information about candidates, even when we control for long-term influences such as education level, age, campaign interest, and party identification.

As with the previous model, the passage of time directly affects how much voters can recall about candidates, holding all else constant. This relationship indicates that direct contact matters, even when we control for the stage of the campaign. Finally, people seem to learn about candidates from direct mail, although they apparently derive no information from telephone calls. This makes sense since most campaigns are likely to use the telephone to mobilize people, but not to educate them directly. In sum, direct contact influences how much people know about the candidates, a result that complements Gerber and Green's (2000) conclusions about the value of face-to-face canvassing in stimulating voter participation.

Column 4 in Table 3 suggests that voters' level of information does not affect their likelihood of meeting a candidate, holding other things constant. Telephone calls increase the probability that a voter will meet the candidate, while mail has no effect, findings which correspond to a common sense explanation of how candidates use these media. When candidates want to mobilize participation in a campaign event, they resort to the telephone. However, when they want to convey information they use direct mail.

Favorability and contact. We have established that voters learn from direct contacts during campaigns but that they are no more likely to seek out contact with candidates about whom they are better informed. We now examine whether the same type of relationship is at work on attitudes about candidates. Does candidate contact increase favorability ratings? Moreover, are voters more likely to seek out meetings with candidates whom they already like? We present these results in Columns 3 and 4.

Meeting a particular candidate increases favorability for that candidate, holding all else equal. Additionally, high levels of favorability are associated with direct contact. The relationship between attitudes and direct contact is positive and reciprocal. The differences between a voter who has a high probability of meeting a candidate and a voter who has a low probability of meeting a candidate are again quite substantial. A voter who is likely to meet a candidate has a 35 percent chance of holding a favorable opinion of that candidate. In contrast, a voter who is unlikely to meet a candidate has only a 19 percent chance of holding a favorable opinion of that candidate. This 16 percent difference in the likelihood of giving a

favorable rating suggests that retail politics matters in primary elections.

Once again, telephone calls have no effect on favorability ratings, but direct mail increases a person's likelihood of giving a favorable rating. Unlike the previous tests of voter learning, the passage of time does not continuously affect a voter's likelihood of giving a favorable rating. In fact, the only significant effect for time in this analysis is a decrease in the probability of rating a candidate favorably during the fourth wave of the poll, about three weeks before the election. This result suggests that campaigns may play different roles in the formation of attitudes than they do in transmission of information. Time routinely and significantly helps voters learn about the candidates, even in the presence of demographic and campaign controls, but it does not affect voters' feelings about the candidates when the same controls are present. Thus, scholarly inquiries into campaign effects may be more likely to find them at the early stages when voters are acquiring information, rather than at the end of the campaign cycle when their attitudes are more fully formed. Although this negative result seems puzzling, it is consistent with previous research in the field. Gelman and King (1993) have suggested that voters begin to focus on electoral decisions with a more critical eye toward narrowing the vote choice about six weeks before an election.

Column 4 presents the results for whether favorability affects the likelihood of contact with candidates. Being favorable towards a candidate makes a person more likely to have direct contact with that candidate in the form of a meeting or a rally, holding other things constant. Voters may be more likely to go meet the candidates toward whom they are favorable, but after meeting them, they know more about them and like them even more. Again, calling increases the probability of meeting the candidate, but mail has no effect.

Throughout the analysis, we have placed less emphasis on the first part of our system of equations—the effects of ability to rate, number of comments, and favorability on whether a voter is likely to have met that candidate. One might infer from these results, however, that direct contact merely reinforces existing preferences. For example, the coefficients indicate that meeting the candidate makes a voter more favorable toward him, but liking the candidate in the first place increases the chances that such contact will occur. Yet, not everyone who has direct contact with a candidate has favorable attitudes toward that candidate. Among those who met a candidate in the 1996 primary, for example, 30 percent held unfavorable opinions of that candidate, while 32 percent of those who did not meet a candidate

held negative opinions. In short, people are not simply meeting the candidates they already like, although favorable predispositions certainly raise the likelihood of such meetings. In the end, questions about reinforcement effects in primary campaigns are better resolved with panel data.

Conclusion

Our results indicate that candidate contacts are an important influence on primary voters' knowledge and attitudes. Meeting the candidates face-to-face, receiving direct mail, and getting phone calls on behalf of candidates all have systematic effects on voters' uncertainty, knowledge, and attitudes about candidates. Voters' personal interactions with candidates are most important in reducing their uncertainty about how to rate candidates.

The relationships between direct contact and ability to rate and between direct contact and number of comments, however, are not reciprocal. In contrast, the relationship between attitudes and contact is reciprocal. Holding favorable attitudes about a candidate does increase the chance of meeting that candidate, while meeting that candidate results in an increase in favorability.

Obviously, evidence from a single state, particularly one with such a strong tradition of retail politics, is not conclusive for the nation as a whole. At a minimum, this analysis enables us to reject the null hypothesis that direct contact between candidates and voters is irrelevant in primary elections. And it supports conventional wisdom about the importance of personal contacts in a key primary state.

The nature of primary elections creates incentives, however, for voters to rely on direct contact in other states as well. Most primaries pose informational challenges similar to those in New Hampshire because of the lack of party cues and the persistence of intraparty, factional conflict. We think it quite likely, therefore, that comparable patterns could occur in other primary states, although we recognize that they may be difficult to assess because of the front-loaded primary schedule. Under the new rules, voters have very little time to process outcomes from preceding primaries, so contact may remain an important cue even as candidates build or lose momentum in the national press. At the same time, the compressed timetable limits candidates' abilities to make direct contacts with voters. In sum, the influence of contact is probably sensitive to variations in the political context in which the primary takes place.

In considering the role of retail politics in the primary process—for candidate behavior, voter learning, and vote choice—we see several promising avenues for further research. One next step would be analysis of the learning associated with direct contact compared to indirect forms of information in campaign communications, such as advertising and media coverage. Another avenue of inquiry would be assessment of the relative influence of direct contacts in different states and at different levels of public office. As presidential primaries become more frontloaded and campaigning for state and local elections centers more on the media, it is important to document the effects of retail politics and compare them to other kinds of learning. Comparisons across and within primary states would provide the necessary variation in campaign methods and contexts for a fruitful examination of voter learning and choice.

Our analysis also raises interesting strategic questions for presidential candidates about how to allocate their time and resources. Would George W. Bush have won the 2000 New Hampshire primary if he had visited the state early and often? Did he pay a price for missing

the first town hall meeting at Dartmouth College in the fall of 1999? If he had matched John McCain’s 114 town meetings, would voters’ opinions of him have been more favorable?

Although Orren and Polsby (1988) have expressed skepticism about the value of retail politics in New Hampshire, our evidence suggests that Bush could have risen higher in the New Hampshire polls if he had spent more time in the state meeting voters. He may have been better able to solidify his base in the Republican party, while reaching out to independent voters who were initially favorable to his candidacy, but later defected to McCain. Indeed, Bush’s campaign manager, Karl Rove, commented at a recent meeting at the University of Pennsylvania’s Annenberg School of Communication that: “[I] wish now that I had not let Mr. Bush skip the first debate in New Hampshire. We may have won New Hampshire if we had showed up” (Berke 2001). Rove made further comments to a local newspaper about the 2004 New Hampshire primary, “New Hampshire will get plenty of attention from the Bush White House between now and 2004” (Ayres 2001).

APPENDIX A Reduced Form Results

Variable	Ability to Rate	Number of Comments	Favorability	Met
Ability to Rate	*	*	*	*
# Comments	*	*	*	*
Favorability	*	*	*	*
Metro	.15 (.03)	.06 (.03)	-.01 (.02)	.14 (.05)
Likely Voter	-.03 (.02)	-.03 (.01)	-.07 (.01)	-.11 (.03)
Met	*	*	*	*
Call	.11 (.08)	.22 (.06)	.10 (.07)	.51 (.08)
Mail	.13 (.05)	.27 (.04)	.21 (.05)	.08 (.07)
Second Poll	.03 (.05)	.02 (.05)	-.01 (.04)	-.08 (.10)
Third Poll	.24 (.08)	.23 (.07)	.03 (.06)	.10 (.15)
Fourth Poll	.47 (.11)	.46 (.09)	-.20 (.09)	.13 (.21)
Fifth Poll	.50 (.15)	.54 (.13)	-.17 (.12)	.05 (.28)
Buchanan	-.32 (.29)	-.64 (.22)	-.59 (.27)	-.51 (.47)
Buchanan*Ideology	-.05 (.03)	.04 (.03)	.25 (.03)	.21 (.06)
Buchanan*Attention*Poll	-.06 (.02)	-.05 (.01)	.04 (.02)	-.06 (.03)

(continued)

APPENDIX A Reduced Form Results (continued)

Variable	Ability to Rate	Number of Comments	Favorability	Met
Buchanan*PID	.02 (.02)	.005 (.02)	-.11 (.02)	-.07 (.04)
Buchanan*Education	.17 (.03)	.15 (.02)	-.17 (.03)	-.0007 (.05)
Buchanan*Age	.08 (.03)	.08 (.03)	-.01 (.03)	-.04 (.05)
Buchanan*TVNews	-.01 (.03)	.02 (.02)	-.03 (.03)	-.05 (.05)
Buchanan*Newspaper	.06 (.02)	.06 (.02)	-.01 (.01)	.07 (.03)
Buchanan*Attention	.54 (.07)	.48 (.06)	-.20 (.06)	.37 (.11)
Forbes	-.66 (.28)	-.57 (.23)	-.21 (.24)	-1.4 (.59)
Forbes*Ideology	.05 (.03)	.007 (.03)	.001 (.03)	.14 (.08)
Forbes*Education	.05 (.03)	.13 (.02)	-.02 (.02)	.03 (.07)
Forbes*PID	-.006 (.02)	-.04 (.02)	.03 (.01)	-.02 (.04)
Forbes*Age	.007 (.03)	-.01 (.03)	-.06 (.03)	-.13 (.08)
Forbes*TVNews	-.02 (.03)	.06 (.03)	.04 (.02)	.02 (.06)
Forbes*Newspaper	.02 (.02)	.02 (.02)	.009 (.01)	.05 (.05)
Forbes*Attention	.21 (.07)	.22 (.07)	.004 (.05)	.27 (.19)
Forbes*Attention*Poll	.06 (.02)	.07 (.02)	-.006 (.02)	.05 (.04)
Alexander	-1.3 (.28)	-1.5 (.24)	-.57 (.23)	-.54 (.47)
Alexander*Attention*Poll	-.03 (.02)	-.01 (.02)	.04 (.01)	-.004 (.03)
Alexander*Ideology	-.001 (.03)	.02 (.03)	.04 (.02)	-.01 (.07)
Alexander*PID	-.009 (.02)	-.009 (.02)	-.03 (.01)	-.11 (.04)
Alexander*Education	.10 (.03)	.18 (.03)	.01 (.02)	.10 (.05)
Alexander*Age	.09 (.03)	.04 (.03)	-.06 (.02)	-.14 (.06)
Alexander*TVNews	.06 (.03)	.13 (.03)	.06 (.02)	.14 (.05)
Alexander*Newspaper	.06 (.02)	.05 (.02)	-.02 (.01)	.07 (.04)
Alexander*Attention	.47 (.07)	.44 (.06)	-.10 (.05)	.28 (.13)
Dole*Attention*Poll	-.06 (.02)	-.06 (.01)	-.009 (.02)	-.04 (.03)
Dole*Ideology	.03 (.03)	-.06 (.03)	.05 (.03)	-.06 (.04)

(continued)

APPENDIX A Reduced Form Results (continued)

Variable	Ability to Rate	Number of Comments	Favorability	Met
Dole*PID	.02 (.02)	.0004 (.02)	-.21 (.02)	-.07 (.03)
Dole*Education	.05 (.03)	.14 (.02)	.05 (.03)	.10 (.04)
Dole*Age	.03 (.03)	.04 (.03)	-.05 (.03)	-.06 (.05)
Dole*TVNews	.08 (.03)	.04 (.02)	.02 (.03)	.06 (.04)
Dole*Newspaper	.01 (.02)	.04 (.02)	.02 (.02)	.09 (.03)
Dole*Attention	.43 (.07)	.49 (.06)	-.06 (.07)	.40 (.11)
N	8408	8408	8245	8408
Pseudo R ²	.15	.10	.05	.16
Incremental Increase through addition of identifying regressors	.02	.02	.01	.02
Percent Change in R ²	15.38	25.0	25.0	14.29

APPENDIX B Full Two-Stage Probit Results

Variable	Ability to Rate	Number of Comments	Favorability	Met
Ability to Rate	**	*	*	.27 (.46)
# Comments	*	**	*	.48 (.35)
Favorability	*	*	**	.65 (.24)
Metro	*	*	*	.08 (.06)
Likely Voter	*	*	*	-.04 (.04)
Met	.55 (.13)	.33 (.11)	.33 (.10)	**
Call	-.17 (.10)	.06 (.08)	-.07 (.09)	.30 (.08)
Mail	.08 (.05)	.28 (.04)	.18 (.05)	.04 (.07)
Second Poll	.08 (.05)	.04 (.05)	.01 (.04)	-.15 (.08)
Third Poll	.18 (.08)	.19 (.07)	-.01 (.06)	-.19 (.10)
Fourth Poll	.40 (.11)	.41 (.10)	-.25 (.09)	-.25 (.14)
Fifth Poll	.48 (.15)	.52 (.13)	-.19 (.12)	-.44 (.19)
Buchanan Indicator	-.03 (.30)	-.47 (.22)	-1.00 (.26)	.85 (.27)
Buchanan*Ideology	-.17 (.04)	-.03 (.04)	.18 (.04)	*

(continued)

APPENDIX B Full Two-Stage Probit Results (continued)

Variable	Ability to Rate	Number of Comments	Favorability	Met
Buchanan*Attention*Poll	-.03 (.02)	-.03 (.02)	.06 (.02)	-.01 (.02)
Buchanan*PID	.06 (.02)	.03 (.02)	-.08 (.02)	-.01 (.04)
Buchanan*Education	.18 (.03)	.15 (.02)	*	*
Buchanan*Age	.10 (.03)	.09 (.03)	.01 (.03)	-.08 (.05)
Buchanan*TVNews	.01 (.03)	.04 (.02)	-.003 (.03)	-.04 (.05)
Buchanan*Newspaper	.02 (.02)	.03 (.02)	-.04 (.02)	.04 (.04)
Buchanan*Attention	.33 (.09)	.36 (.07)	-.33 (.07)	.51 (.12)
Forbes Indicator	.11 (.33)	-.10 (.28)	.07 (.27)	.05 (.44)
Forbes*Ideology	-.03 (.04)	-.04 (.03)	-.04 (.03)	*
Forbes*Education	.04 (.03)	.13 (.03)	*	*
Forbes*PID	.007 (.02)	-.03 (.02)	-.03 (.01)	-.01 (.04)
Forbes*Age	.08 (.04)	.03 (.03)	-.01 (.03)	-.08 (.08)
Forbes*TVNews	-.03 (.03)	.05 (.03)	.03 (.02)	-.03 (.06)
Forbes*Newspaper	-.01 (.02)	-.002 (.02)	-.01 (.02)	.03 (.05)
Forbes*Attention	.06 (.08)	.13 (.07)	-.09 (.06)	.29 (.19)
Forbes*Attention*Poll	.03 (.02)	.05 (.02)	-.02 (.02)	.03 (.03)
Alexander Indicator	-1.0 (.30)	-1.3 (.24)	-.53 (.22)	.98 (.42)
Alexander*Attention*Poll	-.03 (.02)	-.01 (.02)	.04 (.02)	.00 (.02)
Alexander*Ideology	.002 (.03)	.02 (.03)	.04 (.02)	*
Alexander*PID	.05 (.02)	.03 (.02)	.005 (.02)	-.08 (.04)
Alexander*Education	.05 (.03)	.15 (.03)	*	*
Alexander*Age	.17 (.04)	.09 (.03)	.03 (.03)	-.18 (.06)
Alexander*TVNews	-.01 (.03)	.08 (.03)	.01 (.02)	.04 (.05)
Alexander*Newspaper	.02 (.02)	.03 (.02)	-.04 (.02)	.03 (.04)
Alexander*Attention	.31 (.08)	.35 (.07)	-.20 (.06)	.37 (.13)
Dole*Attention*Poll	-.04 (.02)	-.05 (.02)	.004 (.02)	.04 (.01)

(continued)

APPENDIX B Full Two-Stage Probit Results (continued)

Variable	Ability to Rate	Number of Comments	Favorability	Met
Dole*Ideology	.06 (.03)	.003 (.03)	.08 (.03)	*
Dole*Education	.003 (.03)	.11 (.02)	*	*
Dole*Age	.06 (.04)	.06 (.03)	-.04 (.03)	-.06 (.04)
Dole*TV News	.05 (.03)	.02 (.02)	.001 (.03)	.007 (.04)
Dole*Newspaper	-.04 (.02)	.008 (.02)	-.01 (.02)	.05 (.02)
Dole*Attention	.20 (.09)	.36 (.07)	-.20 (.08)	.45 (.11)
Dole* PID	.06 (.02)	.02 (.02)	-.19 (.02)	.08 (.06)
N	8408	8408	8245	8245
Psuedo R ²	.14	.10	.05	.15

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