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Effects of the News Media Environment on Citizen Knowledge of State Politics and Government

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NOTE: At the time of publication, Dr. Michael X. Delli Carpini was affiliated with Columbia University. Currently January 2008, he is a faculty member of the Annenberg School of Communication at the University of Pennsylvania.

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Abstract
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Disciplines
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Comments
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EFFECTS OF THE NEWS MEDIA ENVIRONMENT ON CITIZEN KNOWLEDGE OF STATE POLITICS AND GOVERNMENT

By Michael X. Delli Carpini, Scott Keeter, and J. David Kennamer

This multivariate analysis shows that residents in and near Richmond, Virginia, where the state capital is located, are significantly more knowledgeable about state politics than are residents living elsewhere in the state, especially in the northern Virginia – Washington, D.C. metro area. A newspaper content analysis demonstrates that Richmond-area residents are exposed to far more news of state politics and government than are residents of northern Virginia. The study suggests that the media environment is highly important in providing the opportunity for citizens to learn about politics.

Research consistently shows that citizens become politically informed if they have the motivation, capability, and opportunity to learn. Statistical models that incorporate variables measuring motivation and capability can explain between 42 and 59 percent of the variation in political knowledge among samples of survey respondents. However, opportunity – defined as the availability of political information – is, with few exceptions, assumed to be relatively constant for most citizens.

Although news media vary greatly in the depth and quality of coverage, both the form and content of news has been nationalized, leading to an increasing homogeneity of information across the United States. This nationalization – standardization – has occurred not only because of the dominance of the federal government, but also because of technological and economic innovations such as wire services, radio and television networks, newspaper chains, satellite delivery, and facsimile transmission. Thus, while not all media are equally informative, the range of available information about national politics is relatively constant across communities, with the consequence that individual differences in levels of political knowledge are primarily a result of differences in motivation and capability.

However, while V.O. Key’s adage that “all politics is local” may no longer be true, political behavior at the sub-national level is increasingly important in the United States. The homogeneity that characterizes national political news does not extend to coverage of local and state politics. State government, in particular, sometimes seems to disappear entirely from our news media, and has been called the “hidden layer of government, the

Michael X. Delli Carpini is assistant professor of political science at Barnard College, Columbia University; Scott Keeter is associate professor of political science and J. David Kennamer is associate professor of mass communications at Virginia Commonwealth University. Keeter and Kennamer also are affiliated with the Survey Research Laboratory at Virginia Commonwealth University. Authorship is equal; names are listed alphabetically. Grants from Virginia Commonwealth University and Barnard College provided partial support for the surveys reported here. The authors also thank Neil Henry, June Nicholson, David Smith, and the VCU Survey Research Laboratory staff.

EFFECTS OF THE NEWS MEDIA ENVIRONMENT ON CITIZEN KNOWLEDGE OF STATE POLITICS AND GOVERNMENT
News
Coverage
of State
Government

State government has become an increasingly important political arena. Either by political philosophy (the New Federalism of the Reagan and Bush Administrations) or by political necessity (mammoth federal budget deficits), tasks once performed by the federal government have returned to the states. The sharp reduction of federal financial assistance to the states, coupled with their increasing responsibilities, has provoked numerous fiscal crises, adding to the urgency of state-level politics.

More than ever, citizens need to know what their state governments are doing. Historically, however, journalists have paid relatively little attention to state government and politics. A number of explanations for this have been offered. The lack of visual interest dampens television’s interest in covering stories. State government is, as Wolfson notes, dull, sprawling, and expensive to cover. Many state capitals are located in small cities far from their states’ population centers, so state capital coverage is expensive; traditionally state bureaus are understaffed. Brooks and Gassaway’s 1984 survey found that 38% of newspapers’ state bureaus had just one reporter during legislative sessions, and 58% had one reporter between sessions. As a result, state reporting often focuses on the governor, a few legislative actions, and an occasional scandal. Even the nation’s largest state is not immune from inadequate coverage. As a recent report noted:

The California legislature oversees an annual budget of nearly $50 billion, and the state’s economy outranks even Great Britain and Italy in gross national product. While state leaders daily make decisions that affect the lives of its 28 million citizens, most Californians see their state government as only an occasional 15-second television blip sandwiched between the latest murder and the most recent fire.

However, coverage of state government and politics is likely to vary considerably across media markets. On the one hand, the closer the media are located to a state capital, the more likely they are to pay greater attention to news of state government and politics. On the other hand, media located in markets that cross state boundaries must divide air time and news hole across two or more jurisdictions, further reducing already limited coverage of state politics. Consequently, individuals living near state capitals (where state news is a category of local news) are likely to have a greater opportunity than the average state resident to learn about state politics and government, while individuals in multi-state markets may have considerably less opportunity.
Thus, our research focuses on a simple question: Does the location of the media market (in relation to the state capital or state borders) affect what citizens know about state politics and government? The answer to this question is valuable for at least two reasons. First, it provides a unique view of the effects of the media on citizen learning about politics—a view that is normally obscured by the homogeneous nature of national political news. Second, gauging citizen knowledge about state politics is intrinsically important given the growing responsibilities of the states.

The assumption at the heart of this study is that simple opportunity—conceptualized as the availability of information—has a great deal to do with how much people learn, regardless of their motivation to learn or any patterns of behavior they may adopt in order to learn. While most research assumes that the opportunity to learn is constant, evidence for the importance of the media environment can be found. For example, Chaffee and Wilson found that survey respondents in communities with more newspapers (media-rich) were able to name more problems facing their state than respondents in media-poor communities. A wider range of responses was given across the media-rich communities as well. Similarly, Clarke and Fredin found that respondents in communities with highly competitive newspapers showed more knowledge about their U.S. Senate races than respondents in less-competitive or monopoly communities.

More recently, Zukin and Snyder showed that simple opportunity was a major predictor of knowledge. For example, they found that New Jersey residents living in the New York media market knew much more about a New York mayoral election than those living in other parts of New Jersey. These northern New Jersey residents had no more motivation than residents of other parts of the state to learn this information. Finally, Keeter and Wilson and Keeter and Zukin utilized cross-state media markets in examining learning of political information that was largely irrelevant but nonetheless available.

To examine variations in citizens' political knowledge across media markets we employed three statewide telephone surveys conducted in Virginia during 1990 and 1991. The interview dates and sample sizes were January 31 to February 9, 1990 (N=805); July 18 to September 16, 1990 (N=885); and November 14 to December 9, 1991 (N=800). The CASRO response rate for the first two surveys was 59% and 65% for the third. All were conducted by Virginia Commonwealth University's Survey Research Laboratory, using a random sample and computer-assisted interviewing. The 1990 surveys included a series of factual questions about politics at the state and national levels (discussed below), and a standard battery of demographic items. General interest in politics was measured, though specific interest in state politics and attention to the media were not (the implications of which are discussed later). The 1991 survey included knowledge questions on national politics and a single question on a state policy issue, the existence of the death penalty in Virginia. Data in all three surveys were weighted on gender, race, and education to conform with state population parameters.

All of the national knowledge items, as well as some of the state ones, had been developed by the authors (or selected from prior surveys) and tested on a national survey of political knowledge. The national items included questions about the institutions and processes of government (e.g.,
who appoints federal judges), awareness of major divisions in U.S. politics (e.g., which party controls the U.S. House), and issues (which side the U.S. government supported in Nicaragua). The state knowledge questions on the two 1990 surveys covered elected officials and the state legislature. Unaided recall questions in both surveys asked respondents to identify the governor, lieutenant governor, attorney general, and the two U.S. Senators. The winter survey also asked for the name of the respondent's U.S. Representative, and which political party had a majority of seats in each of the state houses. Both surveys asked whether the state legislature (the General Assembly) was in session (it was meeting during the winter poll but not the summer one). The 1991 survey asked respondents whether the state of Virginia had the death penalty for murder.

The national knowledge items included on both surveys had performed well in a variety of item analyses, and thus were known to be valid and reliable measures. However, with the exception of items for naming the governor, senators, and house member, the state items were untested. Still, we have found in a variety of surveys that unaided recall questions about political leaders usually perform well, and questions about party control of the national legislature were among the best knowledge items on the national survey. Thus, we reasoned that comparable questions about state elected officials and about party control of the state legislature would likely be good measures as well.\[13\]

The Media Environment

Respondents to the surveys were sorted geographically into three categories: Northern Virginia (the suburban counties and independent cities near Washington, D.C.); Richmond (the state capital) and neighboring counties extending down to the North Carolina border; and the remainder of the state.

The Richmond area has three network affiliate VHF television stations, each of which devotes attention to state government and politics. The dominant newspapers at the time of the surveys were the morning Richmond Times-Dispatch and the evening News-Leader (since merged with the Times-Dispatch), operated separately but jointly owned by Media General. The Times-Dispatch is widely regarded as the newspaper of record for state government. In contrast, the northern Virginia area has no in-state VHF network affiliate television stations. The dominant newspaper in the region is the Washington Post, with a 1990-91 northern Virginia circulation of approximately 282,000 daily and 384,000 on Sunday. Northern Virginia-based dailies have combined circulations of approximately 130,000; the largest of these is the Fairfax Journal with a 1990 circulation of nearly 57,000.\[16\]

To measure the differences between markets in the level of newspaper attention paid to state politics, we conducted simple content analyses of the Richmond Times-Dispatch, Washington Post, and Fairfax Journal for four five-day periods during 1990: two periods selected at random during the 1990 General Assembly session (January 21 to 25, February 7 to 11); one selected at random in May (May 13 to 17); and another selected at random in July (July 9 to 13, prior to the summer survey). We coded every appearance of a news story, photograph, editorial, opinion essay, or letter to the editor that dealt with any aspect of state government and politics.\[17\] For each item we coded the date, placement, and major topics covered.

Coverage of state politics by the Richmond Times-Dispatch was more than twice as extensive as that of the other papers. Table 1 presents a
summary of the content analysis. During the 20 days analyzed, the Times­
Dispatch carried 184 total state items, of which 138 were news stories. Of
these, 36 were placed on the front page of a news section. The Fairfax Journal
followed with 77 total state items (50 news stories). Seventeen stories were
on a front page. The Washington Post, with a Virginia circulation of more than
twice the combined total of its northern Virginia-based competition, had 59
state items (52 news stories), with 18 on a front page.

These results are not terribly surprising. For the Times­Dispatch, proximity to state government facilitates access for its large staff of reporters
and simplifies the development of stories. In contrast, the Fairfax Journal (and
its sister newspapers) had one Richmond correspondent during the period
covered by our analysis (and currently has none). The Washington Post had a
Richmond staff that varied from two to four during 1990, but also experiences
fierce internal competition for news space. The Post has multiple local
jurisdictions to cover, including four that are comparable to or larger than the
entire Richmond metro area (Fairfax, Virginia; Montgomery County and
Prince George's County, Maryland; the District of Columbia), as well as two
state governments (Virginia and Maryland).

We were unable to analyze the content of television news in the two
markets, but the structural differences in the two markets make clear that
Virginia state news will receive far greater attention in the Richmond market
than in northern Virginia. The Richmond local stations are all within a few
minutes drive of the state capitol and executive branch offices. During 1990,
one of the stations expanded its evening newscast from thirty to sixty
minutes, while another had a sixty-minute show throughout the period. By
comparison, the Washington television stations – much like the Washington Post – must attend to the affairs of the larger and more politically diverse
metropolitan area. Additionally, the visual “distractions” of national politics,
conducted in their back yard, are considerable.

In addition, a study of state house coverage in other locales has shown
that news agendas (the stories chosen for coverage) are more likely to be set
by newspapers than by television.8 This would suggest that the difference

### TABLE 1

<table>
<thead>
<tr>
<th>Items on State Politics and Government Appearing in the Richmond Times-Dispatch, Washington Post, and Fairfax Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Richmond Times-Dispatch</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Total number of items (news articles, editorials, op-ed pieces, photos, letters) about state politics and government</td>
</tr>
<tr>
<td>News articles about state politics and government</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>During general assembly session</td>
</tr>
<tr>
<td>After general assembly session</td>
</tr>
<tr>
<td>Front page news articles about state politics and government (any section)</td>
</tr>
</tbody>
</table>

Source: content analysis conducted by the authors. Details in the text.
TABLE 2
Percentage Offering Correct Answers by Region

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Richmond area</th>
<th>Northern Virginia</th>
<th>Rest of State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter 1990 poll</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Governor</td>
<td>88</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>Name Lieutenant Governor</td>
<td>30</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Name Attorney General</td>
<td>51</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>General Assembly in session</td>
<td>64</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td>Party control of House of Delegates</td>
<td>48</td>
<td>57</td>
<td>48</td>
</tr>
<tr>
<td>Party control of state Senate</td>
<td>41</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>Name both U.S. Senators</td>
<td>23</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Name U.S. Representative</td>
<td>29</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>First 10 amendments are “Bill of Rights”</td>
<td>44</td>
<td>65</td>
<td>39</td>
</tr>
<tr>
<td>Said U.S. supported Contras</td>
<td>44</td>
<td>67</td>
<td>44</td>
</tr>
<tr>
<td>Party control of U.S. House of Representatives</td>
<td>41</td>
<td>59</td>
<td>44</td>
</tr>
<tr>
<td>Party control of U.S. Senate</td>
<td>39</td>
<td>52</td>
<td>36</td>
</tr>
<tr>
<td><strong>Summer 1990 poll</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Governor</td>
<td>90</td>
<td>66</td>
<td>75</td>
</tr>
<tr>
<td>Name Lieutenant Governor</td>
<td>22</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Name Attorney General</td>
<td>43</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>General Assembly not in session</td>
<td>58</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td>Name both U.S. Senators</td>
<td>18</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>President appoints judges</td>
<td>56</td>
<td>67</td>
<td>48</td>
</tr>
<tr>
<td>Supreme Court reviews Constitutionality of laws</td>
<td>57</td>
<td>79</td>
<td>57</td>
</tr>
<tr>
<td>Party control of U.S. House of Representatives</td>
<td>48</td>
<td>58</td>
<td>49</td>
</tr>
<tr>
<td><strong>Fall 1991 poll</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does Virginia have death penalty</td>
<td>84</td>
<td>50</td>
<td>67</td>
</tr>
</tbody>
</table>

Source: Commonwealth Polls conducted by the Virginia Commonwealth University Survey Research Laboratory. Details in the text.

between Richmond and northern Virginia television news coverage of state government and politics would parallel that found in newspaper coverage.

**Hypotheses**

Based on the results of the newspaper content analysis, and the presumed differences among television news content resulting from structural factors in the media markets, we developed two straightforward expectations.

Once we have controlled for personal characteristics that vary across the regions...

(1) ... residents of the Richmond area would be more knowledgeable about state politics and government than those living elsewhere in the state.
(2) ... residents of northern Virginia would be less knowledgeable about state politics and government than those living elsewhere in the state.

We expected these differences to be manifested most strongly in responses indicating knowledge about public officials based in Richmond and to questions about the state legislature. We would not expect the Richmond area to have any particular advantage in awareness of the state's U.S. Senators and House members; at the same time, northern Virginia should not be at a disadvantage on these items since senators and representatives are based in Washington.

Table 2 shows the percentage correct for all knowledge items for the entire samples and for each of the regions. Knowledge of national politics is included as a point of comparison, allowing one to determine if regional differences reflect learning about state politics or about politics per se. Compared with those living elsewhere, residents of the Richmond area do appear more knowledgeable about state politics, but not about national politics. However, while northern Virginia respondents are generally less knowledgeable about state politics than Richmond respondents, they are not below the average of the rest of the state.

Three variables confound this simple comparison. The first is length of residence in Virginia. Longer-term residents know more about state politics than those who have spent less time in the state. Northern Virginians have lived in the state for shorter periods than their fellow citizens. The mean number of years lived in the state since age 18 was 14.5 for northern Virginia residents, 27.0 for the Richmond area, and 24.0 elsewhere. Because some of the differences in knowledge of state politics found in Table 2 may result from regional differences in length of residence, this variable must be controlled for in the analysis.

The second confounding variable is education, which is strongly related to political knowledge. The polls' respondents in northern Virginia are much better educated than in the other four regions: nearly half (46%) report having at least a four-year college degree, compared with 23% in Richmond and 19% elsewhere. Thus it is possible that northern Virginians' performance on state knowledge items is artificially inflated by their high educational level.

Finally, numerous studies suggest that those who are politically informed about one set of facts are more likely to retain other types of political information. As can be seen in Table 2, there are often sizable regional differences in knowledge of national politics. Because the goal of our analysis is to determine the impact of the media environment on learning about state politics, we need to control for variations in knowledge about national politics that might reflect differences in motivation or capacity.

To control for these confounding variables and produce estimates of the "effect" of living in different regions of the state, we employed multiple logistic regression analysis. In each analysis, the independent variables included the respondent's "tenure" in Virginia since age 18 (coded 1 = 0-5 years, 2 = 6-10 years, 3 = more than 10 years), educational level (coded 1 = no high school diploma, 2 = high school diploma, 3 = some college, 4 = college grad, 5 = post graduate); knowledge of national politics (a six-item additive index in the winter survey coded 0-6, and a three-item index in the summer survey coded 0-3); reported attention to politics (a standard item coded 1 =
### TABLE 3
Logistic Regression Results: Effect of Region on Knowledge

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Richmond area</th>
<th>Northern Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B*</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Winter 1990 poll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Governor</td>
<td>.99***</td>
<td>.30</td>
</tr>
<tr>
<td>Name Lieutenant Governor</td>
<td>.94***</td>
<td>.24</td>
</tr>
<tr>
<td>Name Attorney General</td>
<td>1.07***</td>
<td>.24</td>
</tr>
<tr>
<td>General Assembly in session</td>
<td>1.28***</td>
<td>.23</td>
</tr>
<tr>
<td>Party control of House of Delegates</td>
<td>-.11</td>
<td>.22</td>
</tr>
<tr>
<td>Party control of state Senate</td>
<td>.23</td>
<td>.22</td>
</tr>
<tr>
<td>Name both U.S. Senators</td>
<td>.56*</td>
<td>.27</td>
</tr>
<tr>
<td>Name U.S. Representative</td>
<td>-.39</td>
<td>.22</td>
</tr>
<tr>
<td>Summer 1990 poll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Governor</td>
<td>1.07***</td>
<td>.36</td>
</tr>
<tr>
<td>Name Lieutenant Governor</td>
<td>.86**</td>
<td>.29</td>
</tr>
<tr>
<td>Name Attorney General</td>
<td>.49</td>
<td>.25</td>
</tr>
<tr>
<td>General Assembly not in session</td>
<td>.93***</td>
<td>.23</td>
</tr>
<tr>
<td>Name both U.S. Senators</td>
<td>.39</td>
<td>.30</td>
</tr>
<tr>
<td>Fall 1991 poll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does Virginia have death penalty</td>
<td>1.29***</td>
<td>.29</td>
</tr>
</tbody>
</table>

* Asterisks denote significance level of coefficient: * = .05 ** = .01 *** = .001

Entries (B and standard error) are the logistic regression coefficient and associated standard errors for residence in the Richmond or Northern Virginia areas, relative to the rest of the state. "Change in odds" reports the estimated difference in the odds that a resident of that region would know the fact compared with a resident of the rest of the state.

The logistic regression models included the following variables: gender, tenure in Virginia, reported attention to politics, education, income, national political knowledge.

Full statistics for each equation are available from the authors.

Source: Commonwealth Polls conducted by the Virginia Commonwealth University Survey Research Laboratory.

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pays attention hardly ever, 2 = only now and then, 3 = sometimes, 4 = most of the time); gender; and family income. Region of residence was coded as separate dummy variables for Richmond and northern Virginia, with the rest of the state as a reference point.25

Logistic regression coefficients may be unfamiliar to some readers and thus deserve a brief discussion here. Logistic regression is appropriate for use with dichotomous dependent variables (0=incorrect answer, 1=correct answer). The coefficients express the change in the log odds of the dependent variable associated with a unit change in the independent variable, and can
TABLE 4
Predicted Probability of Correct Answers to Selected Items
(Based on Logistic Regression Analysis)

<table>
<thead>
<tr>
<th>Winter 1990 survey</th>
<th>Richmond area</th>
<th>Northern Virginia</th>
<th>Rest of state</th>
<th>Difference Richmond - rest</th>
<th>Difference No. Va. - rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name Governor</td>
<td>.92</td>
<td>.67</td>
<td>.82</td>
<td>.10</td>
<td>-.15</td>
</tr>
<tr>
<td>Name Lieutenant Governor</td>
<td>.29</td>
<td>.19</td>
<td>.14</td>
<td>.15</td>
<td>.05</td>
</tr>
<tr>
<td>Name Attorney General</td>
<td>.58</td>
<td>.15</td>
<td>.32</td>
<td>.26</td>
<td>-.17</td>
</tr>
<tr>
<td>General Assembly in session</td>
<td>.75</td>
<td>.27</td>
<td>.45</td>
<td>.30</td>
<td>-.18</td>
</tr>
<tr>
<td>Party control of House of Delegates</td>
<td>.51</td>
<td>.47</td>
<td>.54</td>
<td>-.03</td>
<td>-.07</td>
</tr>
<tr>
<td>Party control of state Senate</td>
<td>.38</td>
<td>.25</td>
<td>.33</td>
<td>.05</td>
<td>-.08</td>
</tr>
<tr>
<td>Name both U.S. Senators</td>
<td>.15</td>
<td>.05</td>
<td>.09</td>
<td>.06</td>
<td>-.04</td>
</tr>
<tr>
<td>Name U.S. House member</td>
<td>.25</td>
<td>.33</td>
<td>.33</td>
<td>-.08</td>
<td>.00</td>
</tr>
</tbody>
</table>

Fall 1991 survey
Does Virginia have the death penalty | .89 | .52 | .68 | .21 | -.16

Entries are predicted probability of a correct answer to the indicated question. Logistic regression was used to estimate the coefficients. These probabilities are for an Virginia resident who is average on the independent variables: a female with some college education, who has resided in Virginia at least ten years since age 18, has a family income of $35,000 to $50,000 annually, reports following politics "some of the time," and scored a "3" on the index of national political knowledge in 1990 ("1" in the 1991 survey).
Source: Commonwealth Polls conducted by the Virginia Commonwealth University Survey Research Laboratory.

be converted to a number that indicates the magnitude of change in the odds of a correct answer. For example, a coefficient of -.69 converts to a factor of .5, meaning that a unit change in the independent variable (all other things being equal) reduces by half the odds of giving a correct answer. We will report the change in the odds associated with residence in each region, along with the regression coefficient, its standard error, and the statistical significance of the coefficient.

Table 3 shows results from the logistic regression analysis. As a guide to interpreting the tables, note the data in the column “change in odds” for knowledge of the governor in the winter poll (first line of data in the table). Living in the Richmond area was associated with odds of being able to name the governor that were 2.68 times as large as in other parts of the state. If one lived in northern Virginia, the odds of being able to name the governor were .45 (i.e., less than half) as large as in other parts of the state. As is readily apparent from the table, residents of the Richmond area were considerably more likely than those living elsewhere to be able to name the governor, lieutenant governor, and attorney general, and to be aware that the general assembly was in session. For nearly all of these items in both surveys, the odds of a Richmond-area resident giving a correct answer were two to three times as great as those for residents elsewhere. Richmond-area residents were also somewhat more likely to be able to name both U.S. senators in the winter poll, though the differences in the summer poll were not statistically significant.

EFFECTS OF THE NEWS MEDIA ENVIRONMENT ON CITIZEN KNOWLEDGE OF STATE POLITICS AND GOVERNMENT
Northern Virginia residents were considerably less able than other Virginians to name the governor and attorney general, and to state correctly whether the general assembly was in session. For most of these items, the odds for the northern Virginia residents were around half of those for other Virginians.

Just as OLS regression coefficients can be used to predict a mean value on the dependent variable for a given combination of the independent variables, logit regression coefficients can be used to estimate the probability that a given type of respondent will correctly answer a knowledge question. As a straightforward way of illustrating the effects of region (controlling for other variables), we computed an estimated probability that a "typical" Virginia respondent (based on the modal or average category in each of our independent variables) living in Richmond, northern Virginia, and elsewhere would correctly answer each of the items. Table 4 shows estimated probabilities for the state items in the winter survey. Some of the items show dramatic differences, especially when comparing the Richmond and northern Virginia areas with each other. For example, the predicted probability that a typical respondent in northern Virginia would be able to name the attorney general was .15; the probability for an individual with the same characteristics in Richmond would be .58. A typical respondent living in Richmond would have a .89 probability of knowing the state has a death penalty, while the probability for a northern Virginia resident would be only .52.

The logistic regression analyses provide one other indicator of the importance of locale in affecting knowledge. A statistic analogous to the "r-squared" of ordinary least squares regression is available. This measure provides an estimate of the variation in knowledge that is "explained" by the set of predictor variables (e.g., education, interest). The addition of locale to the model permits the calculation of a "change in r-squared" similar to that used with OLS regression. Using only the Richmond and northern Virginia respondents - but without including locale as a variable - the r-squared for a model predicting knowledge of the general assembly's session (in winter 1990) was .22. Adding locale increased the r-square to .37. The model's performance for predicting knowledge of the state attorney general increased from .33 to .44 with the addition of the locale variable.

We view this analysis as evidence for the importance of the media environment in providing the opportunity for people to learn about politics. However, despite our attempts to control statistically for confounding variables, plausible rival hypotheses for the regional differences in knowledge still exist. It is possible, for example, that many residents of northern Virginia have little or no identification with the state, regarding themselves as "Washingtonians" rather than "Virginians." Thus, they may be less receptive to information about Virginia state politics. In our view, such a phenomenon, if widespread, could itself be a consequence of the low level of media attention to state political news. Further, it is equally plausible that since many people move to the Washington area to work in government and related industries, the receptivity of northern Virginia residents to political information of any type is greater than average for the state. Nonetheless, studies replicating the analysis presented here should include measures specifically designed to gauge levels and intensities of community identification. Replicating the analysis in other media markets would also help in
determining the external validity of our findings.

A similar concern might be raised regarding residents of the Rich­
mond area: perhaps they are more knowledgeable about state politics
because of their direct connection with state government. However, state
government in Richmond is a relatively small part of the local economy of the
Richmond metro area. State employees in the area constitute approximately
39,000 out of a total employment of 455,000 (about 9%, compared with a
statewide average of 4.3%, though the number of households affected would
be higher). Furthermore, most state jobs are distinctly nonpolitical and
unrelated to policy making. A more definitive answer to this question,
however, would require direct measures of occupation, including govern­
ment (and what Luskin calls “government impinged”) employment.30

It would also have been useful to have a question on the survey
probing interest in state politics. Of course, even if such an item helped
“explain” regional differences in state political knowledge, it would not
necessarily be evidence that news media differences were not consequen­tial.
The relationship between information and interest is undoubtedly complex
and nonrecursive: while political interest increases the likelihood one will
become politically informed, political information also stimulates interest.
The dearth of state political news in the Washington area may help ensure
that fewer people will become interested in the affairs of the state.

A final shortcoming of our analysis is the absence of any measures of
media use in our surveys. We doubt these additional variables would change
the conclusions reached in our analysis: numerous studies have demon­
strated that, once variables such as prior political knowledge, political
interest, and education are controlled for, reported attention to the media
(especially television news) is a weak predictor of political knowledge.31

Effective democracies depend upon informed citizens. Numerous
studies have demonstrated that informed citizens are better citizens. One
recent review of research concluded that informed citizens are “more resis­
tant to persuasive appeals...less susceptible to agenda setting and priming by
the media...more easily persuaded by reasoned argument and less easily by
mere symbolic display.”32 Other studies have found that informed voters are
more likely to vote in instrumentally rational ways.33 Thus, understanding
the factors that contribute to the creation of an informed citizenry should be
a critical goal of social science.

Our analysis contributes to this goal in two ways. First and most
specifically, it suggests that citizens living outside of state capitals, and
especially those living in areas that border other states, are less inform­
about state politics than they would otherwise be. Despite the increasing
importance of state politics, news coverage of state government and politics
varies widely in amount and quality, and is generally less extensive and
detailed than coverage of local and national government. Indeed, our
analysis suggests that state news coverage may be especially poor in just
those places it should be strong – large urban areas, where the bulk of the
American population lives, and where the impact of the "New Federalism" has been most severely felt.34

The second conclusion to be drawn from this study relates to the larger question of how citizens become politically informed. Prior research makes clear that motivation and capacity play an important role in what people learn about politics. Our analysis does not dispute these conclusions, but serves as an important reminder that learning requires not only the will to learn, but the opportunity to do so. While our findings are limited to state politics, there is little reason to think that this process would differ for knowledge of local or national politics. If, therefore, we find the public "not enlightened enough to exercise their control with a wholesome discretion," our findings give some support to Jefferson’s conclusion that "the remedy is not to take it from them, but to inform their discretion."35

NOTES

12. Our own interest is in learning that is relevant to citizens. Nonetheless, the "passive" learning literature is instructive in that it documents the importance of media environments in situations in which motivation and capacity are held constant.
13. The CASRO rate (Council of American Survey Research Organizations) includes in the denominator a term that estimates the number of likely residential households among the "no answer" and "busy" numbers. This estimate is based on the proportion of known residences among the numbers for which a determination was made.
14. Elsewhere we have discussed at length the methodological issues

15. Another conclusion from our previous work on the measurement of political knowledge is especially relevant here. We have found little evidence that citizens tend to be specialists in certain areas of politics while remaining ignorant of others. A major exception to this is party-relevant knowledge (evidence for which we discuss below). The case for political knowledge as a general construct is made by John Zaller, "Analysis of Information Items in the 1985 NES Pilot Study" (A Report to the Board of Overseers for the National Election Studies).

16. The Fairfax paper is jointly owned and produced with papers in Arlington and Alexandria. State politics coverage is nearly identical in the three papers, which have a combined circulation of approximately 80,000. Another significant paper in the area is the *Washington Times*, which has a total metro-area circulation of approximately 94,000. The Virginia circulation of the *Washington Times* was unavailable.

17. Of course, the responsibilities of U.S. Senators and Representatives cut across the domains of national and state politics. Items mentioning these public officials were included only if the subject matter dealt with a state issue.


20. We also conducted the analyses without controlling for national political knowledge. The results are very similar to those reported below, and the substantive conclusions we draw would be unchanged.

21. The relationship between knowledge and number of years lived in the state was not linear; thus we created the "tenure" variable to help satisfy the assumptions of logistic regression analysis.

22. Although several of these variables do not vary systematically across the regions, they are included in order to construct a properly specified multivariate model.

23. The technical term *odds* is defined as the probability of a correct answer divided by the probability of an incorrect answer. Thus, the odds for an item with a .5 probability of a correct answer would be 1 (.5 divided by .5). If the odds were to double (i.e., to be multiplied by a factor of 2), the probability of a correct answer would increase to .667 (.667 / .333 = 2.0).

24. The full logistic regression models are not shown here in order to conserve space, but are available upon request from the authors.

25. The typical Virginia resident is female with some college, who has been a Virginia resident at least ten years, follows politics some of the time, has a family income between $35,000 and $50,000, and scored 3 on our national knowledge scale in the winter survey.

26. Some items did not conform to the predicted pattern. One was naming
the lieutenant governor; however, the incumbent lived in northern Virginia and owns a well-known car dealership there. The other exceptions were the questions about party control of the state Senate and House of Delegates. We think this anomaly results from the distinctiveness of partisan knowledge as a separate dimension of political knowledge. A principal components factor analysis with varimax rotation (not shown here), revealed interpretable factors for national, state, and partisan knowledge (the party control questions for the Virginia and national legislatures, and the Truman partisanship item loaded together on the "party" factor). For further discussion of the dimensionality of political knowledge, see two papers presented at the annual meeting of the American Political Science Association, San Francisco, CA, 1990: "The Dimensions of Americans' Political Information," Stephen Earl Bennett, and "The Structure of Political Knowledge," Michael X. Delli Carpini and Scott Keeter.

27. There are several such "pseudo r-squared" measures available. The one we employed is an adjusted version of the Aldrich-Nelson measure. See Timothy M. Hagle and Glenn E. Mitchell II, "Goodness of Fit Measures for Probit and Logit," American Journal of Political Science 36 (1992): 762-784.

28. Of course, increases in the pseudo r-squared were more modest when locale was used with the entire sample, and for those variables that displayed little sensitivity to locale (e.g., party control of the state legislature). Still, locale provided substantively significant increases in predictive accuracy for several variables. Among these were the death penalty (from an r-squared of .16 without locale to .24 with it), naming the governor (from .22 to .30), and knowing the legislature was in session (from .28 to .37).

29. The surveys used in this analysis were not originally designed to test these specific hypotheses, accounting for the absence of a few potentially important variables.

30. Robert C. Luskin, "Explaining Political Sophistication."

31. Whether news media use is found to predict political knowledge depends greatly on the types of media used, the frequency of use, the social situation in which they are used, the cognitive and affective states of the users, and how media use and political knowledge are operationalized. These issues are discussed in Shanto Iyengar and Donald R. Kinder, "Psychological Accounts of Agenda-Setting," 117-140; Richard R. Lau and Richard Erber, "Political Sophistication: An Information-Processing Perspective," 37-64; and Arthur H. Miller and K. Asp, "Learning about Politics from the Media: A Comparative Study of Sweden and the United States," 241-266, in Mass Media and Political Thought, eds. S. Kraus and R. M. Perloff (Beverly Hills: Sage, 1985). See also Price and Zaller, "Who Gets the News?"

32. Luskin, "Explaining Political Sophistication."


34. State news coverage is especially diluted for residents of urban areas served by media just over the state line. This problem occurs in numerous other locales: Chicago, with northwest Indiana; Cincinnati, with northern Kentucky and southeast Indiana; New York, with northern New Jersey and much of Connecticut; Philadelphia, with southern New Jersey.