The Impact of Television Market Size on Voter Turnout in American Elections

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The turnout literature has identified individual, social, and institutional factors that increase citizen voting. Our article shows that local television market size also affects turnout. Larger television markets tend to give disproportionate attention to higher-level races involving statewide or national offices. Because voters in larger markets should be exposed to less information about the lower-ticket races in which they are eligible to vote, we expect market size to affect levels of turnout. This article tests market size impact using a novel combination of aggregate turnout data for local voting areas, census data giving contextual information about these areas, and data detailing the boundaries of local television media markets. Using the Record of American Democracy data set, our aggregate-level analysis covers four election cycles (1986 to 1990) and nearly every county in the continental United States. Our analysis shows that voter turnout is negatively associated with television market size, a relationship that is stronger in midterm election years.

**Keywords:** voter turnout; media markets; market size; political communication; designated market areas (DMAs)

The venerable literature on voter turnout has identified a wide range of individual-level, social, and institutional factors that affect the likelihood for citizens to vote in elections (for reviews of this extensive literature, see

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Along with these standard factors in the literature, researchers have long recognized that turnout is influenced by changes in the information environments in which voters learn about and make their choices. For instance, the familiar pattern of “surge and decline” in turnout levels between presidential and midterm elections (A. Campbell, 1960) presumably occurs because the presidential race stimulates learning about and interest in the campaigns, both of which indeed are higher in presidential elections (e.g., Althaus, 2003).

Recently, the turnout literature also has begun to explore how contextual features of voters’ local environments structure information costs in ways that influence willingness to vote. Population stability predicts higher turnout levels, presumably because stability reduces information costs associated with voting (Geys, 2006). Turnout also goes up in districts with higher levels of campaign spending, in the presence of lower-ticket races such as ballot initiatives, and in the presence of top-ticket races for senate or governor (e.g., Jackson, 1997; Smith, 2001). Likewise, political involvement increases as the amount of campaign advertising and candidate appearances go up (Gimpel, Kaufmann, & Pearson-Merkowitz, 2007; although see Wolak, 2006). In addition, a small amount of research has shown that different kinds of information flows can affect turnout levels. Some early experimental work suggested that turnout levels declined when campaigns used negative advertising (Ansolabehere & Iyengar, 1995; Ansolabehere, Iyengar, Simon, & Valentino, 1994), but more recent studies find either no effect (Lau, Sigelman, Heldman, & Babbitt, 1999) or a stimulus effect on turnout produced by negative advertising (Goldstein & Freedman, 2002; for a review of this literature, see Goldstein & Ridout, 2004). Related work suggests that the tone of local news coverage influences voting intentions (Allen, Stevens, Marfleet, Sullivan, & Alger, 2007).

A growing body of research also suggests that access to television programming tends to diminish turnout levels, presumably by providing entertainment options that distract people from substantive political coverage (Gentzkow, 2006; Prior, 2007; Putnam, 2000; also see Norris, 1996). One detailed examination of county-level patterns of television adoption (Gentzkow, 2006) finds that the introduction of television accounts for about 30% of the drop in American turnout levels between 1940 and 1972. Moreover, television’s negative impact on turnout is greater in midterm than in presidential elections (Gentzkow, 2006; Oberholzer-Gee & Waldfogel, 2006; Prior, 2007). The introduction of television also increased the incumbency advantage for members of Congress by changing the cost structure...
of electorally relevant information (Prior, 2006, 2007). However, the electoral impact of access to television is not universally negative. Turnout among African Americans is higher in cities with specialty media catering to Black audiences (Oberholzer-Gee & Waldfogel, 2005), and turnout among Hispanics is higher in cities with Spanish-language television news (Oberholzer-Gee & Waldfogel, 2006).

An important puzzle remains unexplained by these new studies on television and turnout. If the mere availability of television is to blame for lower turnout, then the television effect should be readily apparent in all areas that have comparable levels of access to television programming. But this is not the case. Although there were large disparities in access to television back in the 1950s, by the early 1960s nearly every household in the United States owned at least one television, and all areas of the United States had access to television service (Sterling & Kittross, 2002). Yet recent work has suggested that the aggregate decline in voter turnout during this period was concentrated in the areas surrounding central cities. Between 1960 and 1992, the decline in turnout in the 32 main metropolitan areas was twice as great as in the rest of the country, with the most noticeable drop occurring in the suburban areas of these center cities (Nardulli, Dalager, & Greco, 1996; also see Nardulli, 2005). In contrast, studies from countries other than the United States tend to find that neither population concentration nor living in urban areas predicts aggregate turnout levels (Geys, 2006). That urban areas tend to have declining turnout levels in the United States suggests that something else may be at work, but the turnout literature thus far has been unable to explain why turnout declined so precipitously in these large metropolitan areas while remaining more stable in less urbanized parts of the country.

Our study suggests a clear culprit. It is not merely that different information flows affect turnout but more fundamentally that the structure of local information markets shapes the content of those information flows in ways that have been unanticipated by the turnout literature. In particular, we argue that the size of local television markets influences the likelihood that local news coverage focuses on lower-level races, thereby influencing the incentive structure for individuals to vote. By market size, we follow the standard industry definition by referring to the number of television households served by each of Nielsen’s “designated market areas” (DMAs). Market size, as we use the term, has nothing to do with the size of the geographic area served by a DMA or the number of different stations broadcasting within a DMA.

Aside from a handful of studies addressing the congruence between U.S. House districts and the boundaries of local television or newspaper markets (Arnold, 2004; J. E. Campbell, Alford, & Henry, 1984; Levy & Squire, 2000;
Prinz, 1995; Schaffner & Sellers, 2003; Snyder & Strömberg, 2004; Stewart & Reynolds, 1990), previous research has largely ignored such structural dimensions of local information environments. Market congruence is conceptually related to market size (smaller markets should be more congruent with House districts, as shown in Figure 1), but the two concepts are not identical. Congruence, as this literature defines it, is a relevant feature of U.S. House races only. Congruence is not a concern in typical statewide races, where television markets can be entirely subsumed within gubernatorial or senatorial constituencies. Nor is it a relevant concept in lower-ticket races, which are almost never congruent with market boundaries but are instead typically subsumed within a single market. In contrast, market size is a relevant concept for all political contests, from the president all the way down to dog catcher, because market size shapes how much news attention gets focused on top-ticket races relative to lower-level contests (as detailed below). Moreover, none of the work on congruence has examined the possibility that market size, apart from congruence, might affect electoral behavior. Our analysis demonstrates that the size of local television markets is closely related to aggregate turnout levels within those markets, regardless of whether House campaigns or other races are at the top of the ticket: Turnout levels drop as market size increases, especially in midterm elections.

We answer the television-turnout puzzle by showing that the largest center cities and their suburbs happen to anchor the largest television markets in the country. Examining turnout separately in urban, suburban, and rural areas—as is often done in the aggregate turnout literature—obscures the spatial dimension of market structures. Our analysis shows that all areas contained within larger markets—urban, suburban, and rural alike—tend to have lower levels of voter turnout than those same kinds of areas within smaller markets. It is not merely that urbanization is associated with lower aggregate turnout levels—an expectation suggested by the U.S. turnout literature and supported by our analysis—but that the size of local broadcast markets determines how much localized political information an area will receive and hence influences the incentive structure for voters to turn out to the polls.

The key to our ability to untangle the complicated relationships among these factors and the standard variables used to predict turnout is the novel combination of data employed in our study. Our analysis of turnout draws on aggregate voting data at the subcounty level for nearly every area in the continental United States over four election cycles. We join data on the boundaries of television media markets obtained from Nielsen Media Research with turnout and demographic data from the Record of American Democracy (ROAD) project, which assembled comprehensive voting data.
for most precincts in the continental United States over the years 1984, 1986, 1988, and 1990. Moreover, because media markets cross state boundaries, our design offers excellent control over state-level variables such as party competition, state liberalism, and legal restrictions that previous research has found to be important determinants of voter turnout.

**Why Turnout Should Be Influenced by the Size of Television Markets**

More people in the United States today get their political news from local television broadcasts than perhaps from any other news source. According to surveys by the Pew Center for the People and the Press, 54% of Americans said in 2006 that they regularly watched local news broadcasts, compared to only 28% saying they regularly watched national newscasts. Local news viewership has fallen since the early 1990s, when 77% of Americans regularly got their news from local television news broadcasts.3 But even in the current age of news abundance provided by cable and Internet news sources, audience studies by the Pew Center suggest that local television broadcasts remain the most important source of political news for the typical American. Local newscasts are important sources of information for even national campaigns. In early 2004, the Pew Center for the People and the Press (2004) found that 42% of respondents reported regularly learning something about the presidential campaign from local television news compared to only 35% of respondents saying they had learned something about the campaign from network newscasts.

Because of their large audiences and because news broadcasts are so inexpensive to air relative to entertainment programming, local news broadcasts have also become a major profit source for television stations. Unlike network broadcasters who air a variety of entertainment shows, profit margins for local stations heavily rely on news programming. The typical news department accounts for up to 40% of total station revenue (Graber, 1997, p. 329). Because news departments provide such a large share of station revenue and because audience size largely determines how much stations can charge for advertising, news directors compete fiercely to maximize the size of their audience.

This economic pressure creates two incentives that reduce the amount of political coverage devoted to lower-level political campaigns. First, because larger television markets are more likely than smaller markets to experience daily dramas of sensational crimes and disasters, such dramatic items...
should tend to displace duller campaign news in larger markets. As a consequence, to take just one example, larger markets tend to have proportionally fewer stories than smaller markets about individual members of Congress (e.g., Arnold, 2004; Schaffner & Sellers, 2003; Snyder & Strömberg, 2004; Vinson, 2003).

The second factor is that because larger markets serve more socially and politically diverse constituencies, economic pressures require local news broadcasters to symbolically unite their audiences so they perceive local newscasts originating in central urban areas as relevant to their neighborhood communities (Kaniss, 1991). The typical television market spans a large geographic area crossing multiple municipal, congressional, and state boundaries (Barkin, 1987; Prinz, 1995; Stewart & Reynolds, 1990). Broadcasters in Paducah, Kentucky, must produce local news that simultaneously attracts viewers in Cape Girardeau, Missouri, Mt. Vernon, Illinois, and western Tennessee. Likewise, the local news from New York City must appeal to viewers in Connecticut, New Jersey, and Pennsylvania. In such cases, encouraging audiences to identify with an artificial territory defined by the boundaries of the television market becomes an essential marketing strategy. As an example, Illinois broadcasters in the Chicago market (11 counties covering all or part of 22 congressional districts) consistently address their viewers as residents of “the Chicagoland area,” whereas those in the Champaign–Springfield–Decatur market (18 counties covering all or part of 6 congressional districts) refer to their viewers as residents of “central Illinois.” There are usually no political offices that correspond geographically or otherwise to these artificial market constructions used by television stations to draw and hold their audiences.

The pressure to do this may be greater in large markets than in small ones because the boundaries of smaller markets are more likely to be congruent with the boundaries of lower-level political offices. As one illustration of this tendency, Figure 1 shows the relationship as of 2000 between market size, measured as the log of households with televisions in each market, and the number of congressional districts whose boundaries are located at least partially within each market. Each point in this figure represents a single television market, ranging from tiny Glendive, Montana (containing 3,900 television households from a single congressional district), to the massive New York market (containing nearly 7 million television households from 42 congressional districts).

Because the median market includes six congressional districts, television stations that try to cover particular House races or a single community’s civic news risk losing the attention of most of their audience who live elsewhere.
This dynamic encourages broadcasters to focus their limited space for campaign coverage on races that are relevant for as many viewers in the market as possible. Several studies confirm that local newscasts prefer to focus on statewide or national campaigns rather than campaigns for the U.S. House or for local offices. The Lear Center recently reported that during the midterm election of 2002, local television news stations in the top 50 markets focused 58% of their campaign coverage on gubernatorial and senatorial races during the general election season in 2002 (Lear Center, 2003). Only 10% of coverage was devoted to U.S. House campaigns or campaigns for state legislative offices. The imbalance is similar in presidential election years. The Lear Center reported that during the 2004 presidential election, a sample of local stations in 11 television markets focused just 8% of their campaign coverage on candidates for the U.S. House or for state legislative offices. In contrast, 61% of campaign coverage focused on the race for the presidency (Lear Center, 2005). In general, few campaigns that encompass less than a station’s entire local audience should be deemed newsworthy unless they possess news value by virtue of being key races in the national
arena, being highly visible to audiences because their advertising is running in the market (Pelika & Franklin Fowler, 2004), or involving dramatic scandals, flamboyant personalities, or well-known candidates.

Smaller markets should be more likely than larger ones to focus attention on legislative or local campaigns because these races are directly relevant to larger shares of their audience base. Vinson’s (2003, pp. 41-46) study found that market size was the main predictor of the amount of local news coverage given to U.S. House and Senate races, with larger markets having fewer congressional stories in all types of news media, not just local television news (also see Arnold, 2004; Schaffner & Sellers, 2003; Snyder & Strömberg, 2004). Although researchers are only beginning to systematically analyze the content of local news broadcasts, studies using indirect measures of media content tend to confirm this expectation. For instance, survey-based research examining the congruence between the boundaries of television markets and congressional districts tends to find that people living in smaller, more congruent markets are more knowledgeable about U.S. House candidates than are citizens in larger, less congruent markets (J. E. Campbell et al., 1984; Levy & Squire, 2000; Prinz, 1995; Snyder & Strömberg, 2004; Stewart & Reynolds, 1990). Presumably, this is because news outlets in smaller, more congruent markets are more likely to cover these races. Likewise, people living in media markets contained within a single state tend to have higher levels of factual knowledge about state politics than do people living in media markets that are divided among several states (Delli Carpini, Keeter, & Kennamer, 1994).6

Not only is it more difficult for lower-level candidates to attract media attention in larger markets, but it is also more difficult for them to buy it. Because advertising is priced mainly on the size and demographic characteristics of the broadcast audience for particular programs (Napoli, 2003), it is more cost-efficient for campaigns to use broadcast advertising when there is a high degree of overlap between their potential voters and the audience for a television market. As a consequence, in most cases it is more cost-effective to advertise in highly congruent markets, where the overlap between a station’s audience and the candidate’s potential voters allows advertising to be aired on a low cost-per-voter basis (Shea, 2006). Because larger markets contain many more lower-level political districts, the advertising cost per voter in any one of these districts goes up as market size increases. Larger television markets tend to remain cost-effective only for national and statewide campaigns, where the market’s entire audience consists of potential voters. Candidates in large markets are therefore forced to seek alternative channels for reaching voters, often resorting to direct mail and volunteer canvassers to
individually target potential voters in a district. Because these types of direct voter contact are relatively expensive in terms of campaign resources, they tend to be reserved for reaching people whose voter registration records show they are already likely to turn out (Powell & Clowart, 2002; Shea, 2006). In such cases, the alternative communication channels available to office seekers in larger markets are tailored to those already intending to vote, and therefore any stimulus effect on turnout is likely to be small. Furthermore, Green and Gerber (2004) show that impersonal voter contact methods such as direct mail have little unique stimulus effect on turnout. Candidates unable to purchase cost-efficient airtime on television may therefore be unable to effectively mobilize voters through the most common alternative contact methods used by campaigns lacking large field organizations.

In short, the recent literature emphasizing how sensitive turnout levels are to variations in local information flows suggests that media attention to political campaigns is an important factor in motivating people to vote. The higher the apparent stakes in each contest, or the greater the number of races that are brought into the perceptual horizons of eligible electorates, the higher the likelihood that people will vote. Because larger markets contain more political contests than smaller markets, and because each contest in a larger market is less likely to be covered than the comparable race in a smaller market, we can see why large markets should tend to demobilize voters: A higher proportion of races are less visible in larger markets, and the few subnational races that receive coverage will tend to be irrelevant to the greatest number of citizens living in larger markets because most will be ineligible to vote in these newsworthy but geographically bounded races. From a different perspective, if every voter is eligible to vote in the same number of races, ranging from county clerk to president of the United States, we expect that voters whose local media inform them about a smaller proportion of those races will be less likely to vote than voters whose local media cover a deeper range of relevant contests. In this sense, following Downs (1957), information about relevant races is less costly to voters in smaller markets because relevant information about a higher proportion of contests should be more abundant in these markets.

Market congruence, news values, and audience economics jointly diminish the amount of news attention given to lower-level races in larger media markets. If the probability of voting goes up with the perceived benefits from voting, and if perceived benefits go up with increased knowledge of a wider range of contested races, then the information environment in a smaller media market may be more motivating for attentive voters than the political news crafted to appeal to a larger market.
Data

Market size. Nielsen Media Research assigns every county in the United States to one (and typically only one) television market. The assignment of counties to these DMAs is determined by the television viewing habits of each county’s population: The market used by a plurality of county residents (as revealed by Nielsen ratings) becomes the county’s designated market. A complete listing of county assignments to DMAs is published each year in Nielsen’s *U.S Television Household Estimates*, and from this listing we coded the size of the media market in which each county was located.

Our measure of market size is the natural log of the number of households with televisions in each market. We prefer the natural log of television households to the actual number of households for two reasons. First, we have no reason to believe that the effect of market size on turnout should be linear at the unit level. To the contrary, the difference between 250,000 and 500,000 television households should be more consequential to the structure of the local information environment than the difference between 5,250,000 and 5,500,000 households. Second, and more important, the large disparity in scale between the largest and smallest markets (see Figure 1) recommends the use of logged households over the untransformed number. The largest market—New York—is significantly larger than the third largest market. Our analysis reveals that the New York market also has lower turnout levels than the next largest markets. If we were to use the raw numbers of television households, regression results for the complete set of markets could be overdetermined by the tendencies in the top market. Given the tendencies in the New York market, an unlogged measure would overstate the apparent importance of market size to turnout.

Although our analysis of market size is based on the county-level boundaries of broadcast television markets, we recognize that these boundaries should often be fairly congruent with the structure of radio and newspaper markets in the same areas. However, no comprehensive data source exists that would allow us to separately model the structure of print and radio markets. The presence of these overlapping markets leads us to conclude that our measure of market size captures not merely the influence of local television newscasts but also the influence of local media systems more generally. However, we are unable to account for the unique effects of these different market structures, and it is possible that our analysis of television markets is influenced to unknown degrees by the unobserved market structure for these other news media.
Voter turnout. Our turnout data come from the ROAD project (King et al., 1997), which compiled aggregate data at the precinct level for the more than 160,000 electoral precincts in the United States (excluding California, as noted below) over the 1984, 1986, 1988, and 1990 election seasons. Because precinct boundaries do not cross county lines, it is possible to precisely determine the television market in which each precinct was located. We then aggregated precincts up to the level of “minor civil divisions” (MCDs), a standard unit of aggregation used in ROAD data that is synonymous with county boundaries in less populated areas but which subdivides counties in more heavily populated areas.10

King et al. (1997) note that the process of aggregating individual data necessarily entails a loss of information. Because of this, researchers are advised to use the smallest possible unit of aggregation for studying relationships of interest. Although most studies of aggregate turnout use state-level data and a few use county-level relationships, the approximately 25,000 MCDs in the ROAD collection allow us to examine turnout at the lowest possible unit of aggregation at which statistical controls derived from census data can also be introduced. To give a sense of the scale used in this analysis, the average size of the voting-age population in MCDs was 6,726 persons ($SD = 42,919$) across all four election years, with an average of 2,790 votes cast per MCD (min = 4, max = 2,060,244). The large standard deviation and range in these data is a potential concern, but further inspection reveals that there are only 10 MCDs in each election with voting-age populations greater than 1 million, and 98% of the MCDs have voting-age populations of fewer than 80,000 persons. Among MCDs with fewer than 80,000 voting-age persons, the average number of adults was 3,859 ($SD = 8,705$).11

Although eligible voters or registered voters are the preferred denominators for turnout calculations (McDonald & Popkin, 2001), we calculate turnout as the number of ballots cast in an MCD divided by the number of voting-age persons living in the area.12 This way of defining turnout has several advantages over the alternatives when using ROAD data because local governments do not uniformly purge and update their registration rolls and because so many counties in the United States failed to provide the ROAD team with voter registration data at all. Its primary shortcoming as a measure of turnout is its failure to exclude noncitizens and felons ineligible to vote. As a consequence, defining turnout as percentage of voting-age population casting ballots tends to underestimate actual levels of participation among eligible voters (McDonald & Popkin, 2001). Although we are unable to replicate McDonald and Popkin’s (2001) recommended corrections at our level of analysis, we recognize that a sizable inflow of noncitizen
immigrants comes from Latin American countries and that a disproporti-
ionate share of the African American population has been disenfran-
chised because of felony convictions (Uggen & Manza, 2002). To compensate for
these tendencies, our regression models include controls for proportion
Hispanic and proportion African American.

MCD-level control variables. Many studies using aggregate data are
confronted with the ecological inference problem when attempting to infer
individual-level relationships from aggregate data. Our analysis is immune to
this particular inferential problem because we use aggregate data to study
explicitly aggregate relationships. The main vulnerability of our analytical
strategy therefore is not ecological inference but rather the potential for spu-
rious covariance between market size and turnout introduced by inadequate
controls for other variables known to predict turnout. We therefore take great
pains to demonstrate that market size is not closely related to the most likely
rival explanations suggested in the aggregate turnout literature: geographic
clustering of demographic characteristics known to predict voting and the
degree to which the population resides in urbanized areas. The political vari-
ables in the ROAD data collection are joined to the aggregation of the 1990
Summary Tape File 3a U.S. census data up to the MCD level. We use four
contextual variables to control for potentially spurious relationships between
market size and turnout at the MCD level. In addition to proportion Hispanic
and proportion African American, we control for local levels of socioeco-
nomic status by including a variable that measures the percentage of the adult
population with a college degree. We also control for the percentage of the
population in urban areas. Formally, this variable captures the proportion of
an MCD’s population that lies within census-defined central metropolitan
statistical areas (CMSAs, which are contiguous networks of urban areas con-
taining a million or more persons) or metropolitan statistical areas (MSAs,
urban areas containing at least 50,000 persons). Although there may be impor-
tant differences between these types of urban areas, we found that population
density had no substantive influence on turnout after controlling for the other
variables discussed here. For this reason, we collapse CMSAs and MSAs into
a simple measure of percentage urban residents.

Other control variables. The political and legal characteristics of indi-
vidual states are a major influence on turnout. Same-day registration, lev-
els of party competition, and institutional barriers to voter participation all
affect turnout (e.g., Dalton, 2002; Dalton & Wattenberg, 1993; Rosenstone
& Hansen, 1993; Verba & Nie, 1972; Verba, Schlozman, & Brady, 1995;
Wolfinger & Rosenstone, 1980), and many studies conclude that these factors rather than individual-level characteristics are the primary determinants of turnout (Kim, Petrocik, & Enokson, 1975; Patterson & Caldeira, 1983). Although we are unable to model each of the several factors that contribute to state-level differences in turnout, our regression analysis includes a set of 46 state-level dummy variables that capture the joint influence of these factors at the level of individual states. Turnout rates tend to be higher in presidential election years, so we capture this both in separate models for presidential and midterm elections and in a pooled model with a dummy variable for presidential elections. Our final control variable recognizes the tendency for gubernatorial and senatorial campaigns to influence turnout, particularly in midterm elections (Jackson, 1997; Smith, 2001). We therefore created a variable for statewide campaigns that counts the number of current gubernatorial and senatorial campaigns in which MCD residents are eligible to vote.13

Missing data. Although the ROAD data come about as close as one gets to true population data, missing data problems do affect the scope of our analysis. Problems acquiring data led to the omission of California in the ROAD data for 1984, 1986, 1988, and 1990. ROAD includes California data for the 1992 election only, but because ROAD has no comparable data for the rest of the country in 1992, we have decided to exclude California altogether. This decision complicates the interpretation of our findings because California contains two of the top five media markets in the country (Los Angeles and San Francisco). Besides the California problem, some MCDs lacked the complete census data needed for calculating voting-age populations or control variables, whereas others lacked valid data on number of votes cast for federal or statewide elections. According to the ROAD documentation, a total of 25,973 MCDs were contained in the 47 states with valid data. However, we found that 9.5% of MCDs in those 47 states contained missing data relevant to our analysis. Nearly one fourth of these missing MCDs are from the state of Indiana (representing about one third of the MCDs in that state), and another 14% are from South Dakota (representing around half of the MCDs in that state). No other state contains more than 10% of missing cases, and the rest of the missing cases are broadly distributed among 37 other states. Although it is difficult to rule out errors of inference that might be produced by these missing cases, a kernel density plot of "missing" MCDs by market size shows no concentration of missing cases in large or small television markets, and this lack of relationship is confirmed by the small correlation between market size and missing status (r = -.06).
The missing MCDs therefore do not appear distinctive in terms of our main explanatory variable.

## Findings

Previous studies have noted that turnout tends to be lower in urban areas, a finding confirmed in the ROAD data.\(^{14}\) Table 1 shows that urban turnout levels tended to be 10 percentage points lower than rural turnout levels during the midterm elections of 1986 and 1990 and 5 points lower during the presidential elections of 1984 and 1988.\(^{15}\) A similar difference in turnout rates is observed for MCDs in larger and smaller media markets.\(^{16}\) Turnout among the third of MCDs in the largest television markets averaged 8 percentage points lower than those of MCDs in the smallest markets during midterm elections and nearly 7 points lower than those in the smallest markets during presidential elections.

These simple comparisons suggest that the size of television markets has a strong relationship to turnout levels, comparable to that attributed in previous studies to locale type. But this apparent similarity might be little more than an artifact of covariance. For one, the size of television markets is partly a function of population density: The largest markets all contain highly

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<tr>
<th>Table 1</th>
<th>Mean Levels of Turnout by Election Year, Locale Type, and Television Market Size</th>
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<td>Midterm Turnout</td>
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<td>M</td>
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<tr>
<td>Locale type</td>
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<tr>
<td>Urban MCDs</td>
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<td>Suburban MCDs</td>
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<tr>
<td>Rural MCDs</td>
<td>48.1</td>
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<td>F(2, 46756) = 1438.9</td>
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<tr>
<td>Television market size</td>
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<tr>
<td>Top third</td>
<td>42.8</td>
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<tr>
<td>Middle third</td>
<td>45.7</td>
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<tr>
<td>Bottom third</td>
<td>50.9</td>
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<td>F(2, 46844) = 1143.5</td>
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Note: MCD = minor civil divisions. All F statistics are two-tailed significant at the \(p < .001\) level.
urbanized areas, and turnout studies in the United States have long observed that urban dwellers tend to vote at lower rates than do those who live in suburbs and rural areas (e.g., Verba & Nie, 1972). Another reason to suspect the apparent connection between market size and turnout is that urban areas also tend to have higher concentrations of people with sociodemographic characteristics that predict voting. For instance, turnout studies identify minority populations as less likely to vote because they are less likely to be targeted for mobilization efforts (Rosenstone & Hansen, 1993), because they tend to have lower levels of socioeconomic status (Verba et al., 1995), and because large numbers of Hispanics are noncitizens and large numbers of African Americans are disenfranchised because of felony convictions (McDonald & Popkin, 2001; Uggen & Manza, 2002). Failing to take account of the fact that sizeable numbers of Hispanics and African Americans are both ineligible to vote and disproportionately located in urban areas will contribute to the appearance that urban turnout rates are lower than they actually are. At the same time, cities tend to attract college-educated citizens who are more likely to vote than those with lower levels of formal education, so the risk of misinterpretation is great indeed when it comes to reading the unique impact of market size from one variable in isolation from others.

Some light can be shed on this problem by examining correlations among urbanity, market size, and other explanatory variables. The percentage of MCD population in urban areas is moderately correlated with the percentage of MCD population with college degrees ($r = .41$) and weakly correlated with the percentage African American ($r = .15$) and Hispanic ($r = .11$). However, the correlation between urban areas and market size is only .37. Likewise, although market size is somewhat correlated with percentage college-educated ($r = .27$), it is weakly correlated at the MCD level with percentage Black ($r = .06$) and percentage Hispanic ($r = .07$).

Taking a closer look at the geographic structure of the largest television market in the United States as it existed in 1988—one of the election years we analyze—will help to clarify that large markets are not merely urban markets. The New York market contained around 7% of the U.S. population. As shown in Figure 2, this market encompassed 29 counties across four states (primarily New York and New Jersey, but with one county each from Pennsylvania and Connecticut). Two counties (Kings and Queens) had total populations in excess of 1.5 million persons, and another 11 counties had populations between 500,000 and 1.5 million. The remaining counties are farther from the central New York City area and had correspondingly smaller populations.
Figure 2
County Characteristics of the New York Television Market, 1988

Population Size by County
- 25,000 - 300,000
- 300,000 - 1,000,000
- 1,000,000 - 3,000,000

Turnout by County
- <50%
- 51-59%
- >60%
The U.S. turnout literature shows a strong negative relationship between urban areas and aggregate voter turnout, and it is evident in the right-hand map that turnout in the New York market is consistent with this expectation. The counties with the highest populations had the lowest turnout levels (Kings = 33% turnout, Queens = 36%), whereas the least populated counties averaged relatively higher turnout levels. However, this was not always the case: Bergen county in the center of the map had a midsized population (just more than 800,000) but one of the highest turnout rates at 60%, and the heavily populated eastern Long Island counties had turnout levels in the mid- to high 50% range. Favorable demographics must certainly account for a great deal of this variation. Moreover, to the extent that levels of party competitiveness and legal barriers to registration at the state level have a bearing on turnout, state-level variation in these factors should affect different counties in a market spanning four states. With so much within-market variation in the factors known to predict aggregate turnout, it is surprising indeed that the bivariate relationship between market size and turnout is so clear.

A more important point in these maps is perhaps less obvious: According the U.S. Census Bureau categories, only 7 of the market’s 29 counties are in first-tier center city areas. Another 8 are considered suburbs of first-tier center cities, 12 are smaller urban counties, and 2 are rural counties. Thus, only 24% of the counties in the New York market are highly urbanized areas. This is even more the case when we disaggregate from the easy-to-visualize county data in Figure 2 to the more refined MCD-level data used in our analysis. Among the third of MCDs in the largest television markets (see definitions for Table 1 above), only 15.7% were in completely urban areas, whereas 72.0% were in completely nonurban areas (the remaining 12.2% were in partially urban areas). Among the third of MCDs in the smallest television markets, nearly all (95.6%) were in completely nonurban areas.

An even more comprehensive picture is provided by graphically detailing for the entire continental United States the distribution of television markets, CMSAs, and MSAs. In the 2001 data shown in Figure 3, there are 19 CMSAs and 253 MSAs. Nearly all markets contain at least one MSA (the exceptions are a few of the smaller markets in the western half of the United States), and many contain more than one. Moreover, 7 of the 19 CMSAs are split up among different television markets. So although there is a positive relationship between market size and the prevalence of urban areas, it is a loose association that cannot in itself account for the correlation between market size and turnout levels. Nonetheless, to clarify the unique impact of market size on turnout, the degree of covariance between
Figure 3
Television Market Boundaries and Urban Areas in the United States, 2001

Note: Central metropolitan statistical areas are in dark shading; metropolitan statistical areas are in light shading.
these factors must be controlled by partialling out the percentage of the MCD-level population in urban areas.

Table 2 reports the results of a multiple ordinary least squares regression analysis that controls for a variety of alternative factors including urbanity that jointly influence turnout levels. All of these models include a full set of 46 dummy variables to capture state-level differences in turnout, but these dummy coefficients are not shown to clarify the relationships of primary interest. The first two sets of columns report separate models for presidential and midterm years. $R^2$ values in these columns show that although the off-year model (accounting for 41% of turnout variance) provides a better fit to the data than the on-year model (accounting for 34% of variance), both do a good job of predicting the distribution of MCD-level turnout.

All the control variables in these models behave as expected. Statewide campaigns boost aggregate turnout by an average of 2.9 percentage points in midterm elections and less than half a percentage point in presidential elections, in a manner consistent with previous findings on the diminished impact of statewide campaigns on turnout during presidential years. As expected, the proportion of persons in urban areas is negatively related to turnout. Fully urban populations are estimated to have turnout levels 4.4 percentage points lower than completely nonurban populations in midterm elections but only 1.5 points lower in presidential elections. As expected, the proportion of Hispanic and African American persons is negatively related to turnout in both types of elections, and the proportion of college-educated persons is positively related to turnout rates. All of these relationships are highly significant, as is to be expected with data containing so many cases.

After controlling for the influence of these “most likely suspect” variables, television market size remains a highly significant and substantively important predictor of turnout. Its beta weight shows that during midterm elections, television market size is at least as important a determinant of aggregate turnout as proportion of persons in urban areas and nearly as important as proportion college-educated. In presidential election years, the beta indicates that television market size is second only to proportion college-educated in accounting for aggregate variation in local turnout.

Given the clear interaction effects between type of election year and both statewide campaigns and television market size, the third set of columns in Table 2 reports coefficients for a pooled model that includes all available cases across four elections and a set of interaction terms to capture between-year differences in the impact of statewide campaigns and market size. This pooled model provides a superior fit to the data ($R^2 = .45$) than either of the election-specific models ($R^2 = .41$ and .34, respectively).
Table 2
Predictors of Aggregate Turnout

<table>
<thead>
<tr>
<th></th>
<th>Midterm Turnout</th>
<th></th>
<th>Presidential Turnout</th>
<th></th>
<th>Pooled Turnout</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>β</td>
<td>B</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td>Statewide races (0–2)</td>
<td>2.90 (0.14)</td>
<td>.11</td>
<td>0.45 (0.12)</td>
<td>.02</td>
<td>2.98 (0.11)</td>
</tr>
<tr>
<td>Proportion urban (0–1)</td>
<td>−4.40 (0.23)</td>
<td>−.08</td>
<td>−1.52 (0.22)</td>
<td>−.03</td>
<td>−2.97 (0.16)</td>
</tr>
<tr>
<td>Proportion Black (0–1)</td>
<td>−13.91 (0.81)</td>
<td>−.08</td>
<td>−10.89 (0.78)</td>
<td>−.07</td>
<td>−12.31 (0.57)</td>
</tr>
<tr>
<td>Proportion Hispanic (0–1)</td>
<td>−31.52 (2.30)</td>
<td>−.06</td>
<td>−33.49 (2.19)</td>
<td>−.07</td>
<td>−32.53 (1.61)</td>
</tr>
<tr>
<td>Proportion college-educated (0–1)</td>
<td>16.51 (0.75)</td>
<td>.09</td>
<td>21.44 (0.71)</td>
<td>.14</td>
<td>18.99 (0.52)</td>
</tr>
<tr>
<td>Size of TV market (8.5–15.8)</td>
<td>−1.26 (0.07)</td>
<td>−.08</td>
<td>−1.24 (0.06)</td>
<td>−.09</td>
<td>−1.75 (0.06)</td>
</tr>
<tr>
<td>Presidential year (0 or 1)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3.73 (1.03)</td>
</tr>
<tr>
<td>Statewide races × presidential year</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>−3.52 (0.17)</td>
</tr>
<tr>
<td>Size of TV market × presidential year</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.04 (0.08)</td>
</tr>
<tr>
<td>Constant</td>
<td>53.50 (1.31)</td>
<td>.407</td>
<td>61.42 (1.23)</td>
<td>.339</td>
<td>55.55 (1.05)</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.407</td>
<td>.339</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>46,847</td>
<td></td>
<td>47,171</td>
<td></td>
<td>94,018</td>
</tr>
</tbody>
</table>

Note: Ordinary least squares regressions with robust standard errors in parentheses. All coefficients are two-tailed significant at the $p < .001$ level or greater. All models also contain 46 state-level dummy variables (with Alabama as the contrast category) that are omitted from this table.
Likewise, this model confirms that market size is an important factor predicting turnout rates, even after controlling for other factors. However, these coefficients are difficult to interpret in light of the significant interaction terms, which have opposite signs from the main effects. To remedy this problem, we modeled the predicted impact of market size on turnout rates while holding all other variables at their mean or modal values. Figure 4 shows separate regression lines for each type of election year predicted by the pooled model in Table 2 when television market size is varied from lowest to highest values. We used Clarify 2.1 (King, Tomz, & Wittenberg, 2000) implemented in Stata 10 to model 95% confidence intervals around point estimates of the effects of media market size on aggregate turnout. As expected, the impact of market size is less pronounced in presidential elections, when the national contest draws attention to the top of the ticket in all areas of the country. In presidential election years, predicted turnout levels drop from 54.0% in the smallest markets to 48.8% in the largest markets after controlling for the other variables in Table 2, a difference of 5.2 percentage points. But market size becomes a serious impediment to turnout in midterm elections, when predicted turnout rates drop from 45.2% in the smallest markets to 32.4% in the largest markets, a difference of 12.8 points.

If it seems questionable to focus on the extreme endpoints of the predicted values from this model, it is important to clarify that most of the American voting-age population resides in very large television markets. For instance, according to Nielsen Media Research, during 1999 half of the U.S. population lived within the boundaries of the top 25 television markets, leaving the other half scattered among the remaining 185 markets. Put another way, after ranking markets from largest to smallest, in 1999 the median American lived in a television market containing 980,000 television households. Our model shows that the difference in local turnout rates between this median market and the smallest market is 3.9 percentage points in presidential elections and 9.6 points in midterm elections. Translated into national proportions, it is clear by any measure that differences in the information environments provided by large and small television markets affect millions of voters in every election.

To rule out the possibility that we are observing artifacts of composition at the aggregate level, we replicated this aggregate-level analysis using three sources of individual-level survey data from the 1984 to 1990 period. All three data sets confirm that people living in larger television markets are less likely to vote, especially in midterm elections, even after controlling for a range of factors known to predict turnout. However, the analysis presented thus far does not speak to the possibility that market size might have
different effects in the urban, suburban, and rural areas contained within a single market. It is possible that lower turnout in large-market urban areas stems more from unfavorable demographic clustering, whereas lower turnout in large-market suburban and rural areas comes more directly from characteristics of the information environments. Clearer evidence that lower turnout levels are caused by the information environment rather than some other factor requires separate analysis of urban, rural, and suburban areas. If the information environment created within larger markets lowers turnout across the board, then we should see a fairly uniform relationship between turnout and market size everywhere within a market, particularly during midterm elections. In contrast, if market size is spuriously correlated with turnout in certain parts of a market, or if the information environment has conditional effects on turnout, then we should find that turnout is depressed selectively within some areas of larger markets but not others.

Table 3 presents pooled regression models for urban, suburban, and rural MCDs. Figure 5 shows the estimated effects of market size by election year for each type of locale. The regression models show that larger markets depress turnout in all three locales, particularly in midterm elections. This
Table 3
Predictors of Aggregate Turnout Among Primarily Urban, Suburban, and Rural Minor Civil Divisions (MCDs)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Urban MCDs</th>
<th>Suburban MCDs</th>
<th>Rural MCDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td>Statewide races (0–2)</td>
<td>5.06 (0.27)</td>
<td>.22</td>
<td>3.77 (0.34)</td>
</tr>
<tr>
<td>Proportion Black (0–1)</td>
<td>-11.94 (1.08)</td>
<td>-.10</td>
<td>-20.22 (2.29)</td>
</tr>
<tr>
<td>Proportion Hispanic (0–1)</td>
<td>-45.65 (2.72)</td>
<td>-.13</td>
<td>-10.72 (3.03)</td>
</tr>
<tr>
<td>Proportion college-educated (0–1)</td>
<td>28.92 (0.89)</td>
<td>.26</td>
<td>4.68** (2.88)</td>
</tr>
<tr>
<td>Size of TV market (8.5–15.8)</td>
<td>-1.92 (0.18)</td>
<td>-.14</td>
<td>-1.08 (0.20)</td>
</tr>
<tr>
<td>Presidential year (0 or 1)</td>
<td>4.97** (2.64)</td>
<td>.17</td>
<td>10.03 (3.42)</td>
</tr>
<tr>
<td>Statewide races × presidential year</td>
<td>-6.24 (0.48)</td>
<td>-.23</td>
<td>-4.15 (0.55)</td>
</tr>
<tr>
<td>Size of TV market × presidential year</td>
<td>1.37 (0.18)</td>
<td>.65</td>
<td>0.67 (0.25)</td>
</tr>
<tr>
<td>Constant</td>
<td>46.76 (2.57)</td>
<td>.56</td>
<td>45.40 (3.20)</td>
</tr>
<tr>
<td>R²</td>
<td>.56</td>
<td>.45</td>
<td>.45</td>
</tr>
<tr>
<td>N</td>
<td>10,314</td>
<td>7,136</td>
<td>76,393</td>
</tr>
</tbody>
</table>

Note: Ordinary least squares regressions with robust standard errors in parentheses. All coefficients are two-tailed significant at the \( p < .01 \) level or greater unless noted. All models also contain 46 state-level dummy variables (with Alabama as the contrast category) that are omitted from this table.
Figure 5
Predicted Turnout Among Primarily Urban, Suburban, and Rural Minor Civil Divisions (MCDs)

Note: DMA = designated market area.
confirms that the observed effects of market size on turnout are related to the information environment created within large markets. However, Figure 5 shows that the functional form of this relationship differs somewhat among the three locales. The effects of market size on turnout within urban and suburban MCDs bear the strongest resemblance to the pooled results, except that the effects of market size are larger within urban areas. Figure 5 shows that during presidential elections, urban areas in the largest markets have turnout levels 5 percentage points lower than those in the smallest markets. During midterm elections, urban areas in the largest markets have turnout levels 15 points lower than urban areas in the smallest markets. These differences are well outside the 95% confidence intervals generated by Clarify’s bootstrapped effect estimates.

The same general pattern emerges within suburban MCDs, where presidential-year turnout is predicted to vary by three points and midterm-year turnout by seven points between the smallest and largest television markets. However, despite their statistical significance, these turnout effects among suburban MCDs are small enough to be contained within the 95% confidence intervals generated by Clarify. There is no question that the effects of market size are present in the suburban data, but they are sufficiently muted in these areas to call into question whether these subtle effects are substantively important in the suburbs. The suburban MCD model offers other puzzles as well, including diminished effects of proportion Hispanic and a nonsignificant coefficient for percentage of the population with a college degree. Because college degrees tend to be clustered in urban (\( M = 22\% \) college educated) rather than suburban areas (\( M = 13\% \)), the diminished effect of education on turnout within the suburbs is also a challenge to the standard view of turnout as a function of socioeconomic status (e.g., Verba et al., 1995; Verba & Nie, 1972; Wolfinger & Rosenstone, 1980). It is unclear what might be inoculating suburban MCDs from the typical effects of education and market size. Increased chances of being contacted by a campaign (Rosenstone & Hansen, 1993), the more aggressive newspaper competition in suburban areas that is not typically found in single-paper center cities (Kaniss, 1991), and offsetting demographic characteristics not captured in our model are just three of many possible culprits, and none can be tested with the data at our disposal.

In contrast to urban and suburban areas, Figure 5 shows that the effects of market size on rural turnout are of a similar magnitude in both presidential and midterm election years. During presidential elections, rural areas in the largest television markets have turnout levels 7 percentage points lower than rural areas in small markets. During midterm elections, the difference
is 10 percentage points. The unexpected finding is that market size is so strongly related to presidential-year turnout in these rural areas because presidential races provide a uniform stimulus to all areas of the country that should be magnified rather than diminished by the need for large-market news stations to focus on top-ticket races. One possibility is that large-market rural areas are particularly insensitive to information flows in presidential years, but this seems hard to square with so much of what we know about turnout dynamics. A more intriguing possibility is that presidential-year turnout in larger-market urban and suburban areas is somehow higher than it should be in presidential years. In this perspective, the turnout dynamics of rural areas provide a clean benchmark for comparing the effects of market size on the aggregate vote. Because the lower population density of rural areas would make direct voter contact more difficult to pull off, the relatively higher turnout levels in suburban and urban areas might reflect the unique impact of mobilization efforts that can be implemented in more densely populated areas. This possibility is purely speculative, and the ROAD data offer no way of testing such a relationship. But it suggests that the information environments in larger markets may have a more constant influence on voter turnout than is suggested by the differences between on- and off-year voting levels. Further research will be needed to identify and sort out the factors that might explain these differences in voting patterns among urban, suburban, and rural areas.

**Conclusion**

Prior research on turnout conducted during the past 80 years has concluded that a wide range of individual- and system-level factors jointly contribute to variance in local turnout rates. However, no previous study has examined whether the size of local television markets—which determines the extent to which down-ticket races are considered newsworthy—might also contribute to turnout variation. We find that the size of the local television market affects local turnout levels above and beyond the typical factors known to influence voting behavior.

There are clear limitations to our analysis. The aggregate data cannot tell us which types of people are losing representation because of television market structures: Answering this question with aggregate ROAD data runs squarely into the ecological inference problem. Furthermore, the voting data in our possession present no clear picture of why larger markets tend to demobilize voters. Systematic content analysis of news broadcasts is a
necessary first step, but the methodological challenges to such an immense data-collection effort are profound. Lacking systematic research on the informational content of local news markets, we are left only to speculate about the mechanisms by which market size depresses turnout levels.

Future research could seek to clarify the specific features of these information environments that influence turnout levels. It may be that larger markets do not depress turnout so much as small markets stimulate it. Either way, a clearer understanding of the mechanisms that translate market size into turnout variance is needed before we can consider potential remedies to this situation. In particular, it is unclear whether the relationship between market size and turnout is chronic (e.g., if residents of larger markets are socialized into ignoring down-ticket races because of persistent noncoverage of these races) or temporary. The latter is suggested by the smaller effects of market size in presidential compared to midterm elections, but further analysis will be needed to clarify the nature of these effects.

Additional research is also needed to clarify if the demobilizing effects of television market size are still as strong today as they seem to have been in the late 1980s. Local television newscasts remain the single most important source of campaign news in the United States, but the changing media environment during the past several decades may have diminished the importance of terrestrial broadcast markets. Because there has been an increasing fragmentation of traditional news markets with the advent of local cable news channels and local Internet sites, it is likely that the relationships between turnout and market size are smaller today relative to the 1980s. However, a recent study of media exposure in 2000 and 2004 found that market size and the number of television and radio stations in local broadcast markets are strong predictors of exposure to cable news, newspapers, and online news sites (Althaus, Cizmar, & Gimpel, 2008). In particular, this study found that larger markets tend to have higher levels of local television news exposure and lower levels of newspaper and cable news exposure relative to smaller markets. If these patterns of exposure are related to levels of turnout, it is possible that the relationships presented here are still as strong today as they were in the late 1980s.

Notes

1. Downs (1957) had initially proposed that the perceived closeness of a race should increase turnout, but subsequent work has found that perceived closeness is not a major predictor of voting (for a review, see Aldrich, 1993).

2. One possibility is that noncitizens and disenfranchised felons may be concentrated more in urban than rural areas. The presence of both types of nonvoters artificially lowers apparent
turnout levels when the number of votes cast is divided by the voting-age population rather than the population of eligible voters, and the size of both groups has been growing in recent decades (McDonald & Popkin, 2001). However, to our knowledge, this possibility has yet to be explored in the empirical literature.

3. This figure comes from 1993, which is the earliest date for these Pew surveys and the most proximate date to the ROAD data used in our study.

4. Data plotted in this figure were obtained with geographical information system (GIS) software, which overlaid a 2001 designated market area (DMA) boundary map on a map of congressional districts as of 2000. Using this method, ArcGIS software was used to determine how many unique congressional districts were at least partially contained within DMA boundaries for each market. Markets from Alaska and Hawaii are excluded from this figure, as data from those states are not used in the ROAD data on which this article’s analysis is based.

5. The exception, as Kaniss (1991) points out (also see Graber, 2002, pp. 320-337), is the tendency for local news stations to focus on political developments within their main urban centers because such large proportions of their viewing audiences tend to live in these areas.

6. Another study (Mondak, 1995) examined two similar counties, in which one had local newspaper coverage whereas the other had a newspaper strike during the general election season. Voters in the county lacking newspaper coverage knew as much about the presidential race as voters in the other county, but they knew much less about their local U.S. House races than did voters in the county with local newspaper coverage, presumably because such information was not emphasized in local television newscasts.

7. In the few situations where the viewing habits within a single county diverge substantially, Nielsen Media Research splits counties into two sections. In such cases, the county was assigned to the DMA containing a majority of its population.

8. However, in the figures we simply display the unlogged number of television households in a logarithmic scale to simplify interpretation of the relationships. The reader should keep in mind that the logged values for market size used in the statistical analyses are not the same as the easier-to-interpret values showing market size in the figures.

9. The United States is divided up by the Arbitron corporation into (currently) 287 radio markets, but Arbitron defines these only in terms of the major metropolitan counties at the center of each market. Unlike the case of broadcast television markets, we are aware of no attempt to comprehensively assign each county to a unique radio market. Likewise, the multi-level structure of competition in newspaper markets (Kaniss, 1991) makes it difficult to specify the boundaries of those markets outside of center city areas. In contrast, cable markets are usually defined at or below the level of cities, and the proliferation of cable providers makes it exceptionally difficult to model the areas in which local broadcast television news coverage is redirected to households through cable providers.

10. For more specific details on the definitions of minor civil divisions (MCDs), see the ROAD Web site at http://www.hmdc.harvard.edu/ROAD.

11. Therefore, this study provides a conservative estimate of the impact of market size on voter turnout because it focuses on turnout rates. Because the actual number of votes at stake in large markets is so much greater than in smaller markets, a focus on actual votes cast would likely suggest even stronger effects of market size. However, the ease of analyzing rates over counts recommends the approach used in this article.

12. Specifically, we use the race with highest vote total as a proxy for ballots cast, dividing votes cast by voting-age population. In presidential elections, the largest number of votes was usually cast for the presidential race. In midterm elections, the highest vote totals
were usually for gubernatorial or senatorial races but could also be for U.S. House races if no state-level campaign was being waged.

13. This variable takes a default value of 0 and a maximum value of 2 for MCDs having both senatorial and gubernatorial campaigns.

14. In these data, the average rate of turnout in presidential years is 58.7% ($SD = 13.9$), whereas the average in nonpresidential years is 46.3% ($SD = 15.4$). According to the Statistical Abstracts of the United States, the national turnout in 1984 and 1988 averaged 58.7%, whereas the national turnout in 1986 and 1990 averaged 45.5%. The minor discrepancy in these numbers stems from the fact that MCDs containing larger numbers of voters tend to be concentrated in the largest media markets. For instance, among the 562 MCDs in the New York market in 1988 (market rank = 1), the average number of voting-age persons was 26,302. Among the 611 MCDs in the Sioux Falls, South Dakota, market in 1988 (market rank = 99), the average number of voting-age persons was 611. Among the 276 MCDs in the Alexandria, Minnesota, market in 1988 (market rank = 187), the average number of voting-age persons was 351.

15. For this comparison and for the analysis in Table 3 and Figure 5 below, urban MCDs are defined as those with more than 50% of the population living in urban areas. Suburban MCDs are defined as those with more than 50% of the population living in suburban areas, and rural MCDs are likewise defined as those with more than 50% of people living in rural areas. This definition classifies all but two tenths of a percent of MCDs into one of these three categories, with the remainder having less than a majority in any one.

16. For this comparison only, MCDs are ordered according to the size of the media markets in which they are located and then divided into three equal-sized groups. Using this approach, the smallest third of MCDs are located in markets with fewer than 260,000 households ($n = 15,176$), the middle third of MCDs are in markets with between 260,000 and 530,000 households ($n = 15,841$), and the largest third of MCDs are in markets with between 530,000 and just more than 7 million households ($n = 16,154$).

17. Out of slightly more than 200 television markets in the United States, the top 10 markets—indeed, in descending order, the top 10 markets are New York, Los Angeles, Chicago, Philadelphia, San Francisco, Boston, Dallas–Fort Worth, Washington, D.C., Detroit, and Atlanta—jointly contain nearly 31% of the entire U.S. population.


19. The number of cases in the pooled ROAD data set is so great that the significance of market size variables is unaffected by clustering of standard errors on states, markets, or MCDs. Furthermore, models using the unlogged number of television households produce essentially the same pattern of coefficients as those using logged television households.

20. For instance, although it would appear that the presidential elections add only less than 4 percentage points to aggregate turnout levels, this is because the interaction terms with statewide campaigns and market size are drawing a large part of variance explained away from presidential years (note the beta of .42 for the interaction between market size and election year).

21. Full details of the individual-level replications are available from the first author on request. The 1984 to 1990 period captured by the ROAD data corresponds with the final years that the American National Election Studies (ANES) used voter registration records to confirm whether respondents actually voted in an election. We also used Current Population Surveys...
(CPS) from 1988 and 1990 to add further breadth to the individual-level replications. Because each data set has its limitations, we analyzed all three sources of individual-level turnout data—ANES validated votes, ANES self-reported votes, and CPS self-reported votes—even though the ANES validated vote data provide the strongest individual-level evidence bearing on the relationship between market size and voter turnout. After controlling for individual-level variables known to predict turnout as well as state-specific effects, logistic regression models confirmed that the effects of market size are significantly and negatively related to midterm turnout in all three data sources, although this relationship varies in strength across the three data sets.

22. Our analysis of survey data from the same period confirmed that market size matters to turnout at the individual level, but any attempt to clarify the individual-level correlates of this aggregate relationship is muddied by limitations of the available data.

References


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