Less of the Same:

The Lack of Local News on the Internet

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Introduction

Perhaps no part of the American media environment is as little understood as Web-based local news. The relative importance of Internet news has grown steadily; recent Pew studies have found that more Americans now rely on the Internet as a primary news source than rely on print newspapers (Purcell et al. 2010, Kohut et al. 2011). But even as the Web is a larger slice of the American news diet, systematic data on local news has been scarce. Even very basic questions have remained unanswered. How many online local news outlets are there in a typical media market? Are successful local news sites new, or just online versions of traditional media? How much competition is there in online local news? Just how much attention do local news Websites receive?

These questions have acquired particular urgency since 2007, as the newspaper industry has faced a financial crisis. Local newspaper reporters produce most journalism in the United States, but that economic model is now imperiled. Newspaper advertising dropped by an inflation-adjusted 54 percent between 2005 and 2009—and though the decline has recently slowed, there are no signs of recovery (Newspaper Association of America 2010). Eight major newspaper chains entered bankruptcy between 2008 and 2010, and papers such as the *Seattle Post-Intelligencer* and the *Rocky Mountain News* shut down their presses (Kirchoff 2010). Newsroom staffing at U.S. papers is now less than 70 percent of what it was in 2001 (PEJ 2011).

The Internet's potential to expand local news voices has been of interest to policymakers and regulators for more than a decade. In 2003, online media diversity featured prominently in FCC and congressional debates about broadcast ownership regulation (see, for example, the discussion in Noam 2009). The federal courts have highlighted the same questions, focusing on the (disputed) ability of the Internet to provide greater viewpoint diversity for local news (e.g. *Prometheus v FCC*, 2004). More recently policymakers at the FCC, in congress, and at the Federal Trade Commission have studied the Internet's ability to sustain local journalism even as newspapers struggle financially.

But for all of the discussion of local news online, there has been little systematic evidence about the local news environment on the Web. Arguments have been waged mostly with anecdotes and assumptions instead of comprehensive data.

This study aims to change that. Using comScore panel data that tracks a quarter of a million Internet users across more than a million Web domains, this paper examines online local news within the top 100 US television markets. I identify and analyze 1074 local news and information sources across these 100 markets, studying their audience reach, traffic, and affiliation (or lack thereof) to traditional media. I also look at concentration in local online news markets, and conduct a census of Internet-only local news sites that reach more than a minimum threshold of traffic.

The breadth and the market-level granularity of the comScore data makes this study one of the first comprehensive looks at of Internet-based local news. The portrait that emerges is surprising. New, Web-native news organizations are nearly absent from this traffic data. Local news on the Web is fundamentally about consuming less news from the same old sources. Understanding the local news landscape online has profound implications for policymakers, journalists, and local self-governance in the 21st century.

Data and Methodology

As noted above, this study relies centrally on data provided by comScore, a large U.S. Web measurement firm. comScore tracks the browsing behavior of a large panel of Internet users with user-installed software, and its coverage is exceptionally broad: as of July 2010, the firm reported tracking traffic to 1,049,453 Web domains. Previous research has used aggregate U.S. Web usage data, in which only the largest local sites in the largest local markets could be studied. For this study, full data from February, March, and April 2010 was purchased for the 100 largest US broadcast market areas, and provided to the author as government-furnished information. These 100 markets contained a monthly average of 253,953 comScore panelists. Because comScore strives for a nationally representative sample, the number of panelists varies according to a market's size, from 19,998 in the greater New York City market (the largest in the sample) to 647 in the Burlington-Plattsburgh market (the smallest by panel size, and one of the smallest by population). The median market by panel size, Little Rock-Pine Bluff, had 1,606 panelists. In most cases sites are tracked at the domain level: all pages on example.com would be considered together as traffic to a single site. With particularly popular sites, however, comScore tracks different parts of the domain both individually (for example, images.google.com and maps.google.com) and collectively (all Google-owned properties together).

Thanks to the breadth and detail of the comScore data, this study can provide the first comprehensive, nationwide look at the state of local news on the Web. In our case, the comScore data provides several key traffic metrics within each broadcast market. These include: *monthly audience reach*, which is the portion of panelists that visits a Website at least once in the calendar month; the number of *monthly page views* that a site receives; *monthly minutes*, which measure the time spent on a site; and the number of monthly panelist *sessions* that a site accumulates, measuring the number of times that a person accessed one or more of a site's pages with no more than a 30 minutes between clicks. For each market, comScore's listings include all sites visited by at least six of that market's panelists. Sites that have five or fewer visitors are not reported.

Local news, by definition, draws a larger audience within its home market than it does nationally. A local news Website covering Seattle will have a larger audience share in the greater Seattle area than it will in Tulsa or Toledo. This fact, along with the richness of the comScore data, allows us to distinguish local from national news outlets. Local Websites are operationalized as *sites that have higher levels of usage within a given media market than they do in the rest of the nationwide sample*. How much higher? The simplest rule is to look at any usage difference big enough that is unlikely to have been produced by chance. The study uses a standard difference of means test, comparing sites' mean audience reach within a market to its reach in the rest of the national panel.

For our purposes, sites where the observed local vs. national gap in usage is at least three times larger than the estimated standard error are examined as possible local sites. Formally, this is equivalent to a t-score > 3. (The samples are large enough that z-scores or t-scores are equivalent.) Qualitative assessments (detailed below) suggest that this decision rule for discerning local from national content works extremely well for the types of sites we hope to examine. A lower decision threshold—such as 2.5—produces few additional genuinely local sites, with the large majority of additional sites false positives. As we would expect, much lower decision thresholds, such as t > 2, swamp the analysis with false positives. Given that the data are roughly normally distributed, sampling error alone should produce a t-statistic > 2.0 about 2.5 percent of the time. In a data set of more than a million observations, such a low threshold produces an unmanageably high false positive rate.

If a difference-of-means test provides a powerful heuristic to distinguish local from national content, the other important task is to distinguish between sites that provide news and sites that do not. The initial research design called for this study to use comScore's proprietary "Web dictionary," with places tracked sites into one of many of categories and subcategories, including a category for "News/Information." However, comScore's coding scheme was discovered to have significant limitations. Substantively identical news sites are often placed in different categories and subcategories. Even within the same market, it is common to find television station sites or newspaper sites spread across different categories and groupings. Since it is essential that we know the affiliation (if any) between online news sources and traditional media outlets, the comScore data needs to be supplemented.

Because of these limits with the comScore categorization, the author himself coded sites for news content, locality, and traditional media affiliation (more on coding guidelines below). While the comScore data categories are imprecise and inconsistently applied, they do provide some guidance. A newspaper site might end up in "Regional/Local" or "News/Information: Newspapers" or "News/Information: General News," but it is unlikely to end up in "Retail." First, 10 broadcast markets were chosen using random numbers generated by random.org. For February, March, and April, all sites with a t-score > 3 in these 10 markets were examined. The

comScore category was recorded for all sites that provided local news. News sites were found in the three comScore "News/Information" subcategories, in the "Regional/Local" category, and in the "Entertainment" category (particularly the "Entertainment: TV" and "Entertainment: Radio" subcategories). There was no discernible difference between local TV stations that ended up in the "Entertainment" category and those that ended up in "News/Information" or "Regional/Local." Even with radio, a number of hard news stations were placed in the "Entertainment" category.

The study also requires setting a consistent, cross-market audience share standard for inclusion in the analysis. Without such a standard far more local news sites will be found in bigger markets than in smaller ones, since sites that receive five or fewer visitors are not included in the comScore data. For example, a site that got five panelist visits in Burlington would be omitted from the analysis, while a site that got eight visits in New York would be included—even though the market reach of the Burlington site is 18 times higher.

Since the study aims to provide the broadest possible survey of online local news, this base threshold is set as low as the data allows. First, minimum standards for inclusion in the analysis are based on monthly audience reach rather than other traffic metrics. As will be seen below, less-trafficked sites usually score far better on audience reach than they do on page views or time spent on the site. Second, these audience reach metrics should be as small as consistent cross-market comparison permits. To repeat, *sites most have at least six local market visitors to show up in the comScore data at all*. The smallest markets (such as Burlington or Madison WI) have between 600 and 700 panelists.

Since six visitors equal one percent of 600 panelists, one percent audience reach is the smallest threshold we can use and still include cities like Burlington and Madison in the analysis, at least without worrying about data censoring. Even slightly lower thresholds would affect many or most of our 100 markets. Requiring sites to receive 0.5 percent audience reach requires a panel size of at least 1200 respondents to avoid censoring, excluding 33 of our markets. Requiring 0.3 percent audience reach requires 1800 panelists and would impact 54 of the 100 broadcast markets. Moreover, as we shall see below, any additional sites found by lowering the threshold would add up to only a tiny fraction of all news consumed in the local market. (It turns out that local news sites just above the one percent audience reach cutoff average less than 1/100th of one percent of all local page views.)

While the one percent threshold here is chosen because of the limits of the data, at least one prominent scholar has proposed a similar threshold on normative as well as pragmatic grounds. Eli Noam (2004, 2009) argues that outlets should have one percent market share to count as media voices in his proposed Noam Index of media diversity. As Noam (2004) explains, "To keep the index practical there should be a cut-off of a minimal size for a voice. One per cent seems a reasonable floor: small but not trivial."

Putting these requirements together means that local news site candidates are *all sites in the sample* with the following characteristics:

- Sites in the News/Information category, Local/Regional category, or the Entertainment category.
- Sites where the difference in audience reach within a market vs. nationally produces a t-statistic >3
- Sites that achieve 1 percent audience reach in at least one of the three months examined.

More than 1800 sites in the data possess all three of the above characteristics. The coding guidelines specify an inclusive definition for news sites. Websites were counted as news and information outlets if they *provided regularly-updated information about local news, community affairs, local officials, or issues of regional concern*. This definition is not format-dependent, and in principle it would include sites such as local blogs. Static content by itself was not enough to count as a news source; sites needed to have front-page content updated within the preceding two weeks. This coding was labor-intensive, but did provide for an extremely detailed, firsthand look at what local news sites consist of. Fortunately, the data presented few difficult coding decisions. The large majority of sites identified by the three-pronged test above were traditional media outlets. Ultimately, 1074 of the candidate sites were classified as local news sites.

Because of the mandate to examine Internet-only local news sources in particular, special care was taken to accurately record a site's affiliation with broadcast or print sources. Every television station was confirmed to have broadcast or cable distribution, and every print outlet was confirmed to have a paper version.

In 95 out of the 1074 news sites, higher usage levels ($t > 3$) were recorded in more than one media market. These cases overwhelmingly involve a large newspaper or (less often) a regional television station with a statewide or regional audience.[1] Since the focus is on local news, rather than state or regional news, these secondary regional markets are excluded from the definition of local content. The Seattle Times may have above-average readership in Spokane, WA, but it does not consistently cover Spokane's local politics.

There are two prominent exceptions to this rule, however: **AL.com** and **Michigan Live**. Both are statewide sites that feature content from newspapers in several different broadcast markets. Participating newspapers forgo their own home pages

[1] The only significant exception is the New York Times. Longstanding jokes that the New York Times is the local paper of San Francisco have a kernel of truth: the greater San Francisco market does indeed consume the Times at a higher rate than any market except New York itself. This is the sole example in the data of an outlet generating a t-statistic > 3 in a non-local and non-adjacent market.

to host content on these statewide platforms. These outlets are thus counted as local in every market with a participating news organization.

Metrics for Web Traffic

Before delving more deeply into the analysis of local news traffic, we should elaborate a bit more on traffic metrics and methodology. Much discussion of online audience, and online news audience in particular, talks about "monthly audience reach" or equivalently "monthly unique visitors," statistics that capture the number of individual users that view at least one of the site's pages over the course of a month. Newspaper organizations in particular are fond of discussing monthly audience reach, perhaps because it is the statistic that most resembles estimates of print circulation.

In fact, monthly audience reach is a much shallower statistic, and certainly not comparable to audited circulation numbers. The number of sites that a typical user will visit over the course of any 30-day period is huge, and any individual visit means little. Those who visit a site once, spend less than 30 seconds, and then immediately click away still count as visitors. Most news sites have a high "bounce rate," in which users visit a single page and then leave. A recent study of the 25 most popular national news outlets by the Project for Excellence in Journalism highlights this pattern. A majority of unique visitors to these top sites—77 percent on average—are "extremely casual users" who visit just once or twice a month (Olmstead, Mitchell & Rosenstiel 2011). For some sites, the portion of casual users exceeds 90 percent.

Despite the connotation that these users have been "reached," then, most unique visitors make no real connection with a site and spend almost no time there. With print, we do not count those who glance at newspaper headlines at a newsstand as readers. We do not count those who flip past CNN looking for something else as news viewers. But in the online world, equivalent behavior gets rolled into inflated monthly audience reach estimates.

Even with these definitional issues aside, the comScore data can be expected to produce lower levels of audience reach than most news sites themselves report based on internal traffic measures. Overcounting of unique visitors is a widespread problem in the online news industry.

For those that publish on the Web, there are two primary ways to measure the number of unique visitors. First, sites may require that users register and log in to view content, either with payment or (more often) without. When users log in, Web publishers can set an individually-identifying browser cookie that—at least in theory—can be used to track a user across different computers, different browsers,

and different locations. However, even the relatively minimal barrier of a required registration can reduce traffic and make users less likely to return to a news site.

The second option for news sites is to track users by placing cookies on their Web browsers *without* requiring a login. Most news sites in our sample follow this course. However, a large portion of the public consumes news on multiple computers, multiple devices or even just multiple browsers, especially over the course of a month. When cookies are not tied to a specific registered user, every computer and every browser counts as a unique reader. Simple clearing of cookies, or browsing in "private" or "incognito" mode, can create the same problem. While exact estimates are difficult to come by, one recent industry report estimated that the unique-visitor-to-actual-person ratio was nearly four to one on the average local news site.[2]

Questions become even more complicated when sites adopt a mixture of these models, allowing a portion of the site, some smaller number of articles, or just the front page to be viewed without registration. Even when sites insist on registration, those who visit the front page *without* registering might still be counted as unique visitors.

A third option for counting unique visitors is to look at the IP addresses of users. Though less common, this method makes the risk of overcounting even worse. Over the course of a month, an itinerant user with a laptop can count as dozens of unique visitors under this standard. This method also allows for undercounting, as multiple users in a coffee shop or a business may share an IP address. It is left as an exercise for the reader to consider how many computers or Web-enabled devices she has used in how many different locations in the previous calendar month: by IP address, each could count as a unique visitor.

comScore, of course, measures audience reach by installing software on users computers. While there are methodological challenges with recruiting and maintaining a representative sample, comScore's data should not suffer from the overcounting of audience reach endemic to other data sources.

The number of unique visitors a site receives thus tells us little about a site's usage pattern, audience, or market power. Audience reach numbers have the additional complication that they are not additive: two sites with five percent audience reach don't add up to 10 percent audience reach, because there is no way to tell how much their respective audiences overlap. Still, when audience reach is properly measured this metric *can* tell us about the number of visitors who ended up at the site least once. Precisely because audience reach includes even the shallowest interactions with a site, monthly reach measures let us cast the net as wide as possible in searching for local news sources.

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[2] http://www.borrellassociates.com/reports?product_id=832

In measuring Web traffic, page views and time spent on a site tell us much more about a site's contribution to the overall media landscape. These two metrics are the main focus of the rest of the paper. However, both need to be understood in a broader context.

A site with thousands of page views a month may at first look impressively popular. But page views are plentiful: users viewed 2700 pages a month in our sample on average, or roughly 90 pages a day. Page views are highly concentrated on the most popular sites. Facebook alone—the most visited site by page views—accounted for 10 percent of page views (270) in the median market. By the same measure, Google properties accounted for another 188 page views.

Most page views are short. comScore reports that a page view lasts 26 seconds on average; 98 percent of page views last less then 2 minutes, and 99.8 percent last less than 10 minutes. Pages views are most helpful when used comparatively, in understanding the *relative* audience that two sites have. The page view numbers we are most interested are fractional—the portion of the total online audience, or the portion of news traffic, or the portion of just *local* news traffic. It should be remembered that each of these fractions has a very large denominator.

One disadvantage of page views as a metric, however, is that they can be impacted by the specific architecture of a site. Site layouts that spread the same content in different member pages can increase—or decrease—the number of page views recorded. A few news sites are notorious for spreading short articles over multiple pages in an attempt to maximize page views. Ideally, studies of page view traffic should be supplemented by metrics of time spent on a site. As we will see below, page views and time spent on site tell a substantively similar story about the audience for local news, both overall and for the relative audience that sites in the same market receive.

Page views and time spent on site are important for another reason as well: advertising. Most online news revenue comes from selling online ads, and ad sales by the impression or the click are closely tied to page views. Video advertising on the Web is somewhat more complicated, but is often sold by the second. The page views and minutes that accrue to news sites are a good, if imperfect, proxy for the amount of advertising space that local news sites control.

A final metric useful in understanding local news traffic is the number of sessions the site receives. Sessions count the number of uninterrupted periods of browsing on a site. When paired with page views, the number of sessions can measure the *regularity* of usage. Consider two sites: Site A, in which users visit once a day and look at ten pages each; and Site B, in which users visit 10 times a day but see only a single page each time. Both sites would have the same number of page views, but Site B would have ten times the recorded number of sessions. News sites have a relatively high ratio of sessions per page view compared to other types of Web content, indicating more frequent but less intense usage.

comScore data offers significant advantages over other sources, particularly many news sites' self-reported traffic numbers. If we want to study a broad cross-section of Web usage, there are no real alternative to panel data from large Web measurement firms—particularly comScore, Nielsen/Netratings, and Experian Hitwise. However, this sort of data also has limitations that should be borne in mind.

A key issue in any panel survey data is how representative participants are of the general population. comScore reports that they use "an array of online recruitment techniques to acquire the members of [comScore's] panel." Calibration panels recruited offline, census data, and monthly phone surveys are used to weight online-recruited panelists in proportion to their prevalence in the general population. In several validation studies, the weighted comScore traffic estimates have differed by less than 5 percent on average of from estimates compiled from other independent sources (Cook &Pettit 2009).

Still, many details of comScore's approach remain proprietary and cannot be evaluated independently. A key concern for some research is that online-recruited panelists may overrepresent particularly avid Web users: the more pages someone visits, the more likely she is to see a comScore recruitment ad (Cook &Pettit 2009). Even if weighting the panel did not fully correct for this, however, an excess of avid Web users would tend to bias audience reach statistics *upwards* rather than downward. The more active users are, the more likely they are to visit any given site at least once, all else being equal. Raw numbers of page views (though not share of page views) would also be biased higher. With regard to recruitment of heavy Web users, the comScore data likely represent a favorable portrait of online news audiences.

Other factors are potentially more worrisome. The comScore panel data examined do not measure usage from mobile devices, a small but growing portion of traffic to news sites. Even more significant is the fact that news consumption habits may differ between home and workplace users. Much overall news consumption takes place during business hours (e.g. Boczcowski 2010). Many employers have policies that preclude installing comScore's software, and comScore's work panel is much smaller than its home panel. It is likely that comScore does a better job of measuring home usage than it does in capturing workplace usage, though more detailed disclosure would be needed to estimate how much this effect might (or might not) undercount local news consumption. An excellent discussion of the broader issues surrounding Web metrics and digital journalism can be found in Graves, Kelly, and Gluck (2010).

How Much Local News Online? From Which Sources?

The broad landscape of online local news is easy to summarize. Local news is a tiny part of Web usage; collectively, local news outlets receive less than half of a percent of all page views in a typical market. Newspapers and television stations dominate what local news can be found online. Only a handful of local news Websites—17 out of 1074, all detailed below—are unaffiliated with traditional print or broadcast media. Across the 100 markets, our methodology finds:

- 395 television station Websites
- 590 daily newspaper Websites
- 41 weekly news publication Websites (nearly all alt-weekly newspapers)
- 31 radio station Websites
- 17 Web-native local news Websites unconnected to print, television, or radio outlets

Much more detailed information on each of the 100 markets is laid out in **Table 5**, at the end of the report.

The big picture is that there is little evidence in this data that the Internet has expanded the number of local news outlets. And while the Internet adds only a pittance of new sources of local news, the surprisingly small audience for local news traffic helps explain the financial straits local news organizations now face. Detailed summary statistics for our Web traffic variables can be found in **Table 1** (appended below).

Let us start with the discussion of audience reach, the broadest and shallowest metric of Web use. Measured by unique visitors, the largest local new site in each market reached 17.8 percent of local users on average, with a standard deviation of 6.3 percent. However, the audience reach numbers drop quickly as one moves down the rankings: the second-ranked site averaged 11.6 percent, the third-ranked site 8.7 percent, the fourth-ranked site 6.0 percent, and the fifth-ranked site 4.3 percent. These results are presented visually with a kernel density graph in **Figure 1** (appended below). Because comScore does not provide individual-level data or the overlap between various sites' visitors, it is impossible to calculate the portion of the audience that visits at least one local news site.

Statistics for audience reach can be greatly deceiving when used to measure how much traffic news sites get overall. As noted above, the large majority of unique visitors to national news sites are made up of users who visit just once or twice a month (Olmstead, Mitchell, & Rosenstiel 2011). In fact, more detailed traffic metrics show that the total audience for local news outlets is uniformly small. Online local news sites received only 11.4 monthly page views per person in the median market. Even with a few high-end outliers, the overall average rises to just 13.8 monthly page views, or roughly 3 pages per user per week. These numbers represent just 0.43 percent of the total monthly page views in the median market (with the overall average slightly higher at 0.51).

Local news sites were between 0.30 and 0.62 percent of all monthly page views in half of the observations, equivalent to between 8.3 and 17.0 page views per person. The largest outlier by far is Salt Lake City, where local news—and especially the television site KSL.com—gets more than 3 percent of all page views. At the other end of the spectrum are Colorado Springs-Pueblo, Las Vegas, and Los Angeles, which give less than 0.15 percent of their page views to local news sites on average. All three average less than 4 monthly local news page views per Web user.

An extremely similar story can be told by looking at time spent on news sites rather than page views. In the median market only 9.1 monthly minutes per user went to local news sites, equal to just 0.45 percent of time online. These numbers are illustrated graphically in **Figure 2** (appended below), which shows the distribution of time spent on the top-ranked local news outlets. Time spent falls precipitously from the top-ranked site in a given market, which averages 5.0 monthly minutes per user, to the fifth-ranked site, which averages just 30 seconds. Half of markets had local news at between 0.33 and 0.63 percent of online minutes, or between 6.3 and 12.4 minutes per capita. Measured by page views or minutes, local news outlets get just a tiny portion of citizens' attention.

Are these grim numbers for the local news audience because of low news consumption overall, or because local news outlets are losing out to national news sources? The comScore data shows that the answer is "both." Looking at all news sites—both those in the "News/Information" category and all the additional news sites identified above—we find that the average market sends 74 monthly page views to news sites of all stripes. This works out to roughly 60 page views for nonlocal news sources, and 14 for local ones. The figures for minutes spent are even smaller. The average market shows users spending 60 per-capita minutes per month on nonlocal news Websites, but just 11 on local ones.

These numbers are consistent with previous findings from other data sources (e.g. Hindman 2009) that news sites receive just a few percent points of Web traffic. Still, the small proportion of local news is surprising. Less than one in five news page views goes to a local news source.

- ***How Many Outlets? Of What Type?***

Even if local news is a small part of Web content, knowing where that content comes from matters. How many such sites are there in a typical broadcast market?

Markets in the sample average about ten and a half online local news sources. On a typical month that breaks down into 6.1 newspaper sites, 3.8 local television sites, .3 radio stations, and less than .2 Internet-native news outlets. The markets with the largest numbers of outlets are Chicago (19), New York (20), Minneapolis (20),

Cleveland (21), and Boston (with a whopping 28). As these examples suggest, larger markets produce larger numbers of outlets, even adjusting for market share. As we shall see, however, larger markets do NOT show greater consumption of local news as measured by time or page views. The markets with the fewest outlets in our survey were Baton Rouge (4), Ft. Smith (5), and El Paso (5).

The biggest differences in the number of outlets come from varying numbers of newspapers. 88 out of the 100 markets have three, four, or five television station Websites, including stations with just cable distribution.[3] Most have no radio or Internet-only outlets that meet our minimal audience threshold. That leaves differences in the number of newspapers to account for the rest of the variance. About half of the markets have either 3 or fewer newspapers or 11+ newspapers. As we would expect, several of the markets with only two print news sources—Richmond-Petersburg, Baton Rouge, Tucson, El Paso, Colorado Springs-Pueblo, Fort Smith—compete for the fewest number of outlets overall. The two markets with the highest number of newspapers—Hartford-New Haven (14) and Boston (21)—both boast a profusion of papers tied to small New England towns. In those two cases geography and history seem to play a major role in explaining the number of print news outlets. The large majority of newspapers found are published daily. However, 41 newspapers in our sample are weekly publications—almost all alternative weeklies published in one of the larger metro areas in our sample.

If there are more print than television online news sources, their collective online audiences are closer to parity. Put together, newspaper sites average .25 percent of their markets' monthly page views, versus .20 for television sites. But television sites do better in terms of minutes spent. By minutes spent, television and newspaper sites have identical averages: .25 percent of minutes each. This modest improvement is likely due to online video, which produces longer than average page view times.

- ***Local News Competition on the Web***

As the audience numbers above show, local news is a small niche in the broader Web. But within that niche, most local news markets are quite concentrated. Consider the top newspaper and top TV station site in each market. The top paper earns .15 percent of all page views on average, while the top television station adds another .16 percent. The outlet with the highest audience reach overall—in practice whichever is higher between the top TV station site and the top newspaper site—averages .22 percent all local page views. These means are skewed upwards by a

[3] Albany-Schenectady, Chicago, Memphis, Sacramento-Stockton-Modesto, and San Diego each had six television station Websites; New York City had a total of eight station Websites. Note that cable television news sites are included in these numbers, not just broadcast television outlets.

few outliers, though the top newspaper site and TV station site together get 56 percent of local news page views in the median market.

This concentration may raise important normative questions, but it is reassuring news for the methodology of this study. As noted above, one key limitation of the comScore data is that we must use a one-percent audience reach threshold for consistent comparisons across our 100 markets. While this may impact the number of local news outlets discovered, such intense concentration means that low-audience-reach outlets omitted from the analysis should have minimal impact on our measures of total local news consumption. On an average month in our sample, 63 sites (out of 1074 total) attain an audience reach between 1 and 1.2 percent—barely above our minimum threshold for inclusion. However, these 63 sites average less than .008 percent of all local page views (with a standard deviation of .0012), compared with .22 percent on average for the site with the greatest audience reach. Consider our median market, above, with 9 online news outlets that collectively account for .43 percent of local page views. Even if there were a dozen missing local news sites with .006 percent of page views each—a dubious claim—news sites in our median market would *still* get only one-half of one percent of monthly page views.

Evidence of concentration shows up in more systematic metrics as well. Perhaps the most commonly used metric of market concentration is the Herfindahl-Hirschman Index (HHI). The HHI is the sum of the squared market share (in percent) of all of the firms in a given market; it has possible values between 0 and 10,000. Though developed for a somewhat different application, the U.S. Department of Justice and Federal Trade Commission's joint antitrust guidelines can provide some context in interpreting these numbers. According to revised DOJ and FTC rules, markets with an HHI between 1500 and 2500 are classified as moderately concentrated, while markets with an HHI greater that 2500 are classified as highly concentrated. The HHI statistic serves as an initial screen for heightened scrutiny, while the full test examines other factors—such as entry conditions—that might allow a firm to produce a "significant and non-transitory increase in price."

In any discussion of market power or antitrust issues, delimiting the relevant market space is a critical (and sometimes contested) first task. In the analysis that follows, I calculate the HHI *as if local online news were a separate market from local broadcast and print news*. This is a useful analytic assumption, and indeed the only assumption possible with the data. Still, as we shall see, there seem to be strong links between online and offline news markets that may make that assumption problematic in other contexts. Because HHI attempts to assess firms' market power, I combine the market shares of multiple outlets in the same market owned by the same firm. For example, page views on the Atlanta Journal-Constitution site, the WSB-TV site, and the WSB-radio site are all summed together.

If we do examine local online news markets separately from print and broadcast markets, we find a surprising level of concentration. Whether we use minutes or

page views to measure market share, the HHI indicates that many online local news markets are within the envelope of closer regulatory scrutiny. Averaged across our three months, the median market has an HHI of 2479 with page views and 2593 with minutes spent online. 95 of the 100 markets have an HHI above 1500 measured by page views, and 96 reach that level with online minutes. These findings should be assessed cautiously, in part because many markets show high month-to-month variance in HHI. The median monthly swing is ±296 points with page views and ±340 points in minutes spent. But the overall picture is clear: most online local news markets are dominated by just a few news organizations.

A Census of Online-Only Local News Outlets

A central goal of this study is to catalog online news sites that are not affiliated with traditional media outlets—and that therefore have a strong *prima facie* claim to be adding to media diversity. Perhaps the single most surprising finding in this study is just how few such outlets there are.

Out of the 1074 online local news sources this study identifies, only 17 are genuinely new media outlets rather than just online outposts of an established print or broadcast media. The dearth of new Internet outlets allows us to list these sites in their entirety. In descending order of local audience reach, here are *all* of the Internet-only news outlets that show up in our survey:

- The online-only local news site with the largest audience reach is **SeattlePI.com**. Once the online home of *The Seattle Post-Intelligencer* newspaper, the site remained active even after the *P-I* stopped its presses and laid off the vast majority of its staff in 2007. In the comScore data, the *P-I* Website achieved reasonably broad reach but only shallow usage. Audience reach was between 7.7 and 12.7 percent, while the share of monthly page views (across all types of Website) was between 0.026 and 0.046 percent.

- **Chattanoogan.com**, an online newspaper based in Chattanooga, Tennessee, is one of the earliest online-only local news projects in the country. Chattanoogan.com was founded in the summer of 1999, in the wake of the sale of the *Chattanooga Times* to the larger *Chattanooga Free Press*; the consolidation made Chattanooga a one-newspaper town. Chattanooga.com garnered between 6.3 and 8.6 percent monthly reach, and between 0.06 and 0.08 percent of monthly page views.

- **TucsonCitizen.com** is the site of the former *Tucson Citizen* daily newspaper. The site survived the closure of the paper in May 2009, with the revamped site now having a heavy focus on political opinion. The site received between 2.6 and 6.3 percent audience reach in Tucson during the period studied, but just 0.003 to 0.007 percent of page views.

- **KYPost.com** is an online newspaper serving northern Kentucky. Formerly the Website of the *Kentucky Post* daily newspaper—a regional variant of the *Cincinnati Pos*t—the Website continued on after the print versions ceased publication in December 2007. The Post achieved between 2.1 and 3.3 percent audience reach in Cincinnati, and between 0.007 and 0.005 percent of the market's page views.

- **OnMilwaukee.com** is an online publication based in Milwaukee, Wisconsin, that marries local arts and events coverage with some local news. It received between 2.5 and 3.1 percent reach, and between 0.002 and 0.003 percent of page views.

- **GoWilkes.com** is a local news and information site focusing on Wilkes County, North Carolina. It has only modest reach, getting between 2.1 and 2.8 percent audience reach. Surprisingly, however, it has a heavy page view count, accounting for between 0.26 and 0.60 percent of page views in the Greensboro-High Point-Winston Salem market area.

- **FingerLakes1.com** serves the Finger Lakes region in upstate New York. The relatively simple site contains both local events coverage and a listing of local news stories. It earned between 1.0 and 3.1 percent reach and between .11 and .22 percent of page views in the Rochester market.

- **LorainCounty.com** is a local news and directory site founded by two brothers; the site's history as a news source stretches back to the mid-1990s. It received between 1.0 and 2.2 percent audience reach and 0.004 and 0.008 percent of local page views in the Cleveland market.

- **PegasusNews.com** is a local site that serves Dallas-Fort Worth. Some local news on the site comes from staff writers, though a larger portion is taken from content partners. While previously owned by Fisher Communications, which operates a number of print and broadcast media (though none in Dallas), the site was sold in January 2010; its current ownership status and cross-media affiliation is unclear. Reach varied between 0.8 and 2.0 percent, with page views between 0.001 and 0.003.

- **GWDToday.com** serves Greenwood, SC. The site's design is unpolished, but its reporting staff averages several local stories a day. The site had a market reach between .7 and 1.8 percent, and a page view share between .005 and .010 percent in the Greenville-Spartanburg-Asheville market.

- **SanDiego.com** declares that it has "evolved from a destination-focused travelers portal" into an "online community partner for locals and visitors alike." Travel links and resources remain prominent site features, though it does provide some

local news. The site had an audience reach between 1.1 and 1.7 percent in San Diego, along with a minimal page view share of between 0.001 and 0.003 percent.

- **SOMD.com** is a local site focused on southern Maryland. It has local events, listings, user forums, and new. Most news comes from content partners or law enforcement releases; it does little of its own reporting. The site's audience reach in the Washington DC market was between 1.0 and 1.2 percent, with page views between 0.005 and 0.008 percent of the market total.

- **iBerkshires.com** is a four-person news and local information site that serves western Massachusetts. The site appears only in our February data, with a reach of 1.2 percent and 0.008 percent of page views in the Albany-Schenectady-Troy market.

- **SanJose.com** is a "city guide" that focuses on travel, dining, and events, but also provides some local news. The site had a market reach between 0.8 and 1.3 percent, and a page view share between 0.0007 and 0.0015 percent.

- **MinnPost.com,** a nonprofit news site, describes its mission as providing "high-quality journalism for news-intense people who care about Minnesota." Though it has been discussed (often with Voice of San Diego, below) as a potential business model for local news, its traffic in our data is minimal: between 0.5 and 1.3 percent audience reach in Minneapolis-St. Paul, and from .0009 to .0012 percent of page views.

- **VoiceofSanDiego.com** bills itself as a "public-service, nonprofit news organization that focuses on in-depth and investigative reporting." The site is elegant and content-rich, but traffic numbers are low: reach was .48 percent in February (with 0.0005 percent of San Diego pages), 1 percent in April (with 0.0008 percent of pages), and too low to measure in March.

In addition to the above sites, **SDNN.com**, the San Diego News Network "community hub," also counted as an online news site during the period studied. However, the site ceased business and stopped updating its content in the summer of 2010.

Some patterns in this data are obvious. The Internet-only sites that average more than 3 percent monthly reach are Websites of newspapers that recently ceased publication, or – in the case of Chattanoogan.com – were founded in the aftermath of a newspaper closure. While these sites may help maintain a bit of news diversity that would otherwise be lost, their persistence can't be counted as evidence that the Internet is expanding local news options.

The poor showing of MinnPost.com and Voice of San Diego may be especially surprising to some. While MinnPost and VoSD are particularly celebrated examples

of a new breed of local and regional online news organizations, numerous other local online news sites are missing altogether in the above listing—including many other sites mentioned as promising experiments. If traffic to these "model" outlets is minimal across the board, this has profound implications for media diversity, and for the future of journalism.

Is there anything more that the data can tell us about the Web-based local news sites that have garnered so much journalistic attention? To provide a better answer to this question, I do a fuller search of the data for Internet-only news outlets that have featured in the journalism trade press, and in broader discussions of the future of journalism. Perhaps these outlets are present in the data, but miscategorized, or slightly below the 1 percent traffic threshold set as a consistent cross-market bar.

I thus assemble a larger list of Internet-only news organizations, checking if any are included in the comScore data. This deeper search looks for specific site names regardless of category or traffic level, so long as the 6-visit minimum is met. Sites based outside one of the top 100 broadcast markets were excluded, as were journalism experiments focusing on national rather than local news. The listing was assembled from both online directories and from recent journalism scholarship. In particular, listings were taken from the Columbia Journalism Review's News Frontier Database,[4] Michelle McLellan's listing at the Reynolds Journalism Institute,[5] and all sites included in the Nonprofit News Organizations listing at the Harvard Kennedy School's Hauser Center.[6] The final list of news organizations includes:

- The Arizona Guardian (Phoenix)
- Baristanet (New York)
- The Bay Citizen (San Francisco-Oakland-San Jose)
- Capital (New York)
- California Watch (San Francisco-Oakland-San Jose)
- Chicago News Cooperative (Chicago)
- The Colorado Independent (Denver)
- The Connecticut Mirror (Hartford-New Haven)
- Florida Center for Investigative Reporting (Miami)
- The Florida Independent (Miami)
- The Gotham Gazette (New York)
- InDenver Times (Denver)
- Investigate West (Seattle)
- The Iowa Independent (Des Moines-Ames)
- The Lens (New Orleans)

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[4] http://www.cjr.org/the_news_frontier_database/

[5] http://www.rjionline.org/projects/mcellan/stories/community-news-sites/index.php

[6] http://www.hks.harvard.edu/hauser/engage/artsculturemedia/nonprofit-news-organizations/

- Maine Center for Investigative Reporting / Pine Tree Watchdog (Portland-Auburn)
- The Michigan Messenger (Detroit)
- The Minnesota Independent (Minneapolis-St. Paul)
- New England Center for Investigative Reporting (Boston)
- The New Haven Independent (Hartford-New Haven)
- New Jersey Newsroom (New York)
- Oakland Local (San Francisco-Oakland-San Jose)
- Open Media Boston (Boston)
- Portland Afoot (Portland, OR)
- The Rapidian (Grand Rapids-Kalamazoo-Battle Creek)
- Rocky Mountain Investigative News Network (Denver)
- The Sacramento Press (Sacramento-Stockton-Modesto)
- The San Francisco Appeal (San Francisco-Oakland-San Jose)
- The SF Public Press (San Francisco-Oakland-San Jose)
- The Seattle Post Globe (Seattle)
- Spot.us (San Francisco-Oakland-San Jose)
- The St. Louis Beacon (St. Louis)
- The South Los Angeles Report (Los Angeles)
- The Texas Tribune (Austin)
- The Tucson Sentinel (Tucson)
- Twin Cities Daily Planet (Minneapolis-St. Paul)
- VTDigger.com (Burlington-Plattsburgh)
- Wisconsin Center for Investigative Journalism (Madison)

The results of this deeper survey are striking. The Minnesota Independent shows up in just the April Minneapolis-St. Paul data, with 6 visitors (out of 3201 panelists). In the same market, the Twin Cities Daily Planet also marked 9 visitors in April, though none were recorded in February or March. The San Francisco Appeal earned 8 visitors (out of 5540 panelists) in February, 6 visitors in April, and too few to measure in March. The Gotham Gazette was in the New York sample for March and April, though not February; it received 12 visitors both months, out of 19,998 NYC market panelists. All of these numbers are far below our traffic threshold.

None of the other outlets appear even once in the comScore data.

Another site largely absent in our data is **Patch.com**, now part of AOL, the nation's largest hyperlocal journalism project. Patch.com shows up in just four times in our data: all three months in the New York market, where it receives between 37 and 50 visitors, and in the San Francisco market, where it receives 9 visitors in April. The New York media market is where Patch.com started, as a project of Tim Armstrong (who later joined AOL as CEO), and it has its densest listing of hyperlocal sites there. Even in New York, however, the numerous Patch sites collectively did not achieve 1 percent audience reach. Recent published reports have suggested that the typical

Patch story gets only 100 or fewer page views (Kopytoff 2011). If these reports are accurate, they put most Patch sites far below our expected detection threshold.

The broad comScore coverage also allows us to piggyback onto recent in-depth studies of local journalism in the digital age. First, the Institute for Interactive Journalism authored a recent study of the online news ecosystem in Philadelphia. They claim to have identified 260 local blogs, including "about 60 [with] some journalistic DNA in that they report news, not just comment on it" (Shafer 2010). While J-Lab does not provide a full listing of the sites, they single out several as particularly successful examples. Metropolis is an online news outlet staffed by professional journalists with experience in traditional media. TechnicallyPhilly.com focuses on the city's tech community. Public School Notebook covers Philly schools and local education issues. PlanPhilly.com concentrates on planning and zoning. SeptaWatch.org provides coverage of local transportation. The Broad Street Review provides coverage of the local arts scene.

The Philadelphia media market provides the fourth-largest panel in the sample, making it easier to find low-market-reach sites here than it is almost anywhere else. PlanPhilly.com shows up just in the February data, with 7 visitors out of 7967 panelists. None of the other online news sources show up at all.

The Project for Excellence in Journalism (2010) also conducted a detailed look at Baltimore's online news environment in "How News Happens: A Study of the News Ecosystem of One American City." PEJ found 10 unaffiliated digital news sources based in Baltimore. Half were hosted on larger sites such as Blogspot or Twitter, meaning that they were not visible in our data. Sites hosted on independent domains included BaltimoreBrew.com (founded by former Baltimore Sun staffers), BMoreNews.com, ExhibitANewsBaltimore.com, InsideCharmCity, and InvestigativeVoice.com (run by former Baltimore Examiner employees). None of these sites appeared in the comScore data.

How are we to make sense of these null findings? First, it is worth remembering just how much traffic one visitor in the comScore panel represents. As a rule of thumb, one comScore panelist approximates—very roughly—600 real life audience members. The New York City television market, for example, has an online audience of slightly more than 11 million people, which comScore tries to track with a New York panel of 19,998. Assume for the moment that the sample construction is perfectly random: in that case, a site that averages 3,000 unique, within-market visitors a month will still appear in our data less than half the time. Since our data have a traffic threshold for *each market*, local sites with some cross-market reach can receive even more traffic without being likely to appear.

Measuring the size of tiny groups with panel methods is a known problem in the social sciences. In these cases, even small amounts of bias or measurement error can exceed the size of the group to be estimated (e.g. Gelman 2010). While the comScore data set may be enormous by the standards of national surveys, it still cannot make

precise audience estimates for the smallest Websites in the smallest local markets. Still, the fact that such sites are too small to measure is a powerful substantive finding in its own right. Our data can provide strong bounds on their maximum audience.

Five Markets Under the Microscope

Is there anything more that we can say about these smallest news and information outlets? Blogging is a widespread phenomenon, with 11 percent of those over 30 reportedly engaged in the activity to at least a minimal degree (Lenhart et. al 2010). Any large metropolitan area can expect to have a number of bloggers that deal, at least in part, with city issues. While the lack of traffic to local news in general is surprising, a better understanding of local blogs can inform our conclusions about the Internet-only news and information sources.

With these aims in mind, this study takes a closer look at five media markets, using search engines and blog lists to find local news content that might be undetected in the comScore data. This more detailed study *does not* aim for a comprehensive census of local blog or hyperlocal news content in these markets: that would require a larger and specially designed study. Rather, the goal is to serve as a robustness check on the rest of the analysis, and to search for relatively popular, high-quality sites that might nonetheless have escaped notice. If we understand the "best of breed" blogs and hyperlocal Websites in these markets, we can understand better what the broader survey might have missed.

Much previous research has show that blogs—include small subcategories and sub-subcategories of blogs—follow a highly skewed, roughly power law distribution (e.g. Adamic and Glance 2005, Hindman 2009). Those findings mean several things if they hold in this context. First, the most popular blogs should be easy to find either through either directed search or through following links from other blogs. Second, because links and traffic to blogs are highly skewed, this handful of top sites should receive a large fraction of all local site links and traffic. As a rough guess, one might expect that the top 10 local news sites to receive between one-fourth and one-half of all category traffic. Third, this research suggests delving further into the blog rankings add little, because the additional sites each garner little traffic.

One goal of this research is to examine the impact of television-newspaper cross-ownership on local media diversity. In this vein, the obvious two case studies to examine are Dallas-Ft. Worth and Houston. In Dallas-Ft. Worth the *Dallas Morning News* and the ABC-affiliated television WFAA are both owned by the Belo Corporation; Houston does not have an instance of cross-ownership. These two cities are of similar size, with more than 3 million people in both metro areas. They are located in the same state, helping to isolate state-level variables that might affect media consumption or the number of outlets available.

The other three cities examined are: Portland, Oregon; Cincinnati, Ohio; and Charlotte, North Carolina. These three smaller cities are from different parts of the country with divergent cultural reputations. All three are within one standard deviation of the national norm in terms of broadband penetration, income, elderly population, and non-Hispanic white population.

In all five cases, search engines were used to look for local news and information sources. Three types of searches were used: first, the city name and the term news (i.e. "dallas news"); second, the city name and the term blog ("dallas blog"); and third, the mayor's name along with the city name ("dwaine caraway dallas"). While the rationale for searching for "dallas news" or "dallas blog" is obvious, political scientists often measure political knowledge by asking about familiarity with public officials. If local news is to promote democratic accountability, acquainting readers with the highest-profile local public official is an essential part of that process. Where appropriate, related search terms were excluded; "-maine" was added to Portland searches to prevent confusion with Portland, Maine.

The top 100 searches for each query were examined, for a set of 1500 results overall. Sites returned were categorized as news and information sources using the same standards used with the comScore data. Compared to the previous coding above, classification required greater subjectivity and a larger number of unclear coding decisions. Particularly problematic were blogs that referenced local news and local issues, but only rarely. If at least 20 percent of the preceding month's content had at least some local news component, broadly construed, a site was considered to be a local news source. Near the bottom of these results, many results were discovered to be abandoned local blogs, or sites that had not been updated recently. Only blogs or local sites that have been updated within the previous two weeks were included in the roster. Lastly, sites focusing exclusively on dining, arts and entertainment, or other similarly narrow topics were excluded, on the grounds that they did not meet established definitions of a "local news and information source." For example, a blog about the local music scene would be included only if it referenced local politics, local public officials, or local issues. When local blogs or local news sites were identified, references to other local sites were followed to expand the number of candidate sites.

The first and most obvious finding was that, in each of these five markets, searches for news returned the same top sites seen in the comScore data. Local news searches pointed users first to local TV sites and local newspaper sites in every case; so did searches for the local mayor. This validation was welcome. These searches also found alternative print publications focusing on smaller communities that did not show up in the comScore data, such as Websites for black press newspapers, or sites for local LGBT periodicals.

The methodology turned up dramatically different numbers of blogs and hyperlocal sites in the different markets. Dallas produced only three examples of Web-native

local content. But the same methods found nine local sites in Houston, six in Charlotte, 12 in Cincinnati, and 18 in Portland.

This qualitative assessment included both good news and bad news. Some observers have worried that local blogs would produce only inferior content. If our concern is the ability of news sites to inform citizens, a high quality news and information source does several things: it provides accurate, regularly updated accounts of local news stories and events; it discusses the actions and views of local officials, stakeholders, and other residents; and it is well-written. Though the quality of local sites found varied enormously, every market had at least one Web-native news site that was judged to be high quality according to these standards. In Dallas, **DallasSouthNews.com** is a nonprofit news organization that combines traditional reporting, citizen journalism, and local blogging. In Houston **BlogHouston.net** and **BigJolly.com** produce commentary on local and regional news. **CLT Blog** and **The Meck Deck** produce opinionated updates about life and politics in Charlotte. Cincinnati and Portland do even better in our sample, with several high quality local blogs each.

Simply because some of these sites produce high-quality content, however, does not mean that they are substitutes for a traditional media outlet. Previous studies have long found that blogs produce little original news reporting (e.g. Blood 2003). With a couple of exceptions, that finding holds true for the blogs this study identifies. A majority of posts involve commentary on stories and features found in traditional media outlets.

Ideally, we would like to measure both the amount of news content that each local news site produces, and the audience that these sites receive. In fact, it is possible to examine rough measures of both. These blogs and hyperlocal news outlets typically publish their entire content to an RSS feed. Google Reader, a Web-based newsreader tied to Google's Gmail, automatically calculates the average number of postings per week for any feed requested. It also lists how many of its users are subscribed to a given feed. Google Reader users are only a fraction of those who use such services, and they may not necessarily be representative of Web users as a whole. Still, subscriber numbers can provide a rough measure of the relative audience that even small blogs receive.

The blogs identified range widely in their number of subscribers. Several have no subscribers in Google reader. The most successful site, **Bike Portland**, had more than 5300 subscribers as of March 2011. While most of its content is cycling news and events, the blog does contain some discussion of public policy, and the blog itself is a potential vehicle for citizen organizing. Still, Bike Portland is an extreme outlier; the median number of subscribers to the 18 Portland blogs is 35.

Still, perhaps the biggest problem with content in these local blogs is that there isn't much of it. Added together, the nine Cincinnati blogs in the Google reader data produce 5.9 posts a day; the six Charlotte blogs produce 5. Even in Portland, adding

up the 11 sites that have at least 20 subscribers each produces less than 20 postings a day.

Cincinnati and (especially) Portland are the limiting cases in our study. If blogs add little in the way of local content in the cities where they are most successful, one would be hard-pressed to argue that they make a substantial contribution to media diversity elsewhere. Thus, one full week of blog posts for the 11 Portland sites with 20+ subscribers were examined, from Sunday February 27th through Saturday March 5th, 2011. All together, these blogs produced approximately 27,400 words worth of content. That is slightly less than 4,000 words a day, small enough to be printed on a single page of a full-size daily newspaper.

Regression Analysis

Local news may be a tiny subset of the content that citizens consume, but the comScore data does show that markets differ in both the number of online local news outlets available and the traffic that local news receives. Are there systematic factors that predict the number of local outlets of all kinds found in a given market? In which sorts of markets do we find Web-native news outlets? What market-level variables are associated with greater or lesser local news consumption? Which factors promote concentration in local Web news markets?

In considering these questions, it is worth emphasizing what regression analysis cannot tell us. The initial research design hoped to use regression analysis as a tool for understanding which markets would produce Web-native news outlets capable of filling gaps in off-line coverage. But the answer, as we have seen, is "none of them." The number of Web-native outlets is too few, and the traffic they receive too sparse.

Still, some types of markets do provide more online news outlets—and more Web-native news outlets. Some types of markets show higher levels of local news consumption. And some cities do show more (or less) concentration in the online news marketplace. To shed light on these patterns, I perform regression analysis on our 100 local markets, combining the comScore data with additional data provided by the FCC.

There is little previous scholarly research to turn for guidance about the market-level factors that predict the number of online local news outlets, the level of online news consumption, or the degree of online news market concentration. However, we do know the personal demographics associated with online news consumption, and established veins of scholarship have examined local news in traditional media both at the market and individual level (Hindman 2009, Hamilton 2004, Napoli 2003). To the extent possible, this analysis examines both structural market characteristics and aggregate market demographics.

Detailed summary statistics for our explanatory variables can be found in **Table 2** (appended at the end of the document). One obvious question concerns the link between the size of a market, the number of local news outlets we find there, and the quantity of local news consumed. The variable *TV Market Population* is based on estimates from the Census Bureau's American Community Survey. Previous work has found that larger markets produce more broadcast news (Shiman 2007, Crawford 2007).

Some research has shown that broadband users use the Web substantially differently from dialup users, and that they consume more and richer types of Web-based content (Smith 2010). To investigate potential impacts of high-speed access, *Broadband %* includes the percentage of the market that subscribes to 768 bps or faster broadband.

Given that local newspapers and commercial TV stations provide most local news online, it is particularly important to examine the structure of offline local media. Regarding newspapers, the models test several variables. *Newspaper Copies Per Capita* reports the total newspaper circulation per person in a given market. *# of Daily Newspapers (5%)* measures the number of daily newspapers that reach at least 5 percent of the market population. *# of Newspaper Parent Companies* captures the number of parent daily newspaper firms in the television market. These variables hopefully provide some leverage over which aspect of the newspaper environment matters most: the number of newspaper firms, the size of the newspaper audience, or just the number of outlets that reach a minimum threshold of readership.

Television broadcasters are approached similarly. Since we find few local news outlets associated with noncommercial television broadcasters, we focus on the number and type of commercial broadcasters. *# Commercial TV Stations* records the number of full-power commercial television broadcasters. *# Commercial TV Parent Co.* calculates the number of companies that own at least one station in the local market. The expectation is that a greater number of print and television off-line outlets, from a greater number of companies, should be associated with more online news sources and greater news consumption.

Additionally, we are interested in whether ownership patterns impact the number of online outlets found and the amount of local news consumed. *Locally-Owned TV Stations* measures the number of commercial stations with owners in the market. *Minority-Owned Stations* captures the number of local television stations under minority ownership. *Newspaper-TV Cross-Ownership* reports the number of parent companies in a market that own both a daily newspaper and a full power commercial television station.

While newspaper-TV cross-ownership is of particular concern, the local radio market is also potentially important. *Radio-TV Cross-Ownership* measures the

number of parent entities that own both a broadcast TV station and a radio station. *# of News-Format Radio Stations* captures the number of broadcast radio stations with a news-based format.

We also investigate possible ties between the racial and ethnic makeup of a market and its online news production. *Percent Black* and *Percent Hispanic* capture the portion of the market population that is African-American and Hispanic respectively. One might hypothesize that markets with larger Hispanic populations will consume less English-language local news. Also included are interaction effects between racial and ethnic makeup and market size: *Hispanic % * Market Population* and *Black % * Market Population.* These terms test whether racial and ethnic market characteristics have divergent effects in larger vs. smaller markets, as some of the cases discussed above might suggest.

The analysis also controls for possible effects of income and age. *Per Capita Income* uses earnings data provided by BIA. *Age 65+* is the fraction of the population in the market that is 65 or older.

Lastly, because there may be month-specific factors that impact the amount of news consumed, two dummy variables for the months of February and March are included. April is the omitted category. These coefficients should be interpreted as the difference between consumption in April and the listed month.

- ***Regression Results***

The data is analyzed using two different sorts of regression models. First, negative binomial models are used to estimate both the number of Web-native news outlets found in a given market, and the number of local online news outlets of all kinds. Second, OLS regression models are used analyze local news consumption and the level of market concentration.

In all cases, the analyses use robust standard errors clustered by market. An observation in February is not independent of the repeated observation of the same market in March, and this reduces our effective sample size. Under these circumstances regression coefficients are unbiased, but uncorrected standard errors are misleading and usually anti-conservative. Because our effective sample size is small, this analysis should expect to find only the largest and most consistent relationships.

Table 3 presents the results of the negative binomial models. These models, which assume that the dependent variable is a non-negative integer, are often a better choice for count data than OLS regression. Negative binomial models are closely related to poisson regression models. Whereas poisson models have only a single parameter λ, which governs both the mean and the variance of the distribution,

negative binomial models add the parameter α to capture overdispersion. While overdispersed count data are common in the social sciences, in this case both models produce estimates of α very close to zero (see Table 3). When α = 0, poisson and negative binomial models are equivalent.

Let us start with the number of Web-native news outlets found in a given market. Greater numbers of Internet-only news sites are found in markets with lower per-person print circulation. The relationship is highly statistically significant, and it persists even when we exclude markets where print newspapers recently stopped their presses while maintaining their Web sits. Whether or not they can effectively close gaps in coverage, this suggests that Internet-only news sources have indeed sprung up in areas where print newspaper readership is lower.

The models also show that, all else being equal, markets that are both large and heavily Hispanic have fewer Internet-only news sites. Though less precisely measured, the coefficients suggest a similar interaction between the size of a market and its proportion of African-American residents.

There is modest (though not statistically significant) evidence that larger markets, and markets with higher per capita income, may also produce more Web-native news outlets. No other variable comes close to statistical significance.

The story looks somewhat different when examining the total number of online news outlets in a market—a category where daily newspapers sites and television station sites dominate. First, there is strong evidence that larger markets have more news outlets. With a z-score > 5, this finding is extremely unlikely to have been produced by chance.

There is also a strong association between the total number of online outlets, and the number of newspaper parent companies operating in the market. This comports with our analysis above, which shows that the biggest variance in outlets comes from the number of newspaper sites. Larger numbers of commercial television stations are also associated with more local news sites, though this coefficient is just shy of statistical significance.

As with the analysis of Internet-only news outlets, there is a complicated relationship between the racial and ethnic makeup of a market and the number of online news outlets we find there. The coefficients for *Percent Hispanic* and *Percent Black* are both positive (only the latter is significant). However, there are also strong and highly significant interaction effects between a market's racial and ethnic composition and its size. The model finds fewer online outlets in cities that are both large and heavily minority.

There is suggestive evidence that markets with a greater percentage of 65-and-older residents have fewer local online outlets, though the result is not quite significant (p

< .13 in a two-tailed test). None of the other explanatory variables approach statistical significance.

This data also allow us to examine the consumption of local news, measured both by page views and minutes. Here we return to standard OLS linear regression models (**Table 4**).

A particularly consistent predictor of local news consumption, in both page views and minutes, is the portion of the population that is Hispanic. Communities with a proportionally larger Latino population consume less local news than otherwise comparable cities. Moreover, interaction effects between market size and ethnic composition amplify this finding. Not only do heavily Hispanic markets have lower local news consumption than average, local news traffic in *bigger* heavily Hispanic markets is lower still. (The portion of market residents who are African-American does not produce similar findings.)

The model also suggests that media ownership patterns predict the level of local news consumption. The presence of a minority-owned television station is associated with greater local news usage in both page views and minutes (though only minutes is significant). Given the findings above, it should be noted that many of these minority-owned stations are in large, heavily Hispanic markets (such as Miami-Ft. Lauderdale or Los Angeles). Similarly, the presence of locally-owned TV stations also predicts higher levels of news consumption, though here too only minutes spent is statistically significant.

The level of TV-newspaper cross-ownership also seems to matter. Markets with cross-owned newspaper-television firms show an extra four monthly page views per person going to local news sites ($p < .10$, two-tailed). Findings for local news minutes are similar, though not significant.

Curiously, markets with greater per capita income are estimated to consume less news than poorer markets. This finding emerges with both minutes and page views, and it is statistically significant for both measures. The percentage of local residents age 65 or older is also associated with lower news consumption, though the results are significant only with minutes spent.

Lastly, we look at predictors of market concentration as measured by the HHI. Concentration in minutes spent online and in page views is examined, and both metrics tell a very similar story. The patterns in market concentration are less predictable than the preceding models. Most of our predictors do not approach statistical significance, with two exceptions. First, all else being equal, more populous markets have lower levels of estimated concentration. This result is significant with page views, and approaches significance in minutes spent online.

Second, markets with newspaper-television cross-ownership show dramatically higher levels of concentration in both minutes spent and page views. There are 19

such markets in our data, and the estimated effect size is enormous: with TV-newspaper cross-ownership the model predicts an 1115-point jump in the HHI in page views, and a 1201-point jump in the HHI by minutes spent. Both metrics are statistically significant.

Conclusion

Has the Internet significantly expanded the number of local news voices? The answer that emerges from the comScore data is firm but qualified "no." We can say the least about the very smallest online news sources—those that receive less than a few thousand unique visitors monthly, and are thus unlikely to appear in our data. But above this threshold, we find almost no evidence that the Internet has expanded the number of local news outlets.

Most television markets have fewer than a dozen local news Websites. Those sites that do receive an audience are overwhelmingly newspaper and local television station Websites, rather than new and independent sources of local news. Only 16 of our top 100 markets have an unaffiliated Internet news source that reaches our one-percent audience threshold. Even the exceptions prove the rule: the four most successful Internet-only news sites were all related to the closure of a traditional print newspaper. The fact that sites like SeattlePI.com continue with a skeleton crew is welcome, but it does not represent an expansion of media diversity. Online local news markets resemble downsized versions of traditional media news markets, with the same news stories produced by the same newspapers and television stations.

Even more surprising than the small number of outlets, or the lack of new Web-native news organizations, is just how small the online news market is. Discussions about the newspaper crisis often start with the claim that online news has a *revenue* problem, not a *readership* problem. John Morton's (2010) recent assessment is typical, arguing that the problem with newspaper sites is that "Lots of people came, but lots of advertising didn't."

The comScore data show that this diagnosis is wrong. The central problem facing local online news sites is that their audiences are small—and proportionally much smaller than even many publishers and journalists seem to realize. Metrics such as monthly audience reach are often falsely inflated, and deceptive even when measured accurately. If a particular news startup gets a few tens of thousands of page views a month, the site is hailed as a success—even though many citizens view *thousands* of pages a month each, and even though page views last less than 30 seconds each on average. Online local news has a revenue problem largely *because* it has a readership problem.

A detailed economic analysis of the state of local news is outside the scope of this study. Nonetheless, the fact that local news sites capture little of citizens' attention has obvious economic implications. If we want to understand the financial viability of advertising-supported local news on the Web, we should focus on two questions. First, how valuable is the *entire* online advertising space in a given media market? Second, how much of that online space do local news sites control? In 2009, the last year for which full data are available, online advertising revenue in the U.S. totaled $22.7 billion dollars (IAB 2010). That amounts to $74 per person. In the long run, how much of that $74 is going to accrue to a group of sites that gets one-half of one percent of page views in a typical market?

For more than a decade, some have suggested that the Internet and other technologies (such as cable television) have made it less necessary to regulate broadcast media. According to this reasoning, the Internet has increased the number of local news and information outlets available to citizens, strengthened news competition, and broadened diversity of news voices.

Arguments that the Internet has expanded the number of local news voices, or allowed new Web-based news outlets to fill gaps in news coverage, find little support in this data. In deciding *Prometheus v. FCC* (2004), the court's majority worried that online local news sources might just be repackaged versions of television and newspaper content. The comScore data show that this is indeed the case.

Some have found evidence of consumer substitution between online and traditional news sources (Waldfogel 2003). For national news, and particularly for commodity news content, this finding likely holds. But the comScore data make it difficult to sustain the same argument with regard to local news content. We find few examples of Web-native news sites that are straightforward substitutes for the product of a television station or a newspaper. Even in markets with relatively successful blog communities, the top blogs produce only a trickle of content. The lack of traffic these sites receive is a strong clue that citizens themselves do not think that they are comparable to television and newspaper Websites.

The low levels of traffic that local news sites receive should color regulators' assessments in other ways as well. The small audience for local news online makes it implausible that a midsized or smaller media market can support numerous online-only news organizations with adequate staff and resources. The story of hyper local journalism thus far has been paved with economic failure, as the long list of such failed experiments shows.

Lastly, there is evidence that media concentration offline carries over into online media markets. Most local news markets on the Web are dominated by just a few firms. If online local news were to be considered as a separate market, half the 100 largest markets would qualify as highly concentrated under Department of Justice

and Federal Trade Commission HHI guidelines, and nearly all would be considered at least moderately concentrated.

Perhaps the most striking example of offline media structure intersecting with local news on the Web is seen with newspaper-television cross-ownership. In cities where a firm owns both a newspaper and a television station, we find an estimated jump in the Herfindahl-Hirschman Index greater than 1000 points. While the underlying causal relationship deserves more study, these numbers make a strong argument for regulatory caution. Restrictions on media cross-ownership do not just matter in print and on the airwaves: they likely impact news diversity on the Web as well.

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Figure 1: Distribution of Audience Reach (%) for Local News Sites

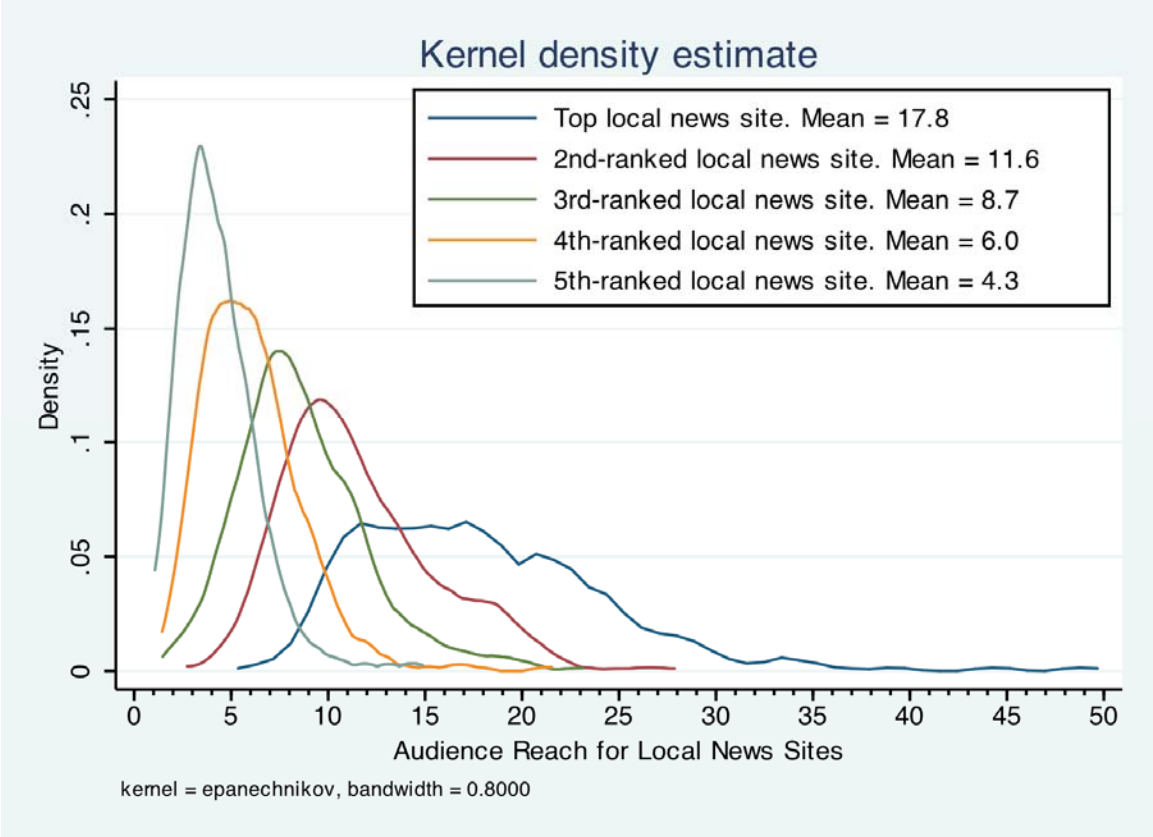

Figure 1: This figure shows the distribution of audience reach across the three months and 100 markets of our sample, for the highest-ranked sites (by reach) in each market. The top local news site reaches nearly 18 percent of Web users in its market on average. Audience reach drops quickly as one moves down the rankings, to just 4.3 percent on average for local news sites ranked 5th in their respective markets. Because comScore does not provide the overlap in audience among these sites, it is not possible to calculate the portion of users that visit at least one local news site in the course of a month. Figure prepared with Stata 11.

Figure 2: Distribution of Monthly Minutes Per Capita For Local News Sites

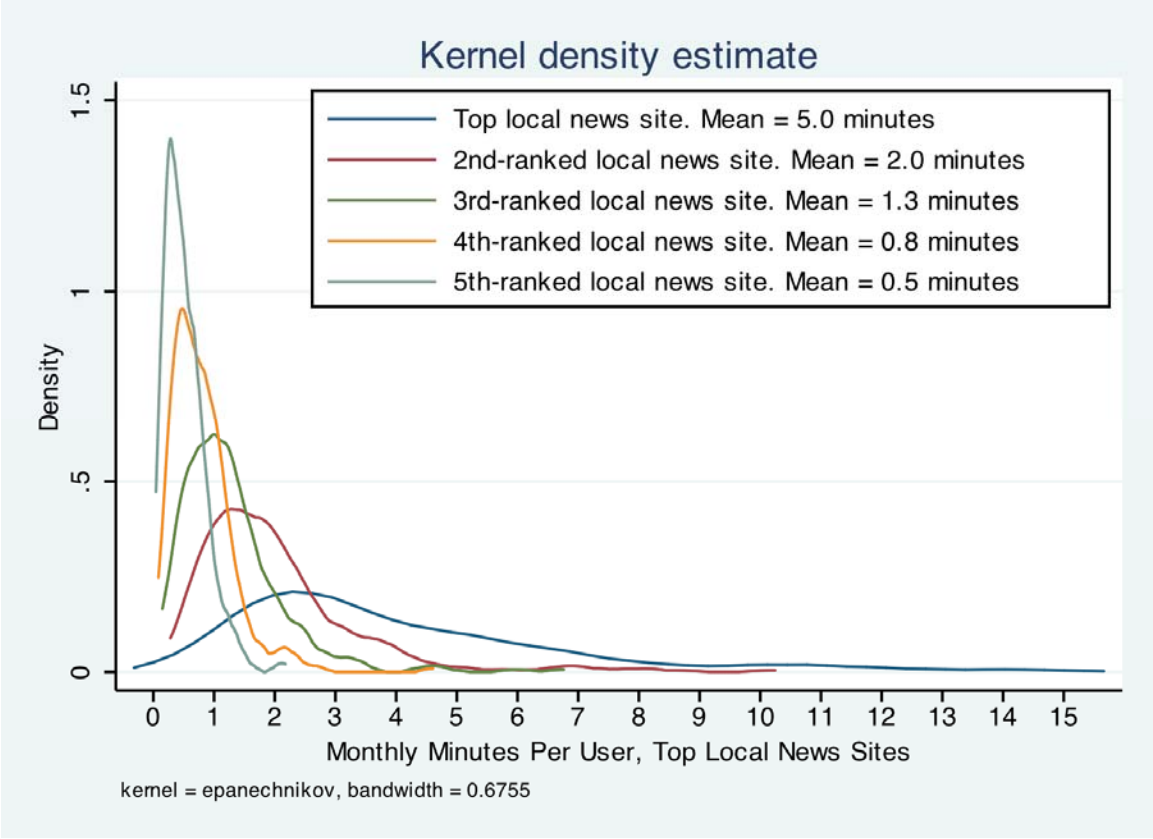

Figure 2: This figure shows the distribution of monthly minutes per Internet user received by the top 5 local news sites (ranked by time spent), across the three months and 100 markets in our sample. Per capita numbers are calculated using comScore's estimate of the total number of Internet users in each market. As the graphs show, the minutes received by the largest outlet are heavily skewed; the ten largest observations are omitted from the graph (the largest being Salt Lake City's KSL.com, which averages 50 minutes per month among users in its local market). The numbers fall precipitously from the top-ranked site, which averages 5 monthly minutes per user, to the fifth-ranked site, which averages half a minute. Figure prepared with Stata 11.

Table 1: Summary Statistics for Variables of Interest

	Mean	Std. Dev.	Min	Max
# of Web-Native Local News Outlets	.19	.44	0	3
Total # of Local Online News Outlets	10.5	4.2	4	28
Total Number of Local News Page Views / User	13.8	10.0	1.8	90.2
Total Number of Local News Minutes / User	10.6	7.6	1.3	63.4
Local News Page Views As % of All Page Views	.51	.27	0.6	3.4
Local News Minutes As % of All Online Minutes	.54	.39	0.6	3.2
Total Nonlocal News Page Views / User	60.0	30.8	28.0	370
Total Nonlocal News Minutes / User	59.0	16.4	23.4	126
HHI in Page Views	2749	1297	921	9003
HHI in Minutes Spent	2943	1444	939	8955

Table 1: Summary statistics for variables of interest. Per-user metrics come from comScore's estimates of the total population of Web users in each given market.

Table 2: Summary Statistics for Explanatory Variables

	Mean	Std. Dev.	Min	Max
TV Market Population (in thousands)	2543	2972	142	20841
Broadband	.56	.11	.32	.98
Newspaper Copies Per Capita	1.00	.25	.46	1.7
# of Daily Newspapers (5%+)	1.86	.92	1	5
# of Newspaper Parent Companies	6.4	3.3	1	19
# Commercial TV Stations	8.2	3.4	3	23
# Locally-Owned TV Stations	1.0	1.4	0	8
# Minority-Owned Stations	.38	.81	0	6
Newspaper-TV Cross-Ownership	.19	.39	0	1
Radio-TV Cross-Ownership	1.6	1.5	0	7
# of News-Format Radio Stations	8.4	5.6	1	30
Percent Hispanic	.12	.15	.01	.91
*Hispanic % * Market Population*	405	953	10.7	7712
Percent Black	.13	.105	.01	.49
*Black % * Market Population*	329	486	2.8	3563
Per Capita Income (thousands)	25.0	3.9	13.0	38.9
Percent 65 or older	.14	.02	.09	.24

Table 3: Negative Binomial (Count) Models

	# of Web-Native News Outlets	Total # of Local Online News Outlets
TV Market Population	.0007 (.0005)	**.00026** **(.00005)**
Broadband %	1.80 (2.84)	.045 (.277)
Newspaper Copies Per Capita	**-2.92** **(1.36)**	.135 (.129)
# of Daily Newspapers (5%+)	.142 (.321)	-.030 (.035)
# of Newspaper Parent Companies	-.0049 (.0887)	**.031** **(.009)**
# Commercial TV Stations	-.088 (.086)	-.005 (.012)
# Locally-Owned TV Stations	.094 (.258)	.044 (.029)
# Minority-Owned Stations	-.063 (.452)	-.012 (.040)
Newspaper-TV Cross-Ownership	.209 (.529)	-.045 (.091)
Radio-TV Cross-Ownership	.186 (.218)	-.003 (.029)
# of News-Format Radio Stations	-.064 (.066)	-.0047 (.0055)
Percent Hispanic	1.56 (2.55)	.462 (.291)
*Hispanic % * Market Population*	**-.0016** **(.0009)**	**-.00043** **(.00008)**
Percent Black	-.656 (3.76)	**1.35** **(.52)**
*Black % * Market Population*	-.0014 (.0015)	**-.0008** **(.0002)**
Per Capita Income	.123 (.108)	.002 (.010)
Percent 65 or older	-2.92 (11.2)	-1.46 (.95)
February	**.223** **(.101)**	.012 (.008)
March	**.223** **(.118)**	**.014** **(.006)**
Constant	-3.07 (2.05)	**1.77** **(.25)**
/ln(Alpha)	**-14.5** **(.63)**	**-18.6** **(.38)**
Alpha	.0000 (.0000)	.0000 (.0000)
N	294	294

Table 3: Count models with unstandardized coefficients. Bold cells denote p < .1.

Table 4: OLS Regression Models

	Page Views (per capita)	Minutes (per capita)	HHI in Page Views	HHI in Minutes
TV Market Population	-.0002	.0003	**-.525**	-.403
	(.0016)	(.0014)	**(.279)**	(.318)
Broadband %	16.6	17.3	896	2174
	(13.0)	(11.2)	(1453)	(1573)
Newspaper Copies Per Capita	4.63	1.92	-581	-975
	(3.31)	(2.83)	(550)	(652)
# of Daily Newspapers (5%+)	1.21	.590	47.7	98.5
	(.88)	(.744)	(114)	(156)
# of Newspaper Parent Companies	-.134	-.070	-9.20	43.0
	(.421)	(.317)	(55.7)	(60.4)
# Commercial TV Stations	-.091	.217	-.53	-18.9
	(.386)	(.317)	(57.8)	(64.8)
# Locally-Owned TV Stations	3.11	**2.13**	52.1	37.9
	(1.95)	**(1.27)**	(170)	(173)
# Minority-Owned Stations	1.60	**2.20**	125	254
	(1.23)	**(1.18)**	(234)	(264)
Newspaper-TV Cross-Ownership	**3.96**	1.68	**1115**	**1201**
	(2.41)	(1.62)	**(514)**	**(559)**
Radio-TV Cross-Ownership	.521	.095	125	94.2
	(.921)	(.656)	(156)	(164)
# of News-Format Radio Stations	.516	.247	57.3	25.4
	(.399)	(.269)	(35.9)	(39.1)
Percent Hispanic	**-10.5**	**-7.15**	-586	-27.8
	(5.5)	**(4.14)**	(953)	(1049)
*Hispanic % * Market Population*	**-.0058**	**-.0061**	.345	.045
	(.0024)	**(.0021)**	(.327)	(.373)
Percent Black	2.26	1.09	-507	-1589
	(10.3)	(7.38)	(2705)	(2543)
*Black % * Market Population*	-.0046	-.0028	1.02	.82
	(.0040)	(.0041)	(1.03)	(1.16)
Per Capita Income	**-.670**	**-.480**	-10.8	-28.4
	(.334)	**(.254)**	(44.9)	(46.6)
Percent 65 or older	-109	**-75.9**	-9670	-8643
	(71)	**(45.2)**	(7207)	(7239)
February	**1.52**	**1.80**	-81.0	77.9
	(.54)	**(.53)**	(85.7)	(101)
March	-.088	**.608**	-67.0	78.1
	(.35)	**(.35)**	(68.6)	(93.1)
Constant	**26.2**	**16.0**	**4435**	**4456**
	(10.8)	**(7.2)**	**(1233)**	**(1292)**
R^2	.374	.323	.269	.225
Root MSE	8.26	6.47	1155	1323

Table 4: OLS regression models with unstandardized coefficients. Standard errors in parentheses. Cells in bold denote $p < .1$.

Table 5: Market-Level Data On Local News Websites

This table presents market-level statistics for each of the 100 markets in our sample. Included are the following:

- **Loc. Page Views:** the number of page views received by all online local news sites, divided by comScore's estimated online population. This is the average of the February, March, and April data.
- **Page Views (%):** Local news page views as a percent of all page views in the market. (February-March-April average.)
- **Loc. Min.:** number of minutes spent on local news Web sites, divided by the estimated online population. This is the average of the February, March, and April data. (February-March-April average.)
- **Loc. Min. (%):** minutes spent on online local news sites as a percentage of all online usage in the market. (February-March-April average.)
- **Print:** number of local print news Websites found in the April 2010 data. Both daily and weekly print publications are included. This statistic (and TV, Radio, and Web below) are subject to censoring, as sites that receive less than 6 raw visitors do not appear in the April data, even if they have appeared previously.
- **TV:** number of local television station news sites in the April 2010 data.
- **Radio:** number of local radio station news sites in the April 2010 data.
- **Web:** number of Web-native news sites in the April 2010 data.
- **HHI (page):** Herfindahl-Hirshman index for all local online news sources, calculated by the percentage of page views that each site receives. The reported statistic is the average of the February, March, and April 2010 numbers.

Market	Loc. Page Views	Page Views (%)	Loc. Min.	Loc. Min. (%)	Print	TV	Radio	Web	HHI (page)
ALBANY-SCHENECTADY-TROY	19.2	.68	11.0	.54	9	5	0	0	2363
ALBUQUERQUE-SANTA FE	5.5	.22	3.4	.18	5	3	0	0	2531
ATLANTA	9.6	.36	8.4	.44	6	4	2	0	4282
AUSTIN	7.3	.25	6.1	.27	3	5	0	0	2275
BALTIMORE	13.0	.47	11.5	.56	5	4	1	0	2430
BATON ROUGE	26.1	1.0	16.0	.90	2	3	0	0	8320
BIRMINGHAM	12.4	.48	8.1	.44	9	3	0	0	4840
BOSTON	15.4	.50	12.6	.57	21	5	2	0	1606
BUFFALO	13.4	.50	9.3	.50	8	3	1	0	2792
BURLINGTON-PLATTSBURGH	13,4	.51	8.1	.42	6	3	0	0	1588
CEDAR RAPIDS-WATERLOO&DUBQ	26.4	.87	18.2	.89	4	3	0	0	3660
CHAMPAIGN&SPRNGFLD-DECATUR	20.5	.75	13.1	.64	5	3	0	0	2892
CHARLESTON, SC	6.1	.25	4.5	.25	4	3	0	0	2940
CHARLESTON-HUNTINGTON	14,6	.50	10.8	.51	5	1	0	0	2730
CHARLOTTE	14.1	.52	12.3	.67	9	5	0	0	1805
CHATTANOOGA	12.6	.46	7.4	.36	3	3	0	1	2513
CHICAGO	9.9	.36	7.9	.39	11	6	1	0	1816

CINCINNATI	15.7	.57	17.6	.90	5	3	1	1	2786
CLEVELAND	19.6	.65	15.4	.73	13	5	2	1	1791
COLORADO SPRINGS-PUEBLO	3.0	.12	2.1	.12	2	5	0	0	2130
COLUMBIA, SC	13.6	.54	12.3	.66	3	3	0	0	2081
COLUMBUS, OH	24.5	.85	11.6	.54	10	5	1	0	3620
DALLAS-FT. WORTH	5.5	.22	5.5	.30	4	4	0	1	3256
DAVENPORT-R.ISLAND-MOLINE	16.2	.59	7.9	.42	7	2	0	0	2446
DAYTON	10.2	.34	11.2	.53	4	3	1	0	4500
DENVER	11.1	.38	8.5	.38	9	4	0	0	2723
DES MOINES-AMES	15.6	.48	9.4	.48	4	2	0	0	3487
DETROIT	12.9	.48	12.7	.67	9	4	0	0	1546
EL PASO	7.2	.29	5.7	.35	2	3	0	0	3070
FLINT-SAGINAW-BAY CITY	12.3	.48	10.2	.53	5	3	0	0	4973
FRESNO-VISALIA	6.9	.25	4.2	.22	5	5	0	0	2718
FT. MYERS-NAPLES	8.3	.32	6.9	.36	4	2	0	0	2436
FT. SMITH	7.1	.34	5.2	.35	2	3	0	0	3119
GRAND RAPIDS-KALMZOO-B.CRK	15.8	.57	13.7	.71	2	4	0	0	3298
GREEN BAY-APPLETON	16.7	.84	11.1	.59	5	4	0	0	1852
GREENSBORO-H.POINT-W.SALEM	24.3	.88	15.7	.84	9	2	0	1	2682
GREENVILLE-SPART-ASHEVILLE	18.8	.71	13.6	.72	7	4	0	1	2328
HARLINGEN-WESLACO-BRNSVLLE	3.6	.16	3.5	.23	3	4	0	0	2233
HARRISBURG-LNCSTR-LEB-YORK	27.9	.95	22.3	1.0	9	5	0	0	2239
HARTFORD & NEW HAVEN	13.0	.46	10.0	.47	14	3	0	0	1219
HONOLULU	7.2	.25	6.9	.36	6	3	0	0	3250
HOUSTON	7.8	.30	10.3	.56	5	4	0	0	2435
HUNTSVILLE-DECATUR,FLOR	13.0	.59	7.5	.46	2	3	0	0	2297
INDIANAPOLIS	22.2	.81	15.9	.78	12	5	0	0	1764
JACKSON, MS	11.1	.51	7.6	.48	6	3	0	0	1965
JACKSONVILLE, BRUNSWICK	10.8	.40	11.3	.60	3	3	0	0	2856
KANSAS CITY	10.9	.42	7.1	.39	5	4	0	0	1879
KNOXVILLE	15.6	.60	16.1	.85	6	3	0	0	3070
LAS VEGAS	3.6	.13	2.1	.10	4	4	0	0	2063
LEXINGTON	12.4	.51	9.6	.55	5	4	0	0	2643
LITTLE ROCK-PINE BLUFF	14.1	.62	8.9	.53	7	3	0	0	2289
LOS ANGELES	3.9	.14	3.3	.17	9	5	0	0	1878
LOUISVILLE	8.3	.33	7.2	.39	4	4	1	0	2325
MADISON	14.7	.48	8.4	.42	5	3	0	0	2278
MEMPHIS	5.6	.23	5.1	.30	4	6	0	0	2004
MIAMI-FT. LAUDERDALE	5.0	.19	4.3	.22	4	4	0	0	2232
MILWAUKEE	12.7	.78	18.7	.93	6	4	1	1	3098
MINNEAPOLIS-ST. PAUL	18.2	.61	18.2	.88	12	5	1	1	1598
MOBILE-PENSACOLA	9.3	.35	7.4	.40	3	4	0	0	1682
NASHVILLE	8.7	.34	7.5	.38	8	5	0	0	1819
NEW ORLEANS	24.8	.99	26.4	1.5	7	5	1	0	2221
NEW YORK	11.3	.37	8.3	.37	12	8	0	0	1355
NORFOLK-PORTSMTH-NEWPT NWS	11.7	.44	10.3	.53	7	3	0	0	2656
OKLAHOMA CITY	12.0	.45	10.5	.52	6	4	0	0	2663
OMAHA	17.2	.60	9.6	.46	4	3	0	0	2204
ORLANDO-DAYTONA BCH-MELBRN	7.9	.28	9.0	.44	3	5	0	0	1702
PADUCAH-C.GIRD-HARBG-MT VN	9.5	.30	4.4	.25	3	3	0	0	2954

PHILADELPHIA	11.5	.41	11.0	.54	12	5	1	0	1099
PHOENIX	10.1	.34	11.0	.55	5	4	1	0	3712
PITTSBURGH	25.3	.91	21.9	1.1	12	4	0	0	2011
PORTLAND, OR	9.8	.33	8.5	.40	9	3	1	0	1761
PORTLAND-AUBURN	7.8	.28	5.7	.27	4	3	0	0	2410
PROVIDENCE-NEW BEDFORD	10.8	.37	7.6	.36	9	5	1	0	1789
RALEIGH-DURHAM	23.3	.87	33.3	1.7	5	4	1	0	6939
RICHMOND-PETERSBURG	8.6	.40	6.1	.33	2	4	1	0	3334
ROANOKE-LYNCHBURG	31.8	1.3	20.4	1.1	3	3	0	0	3229
ROCHESTER, NY	13.3	.46	9.3	.41	3	3	0	1	2550
SACRAMNTO-STKTN-MODESTO	9.8	.28	5.4	.27	10	6	0	0	1901
SALT LAKE CITY	89.0	3.2	58.4	3.1	6	5	0	0	8642
SAN ANTONIO	9.7	.40	7.6	.43	3	4	0	0	2986
SAN DIEGO	9.3	.30	9.6	.48	3	6	1	1	3311
SAN FRANCISCO-OAK-SAN JOSE	6.1	.21	5.9	.28	7	4	1	1	2699
SAVANNAH	6.8	.29	3.2	.18	4	3	0	0	2740
SEATTLE-TACOMA	10.9	.36	8.7	.41	11	4	1	1	1065
SHREVEPORT	10.0	.46	5.3	.32	2	3	0	0	4962
SOUTH BEND-ELKHART	18.7	.65	12.2	.57	6	3	0	0	2838
SPOKANE	4.6	.17	4.1	.21	4	2	0	0	3263
SPRINGFIELD, MO	15.4	.62	7.2	.38	4	2	1	0	3451
ST. LOUIS	15.9	.60	14.7	.95	7	5	0	0	2213
SYRACUSE	25.9	.99	22.5	1.1	4	2	1	0	3679
TAMPA-ST. PETE,SARASOTA	11.2	.37	8.2	.37	9	3	0	0	1831
TOLEDO	9.2	.35	8.3	.43	5	4	0	0	2403
TRI-CITIES, TN-VA	17.9	.73	11.9	.65	5	1	0	0	2444
TUCSON (NOGALES)	9.7	.35	7.8	.39	1	3	0	1	4629
TULSA	12.8	.50	10.7	.60	4	5	1	0	2625
WACO-TEMPLE-BRYAN	14.0	.49	6.2	.33	4	4	0	0	3235
WASHINGTON, DC	10.7	.37	7.5	.36	8	4	1	1	3103
WEST PALM BEACH-FT. PIERCE	8.8	.33	5.5	.27	3	4	0	0	3059
WICHITA-HUTCHINSON PLUS	13.3	.51	10.4	.55	6	4	0	0	1769
WILKES BARRE-SCRANTON	22.2	.76	11.8	.56	13	3	0	0	1938