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Local Media Concentration in America

Eli Noam, Columbia Business School, United States

One of the most rancorous political battles in Washington today is over the rules limiting media concentration. Michael Powell, Chairman of the Federal Communications Commission, narrowly pushed through a set of rules that relaxed ownership restrictions. The share of population that could be reached by the television stations owned by any one company was raised from 35 to 45 per cent. The cross-ownership limits of newspapers and TV stations in the same market were rescinded or reduced, depending on the size of the market. And local ownership ceilings for TV stations were raised. The changes ignited a political firestorm in which the political right and left joined forces against free-market advocates, resulting in a lopsided congressional vote of 400:21 to overturn the FCC. Chastened, the White House compromised and agreed to watered-down rules.

While the political and policy debates raged, very little research on the basic facts was deployed to improve the debate. This then is the task of the paper.

1. The Question

Where companies compete against each other across the country — Dell vs. Apple; CBS vs. NBC; Paramount vs. Universal—it is important to know an industry’s market structure on a national scale. Yet in other situations the relevant markets are not national or international but local. A cable company may be small nationally but dominant in a city it serves. A newspaper chain may account for 5 percent of newspapers sold across the country but for 90 percent of in the papers cities in which it publishes. Conversely, a company may have only minor shares in each local market, but those small slices may add up to a large national role. The TV station group Paxson, for example, owns tiny UHF stations across the country, but their aggregate give it a national presence.

It is therefore important to distinguish between local and national concentration, to investigate the extent and direction of local concentration trends in the information sector, and to go beyond national figures.

Interestingly, it appears that despite the importance of this question only little systematic research has been done on it. In 2003, the FCC, as part of its media ownership proceeding, ventured into local markets by establishing and then measuring something it called the "Diversity Index" (DI)[1]. The DI was calculated from five local media: TV, radio, cable, newspaper, and the Internet. Local markets were defined as Nielsen's "Designated Market Area", DMA.[2] Each DMA was divided up *equally* among the number of local television stations. For example, the FCC counted 23 television stations in the New York market. Each was assigned a 4.3% market share (100%/23). Then, a weight was assigned to each medium, as determined by a study presented to the FCC by Nielsen Media Research that showed what media people were using as a source for their news.[3] The market share for each company was then multiplied by this weight.

The problem with this methodology is that it assigns the same market share to the giant Channel 2 (WCBS) as it does to a little public TV station in Suffolk, Long Island. The same assumption is used for radio stations, equating, e.g. Columbia University's tiny campus station with Disney's flagship radio station WABC.

Similarly, FCC counts newspapers as competitors even if they serve distinct sub-markets. The *Poughkeepsie Gazette* and the *Newark Ledger* are hardly rivals to each other, or to

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[1] Report and Order "Media Ownership Policy Reexamination" FCC 03-127, July 2nd, 2003, Appendix C

[2] http://www.nielsenmedia.com/DMAs.html

[3] The weight assigned to each medium in the local markets are respectively: television: 33.8; radio: 24.9; newspaper: 28.8; Internet: 12.5. For an explanation see http://www.fcc.gov/Daily_Releases/Daily_Business/2003/db0702/FCC-03-127A2.pdf

the *New York Times*, *New York Post* and *Daily News*. Nor do they have the same market share, assumed by the FCC's methodology.

Furthermore, the FCC data fails to provide a trend, because it does not look into the past. The study concerned itself only with the year 2001.

The main reason why the FCC and other researchers have shied away from a more thorough approach has been the difficulty of the task – conceptually as well as in terms of data availability. The task of the present study is therefore to overcome this gap and to provide an analysis of local media concentration trends, for several local media, over 20 years, with aggregations that permit some general observation, and with a simulation of the impact of the FCC rules.

2. What are Local Media?

Most information industries are national in scope, for example, film, TV and cable networks, or books. In contrast, local media provide local content, or distribute information locally. They are:

- Radio Stations
- TV Stations
- Newspapers
- City Magazines & Periodicals
- Cable TV Operators
- Local Internet Service and Content Providers
- Local Wire Line Telephone Networks
- Cellular Mobile Networks

In each case, looking only at the national market share would obscure potential local or regional market power.

As it happens, most of these industries have experienced public policy conflicts concerning their local market power, with the exceptions of city periodicals and ISPs.

The second step in the analysis is a determination of the relevant local market. In a metropolitan region, there may be a dozen cable companies – each with exclusivity in its franchise territory, and a dozen suburban papers, each for its own narrower locality. If we define local markets as the metropolitan statistical area, as of a Nielsen DMA, this would show spurious competition with each other by a variety of suburban papers or cable companies that operate in quite different geographic sub-markets. We therefore define the local market as the city itself, with its media diversity standing for that of the metropolitan area.

The definition is not always straightforward. Cable TV is a local distribution medium but it faces competition from direct satellite broadcasting (DBS), which is largely a national distribution medium, with a few local channels. To ignore the competition by DBS as a rival medium would overstate cable's share. Therefore, we reduce cable's local share by the DBS penetration. For local periodicals we included general audience glossy city magazines as well as alternative and free local periodicals, but not specialized local periodicals ("L.A Dentist").

A third question is the selection of localities. There are many hundreds of cities and medium-sized non-metropolitan, and it would be impractical to seek media concentration trends for each. We therefore selected 30 markets to be representative of their categories. Ten large cities for major markets (market rankings of 1-20), ten medium sized cities (20-60), and ten small local markets (above 60).[4]

LARGE MARKETS
New York, NY
Los Angeles, CA
Chicago, IL
Houston, TX
Philadelphia, PA
Phoenix. AZ

[4] http://www.nielsenmedia.com/DMAs.html

San Francisco, CA
Boston, MA
Atlanta, GA
Miami, FL

MEDIUM MARKETS
Indianapolis, IN
Jacksonville, FL
Portland, OR
Tucson, AZ
New Orleans, LA
Tulsa, OK
Richmond, VA
Grand Rapids, MI
Salt Lake City, UT
Dayton, OH

SMALL MARKETS
Lincoln, NE
Spokane, WA
Boise, ID
Amarillo, TX
Topeka, KS
Ft. Collins, CO
South Bend, IN
Green Bay, WI
Lancaster, PA
Morgantown, WV

The fourth issue is how to define the market shares, whether by audiences or by revenues. Audiences can be obtained for radio and TV; but for subscriber based services such as cable TV, telecom, and cell phones, a household audience measure is neither meaningful nor comparable across media. For these reasons, as well as in order to aggregate across media and to remain consistent with the overall study, the market share definition used here is those of revenues

That FCC simply counts each radio & TV station and each newspaper as “voices” available to the community. The FCC approach—which magnifies media diversity— is not the methodology of antitrust analysis. The US government does not count the mere numbers of, say, computer companies or film producers to determine market power. There are hundreds of them, but only a handful have significant audiences and revenues.

The concept of “availability” is operationally not useful. Hundreds of short-wave radio stations, many in foreign languages, are quite “available” across the radio dial. If a station transmits in the forest and nobody hears it, does it exist? It is actual rather than potential usage that is used for market analysis generally, and in this study, too.

It is acknowledged that each of these questions can be resolved differently. However, what is most important is that these judgment calls are not one-sided and that the methodology is consistent over time.

3. The Methodology

The methodology used is purposefully simple and straightforward, and aims to avoid the non-transparency of a more complex model.

1. We select eight local media in 30 local American markets.

2. For each of these industries, we track revenue and calculate individual firms’ market shares in this particular industry and locality for a period of 20 years. The resultant database is unprecedented in its scope.

3. These market shares were then used to calculate concentration indices and to track them over time. The major concentration index used was the Herfindahl-Hirschman Index (“HHI”) used by the US Department of Justice.

$HHI = \sum_{i=1}^{f} S_i^2$ Where f = number of firms participating in an industry, Si = each firm’s market share.

The US government’s Antitrust Enforcement Guidelines classify market concentrations according to their HHI score:

HHI < 1,000 Unconcentrated Market

1,000 < HHI Moderately Concentrated Market

1,800 < HHI Highly Concentrated Market

A second index is also used primarily to crosscheck the HHI. This "C4" index is the combined share of the top four firms in a market.

$$C4_j = \sum_{i}^{4} s_{ij}$$

Where: S_i = firm's i market share of a given industry j, with firms are ordered by size of market share. p.8

A third measure is the market share of the largest firm (the "C1") to capture trends of a single firm domination. This is necessary to look at the trends in the truly highly concentrated local media such as cable TV or newspapers. Here, the squaring aspect of the HHI would overwhelm and distort the averages, and the C4 would not reveal the insignificance of firms 2-4.

4. The study tracked these indices of HHI concentration over time, from the years 1984 until 2001/2, providing trends for each eight local media and for each of the 30 cities of almost 20 years. These 240 trendlines are then used in several ways:

   a. For each city category (large, medium, small) we calculate a local medium's concentration trend.

   b. For each local medium, a national local concentration index is found.

   c. For all local media, we find an overall aggregation for the US as a whole, both for "Mass media" and for Distribution Media".

5. Finally, we run three simulations to measure the hypothetical worst-case impact of the FCC's relaxation of local ownership rules on local media concentration.

4. Findings for 5 Local Mass Media

A. **Local Radio**

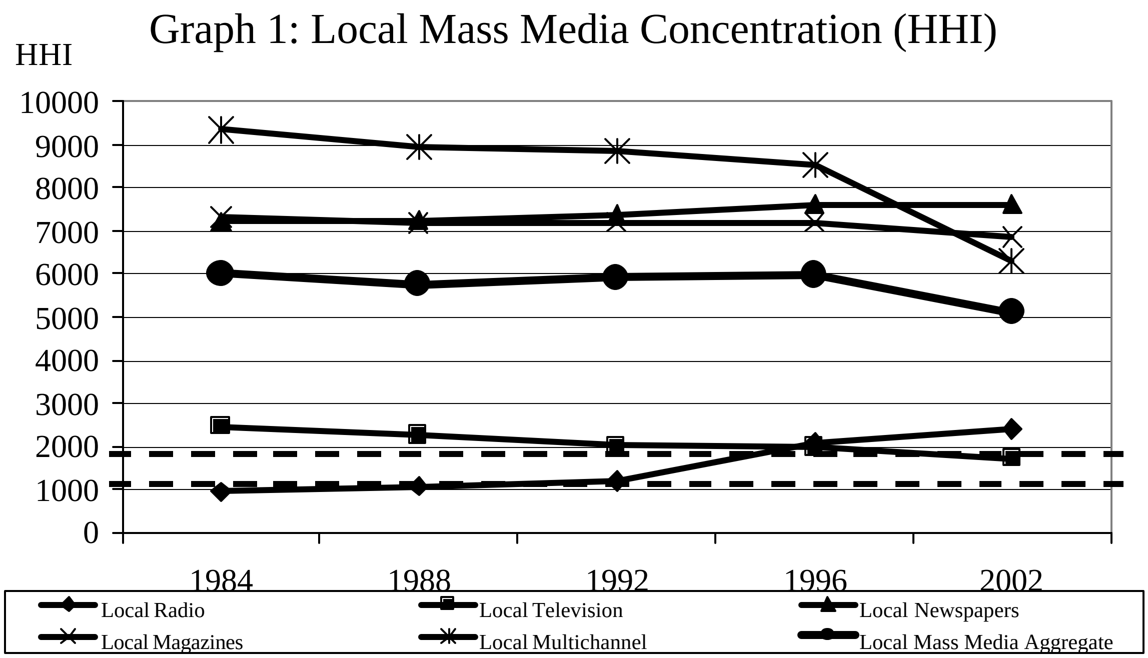
The concentration of local radio stations has received much public attention, especially since the abolition of national ceilings has enabled one company, Clear Channel, to acquire over 1,500 stations. On the local level, ownership restrictions were loosened in 1996, to a maximum number of local stations that could be owned by a single firm of 8 in the largest of media markets and less in smaller markets.

The mere number of stations, however, does not fully convey market power, since some stations have much larger audiences and revenues than others.
Graph 1 shows local radio concentration trends.

The findings are:

Local concentration in 2002 is significantly higher than it was in 1984. The weighed average share of the top firm in a market (C1) grew from about 20% to 35%, for the top 4 firms (C4) it grew from 53% to 84%; and the HHI index rose from a fairly unconcentrated 939 to a highly concentrated 2,400 for big cities. These are large increases. However, if we look in Graph 1 at other media, too, radio can be seen to still be among the least concentrated. Local media concentration in 2001/2 is much higher for wireline (HHI=6,067), multichannel TV(6,300), local magazines (6,859), and newspapers (7,621).

Looking at the three market size categories (large, medium, and small), we observe what we find for other media, too: while the large markets are the least concentrated, as one would expect, the small markets have actually a somewhat lower concentration than the medium sized ones. The explanation must be that in small markets, audiences also listen more to stations from adjacent cities, whereas audiences in medium–sized cities, given that there are more directly local choices.



B. **Local Television Stations**

There are few issues in media policy that are more contentious than the control over local television. Politicians consider TV their primary access to voters and fear its gatekeeping power. Those concerned with diversity of content, content sources, ownership, and of political viewpoints have similarly been vigilant. This has led to strong opposition to a raising of the number of stations which any single company could own in the same market. This opposition exists although a local TV channel is now only one of many channels available over cable and satellite, which is the way most people (85%) watch TV in America. But there is some logic to it: cable and DBS channels are mostly national, not local (cable has some local public access, education, and governmental channels, In large metropolitan areas there are also all-news channels.) Conversely, local TV stations air predominantly national programs delivered by networks and syndicators. Nevertheless, localism exists in local news –mornings, evenings, late night, and weekend specials –and is significant to the local political process, given that TV is most peoples' major source of news. Thus, it is a legitimate question to ask TV station ownership has become more concentrated on the local level over recent years. This question is different from the one about overall ownership of local stations, another major bone of contention, which is discussed in the chapter on TV station ownership. The results are provided in Graph 1.

The findings are:

1. The data shows that local concentration of TV has actually *declined* over the past 2 decades, from a C4 of 90% in 1984 to 73% in 2001/2 (62% in large markets). For the market leader, the share dropped an average from 33% to 25% (18% in large markets). The HHI declined from 2,460 to 1,714.
The reasons for this decline are:

   a. a somewhat large number of local TV stations, and
   b. a lessened audience share of the top 3 (and later 4) stations affiliated with the major national TV networks, relative to other stations. It must be understood, furthermore, that these erosions would be much larger if the major stations audience shares were taken among *all* channels, including cable channels. In that case, they decline collectively by still another 50%. However, given our focus on local media and local news, we did not measure local TV market power in such away, and looked only at the shares among local broadcast stations. The relative decline of broadcasting station audience is captured in their revenue figures.

2. The level of local TV station concentration is the lowest among all of the 8 local mass media (Graph 1). While most cities must be content with one newspaper and one local magazine (if at all), there are likely to be half a dozen or more TV stations. Radio used to be less concentrated than TV, but more recently has overtaken it. With a much greater disparity among companies market shares. But the availability and audiences of such channels are still small.

C. Multichannel TV Providers

Multichannel TV used to be entirely provided by a cable TV operator, of which there was almost never more than one in each franchise territory. Large cities were often divided into several franchise territories, each with a single operator, and companies did not compete across franchise lines. In a few areas there were more than one cable operator, but those tended to be historic aberrations. In time, however, direct broadcast satellites emerged as alternatives, first among pirating home-dish owners who tuned in to satellite feeds. In time, scrambled signals were offered by official DBS providers. Their share has gradually increased to about 15 % nationally, and more in rural areas. Cable and DBS are not perfect substitutes. Cable carries local TV stations (DBS carries some of these stations but fewer) and local PEG channels. Cable's interactivity enables it also to be a platform for broadband, Internet, and telephony. These features, however, were no factors in the period 1984 – 2002. Market concentration trends can be seen in Graph 1.

The findings are:

1. Concentration is enormous but declining, with the market share of cable declining especially after 1996. The C1 dropped from 97% to 78%, HHI from 9,344 to a still high 6,300.

2. The size of the industry has grown to make it by far the largest of local mass media.

The good news from the perspective of media source diversity is that cable has more competition than it used to have in local multichannel distribution. The bad news is that this segment still is heavily concentrated, and that its importance (size) as a medium has grown faster than most others.

D. Local Newspapers

The local newspaper concentration trends can be seen in Graph 1.

The findings are:

1. Local newspapers are the most concentrated of all local content media and distribution. Once one goes beyond the biggest cities the single-newspaper system prevails. A few papers such as *USA Today*, *The Wall Street Journal*, and the *New York Times* are widely available nationally but their local readership is small. Their coverage of local news is minor, and their relevance to local advertisers non-existent. It's best to think of them (except for the *NY Times* in New York itself) as a kind of daily national magazine, without a local dimension. (Methodologically, we count for the *NY Times* only its NY circulation as part of that city's concentration.) For local newspapers, too, we observe that concentration is highest for medium-sized markets. The reason, too, is that readers in small cities such as Lancaster, Green Bay, or Fort Collins are more likely to buy a paper from a bigger nearby city such as Philadelphia, Milwaukee, or Denver, than readers in medium-sized markets tend to do.
2. The local concentration of newspapers has further increased in the past two decades, as some secondary papers have fallen by the wayside. The C1 concentration grew from 80% to 83% for the market leaders, and the HHI grew from 7,219 to 7,621.

Newspapers are arguably the most important of local media when it comes to local news and public affairs. TV and radio rarely allocate more than a few seconds to a story, and tend to avoid sticking out their necks in order not to alienate audience segments. Newspapers are also the main outlet for local advertising. The high concentration of the medium is hence a particular problem in terms of its political gatekeeper role and economic power.

E. Local Magazines and Periodicals

This medium is somewhat hard to define. However, it is regularly presented as another source of diversity and should therefore not be omitted from this study.
Local periodicals include only those of general readership. Special audience local publications are not considered. In the case of the *New Yorker* magazine, only its New York City circulations is counted.

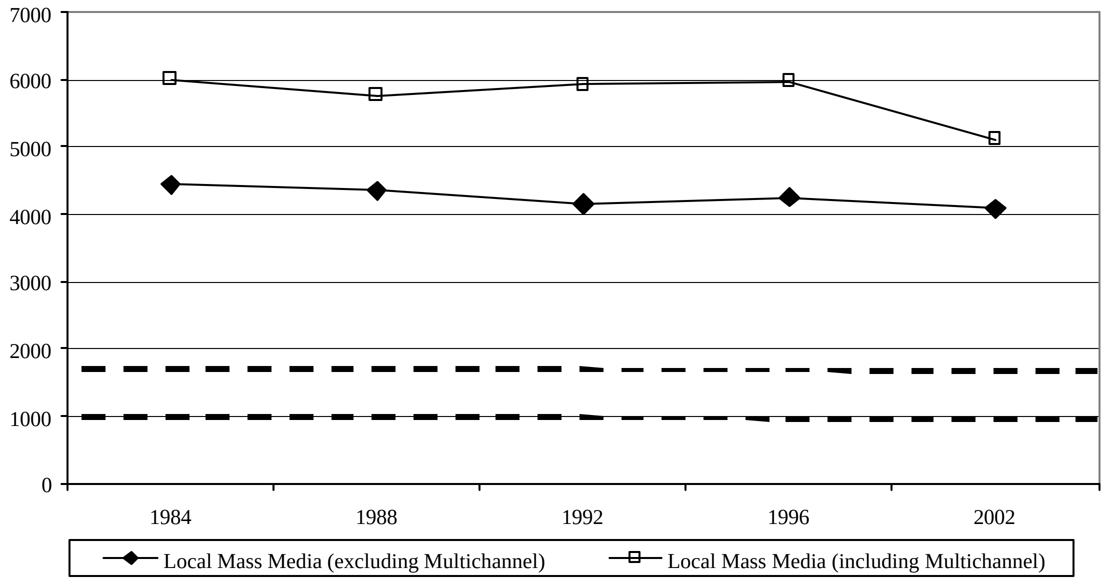
The findings are:

1. Local periodicals exist in large cities. Thereafter, they drop off, through in some cases regional magazines fill a similar function.
2. The concentration of local periodicals slightly declines from an HHI of 7,321 to a 6,859 in 2001/2.
3. In terms of revenues, this medium is the smallest of local media.

The findings for all 5 local mass media are:
To take stock of results so far, let us review the five local mass media, provided in Graph 1.
1. All local mass media are highly concentrated
2. Radio and TV are the least concentrated, relatively speaking, with the former trending up and the latter trending down.
3. Print media are among the most highly concentrated.
4. Multichannel TV is most highly concentrated, but is trending downwards while trending further upwards.
5. A weighed average (Graph 2 further below) of local mass media show a decline in concentration after 1996, after being essentially flat in the observed years before. Yet the overall level is still high, at an HHI 5109 and C4 of 92.0. If we omit multichannel cable TV from content media, given that it is also a distribution medium, the trends show a

more gradual decline in concentration 1996 (Graph 2). The HHI decreases from 4,436 in 1984 to 4,084 in 2002; the C4 first declines from 88.9 to 85.6.

Graph 2: Local Mass Media: 1984 - 2001/2
(TV stations; radio stations; newspapers; city periodicals; multichannel TV)



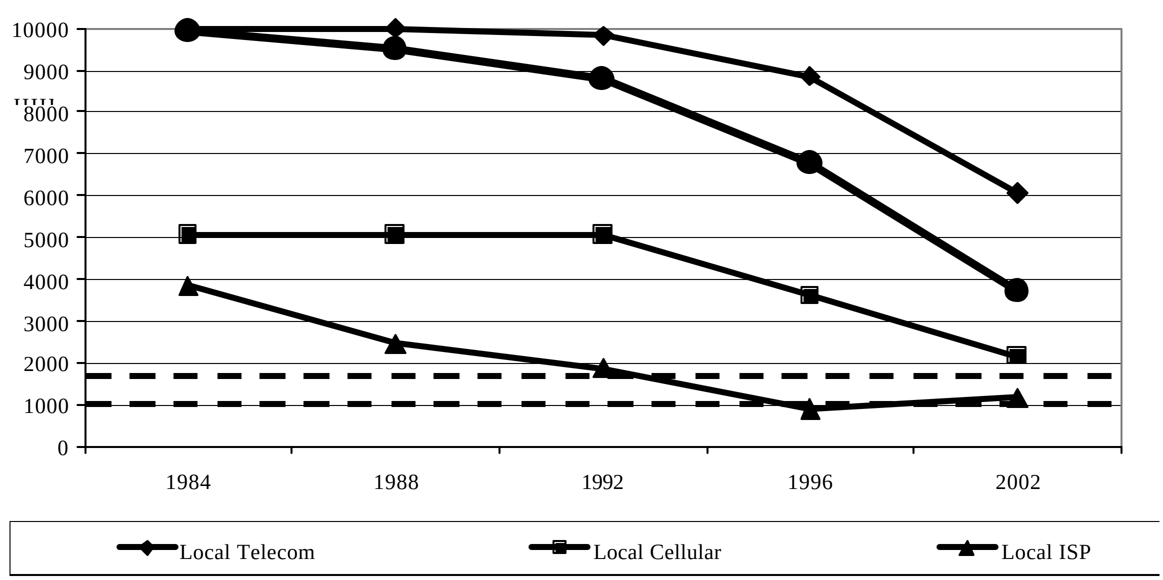
5. Findings for 3 Local Distribution Media

A. Wireline Telecommunications

We now look at the local distribution of telecom and Internet. Here, the local media provide transmission channels for all kinds of content, mostly provided by others. These media are two-way and individualized, in contrast to the mass media discussed above. Cable TV is a bit of a hybrid, serving as a local distribution network as well as content medium, and with some two-way capabilities (which are accounted for in the section on wireline telephony).

This market has been the subject of much regulatory attention. Historically, except for a brief period over a century ago, this segment had been monopolistic. It has been opened in recent years through requirement on the incumbent companies to share their infrastructure with competitors, network unbundling, and prices that made competition feasible. These and other rules have opened local markets to resale and facilities-based entrants. In defining local market share, one question is whether to count physical facilities (actual access lines) or of subscribership including those of resellers. We use the second and wider definition, not only because it is more relevant for business competition, but also because it is the measure used by the FCC (to show success for its policy), by the entrants (to dazzle investors) and even by incumbents (to argue for their deregulation).

Graph 3:Local Telecom & Internet Concentration (HHI)



The findings (in Graph 3) show:

1. Local telecom concentration, once a monopoly, (HHI=10,000) has declined over the past decade. While still very high, it was 6067 in 2002. The C1 is 75%, down from 100% in 1984 and 1988.

2. Concentration has been declining in large markets, but also, a few years later, in small and medium-sized cities.

B. Mobile communications

For several years, mobile phones were a formal duopoly. Later, cellular telephony became diversified among often four or more additional “PCS” providers.

The findings, shown in Graph 3, are:

1. Market Concentration have dropped from highly concentrated HHI of 5050 in 1984 to 2158 in 2002. The market leader’s share (C1) fell from about 55 % to 31%.

There is a widespread expectation of consolidation in this industry. Some firms may exist due to the fragmentation of technical standards (which makes them less attractive as an acquisition target) or due to a regulatory ceiling on spectrum that has existed until recently.

2. In terms of dollar volume, the industry has grown enormously, from $340 million in 1984 to 65,016 in 2002. Nationally cellular telephony has surpassed every other local medium in size.

C. Internet Service Providers

The ISP industry is a hybrid of local and national firms. It is included partly because its existence is cited frequently as an important opening of local media markets. The Internet indeed provides an avalanche of information. Most of Internet content is national or international some of it is local –about local universities, theaters, and trains; chats about local issues; email among friends; job and apartment postings; sites of local newspaper and TV station; sites of various local merchants. It is near impossible to quantify market shares for local *content* and to value them in dollar terms. But local Internet content is minor relative to the other local media.

About 500 (dial-up) ISPs listed on average for each area code in the US. Most of these are not really local but they are access nodes for national or regional companies. Others are genuinely local.

The results are shown in Graph 3.

1. Local ISP concentration has declined from an HHI of 3,846 in 1984, where it was mostly served by a few computer online service providers and was a tiny industry. In 2002, the industry is much less concentrated (HHI =1,172), but more concentrated than it was in 1996.

The reason is the changing structure of the market. In the early days, there were no real ISPs, and their function was undertaken by computer local area networks (LANs) of a few research organizations connected to ARPANET and later NSFNET. In parallel, a few computers online services (COLS) such as Prodigy CompuServe, and AOL existed. Later, with the explosive growth of the Internet and the World Wide Web, other commercial access providers (ISPs) emerged. Thousands of little local ISP operations sprung up which offered local hand-on support to inexperienced local users. The local ISP markets became more competitive.

2. Next, however, economies of scale emerged here too, with successful local ISPs going national by either establishing local dial-up nodes across the country or through arrangements that enabled users to dial a local number and be connected to a distant ISP node. At the same time, the second-tier firms consolidated. The result has been an increased local concentration of ISPs. Indeed, one might even dispute whether the industry is still local at all, were it not for the remaining presence of purely local operations whose main contribution is their service to businesses.

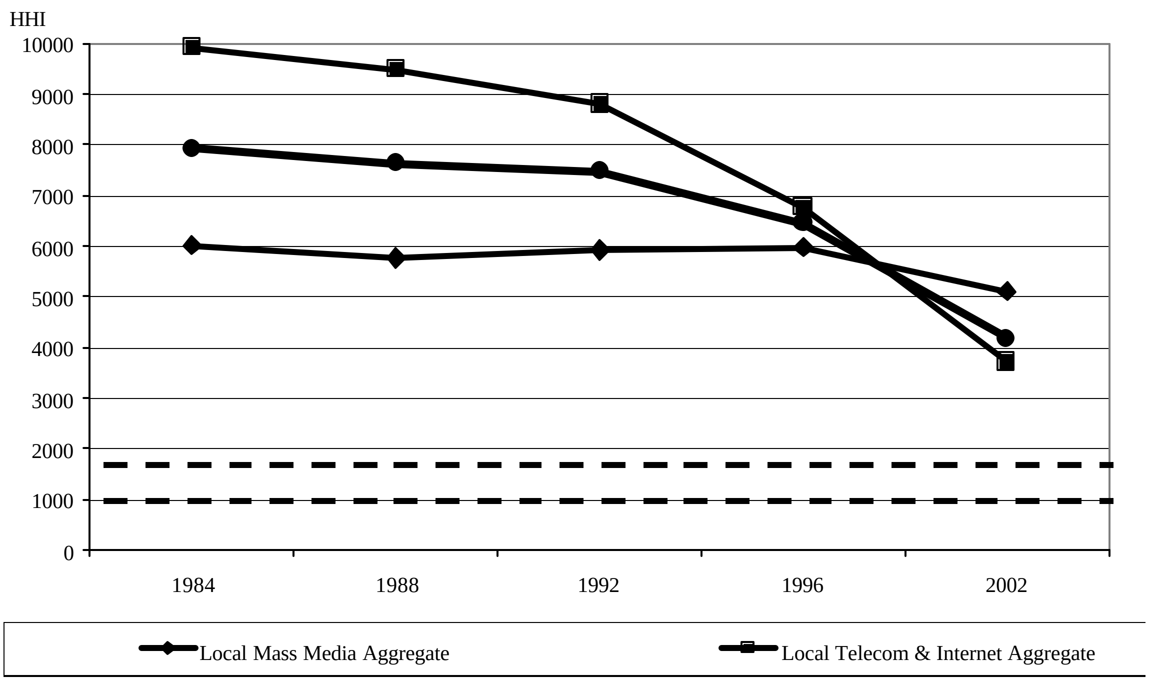
3. While we have no local time series (only 2002 data) for the relatively new broadband Internet service, it is strongly trending towards a duopoly of cable (2/3) and telecom ILEC (1/3), with independent DSL providers and satellite operators minor players. Hence

local and national ISP service is likely to become more concentrated with the trend to broadband.

Moving to the next step an overall look at the three network distribution media (Graph 3), we observe that all very high, and all are trend downwards (with the exception of ISPs).

6. Overall Local Media Concentration

Graph 4: Overall Local Media Concentration (HHI)

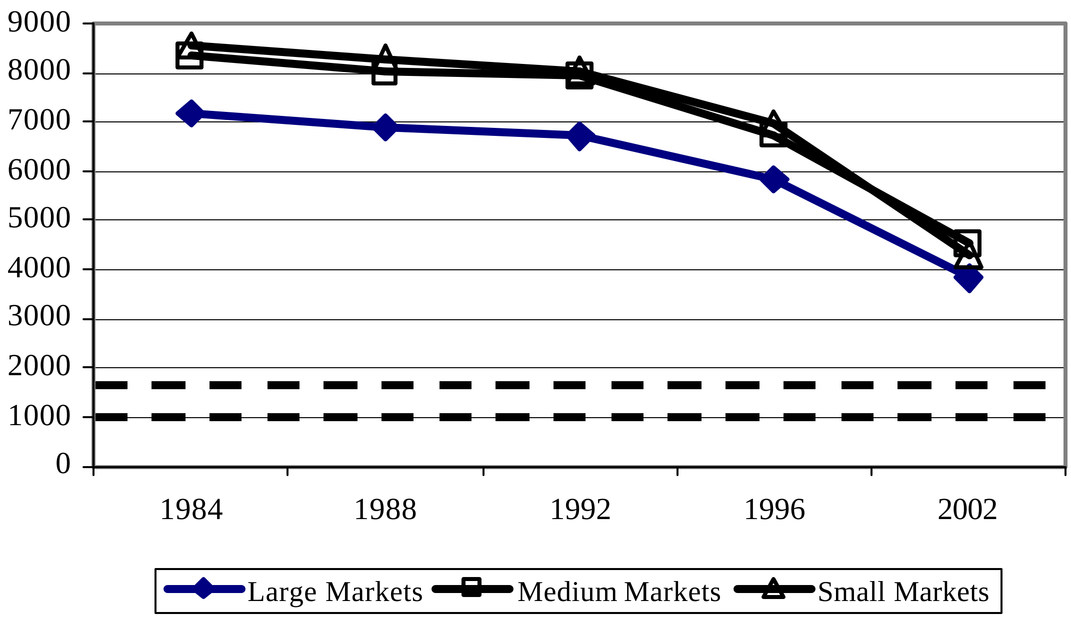


We can now aggregate the 8 local media for their overall aggregation, using weights (for now) based on their revenue volumes. (In the next section, we will do so, for mass media weighted by their importance as a news source, based on Nielsen Media research survey for the FCC.)

The findings are shown in Graph 4. Overall concentration (the bolded line) has dropped over the past 20 years, but mostly due to the decline on the network side (telecom, mobile, and cable TV's drop to DBS).

We also differentiate overall local concentration for three types of cities/markets: large, medium, and small. The result can be seen in Graph 5. As expected, less concentrated, because they can support more media, and because of their large diversity. But the concentration in small markets is not much higher than in medium markets, and often indeed smaller. The reason is likely to be their audiences' reaching beyond the small markets to the media of nearby larger cities, whereas audiences in medium-sized cities might be more self-contained.

Graph 5: Local Concentration Trends: 1984 - 2001/2



7. A Simulation of the FCC's Rules

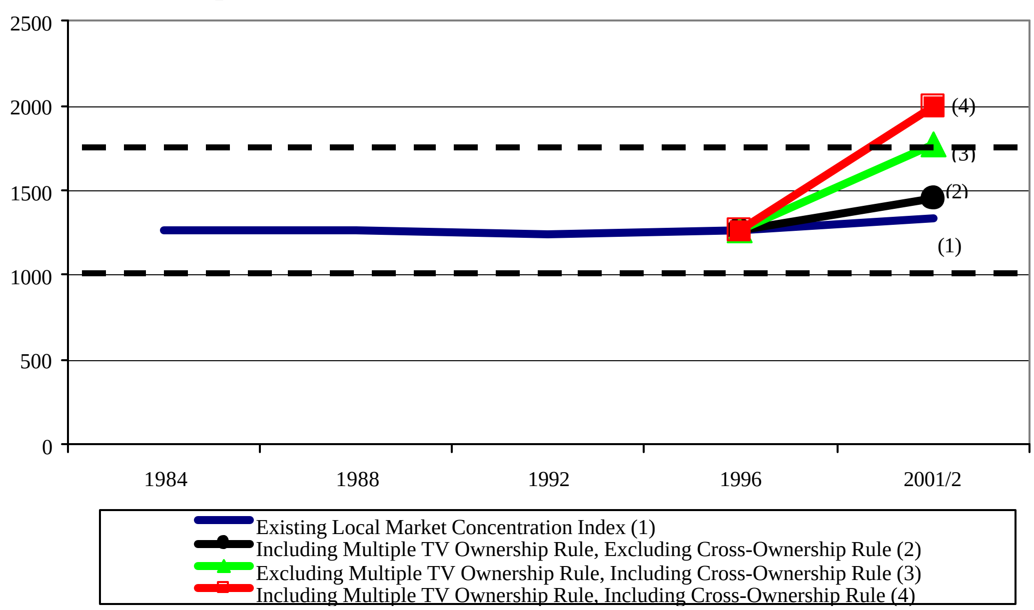
Having established the concentration trends for the eight local media from 1984 to 2002, we are now in the position to use our data to test hypothetical changes in local ownership rules. We will first discuss the FCC's proposed rules and then offer a simulation, for 2003, of a worst-case scenario.

The first simulation was for the new Duopoly Rule (which permits ownership of a second (in some cases third) station as long as it is not one of the top four stations be used). We assigned to be the largest station within each market the largest legally possible second as their station except for non commercial stations which we assume to be not for sale. After consolidating the local television markets in such a way within the limits of the FCC rules, we then recalculated concentration.

The second simulation focused on the Cross-ownership Rules. In that scenario we assigned to be the largest TV station the biggest possible newspaper, etc.

The third simulation combined both of the two FCC rules.

Graph 6: Local Media Concentration: Simulations



The results are given in Graph 6. The benchmark line is the trend of the past 2 years (Line 1). It uses concentration trends of 5 local mass media; weighted by their importance as a news source, based on Neilsen Media Research's survey for the FCC. Furthermore, we allow for the existing cross-ownerships (radio/TV/cable/newspapers) by various firms. Line 2 shows that the relaxation of the Duopoly (Multiple TV Ownership) Rule does not greatly raise concentration. However, the relaxation of the FCC's Cross-Ownership Rule would have increased concentration in a worst-case scenario considerably. Concentration would still stay below the DoJ's threshold of 1,800. And if both rules were abolished, concentration would rise significantly. And the combination of the two rules (line 4) breaks the DOJ boundary.

8. A Composite Concentration Index of Local Media

With this empirical analysis done, what can we conclude about the proper limits on ownership? There are basically three ways to determine such limits. One is the incremental approach: gradually raise ownership levels and see what happens. If the sky does not fall in, and can loosen up a bit more. The problem with this pragmatic approach is that if things go wrong it might not be possible to turn things back. In Italy, for example, where the media winner became the political leader, and media reform became difficult.

The second approach is to set a number of limits for each media industry, largely unconnected to each other. That has been basically the FCC system for half a century.

A third approach would be to have an *overall* local measure that takes into account all local media of TV, radio, newspaper, magazines. It is an overall measure because the number of newspapers in a city makes a difference, for example, to the question of how many TV stations another company should be able to own.

How high should such a composite local HHI be? This is a policy question. What are we comfortable with? We could look at any past year and decide whether its media concentration has been comfortable in democratic and economic terms, and then maintain or aim for that level. That HHI would be the benchmark, and an acquisition that would go beyond that line would be scrutinized more closely. If we weigh the different local media firms by the attention to their news, as given by the FCC, then the average local media HHI, over the past 20 years, has been about 1708.

Such a local media HHI level would realistically be different for different city sizes. Large cities are able to sustain a larger number of voices, and their often greater diversity and number of issues also requires them. The larger the city in population, the smaller the media concentration should be expected to be. We could establish a simple formula, with the product of population and HHI being some constant K. How large should K be? If one aims for the largest 20 of media markets to have 15 voices should-- TV stations with news programs, radio news and talk stations, newspapers, city magazines, local cable news channels. That translates to an HHI of about 700. If the market is medium sized, to maintain the same constant K the HHI could rise to 1,000, or about 10 equal sized voices. That would be achieved by comes from about 5 TV companies, 3 radio companies with news content, one newspaper and a local magazine. (There numbers are merely illustrative in nature.)

With this approach, as new media emerge and smaller media grow, or some of the larger firms stay stable in size, the others can own more, since its not their size or holdings that is constrained but only the overall market concentration.

This would not be a hard-and-fast rule, but a threshold for greater scrutiny. It would also let local communities take a look at their own media situation and find out where they stand in terms of media diversity.

9. A Summary of the Findings

1. All local media are strongly concentrated, with most HHI values either within the Justice Department classification of "moderately concentrated" or well above it. (The local ISP market shows the lowest concentration, in 2002 with an HHI of 1,172.)
2. Of the local electronic mass media, broadcast television stations and multichannel TV are experiencing the biggest decline in concentration.
3. Local print media are highly concentrated, and the local newspaper industry also shows an upward trend in concentration, from 7,219 to 7,621. Local magazines declined in concentration from 7,321 in 1984 to 6,859 in 2001/2, still well above the DoJ's threshold of highly concentrated.
4. The local telecom market is less concentrated that it used to be, but still remains at a high level. Since 1992, the *local* concentration has decreased while the C1 value declined from 100% to 75%.
5. The concentration trend of ISPs is U-shaped, in the intermediate range but increasing. It does not conform to the image of the infinite competitiveness of the Internet. Given the growth of broadband with its higher concentration this trend will accelerate
6. Radio is growing fastest in concentration, but remains, in absolute numbers, well below the levels of most other local media.
7. Averaging (weighted) all 8 local media shows a decline of local concentration from an HHI of an astonishing magnitude 8,000 in 1984 to about half the magnitude at 4,000. Much of the decline has been after 1992. It is mostly the result of the declines in concentration of wireline and cellular telephony and of multichannel, which are also the local media with the highest revenues. If we instead only look at mass media, without the two telecom and the ISP media, the trend is flat until 1996, and then drops to about 5,000 down from 6,000 in 1996. This is again mostly due to the decline of concentration in multichannel, which could be classified as a distribution rather than content medium. If that medium, too, is excluded, the remaining mass media decline gently from 4,500 in 1984 to a still high 4,000 in 2002.
8. The market share of the largest company within each local media market (C1) and medium decreased from 80% in 1984 to 55% in 2001/2. When we separate the local

media into mass and telecom media, we see that the mass media are more modest in their decline than telecom and mobile.

9. The FCC’s new Duopoly rules, in a worst-case scenario, does not greatly increase local concentration.

10. In contrast, the FCC’S new Cross-Ownership Rule, in a worst-case scenario, increases local concentration by a good bit, especially in combination with the Duopoly Rule.

These dry numbers are relevant to the hot debate in Washington, assuming that evidence has a role to play beyond besides the rhetoric. Outside of radio, the data do not show a rapid trend to media concentration and dominance. This should not suggest that media concentration is low or that there is no need for vigilance. But it is quite another matter to call it a crisis, as many have done in the heat of the battle. Congress has clearly signaled its unwillingness to see the radio scenario replay itself for TV. Society is entitled to determine the proper balance between the economic and speech rights of media companies and the public's right to diverse sources of information. And market shares are not the only factor to consider. The ownership of news and entertainment media is important to the health of democracy. But the debate over it must be healthy, too, and relate to facts rather than be driven by some dark fear that a handful of media giants (liberal or conservative, take your pick) are taking over nationally and locally, a fear which is not supported by the data.

Appendix A: The Data

Data collection turned out to be a major effort. The major sources for TV were the A.C Nielsen company.[5] The local television revenues were derived from the Duncan Radio Market Guides (DRMG).[6]

For local radio market shares we also used the DRMG. In addition, the Broadcasting & Cable Yearbook provided the ownership data for radio as well as cable television.[7] For the years 1984, 1988, 1992 the market share for satellite was based on the national satellite dish numbers.[8] Thereafter regional data was available

Local newspaper companies and revenues were also published in DRMG. We made a distinction between local and peripheral papers. There are suburban and out of town papers from a larger city nearby. Conversely, city papers are sold out of town. We assumed that 70% a paper's circulation is sold in the city itself, while 20% of suburban paper sold outside the suburb itself.

The data for local magazines was collected with the help from the President of the City and Regional Magazine Association.[9] After identifying the appropriate magazines that concerned themselves with news and events within a local area, we collected the circulation data on each magazine websites and marketing reports.

With help from the North American Numbering Association (NANPA) we collected the data on local telecom markets. By using the local area codes that are relevant for each

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[5] In cooperation with Jack Loftus from Nielsen Media Research we were able to retrieve the data regarding local broadcast stations for each year directly from the Nielsen library. Using the reported ratings from each DMA of which our cities are a part, the market shares were calculated. N.B. This means that the data used is subject to the Nielsen measurement standards.

[6] Duncan, J "*Duncan Radio Market Guide*" Editions used: 1985, 1989, 1994, 1997, and 2002.

[7] Series "*Broadcasting & Cable Yearbook*" New Providence, NJ: R.R. Bowker. Years: 1985, 1989, 1993, 1996, and 2001.

[8] Noam, E. (forthcoming) "Concentration Trends in the American Media Industry: 1984 – 2001" table "DBS Providers"

local market, we were able to find the number of telephone lines within an area. The NANPA's listing of companies to which the telephone lines are assigned then gave us market shares, based on lines. Revenues were calculated using the FCC's *"Reference Book of Rates, Price Indices, and Household Expenditure for Telephone Service (July, 2002)"*. The same method was used to calculate local cellular concentration and revenues. For local Internet Service Providers, we used the national market shares for ISPs and divided the remaining market share up based on the size category of the locality, using average numbers for each year.[10]

[9] http://www.citymag.org/
[10] Noam, E. (forthcoming) "Concentration Trends in the American Media Industry: 1984 – 2001" table "Internet Service Providers"