

Opportunity Assessment for Local Radio Stations with Zoned Broadcast Coverage

Prepared for GeoBroadcast Systems
November 20, 2018

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Topics

Overview

Radio's Role in the Local Media Mix

Market Readiness for Zoned Advertising

Sizing the Market for Zoned Radio Broadcasting

Zoned Radio Broadcasting Use Cases

BIA Revenue Model for Zoned Radio

Conclusion

Local Radio Stations Challenged to be Competitive as Local Marketing Shifts to Geotargeting

- Location intelligence, including geotargeting and geofencing, has become very important to marketers seeking new ways to engage and impact audiences.
- Online and particularly digital media have advanced capabilities for geotargeting audiences in local media markets, and that in part, explains their fast growth.
- Beyond digital media, MVPDs (i.e., Multichannel Video Program Distributors including cable, satellite, telco system operators), and broadcast television stations have or soon will have the technology to meet the growing demand for geofenced ad zones.
- Local radio stations, important as they are in the media mix, do not have the ability to provide zoned coverage areas inside their overall FCC authorized signal contours.
- We don't see local radio's online activities alone supporting these objectives.
- However, by offering a fundamentally new product such as zoned advertising, radio can be better positioned to compete with MVPDs, newspapers, direct mail and eventually ATSC 3.0 television stations.
- **BIA concludes that local radio stations need to develop more innovative and competitive responses for local market audiences and advertisers to achieve significant growth.**

How Geofencing Marketing Optimizes The Online Experience



Jia Wertz Contributor

Forbes

TWEET THIS

86 percent of senior marketers say that creating a cohesive customer journey is critical to success.



Radio is Foundational in the Local Media Mix for Audiences, Advertisers, Public Service

But Digital Media is Changing the Game, Market Expectations and Directions Challenging Radio's Role

- Local radio is a major and relied upon source of entertainment, news, information, and advertising servicing the needs of listeners, businesses and public institutions.
- Nielsen Audio, reports that each week, more Americans tune into AM/FM radio (93%) than watch television, or use smartphones, tablets or computers.
- According to the *New York Times*, "Pandora's pitch to advertisers is that its technology can cater to consumers with far greater precision than radio — it can pinpoint listeners by age and sex, ZIP code or even musical taste — and that as it grows, Pandora will effectively be the top station in many cities."
- Most people live, shop, and work locally, within a geographic zone that has a typical radius of 10-20 miles.
- Advertisers know this and have a vested interest in being more relevant to their consumers by using geographic context in their messaging. Each of these local zones often has their own character reflecting specific diversities of demographics, employers, commercial and retail operations, cultural, political and government influences.
- As important as radio stations are to their local markets, they are often challenged to serve diverse geographic communities of interest inside their main coverage zone with those signals crossing state lines, major city centers, suburban communities and other socioeconomic centers.
- **Since other media can provide geotargeted or geofenced zoned services, this puts local radio stations at a disadvantage in serving audiences and advertisers.**



APRIL 2018

AUDIO TODAY 2018

HOW AMERICA LISTENS

Nielsen concludes that with its 270 million weekly listeners, "Broadcast radio specifically continues to profoundly enrich the lives of listeners and create value for advertisers."

Radio Ties National, Regional, and Local Brands to Local Audiences

Local radio's top twenty advertisers include firms such as McDonald's, Mattress Firm, Home Depot, Staples, Lowe's, and Coca-Cola, all national brands with multiple locations within a local market.

- Radio is attractive to national, regional and local advertisers as an effective means to reach local audiences.
- National branding with local messaging is a core part of their media strategy. These advertisers are attracted both to local radio's immense reach, but also this medium's ability to drive awareness and traffic to the many local retail locations.
- In addition to these national brands with multi-location local market retail points of presence, of course local radio also serves many regional and local businesses with cost-effective and high impact advertising solutions.
- **Beyond simply helping consumers find local retail locations, brand marketers want consumers to have a sense of "genuineness" with their brands. In part, that comes from being geographically relevant.**

The logo for Mattress Firm, featuring the words "MATTRESS FIRM" in a bold, black, sans-serif font. The text is enclosed in a rectangular border with a dotted pattern.The logo for Staples, consisting of the word "STAPLES" in a bold, red, sans-serif font.The classic Coca-Cola logo, featuring the words "Coca-Cola" in a red, cursive script font.The logo for Lowe's, featuring the word "LOWE'S" in a white, sans-serif font inside a blue, stylized house-shaped outline.The logo for McDonald's, consisting of a large, yellow, stylized letter "M".The logo for The Home Depot, featuring the words "THE HOME DEPOT" in a white, sans-serif font, arranged diagonally within an orange square.

Market Readiness for Local Radio to Offer Zoned Advertising

Zone-Based Advertising is a Mature Practice Already Built into Advertising Workflows and Systems.

- Recent trends in programmatic, workflow automation support marketers' embrace of location-intelligence in developing creative and target ad messaging and allocating more spend to media channels that can leverage location intelligence.
- These are critical signals of market readiness and positive conditions for launching zoned ad coverage as a new product offering for local radio.
- The market is used to buying zones from local electronic media outlets and local radio can benefit from systems and workflows already built and established.
- Marketers make zone advertising buys from MVPDs in many local markets and soon this will extend to ATSC 3.0 television stations.
- MVPD advertising zone geographies are built into ad-buying platforms like Strata. Buyers can use these systems to call up available MVPD ad zones and geofence their ad delivery to selected zones.
- This same workflow can be adopted to match local radio station ad zones.

Zoned broadcast coverage areas for local radio stations would help create:

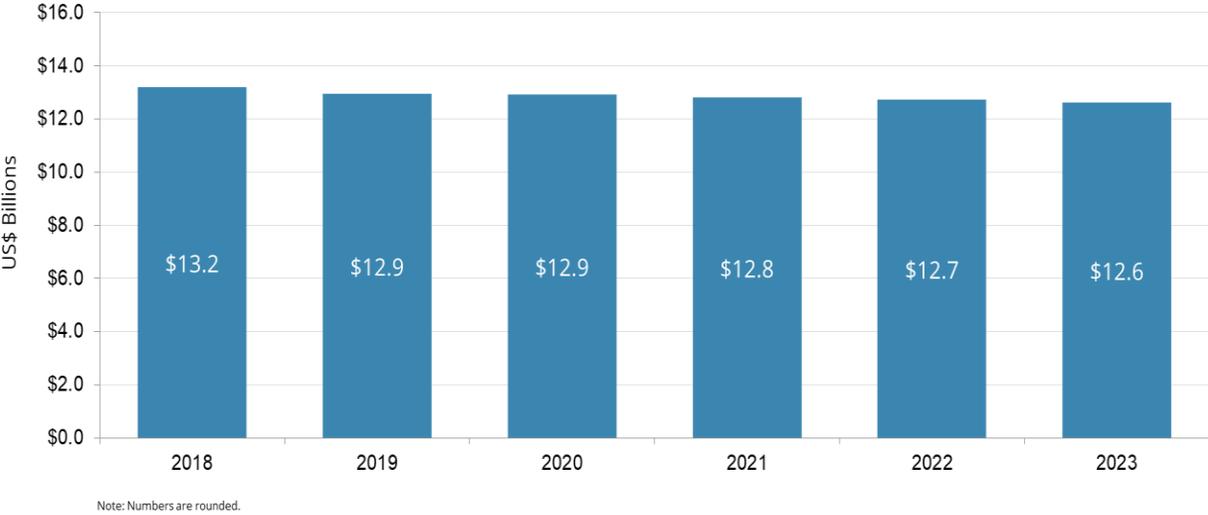
- Coverage areas tailored to specific geographic zones inside larger markets that cross state or city center boundaries.
- Zoned radio broadcast transmissions provide new voices for smaller advertisers currently priced out of radio.
- Spanish and other language programming, ads, alerts and warnings.
- New revenue opportunities for local radio broadcasters seeking growth.
- New programming and service models for audiences. This can include zoned news, weather, traffic feeds. Public alerts and warnings and PSA also can be sent to the most relevant zones.
- Additional geotargeted services for public safety, and other use cases.

Current State of the Local Broadcast Radio Industry

Radio Ad Revenue to Continue Slow Decline Through 2023

- BIA's November 2018 forecast for ad spending targeting local audiences shows total spend on over-the-air radio will continue a steady decline.
- For 2018, we're forecasting the year will end up with \$13.2 billion in broadcast revenue. Radio's revenue continues a slow decline through 2023.
- Radio's monthly users exceed TV, smartphone, desktop, multimedia device, and game console media.
- This type of usage and audience reach is very important for advertisers.
- There are 1,994 digital multicast programs streams that are being broadcast by 1,548 local radio stations.
- With zoned broadcast coverage technology, local HD Radio stations could provide even more geofencing choices for listeners and advertisers across these additional program streams.

Local Radio Over-the-Air Ad Forecast 2018-2023

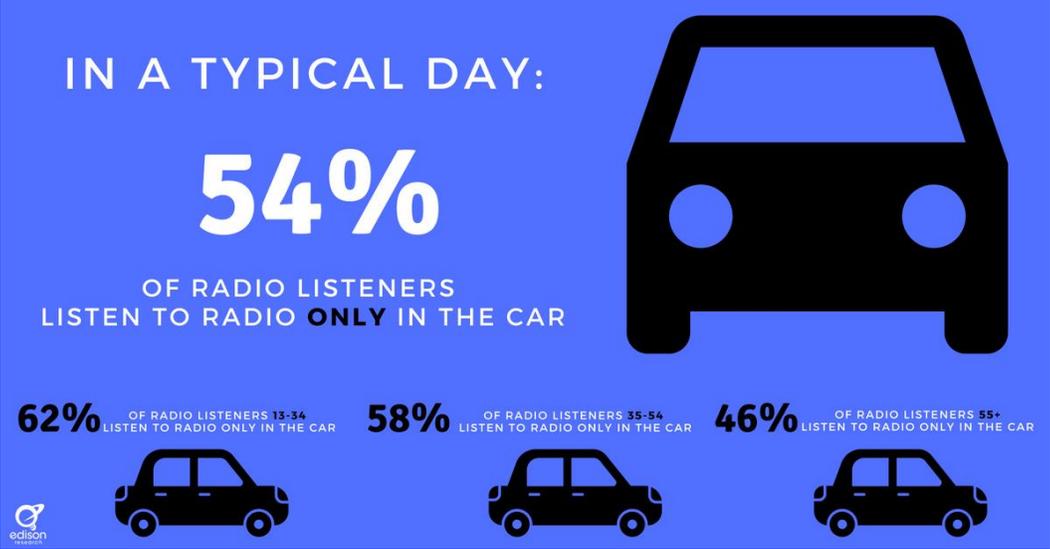


Source: BIA Advisory Services, November 2018

Local Radio Can Target Geo-Fenced In-Car Audiences

Up to Two-Thirds of All Radio Listening for Some Audience Segments is In-Car

- Overall, 54 percent of radio listeners, "listen to radio only in the car."
- For a core audience segment that advertisers want to reach, those 35-54 years old, in-car only listening rises to 58 percent.
- And for younger audience segment (13-34 years old), nearly two-thirds (62 percent) listen only in-car.
- Using zoned coverage areas, local radio stations could display auto dealer information most relevant to listeners in that zone, rather than the same information to all listeners across the entire coverage area.
- Adding this geotargeting dimension increases the impact of such advertising.



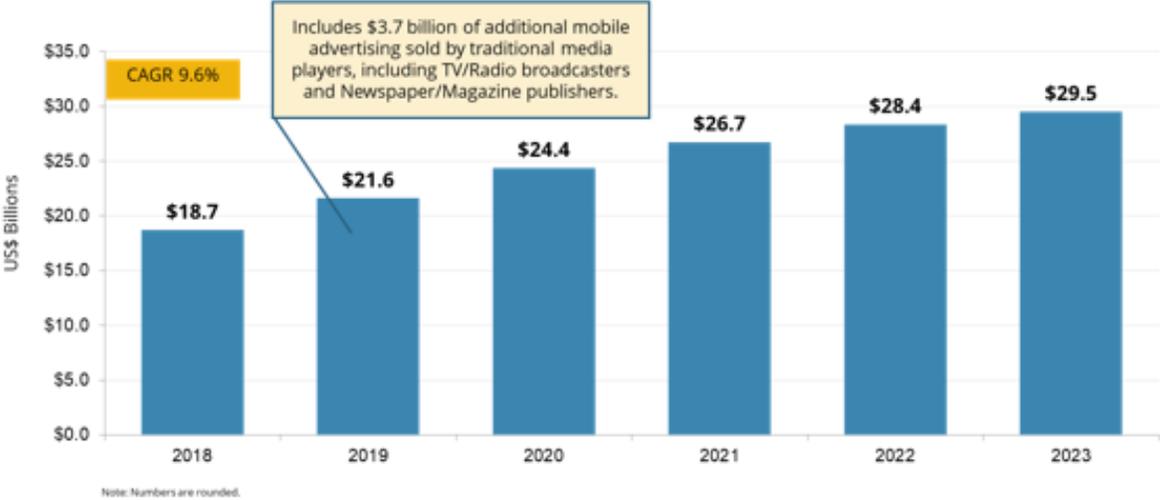
Source: Edison Research, August 2018

Growth of Location-Based Marketing

Zoned-Advertising and Location-Based Mobile Advertising Raise the Competitive Stakes for Local Radio Stations.

- Location targeting allows a brand to show it knows something about the consumer that matters. A New York radio station delivering Long Island auto dealer ads to a New Jersey listener is much less impactful than delivering those ads to a Long Island listener.
- Advertisers seeking to use ad geotargeting in their marketing mix have a limited set of channels to choose from. The biggest channel, by far, is direct mail and the fastest growing is mobile. The next biggest channel is out-of-home advertising.
- Newspapers sell zoned advertising as well. In the electronic media realm, geotargeting has grown most in mobile ad channels (i.e., mobile web sites and mobile apps). Local MVPDs provide zoned advertising distribution in their own coverage areas and through interconnects.
- Local TV and radio stations do not have an over-the-air zoned ad coverage product, though with ATSC 3.0 this will change for TV. Streaming TV services offer geotargeting, and this is a rising part of the market, e.g., Hulu, YouTube.

Location-Based Mobile Ad Spend 2018-2023



Source: BIA Advisory Services, November 2018

Local Radio Stations' Service Enhanced with Zoned Coverage Areas

Both Advertisers and Audiences Prefer Geographically Relevant Services

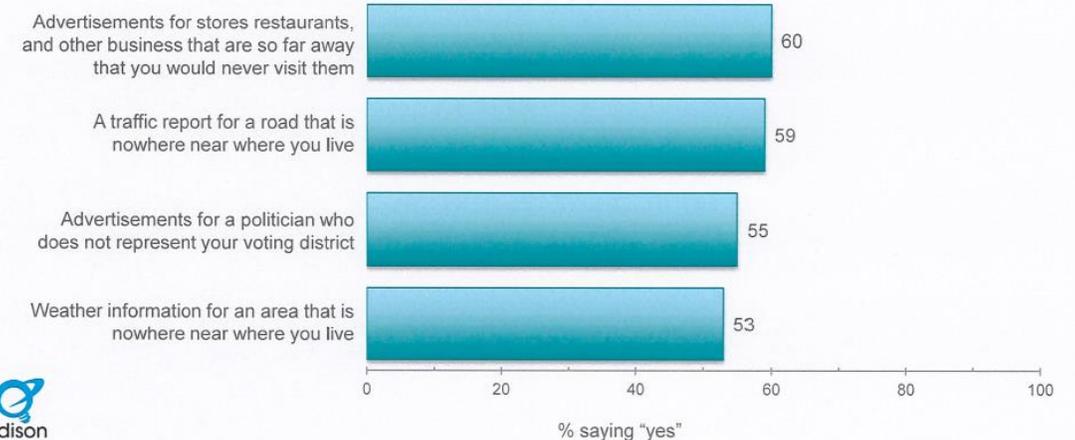
Advertisers' Preferences for Geotargeting

- Let's look first at the geographic targeting interests of businesses that advertise on radio to reach local audiences. According to BIA's Survey of Advertising and Marketing (SAM):
- 76.0 percent rate advertising media that provide geofilter/lenses as providing "excellent" or "extraordinary" ROI (i.e., at least 10 times the return on ad spend).
- 69.8 percent say it is "very important" or "extremely important" to target "consumers in close proximity to their business."
- 59.7 percent of radio advertisers similarly say it is very or extremely important to target "consumers who are in a relevant geographic location."
- Of course, even though most local radio advertisers express specific interest and value in geotargeted advertising, this is not a type of advertising product local radio can offer its clients.

Audience Preferences for Services Relevant to their Geography

- Most radio listeners have endured content on the radio stations they listen to that is geographically irrelevant to them.
- For 60 percent of the radio audience, this includes ads for businesses, "so far away that [they] would never visit them," or "advertisements for a politician who does not represent your voting district."

Have you ever heard on the radio...?

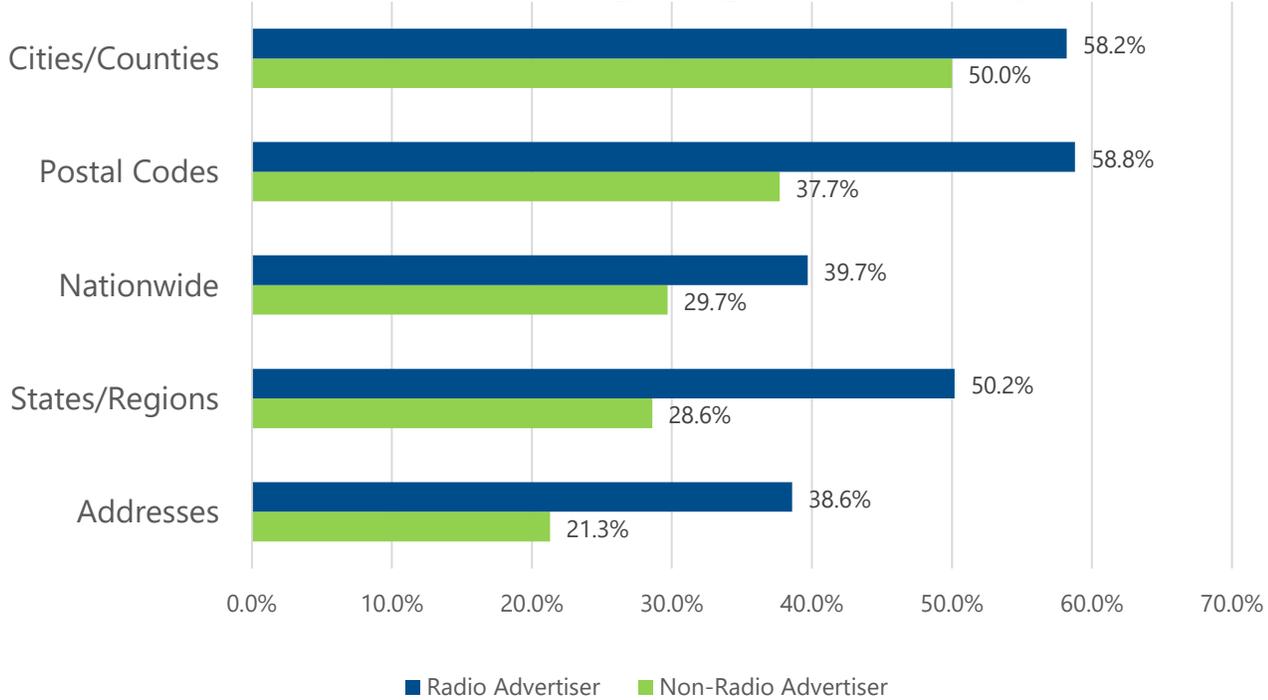


Sizing the Market for Local Radio Zoned Coverage

More Than Half of Local Radio's Advertisers Want to Geotarget Their Advertising.

- In addition to the 25 largest markets, with large geographical areas, there are 38 radio markets that cross state lines and 64 radio markets serving multiple CBSAs within their market geographies.
- Given the ability to offer zone-based broadcast coverage areas within their overall radio market geographies, local radio can become both more relevant to its audiences and advertisers and more competitive with other media channels.
- BIA estimates \$10 billion in growth across just three of the core location-targeting ad platforms – Direct Mail, Out-of-Home, and Location Targeted Mobile.

Radio vs Non-Radio Advertisers Targeting Audiences by Geo Zones



Source: BIA Advisory Services, November 2018

*Percentage of advertisers targeting audiences at different geographic levels

Example: Washington, DC Radio Market Audience by State of Residence

Washington, DC Radio Stations Serve Three Different Political Jurisdictions with Different Needs

- One of the significant benefits of developing zoned broadcast coverage areas for local radio stations lies in the simple fact that many existing radio markets (as defined by Nielsen Audio) cover multiple jurisdictions, by state and economic area boundaries.
- With a zoned broadcasting system, local radio stations can provide access to audiences that advertisers want to reach in these distinct jurisdictions.
- Specifically, there are 38 Nielsen Audio defined radio markets that cross state boundaries in a significant manner. We define a significant manner by having at least 10% of the total radio market population residing in multiple states.
- A good example of this is the Washington, DC radio market which spans three distinct political jurisdictions. The table shows the percentages of the entire radio market in these three jurisdictions.
- Radio stations located in the Washington, DC radio market trying to sell advertising to potential clients who want to reach only individuals in one of these jurisdictions (e.g., political clients, retailers with outlets in only one jurisdiction) are "forced" to provide access to their listeners no matter where they reside.

Washington, DC Radio Market Coverage Area by State Population Served

State of Residence	% of Washington, DC Radio Market Population
Virginia	45.8%
Maryland	42.4%
District of Columbia	11.7%

Source: BIA Advisory Services, November 2018

Use Cases for Local Radio Zoned Coverage Areas

Public Service, Programming, and Advertising Become More Relevant When Geofenced in Radio Zoned Broadcasts.

- **News and Informational Programming:** Radio stations can use broadcast zones to send different transmissions with program content relevant to those geographies that may border along state, city, or other meaning boundaries. A Dallas, TX radio station could provide different news feed to Dallas and Ft. Worth listeners for example. Weather, traffic, and other news content can be targeted to the most relevant zones.
- **Advertising:** Unbundling advertising opportunities from only full market coverage to offer zoned broadcasts enables local stations to provide two new ad products to the marketplace. First, smaller businesses who cannot afford and may not need full market radio coverage due to the geographic trading area they serve, can take advantage of lower priced radio zoned advertising. Second, even larger regional or national marketers may want to take advantage of zoned radio advertising to tailor their creative messaging to appeal to residents and businesses in different states and CBSAs to increase their relevance and impact. This is especially important for radio to be more competitive with digital and television media.
- **Public Service Announcements:** Groups that rely on local radio to help promote their public service causes, much like commercial advertisers, can benefit from more geographically targeted radio advertising. For example, charitable groups and other public service agencies that are organized along state-level or CBSA lines will find it much more effective for their outreach efforts to target audiences in these more relevant geographies.
- **Spanish and Other Languages:** In many markets, there are geographic clusters with high densities of people who don't speak English as their first language. In multi-generational homes, there's often a mix of bilingual, even multilingual people that may or may speak English at all or as their preferred language. Radio broadcasters with zoned broadcasting capabilities can provide zone broadcasts to these geofenced areas featuring programming and advertising offering a mix of English language, Spanish language or other languages as best suits the needs of the community.
- **Programming:** Local government, civic events, entertainment, and other information relevant to specific geographies within markets cannot be prioritized by radio broadcasters limited to single coverage area.
- **Emergency Alert and Warning:** Local radio stations are part of national, state, and local critical infrastructure for issuing alerts and warnings. One of the major challenges for public safety and emergency management officials is getting the right message to the right members of the public at the right time. Within radio market geographic boundaries often there will be multiple zones where weather, flood warnings, traffic, and other public safety incidents may arise where local citizens need to be warned. Sending out mass alerts and warnings to everyone in a radio market creates a situation where those not in affected geographies start ignoring these warnings. This is not a desirable outcome for anyone. With zoned coverage areas, local radio stations can do a better job of alerting listeners most likely to be impacted by breaking situations.

Zoned Advertising Impact on Local Radio Stations' Revenue

BIA Model for Industry Impact of Zoned Radio Advertising

- In order to gauge the potential revenue impact, we constructed a model using the BIA radio market level revenue estimates. We specifically modeled the markets in which the radio markets include multiple states as well as multiple CBSAs. Additionally, we modeled the other top 25 ranked radio markets not included in that other group as those markets are quite large and thus might be ripe for zone advertising in different regions of the market.
- There are 1,900 commercial radio stations located in the radio markets that cross across state boundaries and/or include multiple CBSAs. Those markets collectively generated \$2.75 billion in over-the-air advertising revenue in 2017. Additionally, the other top 25 ranked radio markets not included in that other group has 1,019 commercial radio stations generating \$3.85 billion in over-the-air advertising revenue in 2017.
- BIA maintains a database of all commercial and noncommercial radio and television stations (Media Access Pro™). Included in that database are estimates of over-the-air advertising revenue generated by these radio and television stations, and thus, market level totals for this revenue source.
- The average top ten radio market is 5.7 million sq. ft and markets ranked 11 through 25 is 6.6 million sq. ft. in area, much larger than markets ranked lower.

To generate the impact on revenue from zone advertising, we made these assumptions:

1. Percentage of radio stations in the multi-state/multi CBSA radio markets that will offer zoned advertising. In part, we base our assumption here on how many stations in a market adopt zoned advertising solutions and therefore share the infrastructure costs of the zoned transmission system. The more stations participating, the less expensive it is per station.
2. Percentage of market revenue accounted for the local radio stations in these multi-state/multi CBSA markets that will offer zoned advertising.
3. Percentage of radio stations that will zone advertise in the other top 25 ranked radio markets that are not part of the other group.
4. Percentage of market revenue accounted for the local radio stations in these other top 25 ranked radio markets that are not part of the other group that will offer zoned advertising.
5. Percentage of spots that will be in zoned advertising inventory. The demand for radio spots overall is soft. We expect that some inventory that would otherwise remain unsold may be sold in part or whole as zoned spots.
6. Percentage premium to be charged for the zoned advertised spots. We see premium value will result from revenue generated by filling in for unsold and per response ads.

BIA Model for Industry Impact of Zoned Radio Advertising

Based on BIA's Model, Local Radio Stations Stand to Earn Significant Revenue Growth by Offering Zoned Ads

- The table on the right shows additional annual revenue that can be generated from zone advertising.
- The impact of zone advertising estimated below may be conservative as it only examines the multi-state/multi CBSA and other top 25 ranked markets.
- There may be radio stations located in other markets that would find zone advertising advantageous.
- While these estimates vary substantially depending upon the assumptions made, it illustrates the potential significant impact that zone advertising can have on the financial health of the participating radio stations.
- There are some additional one-time capital and annual operating costs incurred with zone advertising, but much of the annual additional revenue will fall to the bottom line thereby increasing the value of these radio stations by a much higher percentage.
- Moreover, the ability to zone advertise will allow these local radio stations to compete more effectively with other advertising platforms and stem the tide of declining revenue being experienced by the radio industry.

BIA Model for Industry Impact of Zoned Radio Advertising

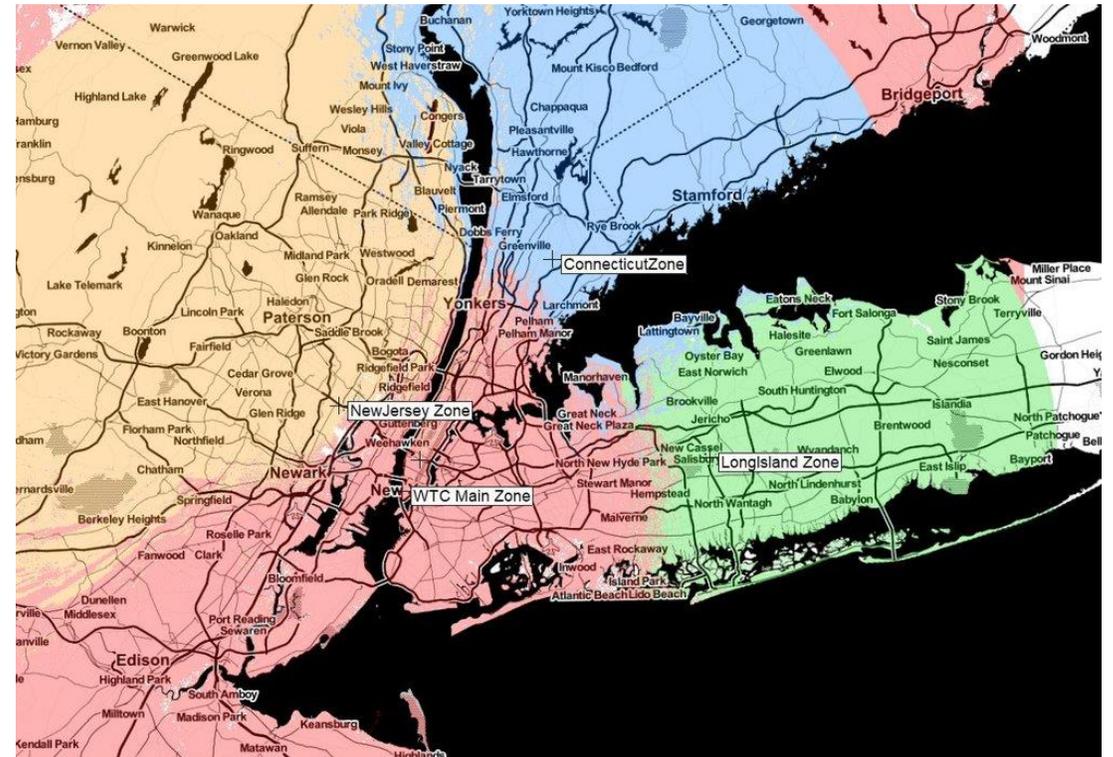
Model Parameters	Example 1	Example 2	Example 3
2017 Total Over-the-Air Adv. Revs. (000s)	\$6,603,425	\$6,603,425	\$6,603,425
% of Stations Zone Advertising in Multi-State/Multi CBSA Markets	20%	30%	35%
% of Market Revs. Attributable to the Zone Advertising Stations	40%	60%	70%
% of Stations Zone Advertising in Other Top 25 Ranked Markets	25%	35%	40%
% of Market Revs. Attributable to the Zone Advertising Stations in Other Top 25 Ranked Markets	50%	70%	80%
% of Spots that are Zone Advertised	20%	25%	30%
% Premium for Zone Advertising	30%	40%	50%
Additional Revenue (000s)	\$181,604	\$434,743	\$751,165.

Source: BIA Advisory Services, November 2018

How Zoned Radio Broadcasting Works

Single Frequency Network (SFN) Technology Used to Build Radio “Cell Sites” to Serve Geofenced Zones

- According to GeoBroadcast Systems, “This platform has been successfully tested under special FCC authorization. There is now a Notice of Proposed Rule Making (NPRM) at the FCC which would allow full time Geo-Targeted separation of the main channel of an FM radio station to its listeners. This ability to split an FM signal into local “zones” has gathered exceptional industry support.”
- GBS's proprietary ZoneCasting solution uses Single Frequency Network (SFN) technology, like what's used in land mobile radio and now ATSC 3.0.
- In the case of FM radio, one example is how SFNs are used in France. Daily listeners to 107.7 MHz in France are kept informed about accidents, roadwork and congestion among other news related to traffic flow. Launched in 1994 and available on 107.7 MHz FM this system now relies on a series of Single Frequency Network transmitters
- These SFN boosters or cellular sites can serve both analog stations and multiple program streams for HD Radio stations.
- The SFN cells can also accommodate multiple station clusters or independently owned-and-operated radio stations.
- Such shared use of the sites improves the overall economics for stations to build, license and operate these SFN transmitters.



Radio May be the Only Mass Medium in Local Markets Unable to Offer Zoned Advertising and Content Services

Some of the major opportunities local radio stations can achieve by developing zone-based coverage areas include advancing both economic and service outcomes such as:

- Selling into the growing market of geotargeted and location-based ad spend by local, regional and national advertisers.
 - Support public safety services for zoned radio broadcasting such as alerts and warnings issued only to impacted zones versus the full market for more relevance and engagement.
 - Local radio stations address unmet needs of its advertisers, audiences for zoned advertising and news editions.
 - Improved the competitiveness of local radio in local marketing.
- Overall, BIA concludes that local radio stations need to develop more innovative and competitive responses for local market audiences and advertisers to achieve significant growth.
 - We don't see local radio's online activities alone supporting these objectives.
 - However, by offering a fundamentally new product such as zoned advertising, radio can be better positioned to compete with MVPDs, newspapers, direct mail and eventually ATSC 3.0 television stations for the projected \$75 billion in Location Based Advertising that is currently unavailable to them.



Questions & Comments:

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