

Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
Status of Competition in the Marketplace) MB Docket No. 18-227
for Delivery of Audio Programming)

COMMENTS OF THE
NATIONAL ASSOCIATION OF BROADCASTERS

Rick Kaplan
Jerianne Timmerman

Dan McDonald
Theresa Ottina
Alexandra Falcon
NAB Research

September 24, 2018

TABLE OF CONTENTS

I.	INTRODUCTION AND SUMMARY	1
II.	TECHNOLOGICAL CHANGES HAVE FRAGMENTED THE AUDIO MARKETPLACE BY VASTLY EXPANDING THE NUMBER OF CONTENT PROVIDERS AND THE OPTIONS FOR CONSUMERS AND ADVERTISERS	4
A.	Despite Dramatic Changes in a Fragmenting Audio Market, Listeners Today Continue to Access Local Radio Stations' Diverse Content in their Homes and On the Go	5
B.	Consumers, Especially Younger Ones, Now Access Audio Content from a Wide and Growing Range of Sources Via Multiple Devices	10
1.	Listeners by the Millions Have Embraced Audio Content Delivered Online and Via Satellite	10
2.	Listeners Now Use Multiple Devices to Access Audio Programming and their Choice of Device Affects their Choice of Content	14
C.	Advertisers Today Increasingly Utilize Online and Mobile Outlets to Reach Consumers	16
III.	RADIO STATIONS TODAY OPERATE IN A FUNDAMENTALLY ALTERED COMPETITIVE LANDSCAPE	20
A.	Local Stations Face Real and Growing Challenges in Attracting Audiences in a Crowded Audio Landscape	21
B.	Radio Stations Face Growing Pressures on their Advertising Revenues	22
C.	Small Market Radio Stations and AM Stations Particularly Struggle to Attract Advertising and Earn Adequate Revenues	24
IV.	CONCLUSION	26

ATTACHMENTS

Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
Status of Competition in the Marketplace) MB Docket No. 18-227
for Delivery of Audio Programming)

To: The Commission

COMMENTS OF THE
NATIONAL ASSOCIATION OF BROADCASTERS

I. INTRODUCTION AND SUMMARY

In the analog audio marketplace of the past, consumers had two choices for obtaining music and other audio content: buy it or listen to broadcast radio. In the 21st century digital marketplace, audio content is delivered and consumed very differently. Technological innovations have dramatically improved providers' ability to deliver audio content. Consumers now access audio content delivered via a range of devices and from a wide variety of sources, including linear over-the-air (OTA) terrestrial radio, subscription satellite radio, podcasts and numerous streaming services, both subscription and advertiser-supported. As a result, consumers purchase far less audio content than in the past, as their consumption has "shift[ed] from ownership to access."¹

¹ Mark Mulligan, *From Ownership to Access*, Music Industry Blog (July 10, 2018). The sales of physical products (e.g., CDs) peaked around the year 2000, and the sales of digital downloads have been declining since 2013. See Peter Tschmuck, *The US recorded music market in a long-term perspective, 1990-2016*, Music Business Research (May 5, 2017).

In response to the Media Bureau's Public Notice seeking comment on audio competition,² the National Association of Broadcasters (NAB)³ herein discusses the transformation of the market for delivery of audio programming since the 1990s, when free terrestrial radio and purchased recordings were the only options for obtaining audio content and the only listening devices were AM/FM radios, turntables and tape/CD players. Today, even though 92 percent of U.S. adults still listen to linear broadcast radio during an average week,⁴ millions of consumers utilize the range of digital options available in an increasingly fragmented listening market. An estimated 160 million persons ages 12 and older listen to online audio weekly.⁵ Streaming music platforms have grown dramatically during this decade,⁶ and podcasting's "share of ear" has doubled in just the past four years.⁷ Younger listeners in particular have embraced digital audio sources and devices. The FCC's upcoming Communications Marketplace Report must reflect how digital technologies have

² *Media Bureau Seeks Comment on the Status of Competition in the Marketplace for Delivery of Audio Programming*, Public Notice, MB Docket No. 18-227, DA 18-761 (July 23, 2018) (Public Notice or Notice). A recent amendment to the Communications Act of 1934 requires that the FCC publish a biennial Communications Marketplace Report, which, among other things, must assess the state of competition in the communications marketplace, including for the delivery of audio services. *Id.* at 1.

³ NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

⁴ Nielsen, *The Nielsen Total Audience Report Q1 2018*, at 3 (2018) (*Nielsen Total Audience Report*). AM/FM stations also remain the top single source of listening in cars. Edison Research and Triton Digital, *The Infinite Dial 2018, Audio Sources Used in Car* (2018) (*The Infinite Dial*).

⁵ *The Infinite Dial, Weekly Online Audio Listening*.

⁶ In 2017, streaming platforms accounted for 65 percent of total U.S. music industry revenues, up from only nine percent in 2011. *Streaming made up two-thirds of US music revenue in 2017*, Diverse Tech Geek (Mar. 30, 2018).

⁷ Tom Vernon, *Edison Says Podcasting's Share of Ear Doubled in Four Years*, Radio World (Apr. 23, 2018).

significantly expanded the number of audio content providers and the marketplace choices available to listeners.

Given that consumers have a limited amount of listening (or viewing) time with a now almost unlimited number of digital options, broadcast radio, as well as other legacy media, operate today in a vastly different environment than in the analog past. The proliferating digital competitors for consumers' time and attention also compete for advertisers' limited dollars. The overall U.S. advertising market – upon which non-subscription outlets like radio depend – has not yet equaled, let alone surpassed, its pre-Great Recession level. But despite this overall market drop, the digital sector of the ad market has experienced explosive growth over the past decade. Indeed, the local advertising revenues of a single digital company that just celebrated its 20th anniversary – Alphabet/Google – now exceeds the total local advertising generated by all commercial radio stations in the U.S. (and rivals the amount generated by all full-power commercial TV stations in the country).⁸ The FCC's Report must recognize how these broad marketplace changes have affected the competitive position of FM and AM stations specifically.

As NAB describes below, local radio stations are facing real and growing challenges in attracting audiences in a fragmented listening market, especially among younger demographic groups. The increasing share of local advertising revenues earned by online and mobile outlets, including the digital giants, has squeezed radio stations' share of local ad revenues. Radio stations in smaller markets that have much more limited advertising bases particularly struggle to earn adequate revenue, and as the Commission is already well aware, AM stations face special challenges in attracting listeners and advertisers in markets

⁸ BIA Advisory Services, Press Release, *Google to Dominate Local Digital Advertising in 2018* (May 7, 2018).

of all sizes. And soon, local stations will be competing for listeners against the “world’s largest audio entertainment company,” assuming completion of the proposed merger between SiriusXM and Pandora.⁹ The recognition in this proceeding of the broad scope and competitive realities of the modern audio marketplace should inform Commission policies and future rulemakings regarding terrestrial radio broadcasting.

II. TECHNOLOGICAL CHANGES HAVE FRAGMENTED THE AUDIO MARKETPLACE BY VASTLY EXPANDING THE NUMBER OF CONTENT PROVIDERS AND THE OPTIONS FOR CONSUMERS AND ADVERTISERS

The development of digital technologies and the exponential growth of the internet and online services have transformed the audio (as well as the video) marketplaces. Any contention that radio broadcasters today compete for audiences and advertisers only with other broadcasters – and not with any other audio outlets and content providers – is untenable. Indeed, the very legislation requiring a biennial Communications Marketplace Report assumes a broad market and directs the Commission, in assessing audio (and video) competition, to “consider all forms of competition,” including “intermodal” and “competition from new and emergent communications services, including the provision of content and communications using the Internet.”¹⁰ The FCC’s identification of participants in the market for delivery of audio programming as including, but not limited to, terrestrial radio broadcasters, satellite radio providers and entities providing audio programming over the internet and to mobile devices¹¹ appropriately reflects the breadth of the modern audio marketplace, consistent with congressional intent. Even a relatively brief survey of today’s

⁹ Michael Sheetz, *SiriusXM to buy Pandora in all-stock deal valued at \$3.5 billion*, cnbc.com (Sept. 24, 2018).

¹⁰ 47 U.S.C. § 163(d)(1); see also *id.* at § 163(b)(1) (requiring the FCC’s report to assess competition to deliver voice, video, audio and data services among a wide range of providers).

¹¹ Public Notice at 1 (identifying “Audio Marketplace Participants”).

market shows that millions of consumers routinely use a range of devices to access audio content from myriad sources, including AM and FM stations, and that advertisers increasingly use digital platforms to reach consumers.

A. Despite Dramatic Changes in a Fragmenting Audio Market, Listeners Today Continue to Access Local Radio Stations' Diverse Content in their Homes and On the Go.

Despite the expanding number of Audio Market Participants, consumers across the country still rely on AM/FM stations to provide entertainment and information wherever they may be – at home, at work or on the go. Radio retains the largest reach across media platforms, reaching in an average week 92 percent of all adults 18+ (227.24 million people), 96 percent of Hispanic adults (37.44 million people) and 92 percent of African-American adults (28.52 million people).¹² By a large margin, AM/FM radio remains the leading audio source in vehicles; 82 percent of adults 18+ report that they use broadcast radio in cars, and 56 percent say that AM/FM radio is the audio source they use the most in vehicles.¹³ Notably, radio stations also lead in music discovery, with Nielsen reporting that 49 percent of its survey respondents cite OTA AM/FM radio as a source used to discover music, followed by friends/relatives at 40 percent.¹⁴

The robust reach of AM/FM radio is unsurprising, given the wide range of program services local stations provide to diverse audiences. According to BIA, the number of Spanish-programmed full-power AM/FM stations in the U.S. has grown from 547 in 2000 to

¹² *Nielsen Total Audience Report* at 3.

¹³ *The Infinite Dial, Audio Sources Used in Car and Audio Source Used Most Often in Car*. CDs, owned digital music, online audio, satellite radio and podcasts are used much less frequently.

¹⁴ Twenty-three percent of respondents additionally cite online AM/FM stations as a way they discover music. Nielsen Music, *Music 360 2017 U.S. Report*, at 18 (Sept. 2017) (*Music 360 2017 U.S. Report*) (reporting that consumers also discover music from online music websites, social media websites, movies/movie soundtracks, TV and other sources).

949 today.¹⁵ The number of Asian-programmed stations also has increased, from only 21 in 2006 to 94 today.¹⁶ In addition, 366 full-power stations provide a range of programming targeted to different demographic groups within the African American community.¹⁷ These numbers, moreover, do not include the additional diverse programming aired via multicast channels on stations using HD Radio technology. According to Xperi, as of September 2018, there are 2,212 HD Radio stations on air in the U.S., broadcasting an additional 2,020 channels, for a total of 4,232 separate digital channels. The programming on these digital multicast channels runs the gamut from A to V (Alternative to Variety), with many channels offering niche music formats (jazz, classical, folk, bluegrass, etc.) and programming targeted to minority groups (various Asian, Urban and Spanish formats).¹⁸ In Washington, D.C., for example, local stations' multicast channels air, *inter alia*, news, sports, bluegrass/roots, vocal classical, soul/rhythm and blues, Urban gospel, Vietnamese music and talk, Hindi and the LGBT channel, Pride.¹⁹

Local stations also serve their communities by providing a range of free OTA news, sports, weather and emergency information. Rural audiences in particular rely on the 6,818 full-power AM/FM stations located in small communities and rural areas outside of Arbitron Metro radio markets, where the smaller populations are less able to support full-power TV

¹⁵ Spanish programmed stations include several diverse formats, such as Gruperio, Latino, Mexican, Norteno, Ranchero, Spanish AC, Spanish News and Tejano.

¹⁶ Asian programmed stations include Asian, Hawaiian, Japanese, Korean and South Asian formatted stations.

¹⁷ These include Urban, Urban AC, Urban CHR, Urban Contemporary and Urban Gospel programmed stations.

¹⁸ See BIA Media Access Pro, 2018.

¹⁹ See <https://hdradio.com/stations>.

stations and other local media outlets.²⁰ And, of course, radio stations provide vital emergency information in markets of all sizes, including AMBER alerts. In fact, radio broadcasters, teaming with local police in the Dallas/Ft. Worth area, created the AMBER Plan, which has been credited with successfully recovering 924 abducted children since its inception in 1996.²¹

In many ways, radio is the optimal method of reaching mass audiences during emergencies. Unlike wireless networks, radio's "one-to-many" architecture cannot be overwhelmed by a surge in traffic or experience network congestion. When the power goes out, and internet and video services are unavailable, battery-powered radios are often the only point of connection and information for the public. Unsurprisingly, officials such as former FEMA administrator Craig Fugate recently urged residents in the path of hurricane Florence to include an AM/FM radio in their disaster kits.²² Earlier this year, federal legislation designated radio broadcasters as a first responder "essential service provider" entitled to access federally-designated disaster areas to maintain or restore operations during an emergency.²³ No other Audio Market Participant identified in the FCC's notice can make remotely similar claims or boast a comparable record of local public service.

Beyond continuing to provide their traditional OTA service, radio broadcasters also have embraced digital technologies to improve and expand their services to listeners via

²⁰ See BIA Media Access Pro, 2018. Among other relevant programming, many radio stations in rural areas air agricultural programs and content focusing on farming, ranching and agribusiness. See NAB, *Broadcast Television and Radio in Rural Communities*, at 3-5 (2018) (discussing radio service in rural America).

²¹ See <https://www.amberalert.gov/statistics.htm> (last visited Sept. 14, 2018).

²² Inside Radio, *As Florence Approaches, Fugate Says Put Radios in Emergency Kits* (Sept. 10, 2018).

²³ Inside Radio, *Trump Signs Bill With Repack Funds & 'First Responder' Designation* (Mar. 23, 2018).

multiple devices. Millions of listeners enjoy the better sound quality and additional programming offered by HD Radio, and broadcasters are working to expand the availability of HD Radio in cars.²⁴

Radio broadcasters also have worked tirelessly to promote access to radio receivers in smartphones so consumers can receive free FM signals and, thus, access to a reliable source of emergency information via their phones. Although almost all smartphones are manufactured with hardware capable of receiving FM signals, not all phones have this feature activated. The major U.S. wireless carriers have unlocked FM capability in their Android phones, but Apple has not yet provided its customers with this feature.

On devices that include activated FM receivers and internet connections, hybrid radio allows broadcasters to use both paths to provide content simultaneously to listeners, offering audiences interactivity and visual enhancements to complement radio programming.²⁵ The DTS Connected Radio Platform became available for automotive integration earlier this year and is planned for commercial launch in 2019. Combining analog and digital AM/FM radio with IP-delivered content, this technology creates an enhanced in-vehicle radio experience.²⁶

Radio broadcasters continue to expand their online services available to consumers via multiple devices. Thousands of commercial and noncommercial radio stations stream,

²⁴ According to Xperi, 79 percent of all U.S. radio listeners 12+ tune to stations broadcasting using HD Radio technology every week. As of June, 51 percent of all new cars sold in 2018 came with factory-installed HD Radio receivers.

²⁵ The NextRadio app is one example of hybrid radio.

²⁶ Specifically, the DTS Connected Radio Platform aggregates metadata (e.g., information about artists and songs, on-air talent, programs and stations) directly from local stations, which is then paired with IP-delivered content and displayed in vehicles. Inside Radio, *HD Radio Owner Xperi Releases 'DTS Connected Radio' Platform* (May 3, 2018); Business Wire, *Xperi Announces DTS Connected Radio to Launch With Global Automotive Brand in 2019* (Aug. 8, 2018).

and stations' streaming audiences are growing.²⁷ From January 2014 to April 2018, local broadcasters' monthly average active streaming sessions increased nearly 33 percent and total time spent listening to broadcasters' streaming services increased over 17 percent.²⁸ Several popular radio apps, including iHeartRadio, NPR One, Radio Online and TuneIn Radio, allow smartphone owners to access thousands of radio stations and libraries of programs and podcasts for free (or for monthly fees in their premium versions).²⁹

Commercial radio broadcasters also are moving quickly to increase their presence in the podcasting space, where public radio has already established a very sizable niche.³⁰ Recognizing clear potential to attract listeners and generate advertising revenue, a number of radio station groups have committed to launching major podcasting initiatives.³¹

²⁷ According to Radio-Locator.com, 9,866 full-power AM/FM stations have a live audio stream.

²⁸ BIA analysis of data from Triton Digital Monthly Rankers, DAYPART 6:00 a.m. to 12:00 a.m., Monday-Sunday.

²⁹ See, e.g., Joe Hindy, *10 best radio apps for Android*, androidauthority.com (Sept. 3, 2018); Will Nicol, *Tune in and chill out with the best radio apps for Android and iOS*, digitaltrends.com (Feb. 13, 2018). TuneIn Radio, for example, offers a varied supply of radio stations that includes music of all kinds, sports, comedy, talk and news. The free version comes with over 100,000 radio networks and stations (AM, FM, HD, low power and digital/internet stations) along with several million podcasts. The premium subscription version includes live NFL, MLB and Barclay's Premiere League games, audiobooks and the removal of advertising.

³⁰ See Peter Leitzinger, *Podcasting continues revenue ascent, spurs broadcaster interest*, Kagan (Aug. 30, 2018) (Kagan Podcast Report) (identifying NPR as the top podcast publisher in the U.S. in terms of audience).

³¹ For example, in August, Cumulus stated that it was "shifting resources" to become a market leader in podcasting. Kagan Podcast Report at 1. Beasley Media Group announced its own podcast initiative in July. *Id.* Hubbard Radio has 150 existing podcasts, and the podcasts produced at its Minneapolis-St. Paul cluster now boast one million unique downloads per month. See Inside Radio, *Podcast Movement: Broadcasters Take Deeper Plunge Into Podcast Waters* (July 26, 2018). iHeart Radio is a leader among podcast publishers, with an estimated 639 podcasts generating 5.26 million unique monthly U.S. users. See Kagan Podcast Report.

In short, radio broadcasters are working every day to enhance the variety and attractiveness of their online offerings and reach audiences wherever they and their devices may be located. Stations must do so to remain responsive to consumers and competitive in a rapidly changing market.

B. Consumers, Especially Younger Ones, Now Access Audio Content from a Wide and Growing Range of Sources Via Multiple Devices

Despite the continuing reach of broadcast radio in the modern audio marketplace, that market is becoming increasingly fragmented. In contrast to the analog era when radio broadcasting and recordings were the only ways to deliver audio content, today many digital sources provide, and multiple devices deliver, both music and informational programming. Millions of consumers now enjoy audio content accessed via satellite or internet, and their numbers are growing.

1. Listeners by the Millions Have Embraced Audio Content Delivered Online and Via Satellite

Last year, Nielsen Music declared that streaming is “becoming a new norm.”³² The numbers bear that claim out. An Edison Research survey conducted in early 2018 found that 57 percent of those ages 12+ (or 160 million people) listen weekly to online audio, up from only two percent in 2000.³³ Weekly online listeners spend an average of 13 hours and 40 minutes per week listening to online audio, up from six hours and 13 minutes in 2008.³⁴ And online audio listeners tend to be younger, with 88 percent of those ages 12-24, and 73

³² *Music 360 2017 U.S. Report* at 13.

³³ *The Infinite Dial, Weekly Online Audio Listening*.

³⁴ *The Infinite Dial, Average Time “Weekly Online Audio Listeners” Spend Listening to Online Audio*. The use of online audio and owned digital music in the car also has grown, although their use is still well behind AM/FM radio. See *The Infinite Dial, Audio Sources Used in Car*.

percent of those ages 25-54, listening to online audio monthly.³⁵ Teens and Millennials in particular have embraced music streaming.³⁶

While many more consumers still stream for free, the number of those willing to pay for music and other audio content from on-demand streaming or satellite services has grown quickly. In 2003, fewer than 600,000 people subscribed to satellite radio; by mid-2018, SiriusXM had about 33.5 million subscribers.³⁷ Beyond offering 150+ satellite-delivered channels of audio programming in local markets across the U.S., SiriusXM continues to expand its marketplace presence through its availability in vehicles³⁸ and via its streaming service.³⁹ SiriusXM is set to become a much more formidable competitor among streaming services with its proposed merger with Pandora.

³⁵ *The Infinite Dial, Monthly Online Audio Listening*. Edison Research's online audio listening numbers cited above combine the listening to streamed audio content available only on the internet and listening to AM/FM radio stations online. Other sources confirm that most streaming time is spent listening to online-only sources. Last year, according to Nielsen, 36 percent of the total weekly time spent listening to all sources of music went to purely online streaming sources and only five percent of time went to streaming live broadcast radio; moreover, the time spent listening to internet-only music streaming services had risen from 27 percent in 2015, while the time spent listening to streaming broadcast radio remained at five percent. An additional 14 percent of total time spent listening in 2017 went to listeners' digital music libraries; 19 percent to OTA AM/FM radio; 11 percent to physical music; five percent to satellite radio and nine percent to still other sources. *Music 360 2017 U.S. Report* at 13. This report clearly shows the fragmentation of the music listening audience.

³⁶ See *Music 360 2017 U.S. Report* at 14 (finding that teens and Millennials, respectively, devote 57 and 54 percent of their total music listening time to streaming services, with over 90 percent of that streaming listening time going to online-only sources).

³⁷ News Release, *SiriusXM Reports Second Quarter 2018 Results* (July 25, 2018); 2002 *Biennial Regulatory Review*, Report and Order, 18 FCC Rcd 13620, 13667, 13715 (2003).

³⁸ SiriusXM comes standard or as a factory or dealer-installed option with every major automaker.

³⁹ According to its channel lineup effective August 16, 2018, SiriusXM's streaming service includes dozens more channels, in addition to the 150+ offered via satellite. See also Jeffrey Wilson, *The Best Online Music Streaming Services of 2018*, PCMag.com (Apr. 27, 2018) (discussing ten streaming services, including SiriusXM Internet Radio).

The total number of paid streaming music subscribers in the U.S. rose from 36.7 million in 2016 to 49.1 million last year, and has been projected to reach 90.1 million by 2025.⁴⁰ Due to these increases in both ad-supported and subscription-based streaming, there were an average of 1.06 billion on-demand music streams every day in the U.S. in 2017, a 50.3 percent increase from 2016.⁴¹ And the first half of 2018 saw a six-month record of 403.4 billion on-demand song streams, or over 2.2 billion streams per day.⁴²

With the advent and expansion of streaming and satellite services, the audio marketplace has become more competitive and more fragmented. Consumers may choose from among dozens of different online audio and video music streaming options.⁴³ These services have different price points and features, with many offering a free, ad-supported tier and one or more subscription tiers.⁴⁴ Currently, YouTube, Pandora and Spotify are the most frequently used services, with Nielsen calling YouTube the “go-to source for music.”⁴⁵ An estimated 129 million people (46 percent of those ages 12+) report using YouTube weekly to listen to music or watch music videos.⁴⁶

⁴⁰ DiMA-Digital Media Ass’n, Annual Music Report, *Streaming Forward: More Choices Better Value*, at 27 (Mar. 2018) (citing MIDiA Research) (*Streaming Forward Report*). Growing subscriber numbers led to a 63 percent increase in subscription streaming revenue from 2016 to 2017. *Id.* at 24. Advertising-supported streaming audio revenue grew by 17 percent in 2017. *Id.*

⁴¹ *Streaming Forward Report* at 10.

⁴² Nielsen Music, *Mid-Year Report U.S. 2018*, at 2, 5 (2018) (counting audio and video song streams).

⁴³ To name just a few: AccuRadio, Amazon Prime Music, Apple Music, Deezer, 8tracks, Google Play Music, iHeart Radio, Napster, NPR One, Pandora, Shazam, SiriusXM, Slacker, SoundCloud, Spotify, Tidal, TuneIn Radio and YouTube Music.

⁴⁴ See, e.g., Nicholas Deleon, *Best Music Streaming Services*, consumerreports.org (May 18, 2018); Jeffrey Wilson, *The Best Online Music Streaming Services of 2018*, PCMag.com (Apr. 27, 2018).

⁴⁵ *Music 360 2017 U.S. Report* at 43, 47.

⁴⁶ *The Infinite Dial, Weekly YouTube Usage*.

While radio broadcasters are among the myriad competitors for streaming audiences, the dominance of the pure-play streaming services has increased over time, due to their much faster growth rates. Pure-play streaming providers accounted for 79.8 percent of total streaming usage in January 2014, and their share rose to 89.1 percent by April 2018.⁴⁷

Although not attracting as many listeners as music streaming, the audience for podcasting continues to grow substantially. According to Edison Research, podcasting’s “share of ear” doubled from the first quarter of 2014 to the first quarter of 2018.⁴⁸ An estimated 48 million people ages 12+ listen to podcasts weekly and 73 million listen monthly.⁴⁹ Among monthly listeners, 26 percent report that they listen to podcasts “most often” in a car/truck, the second most cited location.⁵⁰ Podcast listeners, moreover, spend less time with other audio sources than consumers overall, and spend much more time than the average consumer using mobile devices for audio listening.⁵¹ And the choices for

⁴⁷ BIA analysis of data from Triton Digital Monthly Rankers, DAYPART 6:00 a.m. to 12:00 a.m., Monday-Sunday. During this four-year period, the monthly average active streaming sessions of the pure-play companies increased 217 percent and the pure-play providers’ monthly total listening levels increased nearly 142 percent, *id.*, far outpacing growth in AM/FM radio streaming. See *supra* Section II.A.

⁴⁸ Edison Research, *Share of Ear: Americans’ 13+ Share of Time Spent Listening to Podcasts Over Time*, included in Edison Research and Triton Digital, *The Podcast Consumer, 2018 (2018) (The Podcast Consumer)*.

⁴⁹ *The Podcast Consumer, Weekly Podcast Listening and Monthly Podcast Listening*.

⁵⁰ Forty-eight percent reported listening to podcasts most often at home. *The Podcast Consumer, Where are Podcasts Most Often Listened to?*

⁵¹ Specifically, podcast listeners (defined here as those who reported listening to a podcast in the past 24 hours) spend 33 percent of their daily listening time on podcasts, with lesser amounts to other audio sources, including AM/FM radio (accounting for 25 percent of podcast listeners’ daily listening time). Podcast listeners also report that 44 percent of their listening is via mobile devices, with 20 percent of their listening on AM/FM radios. Edison Research, *Share of Ear: Podcast Listeners’ Share of Time Spent Listening to Audio Sources and Podcast Listeners’ 13+ Audio Listening by Device*, included in *The Podcast Consumer*.

listeners have grown exponentially, with more than 550,000 podcast shows now available, with millions of total episodes.⁵²

Without doubt, the market for the delivery of audio content, both music and information, has been transformed by the rapid growth of digital services. The expansion of the number of online audio services has clearly benefited consumers, who now enjoy unprecedented choices of platforms and programming. It also has resulted in a vastly more competitive audio marketplace.

2. Listeners Now Use Multiple Devices to Access Audio Programming and their Choice of Device Affects their Choice of Content

To put it simply, devices matter. Consumers' choice of device influences the source of content they listen to, and consumers' use of multiple devices today reflects their desires to access a range of audio (and video) programming.

Rather than listening to audio content via only AM/FM radio and CDs/turtables/tape players as in decades past, the average consumer now uses "3.4 devices weekly to engage with music"; those subscribing to streaming music services "use an average of 4.7, while weekly AM/FM streamers use 5.5 on average."⁵³ According to Nielsen, "devices and music go hand-in-hand."⁵⁴ Consumers also routinely access news and information via multiple devices.⁵⁵ In the first quarter of 2018, Nielsen estimated that adults

⁵² *2018 Podcast Stats & Facts*, Podcast Insights (June 13, 2018).

⁵³ Nielsen Music, *U.S. Music 360 2017 Report Highlights*, at 7 (Sept. 2017) (*Music 360 Highlights*).

⁵⁴ *Music 360 2017 U.S. Report* at 21.

⁵⁵ See, e.g., Sophia Fedeli and Katerina Eva Matsa, *Use of mobile devices for news continues to grow, outpacing desktops and laptops*, Pew Research Center (July 17, 2018) (almost six-in-ten U.S. adults now often get news via a mobile device); Jeffrey Gottfried and Elisa Shearer, *Americans' online news use is closing in on TV news use*, Pew Research Center (Sept. 7, 2017) (reporting that 43 percent of Americans "often" obtain news online and that 50 percent "often" get news on TV).

18+ spent an average of three hours and 48 minutes per day with digital media via smartphones, tablets and computers and an average of one hour and 46 minutes with radio. Adults under age 50 spent even greater amounts of time per day on smartphones, tablets and computers, and those under 35 spent substantially less time using traditional platforms (both TV and radio).⁵⁶

These device usage numbers reflect changing technology ownership. By early 2018, 83 percent of those ages 12+, or 233 million people, owned smartphones, and 50 percent, or 141 million people, owned tablets.⁵⁷ Device ownership is higher still among younger demographic groups, with 92 percent of Millennials (those born 1981-96) owning smartphones, and 64 percent of Gen Xers (those born 1965-80) owning tablets.⁵⁸ Fully 95 percent of teens (those ages 13-17) now report having a smartphone or access to one, and 89 percent of teens report using the internet at least several times a day, with 45 percent saying they are online “almost constantly.”⁵⁹

Unsurprisingly, these changes in “technology [are] changing listening habits.”⁶⁰ As ownership of smartphones has grown, for example, podcast listening has grown.⁶¹ Indeed, Nielsen recently declared that “smartphones drive podcast usage.”⁶² More generally, Edison

⁵⁶ Nielsen *Total Audience Report* at 4, 7.

⁵⁷ *The Infinite Dial, Smartphone Ownership and Tablet Ownership*.

⁵⁸ Jingjing Jiang, *Millennials stand out for their technology use, but older generations also embrace digital life*, Pew Research Center (May 2, 2018).

⁵⁹ Monica Anderson and Jingjing Jiang, *Teens, Social Media & Technology 2018*, Pew Research Center (May 31, 2018).

⁶⁰ *Music 360 Highlights* at 7.

⁶¹ Most consumers now use smartphones to listen to podcasts, rather than computers. *The Podcast Consumer, Device Monthly Podcast Consumers Use Most Often to Listen to Podcasts*.

⁶² Nielsen, *Audio Today 2018: How America Listens*, at 9 (Apr. 2018).

Research reports that, among consumers ages 13+ who listen to audio on a smartphone, most of their time is spent listening to either streaming audio (39 percent of their time) or owned music (33 percent), with podcasting in third place (11 percent).⁶³ The steady improvement in wireless headphones is also cited as another technological development increasing the popularity of streaming services.⁶⁴ And the 18 percent of Americans reporting smart speaker ownership in early 2018 (up from only seven percent in 2017) said that they listen to audio most often through their smart speakers and smartphones/tablets; in turn, that affects their audio consumption, including through some replacement of time spent with other devices and content sources.⁶⁵ One should expect that technology will continue to change the sources of audio content consumers access, and the Commission's upcoming report should address the dynamic nature of the audio marketplace.

C. Advertisers Today Increasingly Utilize Online and Mobile Outlets to Reach Consumers

As providers' and consumers' choices for delivering and accessing audio (and video) content have proliferated, so too have advertisers' options for reaching consumers. BIA's analysis of the local advertising marketplace, for example, includes estimates of the shares

⁶³ Edison Research, *Share of Ear: Americans' 13+ Share of Time Spent Listening to Audio Sources on a Smartphone*, included in *The Podcast Consumer*.

⁶⁴ See N. Deleon, *Best Music Streaming Services*, consumerreports.org (May 18, 2018).

⁶⁵ *The Infinite Dial, Smart Speaker Ownership*; Edison Research and NPR, *The Smart Audio Report, How do you listen to audio most often?* (2018) (*Smart Audio Report*). Many smart speaker owners report some substitution, with time spent using their smart speakers replacing time spent with other devices and sources, including but not limited to AM/FM radio. *Smart Audio Report, Is the time you spend using your smart speaker replacing any time you used to spend with . . .?* Owners most frequently request their smart speakers to play music, and among users of online audio brands, ownership of smart speakers increases usage of Amazon Music in particular. *The Infinite Dial, Audio Brand Used Most Often; Smart Audio Report, In the past week, have you requested your smart speaker to . . .?* The growth of smart speakers also may be a "potential boost" to podcasting. Inside Radio, *Podcast Movement: Broadcasters Take Deeper Plunge into Podcast Waters* (July 26, 2018).

of total ad market revenues for 16 different local advertising platforms.⁶⁶ The digital revolution has disrupted both the local and national advertising markets, as advertisers increasingly spend their dollars with online and mobile outlets rather than with traditional media outlets.⁶⁷ These shifts in the advertising marketplace are well documented.

As shown in Attachment A, BIA estimates that the share of local advertising revenues earned by online and mobile media rose from 7.6 percent in 2008 to 32.8 percent this year and will reach 41.9 percent in 2022. Mobile specifically is the fastest growing sector in local advertising due to its “ability to capture audiences of all ages based precisely on where they are and what they are doing, at any given moment.”⁶⁸ Looking at the local and national ad markets as a whole, Kagan estimates that the digital (online plus mobile) sector received 31.8 percent of total advertising dollars in 2017 and projects that digital’s share will rise to 44.9 percent of the total by 2027.⁶⁹

⁶⁶ These 16 platforms include: Newspapers Print, Newspapers Online, Direct Mail, TV Over-the-air, TV Online, Radio Over-the-air, Radio Online, Print Yellow Pages, Internet Yellow Pages, Out-of-home, Cable, Magazines Print, Magazines Online, Online/Interactive, Email and Mobile.

⁶⁷ Kagan described 2017 as another year of disruption in the ad market, as dollars continued to move from traditional media to online and mobile. Derek Baine, *Economics of Advertising: Digital to comprise 45% of \$283B ad market by 2027, up from 32% in 2017*, Kagan (Jan. 24, 2018). See also, e.g., Jose Villa, *Has Marketing Gone Too Digital?*, MarketingDaily (Mar. 22, 2018) (discussing the “massive shift” over the past decade in resources toward digital marketing and away from “traditional” media like TV, print and radio); Vici Media, *Radio and Digital Advertising by the Numbers* (Feb. 16, 2018) (reporting that, among existing radio advertisers, 70 percent said they were increasing their digital budgets and only 17 percent said they were increasing their radio budgets, citing a report by Borrell Associates).

⁶⁸ BIA Advisory Services, Press Release, *BIA/Kelsey Sees Significant Growth in Local Mobile Ad Spending in 2018 and Beyond, as Advertisers Embrace Location-Targeted, Social and Web Platforms* (Feb. 1, 2018).

⁶⁹ Derek Baine, *Economics of Advertising: Digital to comprise 45% of \$283B ad market by 2027, up from 32% in 2017*, Kagan (Jan. 24, 2018). Kagan estimates that digital media’s share of advertising revenues is even higher when considering local advertising only.

A recent comprehensive survey of small and medium-sized businesses demonstrates the breadth of today's advertising marketplace and advertisers' general shift toward online platforms.⁷⁰ While these businesses reported using a wide range of advertising platforms – from digital to direct mail to broadcast and print – the four most frequently utilized platforms were Facebook pages, websites, email and internet yellow pages, with notably fewer businesses using traditional media outlets, including newspapers, radio and TV (both broadcast and cable).⁷¹ Further technological developments, such as the consumer adoption of smart speakers, will continue to expand the array of options available to advertisers.⁷²

Several familiar companies have capitalized on the digital disruption of the advertising market. Google alone earns close to 40 percent of all local digital ad revenues across all markets in the U.S., and Facebook and Google combined account for nearly 48 percent of all local digital advertising.⁷³ As mobile ad revenue grows, social media outlets are expected to benefit, with Facebook expected to receive the “lion's share” of these ad

⁷⁰ See Attachment B (showing data from BIA's 2017 Local Commerce Monitor report).

⁷¹ See Attachment B (showing the top 13 advertising platforms used by small and medium-sized businesses). Of all these platforms, only Facebook pages and websites were used by more than 40 percent of the surveyed businesses. *Accord* Attachment A (demonstrating the increasing share of online/mobile, and decreasing share of traditional media, in local ad markets).

⁷² Edison Research has advised that brands and advertisers need to quickly develop an audio strategy to account for the rapid adoption of smart speakers. *The Infinite Dial, Observations*.

⁷³ BIA Advisory Services, Press Release, *Google to Dominate Local Digital Advertising in 2018* (May 7, 2018). Google's local ad revenues now exceed the total ad revenues generated by all commercial radio stations in the U.S. and rivals the amount generated by all full-power commercial TV stations. *Id.*

dollars, followed by Twitter, Snap, LinkedIn and other popular apps.⁷⁴ Audio streaming companies are also increasingly competitive in selling advertising, including targeted advertising. The advertising revenues of Pandora and Spotify have grown rapidly, with Pandora's ad revenues surpassing a billion dollars for the first time in 2017, while they also earn revenues from their subscription services.⁷⁵

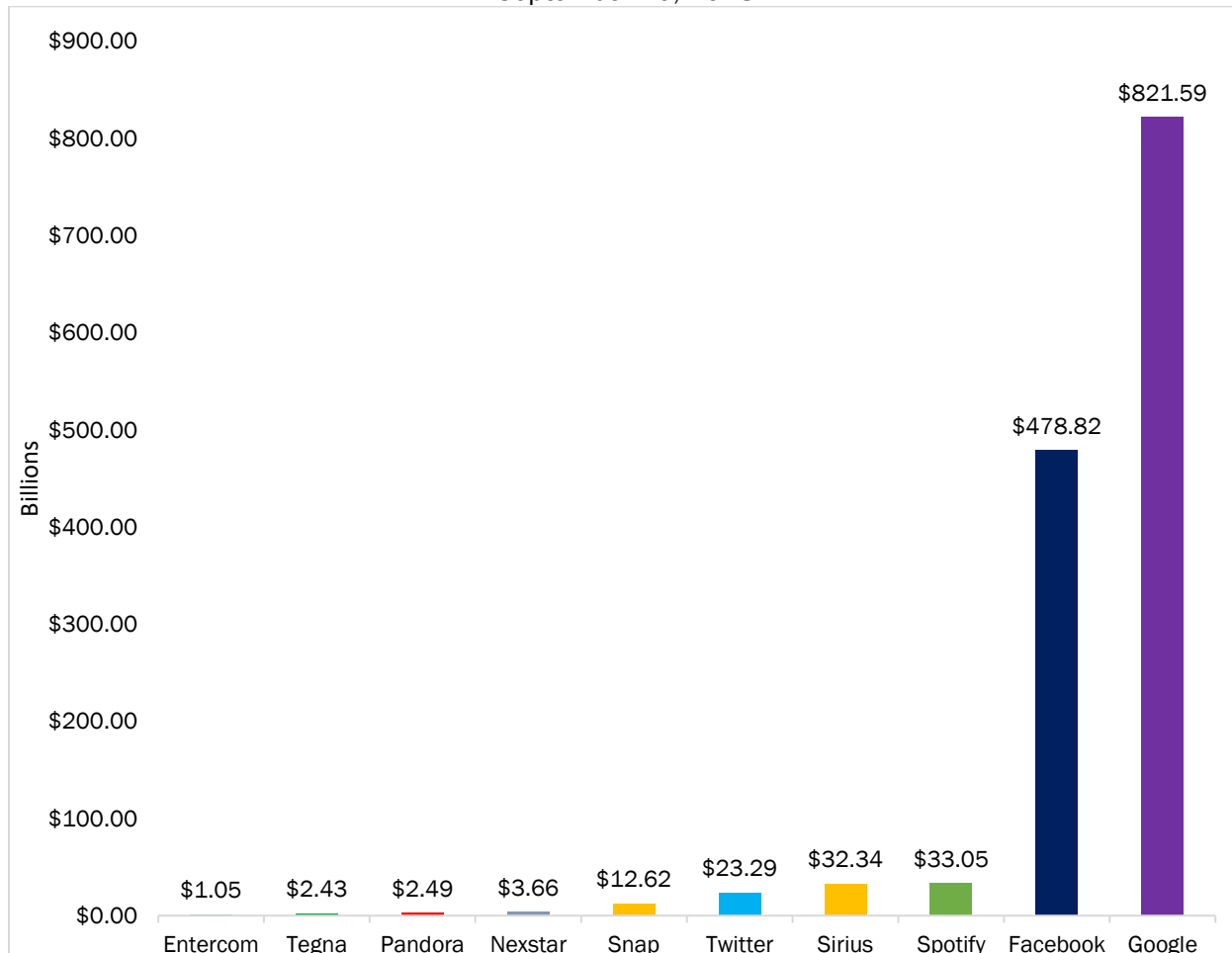
As shown here, the market capitalizations of Facebook and Google – as well as Spotify and SiriusXM (even before its proposed merger with Pandora) – dwarf the market caps of many traditional media companies, including the highest-valued broadcast radio company and large TV station groups.

⁷⁴ BIA Advisory Services, Press Release, *BIA/Kelsey Sees Significant Growth in Local Mobile Ad Spending in 2018 and Beyond, as Advertisers Embrace Location-Targeted, Social and Web Platforms* (Feb. 1, 2018).

⁷⁵ See Attachment C. Pandora employs local sales staff in more than 30 markets targeting the same advertisers as other local media, including radio stations. While earning fewer ad dollars, Spotify has experienced a considerably higher growth rate than Pandora for the past several years.

Market Cap Comparison

September 10, 2018



Source: Yahoo Finance

Clearly, the advent and widespread adoption of digital technologies have significantly increased competition for limited advertising dollars, caused a shift in ad dollars toward online and mobile outlets and resulted in the creation of digital giants against whom all traditional media now must compete.

III. RADIO STATIONS TODAY OPERATE IN A FUNDAMENTALLY ALTERED COMPETITIVE LANDSCAPE

Beyond addressing how digital technologies have vastly expanded the number of audio content providers, the choices available to consumers and the options for advertisers, the FCC's Communications Marketplace Report also must analyze how those broad

marketplace changes have necessarily impacted the competitive position of terrestrial radio broadcasters. AM and FM stations do not exist in a vacuum but, rather, have been significantly affected by the altered audio delivery and advertising markets.

A. Local Stations Face Real and Growing Challenges in Attracting Audiences in a Crowded Audio Landscape

In light of all the audio options now available to listeners via multiple devices at home and on-the-go, local radio stations, unsurprisingly, do not dominate the delivery of audio content as they did in the analog past. Indeed, digital audio services are targeting linear radio listeners to divert them from terrestrial stations. As the Digital Media Association declared earlier this year:

Given the size of the U.S. terrestrial radio market, a huge opportunity lies in converting the vast base of advertising-supported broadcast radio listeners into advertising-supported (or subscription) streaming listeners. The opportunity is there for the taking.⁷⁶

While today AM and FM radio still account for 50 percent of daily time spent listening to audio sources for those ages 13+,⁷⁷ well ahead of any other single audio platform, total time spent listening to AM/FM radio on a weekly basis has been heading downward. As shown in Attachment D, from the second quarter of 2014 to the second quarter of 2017,⁷⁸ the average weekly radio listening levels of adults ages 18+ decreased by two percent. Although weekly radio listening rose modestly among adults ages 50-64 and 65+ during this period, listening among adults under age 50, and particularly those under age 35, fell by

⁷⁶ *Streaming Forward Report* at 25.

⁷⁷ See Edison Research, *Share of Ear: Americans' 13+ Share of Time Spent Listening to Audio Sources*, included in *The Podcast Consumer*. This AM/FM listening time figure includes OTA and radio streams.

⁷⁸ Nielsen's Total Audience Report for the second quarter of 2018 is not yet available.

greater amounts from an already lower level of listening.⁷⁹ Teens ages 12-17 spend much less total time than adults listening to AM/FM radio and their listening also fell from 2014-2017.⁸⁰ Consumers under age 35 also are considerably less likely than older ones to own radios in their homes.⁸¹ These listening trends in a fragmented audio delivery market place pressure on radio stations' advertising revenues, as have broader trends in the overall U.S. ad market, as described below.

B. Radio Stations Face Growing Pressures on their Advertising Revenues

According to Kagan, the U.S. advertising marketplace as a whole still has not equaled its pre-Great Recession level of 2006.⁸² This decline in the overall advertising market hurts ad-dependent media like radio, which does not rely on subscribers or paywalls. Radio stations today compete for a smaller overall pot of advertising dollars than they did over a decade ago against a larger number of outlets, especially online and mobile outlets that receive a steadily increasing share of local (and national) ad revenues at the expense of other media.⁸³ This combination has placed downward pressure on radio stations' advertising revenues.⁸⁴

⁷⁹ See Attachment D.

⁸⁰ See Attachment D.

⁸¹ Edison Research has observed that AM/FM radio faces a "home hardware challenge, particularly among 18-34 year-olds." *The Infinite Dial, Observations*. See also *The Infinite Dial, Number of Radios Owned in Home* (showing declines from 2008-2018 in the average number of radios owned in homes and increases in the number of homes without radios).

⁸² The domestic ad market reached 254.9 billion dollars in 2006 and totaled 241.1 billion dollars in 2017. Derek Baine, *Economics of Advertising: Digital to comprise 45% of \$283B ad market by 2027, up from 32% in 2017*, Kagan (Jan. 24, 2018).

⁸³ See Attachment A (showing shares of various media in local ad markets).

⁸⁴ See *id.* Moreover, even before the advent of digital competitors in the ad market, the FCC had recognized that other media outlets were "directly competitive" with radio stations. *Revision of Radio Rules and Policies*, Report and Order, 7 FCC Rcd 2755, 2759 (1992) (finding that, in particular, "local cable systems are increasingly aggressive in competing for local advertising dollars, and radio is often the direct target for that competition"). See also,

Beyond these broader market trends, radio stations face unique challenges in competing for ad dollars from certain industry segments, including auto dealers and pharmaceutical companies, given the numerous, detailed disclosures that federal regulations require in their advertising. Because radio is an entirely audible medium, radio advertising is uniquely affected by disclosure requirements. Unlike digital or print ads, which can show disclosures in print while other visual elements continue to promote the product, any time spent in a radio ad reading required disclosures comes directly at the expense of the quality and content of the advertisement. Although well-intentioned, these disclosure requirements are generally ineffective because consumers often tune them out and do not retain the information. They also make radio less competitive for auto dealer and drug manufacturer advertising because so much of each radio ad must be devoted to mandated disclosures, rather than promotional messaging. NAB has been urging federal agencies that promulgate disclosure requirements to re-evaluate them and consider more effective ways for advertisers to share detailed information with consumers, such as referring consumers to websites with additional information.⁸⁵

e.g., 1998 Biennial Regulatory Review, Notice of Inquiry, 13 FCC Rcd 11276, 11277-78 (1998) (identifying broadcast TV, cable TV, radio and newspapers as competitors in local ad markets). The growth of digital outlets has not made these traditional competitors to radio stations disappear.

⁸⁵ See, *e.g.*, Comments of NAB before the Consumer Financial Protection Bureau, Docket No. CFPB-2018-0012 – Request for Information Regarding the Bureau’s Inherited Regulations and Inherited Rulemaking Authorities (June 7, 2018); Comments of NAB before the Federal Reserve Board, Consumer Leasing (Regulation M) – Docket No. R-1591; RIN 7100 AE-92 (March 5, 2018); Comments of NAB before the Food and Drug Administration, Content of Risk Information in the Major Statement in Prescription Drug Direct-to-Consumer Broadcast Advertisements, Docket No. FDA-2017-N-2936 (Nov. 21, 2017).

C. Small Market Radio Stations and AM Stations Particularly Struggle to Attract Advertising and Earn Adequate Revenues

While the transformation of the advertising market since the mid-2000s has put downward pressure on the radio industry's revenues as a whole, small market broadcasters have felt the revenue squeeze most severely, given the more limited advertising revenues available in smaller markets. As BIA observes, approximately 75-80 percent of total OTA radio ad revenue is attributable to local businesses (with these percentages likely lower in large markets but even higher in some small markets).⁸⁶ Many radio stations' local advertisers, moreover, are smaller businesses with limited resources to pay for advertising. It is therefore unsurprising that radio stations serving sparsely populated rural areas with relatively few local businesses, or smaller economically struggling communities lacking a strong local business base, are themselves struggling to attract advertising and earn adequate revenues.

Station revenue data reveal the serious challenges facing small market radio broadcasters. According to data from BIA as shown in Attachment E, the average station in the smallest Nielsen radio markets (201-268) last year earned only 7.2 percent of the amount of revenue earned by the average radio station in the top-10 markets. Similarly, the average station in markets 76-100, 101-150 and 151-200 earned only 12.6, 12.0 and 10.4 percent, respectively, of the average top-10 station.⁸⁷

⁸⁶ BIA Advisory Services, *Market Assessment and Opportunities for Local Radio: 2018-2022*, at 18 (Apr. 2018).

⁸⁷ See Attachment E. Notably, the average station in all market ranges 76-268 earned well under \$1 million in revenues in 2017. *Id.* See *Revision of Radio Rules and Policies*, 7 FCC Rcd at 2760 (finding that in 1992, "more than half of all [radio] stations, primarily those with less than \$1 million in sales, lost money").

The significantly lower ad revenues received by small market radio stations can threaten their financial viability and necessarily reduces their ability to improve services to their local communities.⁸⁸ Given the importance of OTA radio service in rural areas and small communities often lacking other media outlets, including locally-licensed TV stations, NAB and the radio industry are particularly concerned about the continuing competitive viability of small market radio stations.⁸⁹

Many AM stations also are experiencing significant financial hardships in today's competitive audio market. The Commission previously has recognized the "daunting technical and competitive challenges" facing AM broadcasters and the "decline in AM listenership."⁹⁰ In addition, local AM radio stations' share of total radio OTA revenue is disproportionately small. In 2010, AM stations collectively accounted for 14.5 percent of local radio OTA advertising revenue in the average radio market; by 2017, AM stations' revenue share had fallen to just 13.0 percent in the average market.⁹¹ While some AM stations remain market leaders, these are relatively few in number. In 2017, only 22 of the top-100 earning stations across the country were AM.⁹² In the current audio marketplace,

⁸⁸ For example, RTDNA's most recent broadcast news surveys found that large market radio stations air greater amounts of news than small market stations; that stations with larger staffs air more news; and that radio stations in the largest markets are more likely to offer web-only content and use social media and apps in their newsrooms. See Radio Television Digital News Association (RTDNA), *2018 Local News by the Numbers* (June 13, 2018); RTDNA, *2018 Newsroom Digital Media & Technology Report* (July 11, 2018).

⁸⁹ For example, during the massive wildfires in Northern California wine country last year, residents in an area of Napa depended on two radio stations for emergency information and briefings by public officials. As the general manager of the stations said, "[w]e don't have local TV stations and we are the only two local radio stations so we are on our own." Inside Radio, *California Wildfires Leave One Familiar Lifeline: Radio* (Oct. 11, 2017).

⁹⁰ *Revitalization of the AM Radio Service*, Notice of Proposed Rulemaking, 28 FCC Rcd 15221, 15223, 15228 (2013).

⁹¹ See Media Access Pro, BIA, 2018.

⁹² See Media Access Pro, BIA, 2018.

AM stations generally, like many small market radio stations regardless of service, have struggled to attract sufficient advertising revenue to ensure financial health and to support enhanced services to local audiences. As the FCC has correctly observed, radio’s “ability to function in the ‘public interest, convenience and necessity’ is fundamentally premised on its economic viability.”⁹³

IV. CONCLUSION

Comparing the legislative history of the 1996 Telecommunications Act with the 2018 legislation requiring a biennial FCC report on the communications marketplace illustrates the remarkable transformation of the audio market in just over two decades. While the House Commerce Committee report to the 1996 Act discussed “broadcast communications competitiveness” and “significant changes” in the audio marketplace, it identified only one change in that market – the large increase in the number of terrestrial radio stations over time.⁹⁴ In marked contrast, the 2018 legislation identified multiple types of competitors including broadcast stations, satellite providers and providers of content and communications using the internet.⁹⁵ For the reasons discussed in these comments, the FCC’s upcoming Communications Marketplace Report, and its overall regulatory policies

⁹³ *Revision of Radio Rules and Policies*, 7 FCC Rcd at 2760.

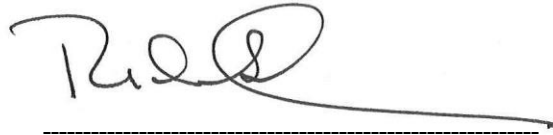
⁹⁴ H.R. Rep. No. 104-204, at 54 (1995), as reprinted in 1996 U.S.C.C.A.N. 10, 18.

⁹⁵ 47 U.S.C. §§ 163(b)(1) & (d)(1) (also specifically referring to “intermodal” competition).

toward broadcast radio, must fully reflect this proliferation of audio content providers and their real-world impact on AM and FM radio stations.

Respectfully submitted,

**NATIONAL ASSOCIATION OF
BROADCASTERS**
1771 N Street, NW
Washington, DC 20036
(202) 429-5430

A handwritten signature in black ink, appearing to read "Rick Kaplan", with a long horizontal line extending to the right from the end of the signature.

Rick Kaplan
Jerianne Timmerman

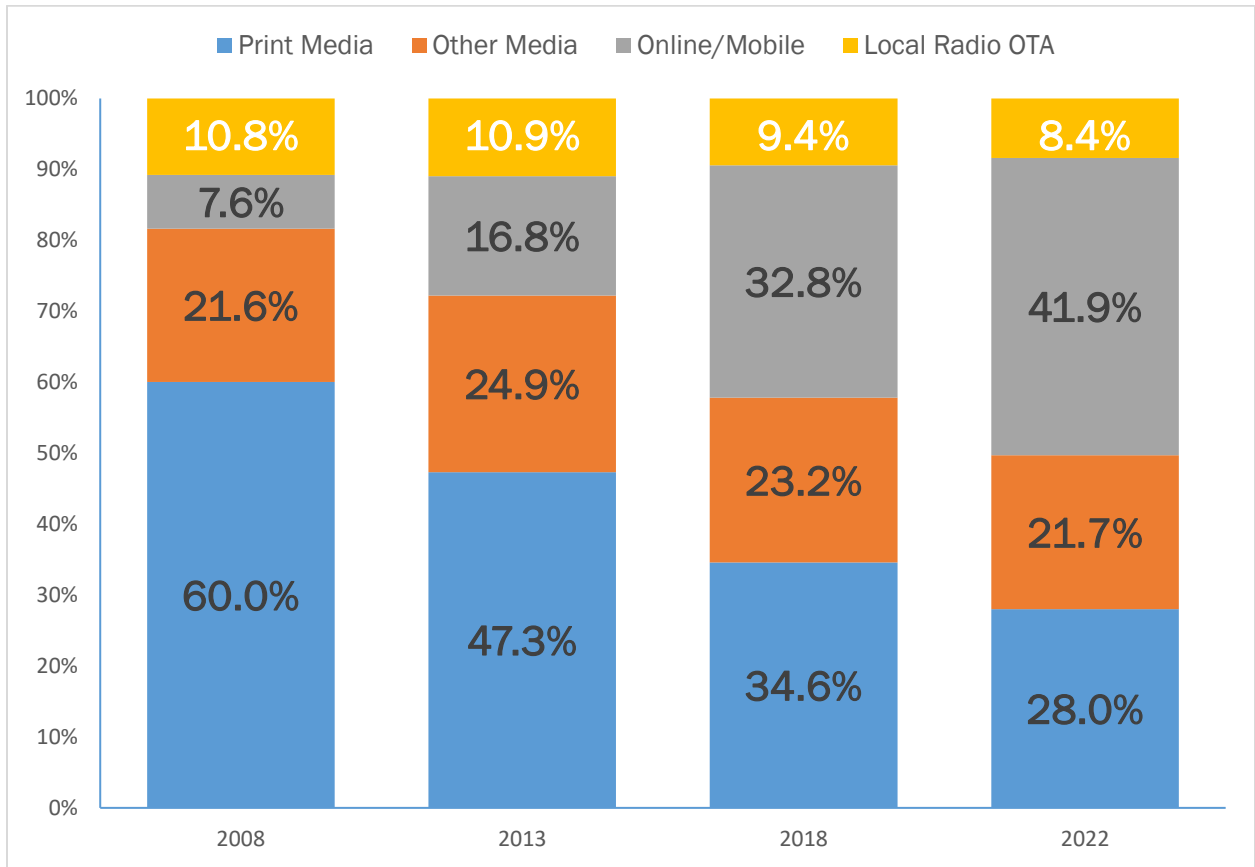
Dan McDonald
Theresa Ottina
Alexandra Falcon
NAB Research

September 24, 2018

ATTACHMENTS

ATTACHMENT A

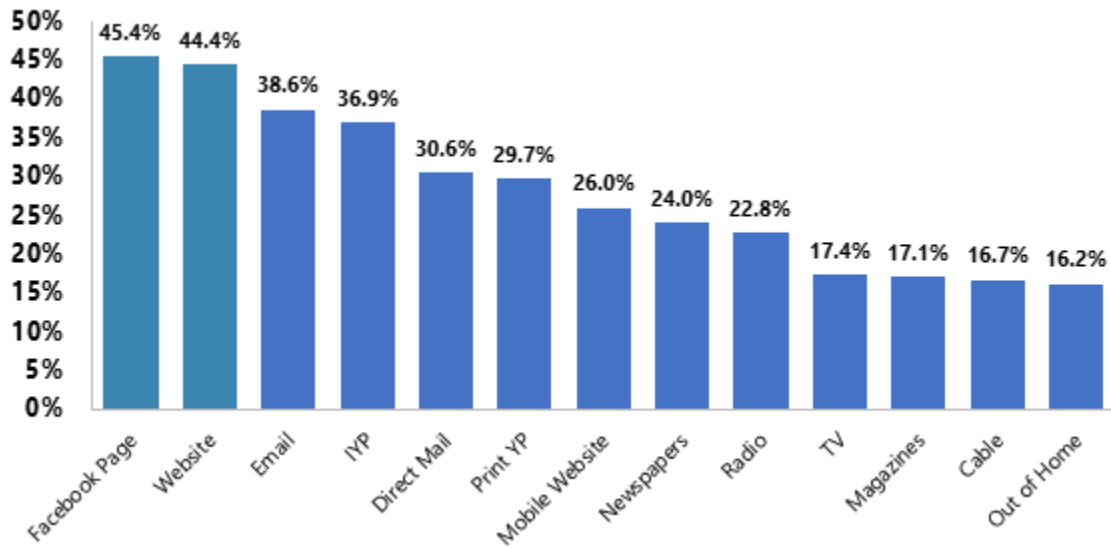
Local Advertising Market Shares of Radio and Other Media: 2008-2022



Source: BIA ADVantage, 2018

ATTACHMENT B

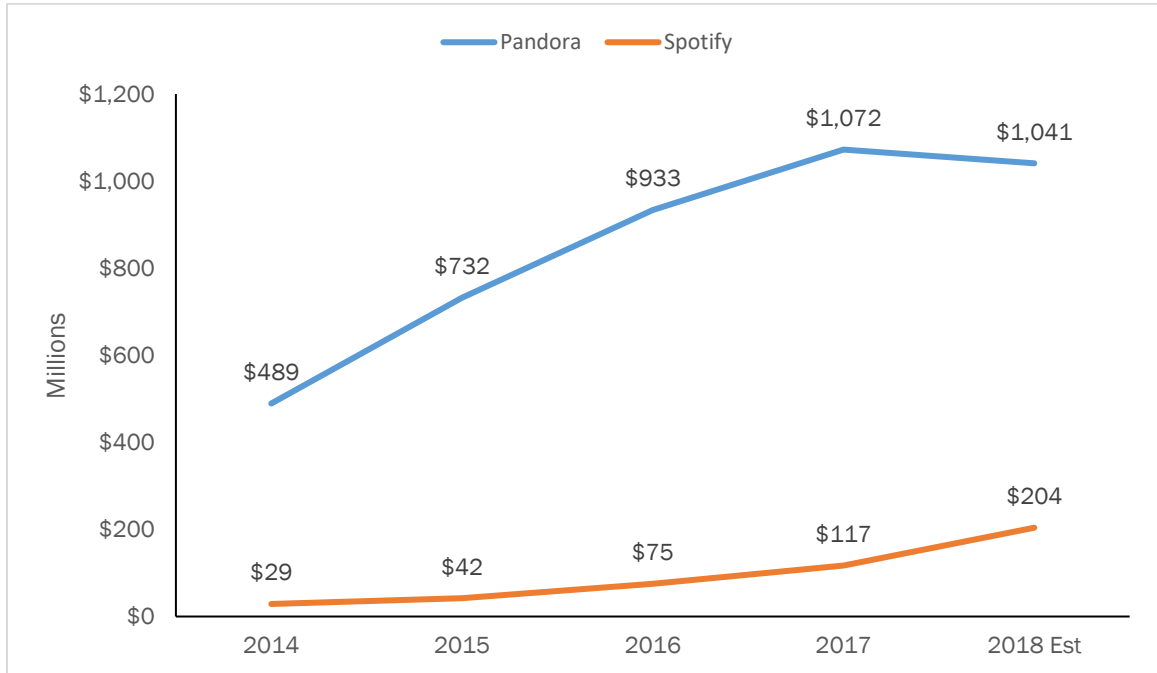
Advertising Platforms Used by Small and Medium-Sized Businesses



Source: Local Commerce Monitor, Wave 21, BIA/Kelsey, 2017

ATTACHMENT C

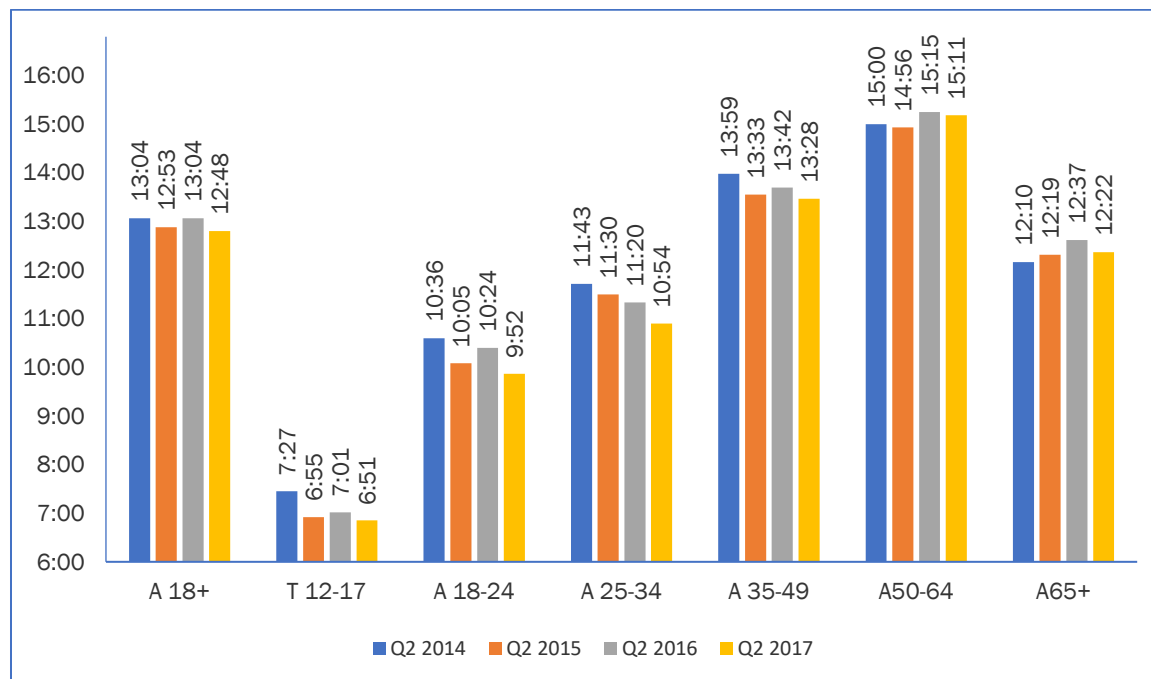
Advertising Revenue for Audio Streaming Companies



Source: BIA Estimates from Company Filings

ATTACHMENT D

Weekly Time Spent Listening to AM/FM Radio (Hours: Minutes)



Source: The Nielsen Total Audience Report, 2nd Qtr.

ATTACHMENT E

Radio Station Revenues by Market Rank

	Markets 1-10	Markets 11-25	Markets 26-50	Markets 51-75	Markets 76-100	Markets 101- 150	Markets 151- 200	Markets 201- 268
Number of Commercial Stations	612	720	846	767	652	995	882	977
Average Rev. per Station (000s)	\$5,784	\$2,646	\$1,951	\$1,198	\$730	\$696	\$603	\$416

Source: BIA Media Access Pro