music feeds from satellites throughout the continental United States."[235] In addition, there are a number of aftermarket solutions already available that allow consumers to integrate music streamed over a phone to a car's stereo system,[236] and OEMs are working to integrate this technology into cars in the near future.[237]

Opponents claim that Internet radio should not be viewed as a competitor to satellite radio because broadband access is unavailable in cars.[238] Again, commenters overlook the range of innovative services that are available today, as well as those that are just around the corner. As Dr. Furchtgott-Roth observed, "[m]obile internet services are increasingly available directly in cars. Businesses such as Unwired Vehicles, KVH, and Autonet Mobile are marketing mobile internet services for automobiles based on EVDO and Wi-Fi technologies."[239] And "[f]aster broadband connections to the car should be available within the next year from businesses such

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235 *See* Slacker, *Slacker Introduces Personalized Radio Everywhere.*

236 *See, e.g.*, Chris Davies, *Parrot's Latest Plug'n'Drive Bluetooth Kit Streams Music Wirelessly*, SLASHGEAR.COM, May 29, 2007, http://www.slashgear.com/parrots-latest-plugndrive-bluetooth-kit-streams-music-wirelessly-295492.php (last visited July 18, 2007); http:///www.automative.com/features/90/auto-news/24244/index.html.

237 *See, e.g.*, Press Release, Parrot, *Parrot and Ford Team Up to Launch New Ford Bluetooth® Music Technology* (Feb. 27, 2007), http://www.parrot.biz/it/stampa/comunicati/070226_parrotford_en_def_italy.pdf (last visited July 18, 2007); Ford Motor Company, Keeping You In Sync, http://www.ford.com/en/innovation/technology/drivingImprovement/keepingYouInSync.htm (last visited July 18, 2007); Kevin Massey, *Ford and Microsoft In Sync for In-Car Infotainment*, CNET.COM, Jan. 7, 2007, http://reviews.cnet.com/8301-12760_7-9672096-5.html (last visited July 22, 2007).

238 *See, e.g.*, Common Cause at 35 (Internet radio has "yet to solve the problem of getting into automobiles, which is the primary market for satellite radio"); NAB at 17, n.54 (quoting Balto Testimony at 3).

239 Furchtgott-Roth at 18 (footnotes omitted). Several wireless carriers have deployed and are in the process of deploying EVDO networks.

as Aeris."[240]

Several broadcasters argue that the merger will harm both their industry and consumers because the combined company would become more attractive to advertisers.[241] As CRA explains, given that it will have a larger audience, the merged firm likely will become more valuable to advertisers.[242] However, any increased advertising revenue resulting from this increased appeal would be a *pro-competitive*, rather than an anti-competitive, outcome of the merger. Specifically, if the merged firm garners more advertising earnings, then it will have a greater ability and incentive to reduce subscriber prices.[243] In this regard, the merger clearly would enhance, not decrease, consumer welfare.

A related claim—that the merged firm necessarily will increase the *amount* of time devoted to advertising on its channels—is entirely unsupported.[244] In fact, the parties that raise

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240 *Id.* at 18-19 (footnotes omitted).

241 *See* Entravision Holdings at 15; 46 Broadcasters at 5-7; Sidak July 9 Supp. Decl. at 34 (¶ 51).

242 CRA Competitive Effects Analysis at 67 (¶ 131).

243 *Id.*

244 Indeed, one commenter goes so far as to suggest that "the proposed merger would rapidly bring an end to the current commercial-free format of nearly all satellite radio channels." 46 Broadcasters at ii; *see also* Sidak July 9 Supp. Decl. at 28. In making this claim, parties point to a quote from Mel Karmazin during a conference call to discuss the merger, *see, e.g.*, Sidak July 9 Supp. Decl. at 28 (¶ 42) (quoting *Final Transcript: SIRI-SIRIUS Satellite Radio & XM Satellite Radio to Combine in Merger of Equals*, THOMSON STREETEVENTS, Feb. 20, 2007, http://online.wsj.com/documents/transcript-xmsr-20070220.pdf) ("*WSJ Interview*")), but nothing in that quote even remotely suggests that the merged entity would increase advertising time. Mr. Karmazin simply observes that the merged entity "will be significantly more attractive to large national advertisers." As with the last time the broadcasters raised this argument, there is no evidence that the combined company could or would compete with broadcasters for local advertising revenue. *See Satellite Radio Authorization Order* at 5765 (¶ 23) ("Local advertising revenue is much more important than national advertising revenue for terrestrial radio's viability and prevalence, and, at this time, we have no evidence that satellite [radio] would be able to

this concern fail to understand the logical conclusion of their arguments. For example, in positing that "it is reasonable to conclude that any increase in advertising time [on satellite radio] would generate significant welfare losses," Mr. Sidak utterly ignores the connection between advertising revenue and subscriber revenue.[245] In fact, the model Mr. Sidak constructs to bolster this claim shows that an increase by five minutes per hour of advertising would cause *a 33% decline in satellite radio subscribers*.[246] Thus, any significant rise in advertising time would cause an enormous loss in revenue—an obvious indication that the combined company will not go this route.

B. Audio Entertainment Is Not Characterized by "One-Way" Competition in Local Markets.

Several merger opponents argue that the market is characterized by "one-way" competition—that although satellite radio competes with terrestrial broadcasters, terrestrial broadcasters do not compete with satellite radio.[247] Their theory appears to be that Sirius and XM belong in their own market because they provide the same content nationwide, whereas terrestrial broadcasters are fundamentally different because they can only reach a local audience. Thus, as Mr. Rehr articulated the argument, terrestrial broadcasters "compete with a nationwide multi-channel audio programming company. . . . However, . . . [broadcasters] do not compete on

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compete for local advertising revenue."). In fact, in the interview cited to prove otherwise, Mr. Karmazin specifically stated that "we're not into the local advertising market." *WSJ Interview* at 12.

245 Sidak July 9 Supp. Decl. at 28-29.

246 *See* CRA Competitive Effects Analysis at 75-76 (¶ 151).

247 *See, e.g.*, NAB at 15; Common Cause at 29.

a nationwide basis. So it's a little complicated, but it's really one-directional competition."[248] On one element, Mr. Rehr is correct. This argument is "complicated" because it is just plain wrong.

This "one-directional competition" claim is no different from arguing that although Starbucks competes with corner coffee shops, these local businesses do not compete with Starbucks because of its nationwide presence. That makes no economic sense—competition manifests itself in each locality, and that process is repeated nationwide.[249] The product is the same—coffee—and if Starbucks charges too much, consumers can always buy coffee around the corner.[250] In the same vein, and as the NAB recognized in 1995, "[t]he primary audiences of local radio and satellite radio are the same: home/office/auto. They will compete directly for local market share."[251] Both local terrestrial radio stations and satellite radio offer the same product (audio entertainment) and compete—along side other forms of audio entertainment, such

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248 *Competition and the Future of Digital Music Before the Committee on the Judiciary Antitrust Task Force*, 110 Cong. (Feb. 28, 2007) (testimony of David Rehr, President and CEO, NAB).

249 *Cf. United States v. Oracle Corp.*, 331 F. Supp. 2d 1098, 1121 (N.D. Cal. 2004) ("The inability clearly to define a market suggests that strong presumptions based on mere market concentration may be ill-advised in differentiated products unilateral effects cases. As noted by Starek and Stockum, 'it is generally misleading to suggest that a firm "controls" a certain market share in the absence of an analysis beyond market concentration.") (citing Roscoe B. Starek III & Stephen Stockum, *What Makes Mergers Anticompetitive?: "Unilateral Effects," Analysis Under the 1992 Merger Guidelines*, 63 ANTITRUST LJ 801, 804 (1995); Jerry A Hausman & Gregory K Leonard, *Economic Analysis of Differentiated Products Mergers Using Real World Data*, 5 GEO. MASON L. REV. 321, 337-39 (1997)).

250 *See id.* at 1172 ("The court finds that plaintiffs have wholly failed to prove the fundamental aspect of a unilateral effects case—they have failed to show a 'node' or an area of localized competition between Oracle and PeopleSoft.").

251 Reply Comments of the NAB, Gen. Docket No. 90-357, Attachment 1 at 2 (filed Oct. 13, 1995).

as Internet radio and wireless phones—for the same audience. That satellite radio provides the same content nationwide has no bearing on the ability of terrestrial radio to constrain satellite radio prices, or vice-versa.

Mr. Sidak offers what seems to be a more nuanced version of the "one-way competition" argument, but it is subject to the same fallacy: He contends that, in light of the "unique nationwide footprint—and its potential ability to subsidize advertisement rates from subscriber revenues—terrestrial radio broadcasters may be unable to compete effectively" with satellite radio "in the sale of advertisements that achieve nationwide clearance."[252] Mr. Sidak concedes that "[t]here is intermodal competition among media outlets for advertising," but argues that broadcast radio cannot compete with satellite radio "on the *other* side of this two-sided market," namely, the contest for consumers.[253] While it is true that satellite radio providers have two potential revenue streams (subscriptions and advertising), while existing terrestrial radio has only one (advertising), this fact is entirely irrelevant for purposes of evaluating whether the two forms of audio entertainment compete.[254]

The real concern underlying the terrestrial broadcasters' opposition to this merger is that the combined entity will be able to offer a superior product at a lower price, which will appeal more to consumers than the services that terrestrial broadcasters offer. Mr. Rehr acknowledged

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252 Sidak July 9 Supp. Decl. at 34 (¶ 51). *See also* Common Cause at 29 ("Terrestrial radio is a local product. Satellite radio is a national product. They have different business models and different types of output for regulatory and economic reasons.").

253 Sidak July 9 Supp. Decl. at 35 (¶53) (emphasis added).

254 *See* CRA Competitive Effects Analysis at 34 (¶ 60). As CRA observes, recently developed encryption technology may permit terrestrial broadcasters to offer subscription-based programming in the near future. *See id.* at 20 (¶ 34). Thus, even if there were some reason why the different business models of satellite and terrestrial radio should matter, that distinction will likely disappear soon.

as much in his testimony before Congress when he cited as a "harm" to consumers the prospect that the combined entity "will attempt to accelerate the acquisition of new subscribers by offering them a lower-cost point of entry."[255] But that is the hallmark of competition.

Of course, in making this "one-way" competition argument, broadcasters entirely ignore their own competitive advantages in the struggle for consumers that will prevent satellite radio from ever becoming the monopolistic force they fear. To begin with, *terrestrial radio is free.* Second, terrestrial radio stations offer local programming such as news, traffic, weather, and sports; the NAB has vigorously lobbied the Commission and Congress to restrict satellite radio from offering similar content.[256] Despite the many advantages that satellite radio offers, it is simply unfathomable that Sirius and XM will be able to grow their subscriber base (presently at about 14 million subscribers) to the point where it will truly overtake, and even dominate,

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255 *Competition and the Future of Digital Music Before the Committee on the Judiciary Antitrust Task Force*, 110 Cong. 17 (Feb. 28, 2007) (statement of David K. Rehr, President and CEO, NAB).

256 Local terrestrial broadcasters, of course, are obligated under FCC rules to offer this sort of local programming. And the local radio ownership rules are designed in large part to ensure robust and diverse local programming. This merger does not implicate these concerns because neither Sirius nor XM distribute such content locally. Some parties have expressed concern that approving this merger will prejudge the outcome of the Commission's pending media ownership proceeding and ultimately allow further concentration among terrestrial broadcasters. *See* Common Cause at 11; NABOB at 12; Clear Channel at 12-16. These concerns are overstated. While arguments that broadcasters (including the NAB) have made in the media ownership docket concerning the broad and extensive competition in the audio market are analogous to those that have been raised in this proceeding, *see infra* Section III.A., the issues at stake in the media ownership rulemaking are far broader than those in this proceeding. In particular, this merger has no nexus to two fundamental issues at the center of the media ownership proceeding: local viewpoint diversity and localism. *See 2002 Biennial Regulatory Review—Review of the Comm'n's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecomms. Act of 1996*, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 13,620 (2003). Accordingly, there is no basis for concern that allowing this merger to move forward will preordain the results of the long-pending and highly complex media ownership rulemaking.

broadcast radio (presently at over 230 million listeners every week).

Even with respect to national content, there is no meaningful barrier preventing terrestrial radio and other audio entertainment providers from acquiring and offering national content. In fact, some companies own multiple stations in many markets, with numerous stations overall, and these companies often broadcast much of the same content throughout the country. In addition, many local stations already offer nationally syndicated content, including such popular radio personalities and programs as Sean Hannity, Rush Limbaugh, CBS News, Radio Disney, and ESPN.[257] It is simply untrue that satellite radio is somehow in a different market from broadcast radio because of its national presence.[258]

There remains the suggestion of some merger opponents that satellite radio should be in a distinct market because it is the only service "that is available as the consumer travels anywhere

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257 *See, e.g.*, Press Release, Clear Channel, *Clear Channel Renew Sean Hannity Contract Through 2010* (Sept. 28, 2006), http://www.clearchannel.com/Radio/PressRelease.aspx?PressReleaseID=1768 (last visited July 20, 2007). *See also* American Top 40, About Us, http://www.at40.com/about.html (last visited July 20, 2007) (noting that consumers can listen to American Top 40 on over 400 stations worldwide).

258 *See* Edwin Meese, III at 3 (filed July 9, 2007) ("[W]hile broadcasters transmit signals locally, national programming—through networks and syndication—is commonplace."). In addition, several broadcasters claim that they will be disadvantaged by this merger because the combined company will have an enhanced ability to "lock up exclusive contracts" with programmers, leaving them with a less appealing programming line-up. *See* Entravision Holdings at 15-16; Clear Channel at 11. On the flip side, some of these same commenters insist that the merger would harm content providers themselves because they will have only one choice for satellite radio carriage, which will give programmers less bargaining power in carriage negotiations. *See* Entravision Holdings at 17-18; NPR at 5-6. These apprehensions ignore the fact that programmers will continue to have a variety of distribution options. Indeed, the concerns expressed by broadcasters in this very proceeding show that they will continue to have a strong interest in carrying much of the same content as satellite radio. Of course, audio programmers also can turn to the Internet, wireless carriers, and MP3 options for distribution. In any event, the antitrust laws are designed to promote competition and stimulate innovation, not to protect competitors.

in the country."[259] Mr. Sidak argues that this concern is particularly salient for truckers, who "routinely travel through two or more Arbitron markets on a frequent basis. Those consumers," he insists, "clearly would not perceive terrestrial service to be a reasonable substitute [for satellite radio]."[260] This concern is dramatically overblown. The number of individuals who travel often enough to demand ubiquitous radio coverage is very small in proportion to the overall population—and such individuals make up only a small portion of the subscribers to Sirius and XM.[261] Most consumers choose satellite radio based on one (or several) of its many other benefits, such as better music quality, greater content selection, and fewer commercials.[262] In any event, long-distance travelers have other listening options besides satellite radio—if tuning from one station to the next is too burdensome, they may listen to music on their iPod,

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259 NAB at 12; *see also* Common Cause at 27 ("[S]atellite radio travels with the listeners no matter where they are, operating in a national market. But terrestrial radio is a local product; stations vanish as the listener crosses market boundaries.").

260 Sidak Mar. 16 Decl. at 27 (¶ 45).

261 One public commenter perhaps said it best:

> Most consumers, like me, listen to satellite radio in our local areas, where we work and live. I could just as well listen to my local AM/FM broadcasts, or my local HD radio broadcasts, or an iPod (since I have an iPod jack that was built into the dashboard of both of my cars) or Internet radio while I am at work or at home. I choose to listen to satellite radio—it is my choice. I have plenty of other options if I change my mind.

Brief Comments of Michael Grunhaus (filed Apr. 5, 2007).

262 For instance, as the CRA Competitive Effects Analysis notes, [[REDACTED]] CRA Competitive Effects Analysis at 35-36, n.130 [REDACTED]] *See id.*

play CDs, or play music through their wireless phones. And Mr. Sidak disregards that the American Trucking Associations ("ATA"), the nation's largest trade association for the trucking industry, supports the merger, noting that it will "expand choices for all consumers" and improve services that are "vital to truckers today, such as traffic and weather."[263]

C. The Transaction Will Not Harm Rural Consumers.

The NAB Coalition and other opponents try to make the case that the merger would have a disproportionately adverse effect on consumers living in rural areas.[264] The concern appears to be that rural consumers already have few terrestrial radio choices, and the proposed merger will leave this segment of the population exposed to potential market abuses by the merged entity. Building on this theme, these parties further attempt to analogize this transaction to concerns raised in the context of the DIRECTV/EchoStar merger. These concerns are wholly unjustified. The merged entity will have neither the incentive nor the ability to treat rural customers differently from its other customers, and rural customers stand to benefit just as much as everyone else.

As explained above, data regarding satellite radio penetration and the findings of internal company surveys regarding subscribers' listening habits demonstrate that there is cross-elasticity among various forms of audio entertainment, and in particular between satellite and terrestrial radio.[265] This means that a merged entity is unlikely to raise prices above competitive levels,

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263 *See* Letter from Richard D. Holcomb, American Trucking Associations, to Marlene Dortch, FCC, MB Docket No. 07-57, at 2 (filed June 21, 2007) ("ATA Letter").

264 For instance, the NAB Coalition claims that "consumers in certain locations throughout the nation will experience the effects of monopoly more severely." NAB Coalition at 21; *see also* MAP at 4 (claiming that if rural communities are "left with one [satellite radio] provider, these communities will have no option with respect to price and content.").

265 *See supra* Section III.

because consumers can always switch to other services if that happens. But it does not follow that the merger is bad for consumers in areas with limited terrestrial radio coverage, as some opponents suggest. Rural consumers will also reap tremendous benefits from the merger, along with all other consumers. And there are a number of reasons why the merged entity will have neither the incentive nor the ability to target consumers in rural areas with higher prices for satellite radio.[266]

First, satellite radio penetration rates are very low in comparison to satellite TV. According to recent data from the GAO, 17.4% of households nationwide subscribe to satellite TV, whereas national satellite radio penetration has reached only approximately 4.5% of the population in 2006.[267] In uncabled areas, *satellite TV penetration rises to nearly 68%*; by contrast, the satellite radio penetration in areas with two or fewer AM/FM stations *was* [[REDACTED [redacted]]] in 2006.[268] These figures illustrate the dramatic differences between this proposed merger and the circumstances surrounding the DIRECTV/EchoStar merger. Perhaps most important, these figures "suggest[] that satellite radio faces more competition or is viewed by consumers as more dispensable than satellite TV or both."[269] These numbers are hardly surprising, in light of the fact that consumers have a range of options besides terrestrial broadcast radio, as has been exhaustively shown in the preceding sections.

Second, as CRA explains, there are far fewer consumers without a meaningful terrestrial

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266 *See generally* CRA Competitive Effects Analysis at 76-82 (¶¶ 153-61).

267 *Id.* at 77-78 (¶ 155) (citing General Accounting Office, *Direct Broadcast Satellite Subscribership Has Grown Rapidly, But Varies Across Different Types Of Markets*, GAO-05-257 (Apr. 2005) at 3, 6).

268 *Id.* at 78 (¶ 155).

269 *Id.* at 77 (¶ 154).

radio option than consumers without access to cable television. Specifically, "[o]nly 0.2% of the population lives in areas receiving two or fewer AM/FM stations, compared to the nearly 9% of U.S. households in uncabled areas."[270] The NAB Coalition offers a "Geographic Impact Study" that arbitrarily labels as "underserved" those communities with 15 or fewer terrestrial radio stations and as "unserved" those with five or fewer such stations.[271] It then argues that "[c]onsumers in these areas will suffer the greatest vulnerability to harm from a satellite radio monopoly,"[272] without making any effort to quantify how many consumers actually live in these areas or whether these consumers are actually likely to prefer satellite radio in greater numbers than the population generally. According to the data compiled by CRA, however, such adverse effects for the consumers in these areas is unlikely. [[REDACTED [redacted]

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270 *Id.* at 78 (¶ 156). In fact, the "evidence" adduced by the NAB Coalition is not at all comparable to the factual situation in DIRECTV-EchoStar. *Application of EchoStar Comm'cns Corp., (a Nevada Corp.), General Motors Corp., and Hughes Electronics Corp. (Delaware Corps.) (Transferors) and EchoStar Comm'cns Corp. (a Delaware Corp.) (Transferee)*, Hearing Designation Order, 17 FCC Rcd 20,559 (2002) ("*DIRECTV-EchoStar*"). There, the Commission identified *five million* consumers who were unserved by cable television. *Id.* at 20,612 (¶ 123). Here, the NAB Coalition has identified *no one* who is without radio service. And, as indicated above, terrestrial radio is just one of many options available to rural consumers—options that will remain available after the merger.

271 NAB Coalition at 23; NAB Coalition at Exhibit C – Consumer Vulnerability to a Satellite Radio Monopoly in Rural, Unserved and Underserved Geographic Areas ("Geographic Impact Study").

272 NAB Coalition at 21.

273 CRA Competitive Effects Analysis at Table B1.

[redacted]]][274]

The NAB Coalition ignores the fact that price discrimination by a merged entity would be ineffective and unprofitable, in light of the fact that there is such a small portion of the population that could be targeted with increased prices, and with relatively so few of these people subscribing to satellite radio. As CRA indicates, these so-called "unserved" consumers are unlikely to display a greater willingness to pay for satellite radio as compared to the national average—meaning that if a merged entity attempts to charge these customers more for satellite radio, then they would not subscribe but would instead turn to one of the many other alternatives for audio entertainment.[275] The small difference reflected in these numbers "is unlikely to be large enough to support profitable price discrimination, in light of the costs and imperfections inherent in such discrimination."[276]

There are other significant flaws with the NAB Coalition's "Geographic Impact Study." For one thing, it is difficult to know what to make of a study that states on the one hand that satellite and terrestrial radio are not in the same product market and then analyzes them as if they are part of the same product market—concluding that an analysis of the market "reveals the extent of potential harm resulting from this merger in rural areas by identifying areas where satellite radio service may be the only available radio service, or where it is critically important because there are few, if any, free local radio stations."[277] For another, the data that the NAB Coalition relies on is misleading. For example, by its careful focus only on "local" radio station

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274 *Id.*

275 CRA Competitive Effects Analysis at 79 (¶ 158).

276 *Id.*

277 NAB Coalition at 25.

service contours, the study simply ignores the approximately 5,000 FM repeater stations and AM clear channel stations that provide significant radio service in rural areas.[278] Thus, the NAB Coalition significantly understates actual radio service. Moreover, the NAB Coalition's analysis is entirely arbitrary,[279] and its conclusions are wholly speculative. Despite the verbiage and full color maps, the NAB Coalition has not identified *anyone* who is unserved by terrestrial radio. It simply identifies areas where satellite radio service "may be" the only available radio service.

In any event, even assuming that the merged entity would have the incentive to price-discriminate against some consumers, that strategy would be extremely difficult if not impossible to implement, for many different reasons. For example, it would be extraordinarily difficult for the merged entity to price discriminate by charging some consumers more for satellite radio equipment. Many subscribers obtain their equipment by purchasing an automobile, and therefore the merged entity would have to obtain the cooperation of all the automobile manufacturers, which is highly unlikely. And aftermarket equipment is available online, which would make it difficult to target retail distribution in rural areas. As CRA explains, rebates to non-rural subscribers might be an option, but *only in theory*: In order to effect a higher price the company would have to offer rebates [[REDACTED [redacted]

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278 The 59 high-powered AM clear channel stations continue to provide nighttime programming diversity, especially in rural areas. As the Commission has found, "some skywave service is available everywhere in the contiguous 48 states and most of the population can receive four or more skywave signals. Ten or more skywave services of at least the long recognized standard (0.5 mV/m 50% skywave signals) are available in much of the country." *Clear Channel Broadcasting in the AM Broadcast Band*, Further Notice of Proposed Rulemaking, 70 FCC 2d 1077, 1087 (¶ 65) (1979).

279 According to the coalition, areas with *five local radio stations* are *unserved*, and areas with *15 local stations* are *underserved*. NAB Coalition at 23.

[redacted]] so rebates would not be a practical means of attempting price discrimination.[280]

Besides, many people "do not necessarily drive and listen where they live" (unlike the fixed location DBS model where people primarily watch satellite television at home), so it would be difficult to identify and target the more price-inelastic customer.[281] Thus, even if it were fair to assume that consumers in areas with few terrestrial radio stations have a different demand profile and could therefore be subject to price discrimination, it is extremely unlikely that the merged firm could successfully (*i.e.*, profitably) implement such a strategy.

Finally, despite the NAB's professed concern about their welfare, rural and trucking interests *overwhelmingly support* the merger. For example, the ATA, the nation's largest trade association for the trucking industry, notes that the proposed merger will "expand choices for all consumers," including through improvements to services that are "vital to truckers today, such as traffic and weather."[282] This merger, as the ATA recognizes, will create further opportunities to improve services to the trucking industry and other driving consumers. Likewise, the League of Rural Voters and the Women Involved in Farm Economics both have filed comments or letters in support.[283] As one rural consumer aptly noted "in rural areas we have limited access to

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280 CRA Competitive Effects Analysis at 80 (¶ 159).

281 *Id.* at 79 (¶ 159). *See also id.* for additional reasons why a price discrimination strategy would be unsuccessful.

282 *See* ATA Letter at 2.

283 Press Release, League of Rural Voters, *Sirius/XM Satellite Radio Merger Critical to Growth and Development of Rural Communities* (May 31, 2007) (the merger "would offer listeners in rural communities more programming options at lower prices than those currently available from the two companies separately"); *see also* Women Involved in Farm Economics at 1-2 ("The farms and rural communities we represent have been well served by satellite radio. Approval of the merger between Sirius and XM will ensure that our rural communities continue to receive important informational service via satellite radio and will provide our members and rural neighbors with more programming choices at improved prices.").

diverse radio content. [W]e need the XM-Sirius merger to be successful to ensure that satellite radio can stay competitive and give us another option."[284] These endorsements offer perhaps the most telling indication that the NAB Coalition's concern for others is misplaced and that the merger, in fact, will significantly benefit rural consumers with enhanced choices and improved service offerings.

In addition, the combined company will in the long run be able to improve satellite radio service to rural areas. Sirius and XM transmit their services through high power satellites as well as networks of ground-based repeaters that supplement the satellite service in areas where the satellites provide insufficient coverage. These terrestrial repeaters are predominantly deployed in high-population urban areas where building clutter limits the service available directly from the satellites. Although deployment and operation of these terrestrial networks is very expensive, as CRA notes, the combined company will be able to expand these networks as a result of the economic efficiencies expected from the merger.[285]

While the benefit of an expansion of these terrestrial networks would favor high-population areas in the short term, rural areas would also benefit in the longer term through the optimization of future satellite constellations in a merged company. In the longer term, the combined company would have the resources to improve the satellite service availability to rural

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284 Brief Comments of John Steiner (filed July 2, 2007). *See also, e.g.*, Brief Comments of Jeanette Owens (filed July 2, 2007) ("I live in an area where we only receive 2 or 3 FM radio channels and they play nothing but commercials. I would be thrilled to have the 2 companies merge."); Brief Comments of Frank M. Konopatski (filed July 2, 2007) ("Truckers, travelers and vacationers, rural communities, and other consumers that have dead-zones from terrestrial radio will benefit from having the combined programming of both companies.").

285 CRA Competitive Effects Analysis at 63 (¶ 122).

areas by deploying higher power satellites with optimizations that increase the signal directed to rural areas.

While higher power satellites will improve service availability across the continental United States, future satellites will have the ability to direct more power to some broad contours of the coverage area. Coupled with an improvement in the terrestrial repeater networks for the merged company, these signal contours for future satellites can be designed to steer more signal towards rural populations.[286]

D. Entry Into the Market Will Remain Viable Notwithstanding the Transaction.

Claims relating to alleged barriers to entry in the satellite radio market depend entirely on the erroneous view, discussed above, that the relevant market includes only satellite radio.[287] The proper inquiry is not whether is it possible for "a new satellite [radio] licensee" to become operational, as the NAB frames the issue,[288] but whether it is likely that any entity will introduce a service comparable to—and thus, competitive with—the service provided by an existing satellite radio licensee.

1. Entry Into the Audio Entertainment Market Is Already Occurring.

Several developments demonstrate that entry into this market will occur regardless of this merger. As described earlier, new products and services are regularly introduced as a response

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286 The bulk of the rural population resides in belts that parallel the east and west coast population centers and include the mountainous belts of the Appalachians in the East and the Rockies in the West. From the perspective of the satellite, these rural population belts are relatively adjacent to the high-population areas of the East and West coasts.

287 *See supra* Section III.

288 NAB at 24; *see also* Common Cause at 37.

to evolutions in the audio entertainment marketplace.[289] For example, Slacker expects to introduce Satellite Car Kits that will permit users to receive, anywhere in the continental United States, high-quality music through the Ku-band.[290] And there is sure to be intense and growing competition from an array of wireless Internet services that offer many, if not all, the same features as satellite radio. Dr. Furchtgott-Roth observes that "the FCC has taken substantial steps to ensure the deployment of wireless broadband services,"[291] and consumers have barely begun to reap the benefits of the Commission's policy measures. For instance, Sprint is just "beginning to roll out an advanced broadband wireless service this year in the 2.5 GHz band and, as required by the FCC, will serve a large portion of the U.S. population in the next two years."[292] Many other broadband wireless services are expected to follow shortly thereafter.[293]

2. Wireless and Satellite-Based Alternatives Do or Can Support Audio Entertainment Services Akin to Satellite Radio.

As noted above and discussed more fully in the attached report by Dr. Charles Jackson, Exhibit F, services exist (or are coming to market shortly) that, like satellite radio, do or can use spectrum to deliver high-quality audio entertainment services, notwithstanding a satellite radio merger.[294] For example, QUALCOMM, a communications technology firm that also offers

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289 *See supra* Section III; Exhibit E – Competitive Response Timeline.

290 Furchtgott-Roth at 22-23.

291 *Id.* at 28.

292 *Id.* at 18.

293 *See, e.g.*, Sprint, *Sprint Nextel and Clearwire to Partner to Accelerate and Expand the Deployment of the First Nationwide Mobile Broadband Network Using WiMAX Technology.*

294 Charles L. Jackson, Service and Spectrum Alternatives for Audio News and Entertainment Services, Exhibit F at 2 (July 24, 2007) ("Jackson Report") ("Depending on how one counts, there are about a dozen alternate wireless delivery paths for audio services capable of

some wireless services to end users, is using a technology known as MediaFLO to provide service in the lower 700 MHz band.[295] The transmission capacity and high power limits permitted in connection with this and similar services (such as Crown Castle's Modeo and Aloha Networks' Hiwire) permit enhanced coverage and can be used to provide audio, video, and data services.[296] A number of audio entertainment services also are being offered or planned using other terrestrial-based frequency bands capable of two-way, interactive communications (such as cellular, PCS, and AWS),[297] consistent with the FCC's flexible-use spectrum policy.[298] And licensees of Wireless Communications Service ("WCS") spectrum—which represents *one-half* of the 50 MHz of spectrum that is domestically allocated for broadcasting-satellite service (*i.e.*, satellite radio)[299]—already are authorized "to provide a variety or combination of services,"

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supporting hundreds or thousands of channels."). Dr. Jackson describes four broad categories of such services—existing broadcasters (TV and FM), broadband terrestrial service providers, commercial mobile radio service ("CMRS") providers, and satellite services (mobile and fixed)—as well as opportunities to create audio services using existing spectrum and technological options that would permit increased features. *See generally* Jackson Report at 3-29; *see also supra* section III.D. (discussing recent technological innovations, including with respect to wireless services); CRA Competitive Effects Analysis at 61 (¶¶ 115-16) (observing that, besides product repositioning and expansion, *de novo* entry could occur into the audio entertainment market through the use of Mobile Satellite Service ("MSS") frequency bands and Wireless Communication Service ("WCS") spectrum).

295 *See* Jackson Report at 6-9.

296 *See id.* at 9-10. For example, as Dr. Jackson notes, MediaFLO provides a terrestrial transmission capacity that is roughly equal to that of XM and Sirius combined. *See id.* at 9.

297 *See id.* at 13-16; *see also supra* section III.D. (describing the use of mobile phones as music and multimedia players).

298 *See, e.g., Principles for Reallocation of Spectrum to Encourage the Development of Telecomms. Techns. for the New Millennium*, Policy Statement, 14 FCC Rcd 19,868, 19,870 (¶ 9) (1999).

299 47 C.F.R. § 2.106 (Table of Allocations).

including but not limited to satellite radio.[300]

A number of satellite-based bands support the same capability. There is abundant evidence that mobile satellite service ("MSS") systems can be used to provide audio entertainment services. As Dr. Jackson explains, the 2 GHz band (or the S-band) is particularly suitable for audio entertainment services, more so following the Commission's decision to grant MSS operators flexibility to integrate an ancillary terrestrial component ("ATC") into their MSS networks.[301] In particular, New ICO Satellite Services G.P. ("ICO")—which has access to 2 GHz spectrum with properties similar to that used by XM and Sirius—is scheduled to launch a hybrid MSS satellite system later this year and reiterated in this proceeding its plan to offer multimedia subscription services, including audio entertainment, over that system.[302] In fact, several operators are poised to launch their satellites and commence service in the near future, and are not only subject to binding milestones to do so but have made most of the capital expenditures necessary to construct their networks.[303] Fixed Satellite Service ("FSS") bands also

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300 *Amendment of the Comm'n's Rules to Establish Part 27, the Wireless Comm'cns Service ("WCS")*, Report and Order, 12 FCC Rcd 10,785, 10,845 (¶ 116) (1997); *see also* Jackson Report at 20-21.

301 Jackson Report at 19; *see also Flexibility for Delivery of Comm'cns by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands; Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands*, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 1962, 1980 (¶¶ 1, 32) (2003). The L-band, another MSS band, also has the technical capability to support satellite radio, and other countries have allocated the 1452-1492 MHz band (L-band) for satellite radio. *See* Jackson Report at 18, n.38; *Satellite Radio Authorization Order*, 12 FCC Rcd at 5787 (¶ 79). One provider that operates in this band is planning its own launch of a next-generation satellite network with broadband capabilities. *See* Jackson Report at 18.

302 Jackson Report at 18; ICO at 1-2.

303 Jackson Report at 19.

can support audio entertainment services comparable to satellite radio.[304] For example, Slacker, discussed above, uses leased portions of the Ku-band to deliver audio entertainment content.[305]

In addition, there are opportunities to use other spectrum to provide similar services. Slacker has announced that its device will rely in part on Wi-Fi networks using unlicensed spectrum, and Wi-Fi capability is a standard feature of laptops and some mobile devices, such as the Apple iPhone.[306] Dr. Jackson notes that the Commission could license the television white space for use by a multi-channel audio distribution service.[307] And the spectrum allocated to the Broadband Radio Service ("BRS") and Educational Broadband Service ("EBS"), which is substantially larger than the satellite radio band, is technically suited for providing a multi-channel audio service with characteristics similar to those of the terrestrial component of the XM and Sirius systems.[308] Any of these various current and potential options can be used for the delivery of audio services.

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304 *Id.* at 16-17.

305 *Id.* at 17.

306 *Id.* at 24-25.

307 *Id.* at 21-22.

308 *Id.* at 11-13.

V. CONTRARY TO OPPONENTS' ALLEGATIONS, THE TRANSACTION ADVANCES THE COMMISSION'S SPECTRUM POLICIES.

A. Any Spectrum Divestiture Will Harm Consumers and Companies That Have Invested In Either Satellite Platform.

Some parties propose that the combined company be required to divest a portion of their spectrum post-merger or provide carriage for a new entrant on a portion of their spectrum.[309] Conditions like these are unnecessary, would have a harmful impact on consumers, and should be rejected.

As shown above, there is sufficient spectrum available for new competitors to enter the audio entertainment market, including spectrum available for new entrants utilizing satellite technology.[310] Sirius and XM purchased their spectrum at auction for significant sums and have spent billions of dollars deploying equipment that operates in their individual spectrum bands. The Commission should not undermine that massive investment in infrastructure and equipment by requiring spectrum divestiture. Accordingly, any such condition is unnecessary.

More importantly, imposing this condition would have catastrophic effects on consumers and on companies that have invested millions of dollars developing products based on the existing platforms.[311] Requiring one of the companies to divest its spectrum would make

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309 *See* Entravision Holdings at 21; NPR at 21; TAP at 2. Clear Channel notes that the combined entity will have more spectrum than the new 700 MHz Public Safety Broadband Licensee. *See* Clear Channel at 8. However, not all spectrum is created equally. Spectrum at 700 MHz, in particular, is prized for its propagation characteristics, including the ability to cover large areas with a less extensive network infrastructure and its ability to penetrate walls for urban coverage.

310 *See supra* Section IV.D.

311 *See, e.g.*, Garmin at 1 (noting Garmin's investments in connection with GPS-enabled products that use information provided by XM); Toyota at 2 (noting that its "customers expect that their vehicles and associated equipment, including satellite radio, continue to function as intended for the life of that vehicle.").

roughly half of the nearly 14 million satellite radios completely inoperable, as currently deployed radios are not capable of receiving the signals of both systems.[312] Thus, if divestiture were required, either the Commission or the combined company would face the dilemma of deciding which existing subscriber base to shut-off, upsetting customer expectations about the useful life of equipment and rendering that equipment, including equipment installed in millions of vehicles, useless. It is impossible to argue that such a result is in the public interest. Moreover, reducing the spectrum available to the combined company would sharply limit its ability to realize merger-specific efficiencies, including by limiting the potential for expanded programming choices and additional services. Therefore, the Commission should flatly reject this condition.

B. The Companies Have Sufficient Bandwidth to Add Programming Options and Services Without Degrading Service Quality.

Several commenters have suggested that increasing choices would require the combined company to sacrifice audio quality and/or nonduplicative programming.[313] For the most part, these commenters offer no support for such claims, although the NAB previously commissioned

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312 Indeed, it is estimated that if spectrum divestiture is required, well over 10 million cars could be left with a stranded technology.

313 *See, e.g.*, Common Cause at 43 (referencing "significant concerns" that, to make additional programming options available, "the services will have to drop existing channels, including non-duplicative offerings, reducing consumers' choice, or alternatively degrade audio quality"); NAB at 40 ("What channels (including non-duplicative channels) will be dropped, thereby reducing consumer choice? If no channels are dropped, what kind of audio degradation will there be?"); NAB Coalition at 20 ("[E]ach satellite radio system is operating at full-channel-capacity, so in order to cross-sell the content of each satellite radio system on the other system the overall number of channels currently offered on each system must be reduced."); Bert W. King at 16-17 (noting bandwidth issues); TAP at 5; Toyota at 2; *see also* Charles Babington, *Radio Deal Could Face Technical Difficulties; XM, Sirius Systems Already Strained*, WASHINGTON POST, Mar. 19, 2007, at D1.

and submitted into the record a purported "engineering statement" that addresses the subject.[314] The position is unfounded, and the arguments advanced in the NAB's statement are incorrect.

Fundamentally, while capacity is not unlimited, the companies have a measure of capacity flexibility for new channels and services. As further elucidated in the technical reports prepared by Dr. Deepen Sinha[315] and by Neural Audio Corporation,[316] attached as Exhibits G and H, respectively, the companies have sufficient bandwidth to offer the packages discussed above and to introduce new services. XM and Sirius have consistently offered more services and channels by more efficiently using their existing bandwidth, without degrading the quality of existing services or channels.[317] Indeed, Sirius now offers over 130 channels and XM offers

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314 *See* Meintel, Sgrignoli & Wallace, *An Engineering Statement Prepared on Behalf of the National Association of Broadcasters Regarding the Technical Aspects of the SDARS Providers XM and Sirius*, Mar. 16, 2007 ("NAB Engineering Study"), attached to Letter from Larry Walke, NAB, to Marlene H. Dortch, FCC, MB Docket No. 07-57 (filed June 27, 2007).

315 Dr. Deepen Sinha, ATC Labs, A Technical Report Regarding Coding Efficiency and the Sirius-XM Merger, Exhibit G (July 24, 2007) ("Sinha Report").

316 Neural Audio Corp., Statement Regarding Certain Technical Aspects of the XM-Sirius Merger, Exhibit H (July 24, 2007) ("Neural Audio Report").

317 When Sirius originally filed an application to provide satellite radio service, up to 60 channels appeared possible. *Satellite CD Radio, Petition for Amendment of Section 2.106 and Part 25 of the Commission's Rules to Establish a Satellite and Terrestrial CD Quality Broadcasting Service*, Petition for Rulemaking, 1 (filed May 18, 1990). Similarly, XM originally projected it could provide 36 to 44 channels on 12.5 MHz of spectrum, and upon receiving its authorization planned to provide 48 channels using the same amount of spectrum. *Satellite Radio Authorization Order*, 12 FCC Rcd at 5772, n.74 (¶ 42); *American Mobile Radio Corporation, Application for Authority to Construct, Launch, and Operate Two Satellites in the Satellite Digital Audio Radio Service*, Order and Authorization, 13 FCC Rcd 8829, 8830 (¶ 4) (1997) ("*XM Authorization Order*"). In fact, when the Commission first authorized satellite radio as a service, it noted the various applicants' "successful efforts to increase the[ir] spectrum efficiency" and "calculate[d] that, on average, the applicants have increased the number of channels they propose to provide by seven, despite an average decrease in proposed spectrum use of 14 MHz." *Satellite Radio Authorization Order*, 12 FCC Rcd at 5776 (¶ 49). The FCC also presciently "recognize[d] that further technological advances may result in even greater increases in spectrum efficiency." *Id.* at 5776 (¶ 50).

over 170[318]*—enormous strides from the time they first sought their licenses, when the* Commission noted that each applicant proposed "to provide 20 or more channels nationwide."[319]

These vast increases were made possible by a number of techniques and technologies that the companies will continue to employ to achieve the same goal.[320] The NAB's "engineering statement" fails to show otherwise. That simplistic analysis, as Neural Audio explains, is replete with errors—including a flawed analogy to a technical study concerning a compression technology not used by either company and, remarkably, substantial understatements of how many channels each company offers currently.[321]

C. The Parties' Proposal Otherwise Complies With the Commission's Spectrum Policies.

According to some commenters, a satellite radio merger would violate the Commission's "pro-competitive spectrum policies."[322] The precedent on which these parties rely, however, involved an entirely different competitive dynamic than that presented by satellite radio today. In fact, the cited decisions generally are those in which the Commission first authorized service in a particular frequency band, meaning that its central objective in each was to set forth rules

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318 Dr. Sinha charts the dramatic increase in the number of channels offered by Sirius over its five years of commercial operations. *See* Sinha Report at 5. Neural Audio observes that XM has added several channels in just the few months since the NAB study was released. *See* Neural Audio Report at 4.

319 *Satellite Radio Authorization Order*, 12 FCC Rcd at 5760 (¶ 12).

320 *See* Neural Audio Report at 1-2 (describing developments in compression technology over the last decade); Sinha Report at 1 (explaining that "both of the satellite radio providers have independently developed a rich suite of transmit side technologies the consolidation of which would yield improved coding efficiency for each system without requiring any changes to the communication infrastructure and/or currently deployed receivers").

321 *See* Neural Audio Report at 5-6.

322 *See, e.g.*, NAB at 8.

that would help promote competitive entry in markets that were only just emerging.[323]

In contrast, as discussed at length above, satellite radio is fighting for a place in the broad and vibrant market for audio entertainment services, which includes numerous providers utilizing various types of spectrum to offer services comparable to satellite radio. None of these providers needs satellite spectrum to do so, and market entry will remain viable notwithstanding a satellite radio merger. Thus, consolidating satellite spectrum would not run afoul of the Commission's precedent in this area. To the contrary, approving the merger would advance the goal underlying those earlier decisions: the promotion of competition.[324]

VI. DESPITE CLAIMS TO THE CONTRARY, COMMISSION PRECEDENT DOES NOT BAR THE MERGER.

A. The Commission's 2002 Decision Concerning the Proposed Satellite Television Merger Proposed Has No Bearing on the Commission's Review of This Transaction.

Although some opponents of the satellite radio merger have suggested otherwise,[325] the Commission's review of the proposed merger of DIRECTV and EchoStar in 2002 in no way prejudges its analysis here.[326] The product markets at issue in the two transactions are

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323 *See, e.g., Amendment of the Comm'n's Rules to Establish New Personal Comm'cns Servs.*, Memorandum Opinion and Order, 9 FCC Rcd 4957, 4959 (¶ 3) (1994) (setting forth rules to "*introduce* broadband PCS" and "foster rapid *creation* of a competitive market") (emphasis added).

324 For this very reason, the Commission has previously relaxed its spectrum rules due to competitive developments. *See, e.g., 2000 Biennial Regulatory Review; Spectrum Aggregation Limits for Commercial Mobile Radio Servs.*, Report and Order, 16 FCC Rcd 22,668 (2001) (lifting spectrum cap). To the extent the Commission believes that it is bound by spectrum-related policies described in its prior decisions, the administrative law aspects of taking a different course here are addressed in the separate rulemaking proceeding. *See supra* note 3.

325 *See, e.g.*, NAB at 8-9, 42-49; Entravision Holdings at 5-8; NABOB at 5-6.

326 *See, e.g.*, Public Knowledge at 8-11.