All audience estimates in this analysis are based on radio listening as recorded and copyrighted by Arbitron.

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Key Findings

A half-million public radio listeners – about two percent in all – recorded listening to XM or Sirius in Arbitron’s Spring 2005 survey.

Arbitron did not identify the specific channels used, so we can’t determine how much listening public radio’s XM and Sirius services added to its terrestrial services. However, XM and Sirius were probably net positives for public radio’s public service.

Listening to XM and Sirius is not the cause of public radio’s lost audience momentum. Even the most aggressive assumptions show that “time lost to XM and Sirius” can account for no more than a one-quarter of one percent decline in listening between 2003 and 2005.

Terrestrial public stations remain viable options for public radio’s XM and Sirius subscribers. If XM and Sirius are cannibalizing anything among our listeners, it is their listening to commercial radio.

As currently programmed and distributed, making programs available on XM or Sirius does not diminish their value to public stations. Similarly, making programs unavailable on XM or Sirius does not enhance their value to stations.

SIDEBAR

Lost Listening?

Listening to XM and Sirius programming may account for a little lost listening by public radio’s listeners, but not much.

Listening to public radio declined about 2.5 percent between 2003 and 2005. That’s 324 million annual listener-hours lost from a total of over 12 billion.

Our listeners who also use XM or Sirius use terrestrial public radio 71 minutes less per week than listeners who don’t. If all of their listening is “lost” to XM or Sirius, they can account for only 37 million of the 324 million lost listener-hours.

At most, therefore, only one-quarter of one percent of public radio’s national audience may have conceivably been lost to XM and Sirius listening.

Lost Listeners?

There is no evidence that public radio has lost listeners altogether to XM and Sirius programming.

Public radio’s national weekly cume declined by 350,000 between 2003 and 2005. The nature of the remaining audience suggests very few listeners, if any, “left the cume” for XM and Sirius.

If XM and Sirius were diminishing cume, we’d expect shared listeners to use fewer public stations. We find, however, that they use the same number as our terrestrial-only listeners (1.3 per week on average).

We note also that loyalty to public radio among terrestrial-only listeners has dropped since 2003, as has their listening to radio. XM and Sirius have nothing to do with this.
Who’s Who and What’s What?

This is the first study of public radio listening by XM and Sirius listeners. It may be the first report ever to study terrestrial radio listening by XM and Sirius listeners. The new territory requires that we be clear in our definitions and our terminology.

Our definition of a public radio listener has not changed. A public radio listener is a person who listens to at least one public radio station.

What has changed is this: we know which of our listeners also use XM or Sirius. That leads to two kinds of public radio listeners: the person who also listens to XM or Sirius, and the person who doesn’t.

The latter is called a “terrestrial-only” listener. Until now, all public radio listeners were terrestrial-only. As of this study, 98 percent still are.

The “XM and Sirius listener” might also be called a “satellite listener.” We’ve opted against that term for two reasons. First, listeners are attracted to programming, not satellites. And second, XM and Sirius also deliver programming over the Internet.

Our definition of public radio listening hasn’t changed at all. It’s any and all listening to terrestrial public radio stations, which includes listening over the Internet.

It would be ideal if we knew how much listening was to the XM and Sirius channels programmed by public radio. That way we could track how much listening public radio is gaining through these services. But we do not know that ... yet. At this time we can study public radio listening in terrestrial terms only.

Now here’s where we have to be careful. Arbitron counts listening to XM and Sirius as “radio listening”. We also include XM and Sirius in any over-arching mention of “radio listening”. When we’re referring only to listening over stations, we say “terrestrial radio listening” or “terrestrial radio use.”

As a result, “loyalty” needs to be clarified. The unmodified form of “loyalty” now includes in its denominator listening to XM and Sirius (it has since 2002). It reports how well public radio serves its weekly cume in a competitive environment that includes XM and Sirius.

The term “terrestrial loyalty” includes in its denominator listening to stations only; it is a measure of how well public radio serves its cume in the purely terrestrial realm.

<table>
<thead>
<tr>
<th>Type of Public Radio Listener</th>
<th>Terrestrial</th>
<th>XM &amp; Sirius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial Only</td>
<td>Listening to stations by public radio listeners who don’t listen to XM or Sirius.</td>
<td>Impossible. By definition, terrestrial-only listeners cannot listen to XM or Sirius.</td>
</tr>
<tr>
<td>XM &amp; Sirius</td>
<td>Listening to stations by public radio listeners who also listen to XM or Sirius.</td>
<td>Unknown. Arbitron did not report channel-specific listening, to XM or Sirius; it does include listening to them in its radio listening totals.</td>
</tr>
</tbody>
</table>
Public Radio’s XM & Sirius Listeners

Two in one-hundred public radio listeners also listen to XM or Sirius. These are public radio’s XM and Sirius listeners.

Keep in mind these listeners need not buy a dedicated satellite radio receiver to listen to XM or Sirius. They can also listen over the Internet as well as DirecTV and the Dish Network (although some channels, such as NPR-Now, NPR-Talk, and PRI-World, are limited to dedicated Sirius receivers only).

Demographically, public radio’s XM and Sirius listeners differ only slightly from our station-only listeners. They are a bit more likely to be Baby Boomers, for instance, but that’s to be expected given the demographics of XM and Sirius subscription among public radio’s listeners.

They use an average 1.3 public stations each week – the same as our terrestrial-only listeners. They use an average of 2.3 other radio stations per week, compared to 2.5 among our terrestrial-only listeners.

As consumers of radio, however, our XM and Sirius listeners differ significantly from our terrestrial-only listeners – in ways that confirm the importance of our station-based services.

Public radio’s XM and Sirius listeners are heavier users of radio, 25 hours per week. XM and Sirius account for nine of those hours.

Their remaining 16 hours are to terrestrial stations – four and one-half hours less than our terrestrial-only audience listens to radio.

With all that listening to XM and Sirius, public radio’s XM and Sirius subscribers have less time for land-based stations. They listen about an hour a week less to public radio, and three and one-half hours less to other terrestrial stations.

If XM and Sirius are in fact cannibalizing terrestrial radio, public stations are getting off easy; other stations are taking a far greater hit.

What happens if we take listening to XM and Sirius out of the equation? How do public stations compete “on the ground” for XM and Sirius listeners?

Very well indeed. With seven of their 16 terrestrial hours spent with public radio station(s), the terrestrial loyalty of our XM and Sirius listeners is 46 (i.e. 46 percent of their terrestrial station listening is to public radio). That’s five points higher than the loyalty of public radio’s terrestrial-only listeners (which is 41).

In sum, a listener’s subscription to XM or Sirius does not diminish a public station’s ability to compete over the air for his or her listening.
Graph 1

Public radio’s XM and Sirius listeners are heavier users of radio because of the nine hours per week they listen to XM and Sirius.

Compared to public radio’s terrestrial-only listeners, they are lighter listeners to public stations and significantly lighter listeners to other stations.

The 71 minutes per week that they listen less to public radio are attributable to a single occasion (the duration of their average tune-in to public radio is 70 minutes – the same as other listeners).

Graph 2

Public radio’s loss of loyalty in 2005 is mirrored by increased loyalty by its listeners to terrestrial stations, not to XM and Sirius.

Yet nearly one percent of all radio listening by public radio’s listeners was to XM and Sirius in Spring 2005.

Arbitron includes XM & Sirius listening in its persons using radio estimates. Roughly one percent of all U.S. radio listening was to XM or Sirius channels in its Spring 2005 Nationwide.
Not-So-Sirius Competition

There is concern in our industry that the delivery of programming via non-broadcast channels diminishes the value of that programming to stations.

If a program’s value to listeners (and thereby to stations) is indeed reduced by its availability on XM or Sirius, we would see XM and Sirius subscribers tuning elsewhere when the program is broadcast. Specifically, their loyalty to the station during broadcast would be lower than the loyalty of listeners who do not subscribe to XM or Sirius.

Yet when XM and Sirius subscribers are listening to terrestrial radio, they are as loyal to public radio’s programming as are non-subscribers – even when that programming is carried on XM or Sirius.

As these channels are currently programmed and distributed, making programs available via XM and Sirius does not diminish their power to serve XM and Sirius subscribers over the air.

Moreover, keeping programs off these services does not enhance their power to attract XM and Sirius subscribers over the air.

Graph 3

The points to the right denote the national programs and local formats that generate more than one percent of all listening to public radio (together they generate 73% of all listening). The complete list of programs and formats is on page 12.

Each point shows the programming’s terrestrial loyalty among XM & Sirius listeners (i.e. loyalty to the station as a percent of all terrestrial listening during broadcast) and loyalty among listeners who don’t use XM or Sirius.

The regression line suggests a relatively linear relationship: programming’s ability to serve XM & Sirius listeners over the air is predicted by its ability to serve terrestrial-only listeners.

The fact that the regression line tilts upward from the dashed line indicates that public radio’s most powerful programming (as measured by loyalty) is an even stronger draw for XM and Sirius listeners than for terrestrial-only listeners.
Terrestrial Loyalty to Public Radio's Most Listened-To National Programs
Public Radio's Arbitron Diary Database

Graphs 4 & 5

The dots denote national programs that generate more than one percent of all listening to public radio. Together they generate 42% of all listening.

Blue dots indicate programs that are available on XM and Sirius. Red dots represent shows that are not. The complete list of programs is on page 12.

Each program is plotted to show its terrestrial loyalty among XM and Sirius listeners (loyalty to the station as a percent of all terrestrial listening during broadcast) and loyalty among listeners who do not use these services.

If carriage on XM or Sirius diminished a program’s power to serve listeners during broadcast, the blue dots would all lie below the dashed lines. Instead, they lie along regression lines showing that XM and Sirius listeners are even more loyal than others to the strongest programs during terrestrial broadcast.

Similarly, if a program’s unavailability on XM or Sirius enhanced its power to serve XM and Sirius listeners during broadcast, the red dots would be significantly above the regression lines.

They are not – especially when cohort effects are removed (bottom graph). (Boomers are more likely to be XM and Sirius listeners, and also more likely to listen to red programs. Boomers’ over-representation among public radio's XM and Sirius listeners is what pushes the red dots a bit high in the top graph.)
**Net Gain or Loss?**

We do not know if public radio’s XM and Sirius subscribers are making up their “lost” 71 terrestrial minutes with more listening to public radio on these services.

On one hand, it’s likely that they are. Our listeners use XM and Sirius an average of nine hours each week. They need to be only 13 percent loyal to public radio’s channels to make up the 71 minutes. Their terrestrial loyalty of 46 indicates their strong allegiance to public radio programming. An XM and Sirius loyalty of 13 or greater is highly plausible.

On the other hand, given the protectionist programming constraints on the channels (page 11) and the unavailability of public radio’s Sirius channels via the Internet and the Dish Network, a loyalty of 13 may be highly optimistic.

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**Location of Listening**

(Percent of all XM & Sirius or Terrestrial Station Listening)  
Public Radio’s Arbitron Diary Database

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**Graph 6**

With all of the attention given to satellite receivers in new cars, it’s interesting to learn that public radio listeners spend more time with XM and Sirius at home than in their cars or at work (43, 36, and 21 percent respectively).

They listen to XM and Sirius an average 3:15 each week on the road, compared to 5:25 they listen to terrestrial stations. Indeed, they spend more time with terrestrial stations at all three locations.
Reinvigorating Public Service

XM and Sirius listeners are lighter users of public radio’s terrestrial stations. Yet they are quite loyal to the stations’ most powerful programming — even when it is available on XM and Sirius.

These two related facts inform on-air service strategies for public stations in an increasingly fragmented and abundant media environment.

PROGRAMMING’S STRENGTH

Listening to public stations by XM and Sirius listeners is a function of the programming’s inherent power to serve public radio listeners, not its availability (or unavailability) on XM and Sirius.

Indeed, XM and Sirius listeners are most strongly attracted to public radio’s most powerful programming — even when that programming is available on XM or Sirius.

It’s easy to see why. XM and Sirius listeners have access to over 100 “radio” channels that other public radio listeners do not. This means they can be pickier about what they listen to on terrestrial stations.

This explains why they gravitate more than terrestrial-only listeners to more powerful (higher loyalty) programming, and less than terrestrial-only listeners to less powerful (lower loyalty) programming.

In this way, the importance of a station’s strongest programming is leveraged as competition increases. More choice seems to engender less patience.

Radio’s Ubiquity

Even with 100-plus additional channels at their command, public radio’s XM and Sirius listeners spend two hours with terrestrial stations for every hour they spend with their subscription service.

Radio’s ubiquity remains its advantage.

Until such time as other media become as ubiquitous, optimizing sustainable public service within terrestrial broadcast space remains the appropriate strategy for stations.

PUBLIC RADIO’S OMNIBUS SERVICE

How might this examination of our XM and Sirius listeners inform our vision of public radio’s omnibus (all-media) public service in 2010?

Here are a few thoughts.

First and foremost, stations will remain the backbone of public radio’s service in 2010. In our literature review, not even the zaniest estimates of emerging media growth suggest otherwise. And the two hours public radio’s XM and Sirius listeners spend with terrestrial stations for every hour they listen to XM and Sirius, as found in this study, offers compelling evidence that terrestrial radio stations remain formidable platforms.

Yet it is also clear that the public service potential of our programming grows in lockstep with the public’s adoption of every new medium.
Public radio is the significant service it is today because it competes vigorously over the air. Why, then, would it not strive to compete vigorously on emerging media platforms?

The stock answer is that it cannot allow its emerging media endeavors to hurt its stations.

This study finds public radio’s current endeavors on XM and Sirius are not hurting stations. And that should come as no surprise.

- XM’s and Sirius’ 200-plus channels generate only one percent of all radio listening.

- Public radio’s XM and Sirius channels cannot be heard by many XM and Sirius subscribers as they are not distributed to the largest installed bases of receivers – computers connected to the Internet, and satellite TV receivers.

- Public radio’s XM and Sirius channels are not programmed to serve national audiences; they are programmed to protect stations’ local audiences. Indeed, were they broadcast over radio stations, listening would be minimal.

This study does not tell us what impact a more broadly distributed and effectively programmed set of XM and Sirius services would have on public radio stations.

But from a public service perspective public radio’s approach to XM and Sirius sets a troubling precedent. How can it maintain and grow its public service when it does not strive to serve listeners effectively on every medium in which it competes?

We observe that our listeners will adopt new media whether public radio’s programming is available on them or not. When public radio programming is effectively unavailable via the newly adopted media, the whole institution suffers – not just stations.

Therefore, public radio’s challenge is to manage, as an industry, the extension of its services to as many emerging distribution platforms as sustainable.

This challenge requires that it align the interests of its stations, producers, distributors, funders, and listeners in a unified vision of purpose and practice.

This challenge also requires appropriate distribution of the financial risks and returns associated with extending services to additional platforms. The economics of public service dictate that stations and their networks participate in this business as partners, not adversaries.

In the long run, tactics of scarcity and protectionism ultimately restrain programming from achieving its potential level of service to the American public.

Tactics of abundance and multiplicity, however, allow programming to effectively compete – and realize its full public service potential – in a hyper-competitive media environment.

Public radio’s ability to implement appropriate tactics may well determine the omnibus level of service it can provide to the public in 2010.
XM or Sirius?

At the end of 2005’s second quarter, coincident with the end of Arbitron’s Spring survey, Sirius claimed 29 percent of all satellite radio subscribers; XM claimed the remainder. Yet 34 percent of public radio’s satellite listeners subscribed to Sirius.

There may be a couple reasons why Sirius is the more appealing service. Public radio listeners have a strong predilection toward non-commercial media. (All Sirius channels are commercial-free; some XM channels carry spots.) Sirius also launched with two channels devoted to public radio content, and today has a higher public radio presence. Could we be seeing a subscription “lift” to Sirius by public radio’s listeners?

We cannot answer this question directly. But just for fun we can estimate the maximum size of this lift – if indeed it exists at all.

Sirius’ reach into public radio’s audience is five points higher than into the general public. That works out to 24,000 more public radio listeners subscribing than expected, or about 18,000 subscriptions (public radio households average 1.3 public radio listeners over the age of 12).

With 1.8 million subscribers at the time, Sirius may have experienced as much as a one percent lift from its association with public radio.

Major Programs & Formats

Graphs 3, 4, and 5 lay out national programs and discrete local formats that individually generate at least one percent of all listening to public radio. Together, they account for 73 percent of all public radio listening.

The national programs are:

- A Prairie Home Companion
- All Things Considered
- BBC World Service
- Car Talk
- Classical 24
- Diane Rehm
- Fresh Air
- Morning Edition
- Performance Today
- Talk of the Nation
- Weekend Edition Saturday
- Weekend Edition Sunday

The local formats are:

- AAA
- Blues
- Call-In
- Classical
- Eclectic
- Jazz