



# What Happens When the Spots Come On

The Impact of Commercials on the Radio Audience

Insights from PPM<sup>SM</sup>, Media Monitors<sup>SM</sup> and Coleman

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## Overview

Arbitron, Media Monitors<sup>SM</sup> and Coleman have teamed up to provide new insights into what happens to the radio audience when radio stations play commercials. This is the first in a series of studies on the impact of commercials on the radio audience using the power of passive electronic measurement. This report is based on an Arbitron, Media Monitors and Coleman analysis of data from Houston, Texas, where Arbitron has deployed its PPM<sup>SM</sup> (Portable People Meter) service and Media Monitors provides electronic commercial monitoring of radio commercials.

### The Role of Passive Measurement

Advertisers today demand increasing levels of accountability from the media. In radio, this starts with improved audience measurement credibility and assurance that schedules run as ordered. It also includes better estimates of how much of the audience stays tuned to commercials. Electronic passive audience measurement via Arbitron's PPM service is a substantial upgrade in the credibility of the ratings for advertisers. In addition, electronic measurement enhances the credibility of commercial monitoring data because it provides greater depth and coverage than prior manual techniques. Today, advertisers can have far greater confidence in the audience ratings and monitoring data they use to make decisions.

The combination of these powerful, passive, measurement tools provides new insights into what happens when radio stations play commercials.

### Radio's Commercial Audience: Far Better Than Conventional Wisdom

For years, radio advertisers have wondered about the audience reached by their commercials. Many believe the commercial audience is much lower than the program audience. They assume that many listeners change stations or turn off the radio when the ads come on. **This new report provides detailed evidence showing that radio does a remarkable job of retaining audience through commercial breaks.**

### Optimizing Spot Breaks

It is crucial for programmers to optimize radio's content, including commercial breaks, to compete more effectively for the consumer's time and attention. For years, many programmers assumed that commercials drive listeners away from the station. This assumption fueled a wide range of practices for spot breaks designed to hold listeners through programming and minimize audience loss. Contrary to what many believe, this study reveals that radio holds most of its audience during spot breaks.

In the following pages we provide the significant highlights, review the key findings and discuss the implications of the research for advertisers, agencies, programmers and broadcast executives.



## Overview of Methodology

Our goal was to determine what happens to the audience when commercials come on the radio. Specifically, how much does the audience change during the spot break, itself, compared with the minute prior to the start of the commercials? This study looks at the audience for 93,876 unique commercial breaks in Houston during the two-month period of November and December 2005. It is based on passive electronic audience measurement from Arbitron's PPM service and electronic measurement of commercial occurrences from Media Monitors.

Leslie Wood Research arrayed the data into discrete commercial pods/breaks by determining the date and start and stop times from Media Monitors. We analyzed Arbitron's PPM data to determine the audience for each of these 93,876 commercial pods/breaks, ranging in length from one minute to six minutes. The audience for the minute prior to the start of each pod/break (the "lead-in audience") was compared to the audience for each subsequent minute of the break.

We also conducted a quick survey on Arbitron's Web site among people in the advertising agency and radio industries, to gather how they perceive radio's ability to hold its audience during commercial breaks.

Reader's Note: Commercial audience ratings are not part of the PPM rating service. This analysis is based on a custom minute-level data set created for the distinct purpose of this study.

Please turn to page 13 for a more detailed description of how the survey was conducted.



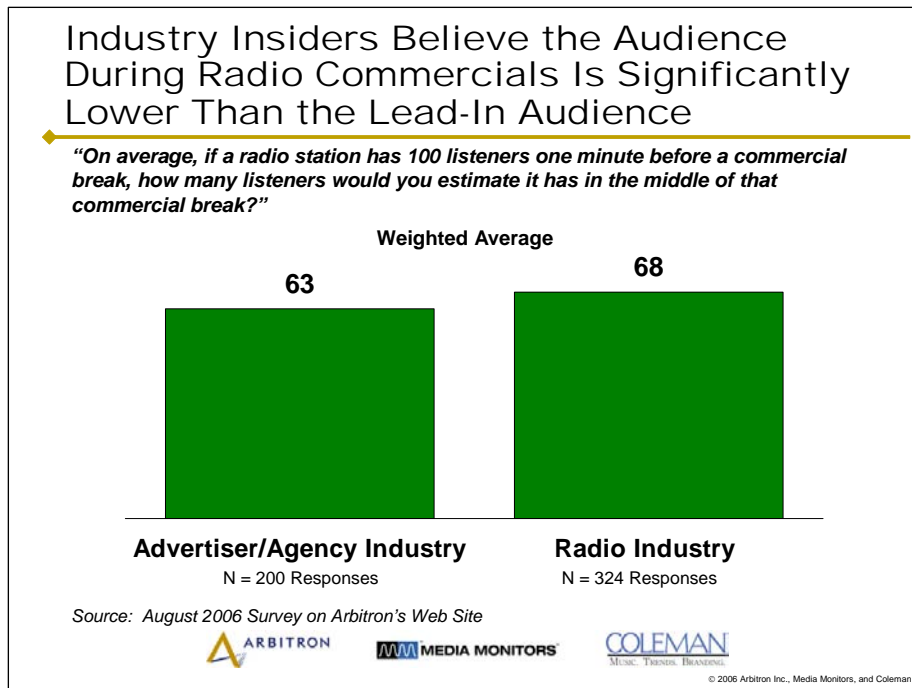
## Significant Highlights

The following is a summary of the highlights of our analyses, which are detailed in subsequent pages of this report.

- **The industry mistakenly believes radio loses a considerable portion of its audience when commercials run.** A Web survey conducted by Arbitron and Coleman among people in the agency and radio industries finds a perception that the audience during commercial breaks is only two-thirds the size of the audience before spots run. Contrary to what many believe, this study reveals that radio holds most of its audience during spot breaks.
- **On average, radio holds more than 92% of its lead-in audience during commercial breaks.** This finding dispels the myth that listeners “button-push” every time a commercial comes on the radio.
- **Radio audience levels do not drop significantly between the third, fourth, fifth and sixth minutes of a commercial break.** While audience levels are higher during the first and second minutes, they “level off” between the third and sixth minutes of a commercial break.
- **Younger listeners are more likely to tune out of commercials than older listeners.** Even among younger listeners, however, radio audience levels remain very high during commercial breaks.
- **Commercial breaks during morning drive hold more than 94% of the lead-in audience.** The high level of audience retention in the morning-drive daypart suggests greater listener engagement in the morning and substantiates the value of morning-drive inventory.
- **Listening levels are less likely to decline during weekday commercial breaks than during weekend commercial breaks.** However, as with all listening, even on weekends radio retains a high proportion of the lead-in audience during commercial breaks.

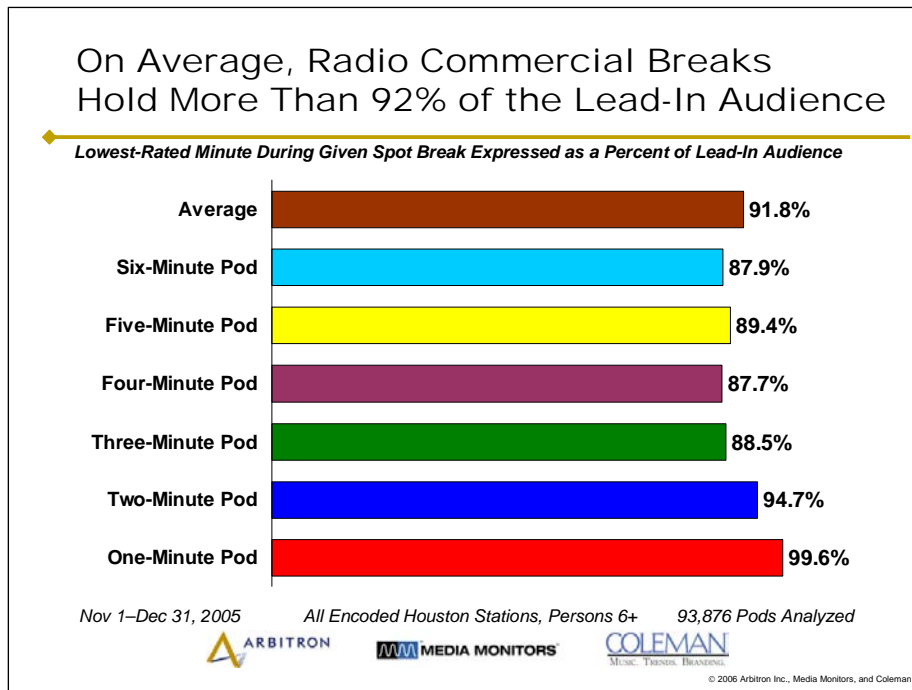
## Key Findings

- 1. Advertisers, agencies and radio executives believe that radio loses a substantial portion of its audience during commercial breaks.** We conducted a survey on Arbitron's Web site to get an informal sense of the perceptions of people in the business about radio's ability to hold the audience during commercial breaks. We asked, "On average, if a radio station has 100 listeners one minute before a commercial break, how many listeners would you estimate it has in the middle of that commercial break?" People identifying themselves as members of the advertiser/agency industry (200 responses) said that, on average, the size of the audience in the middle of a radio commercial break is only 63% of the size of the audience one minute prior to the start of the break. Respondents indentifying themselves as members of the radio industry also believe that listening is significantly lower during spot breaks. On average, respondents identifying themselves as members of the radio industry (324 responses) believe radio retains only 68% of the audience during commercials.



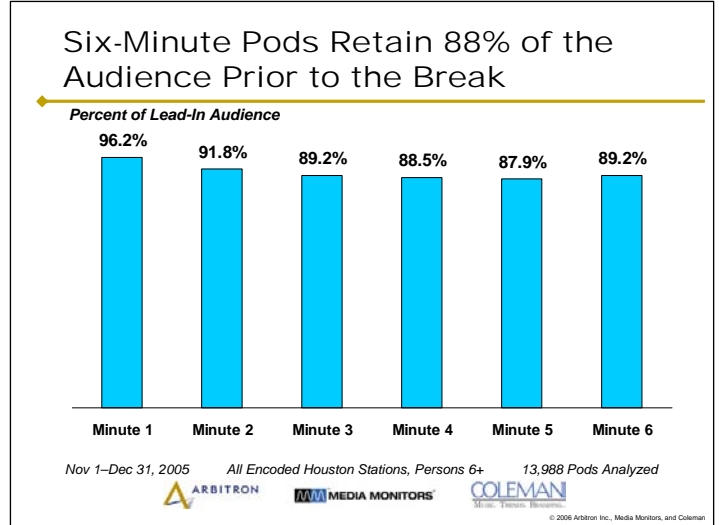
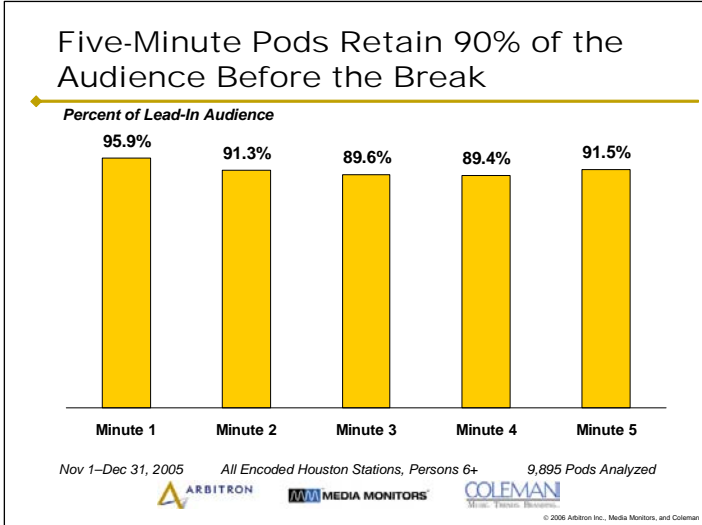
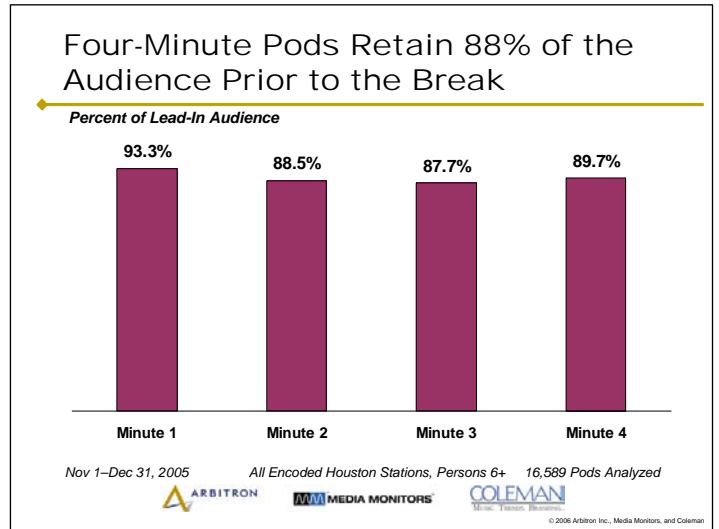
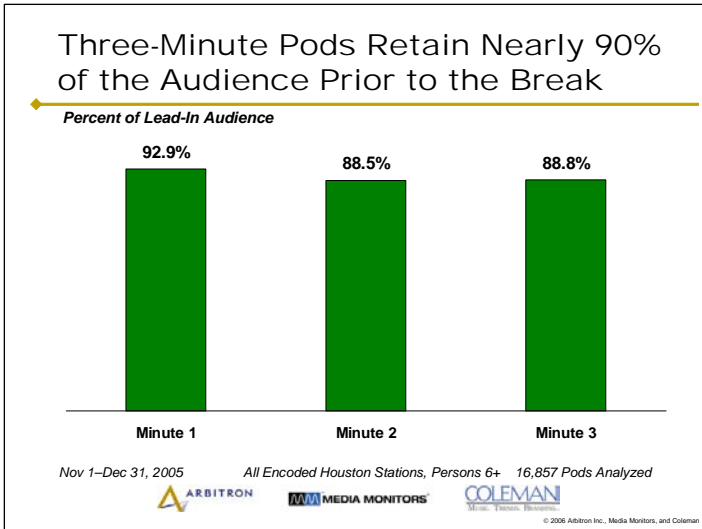
This Web site survey also provided insights into other industry perceptions. These include the belief that radio audience levels decline more during afternoon-drive commercial breaks than during morning-drive commercial breaks, that younger listeners are more prone to change stations during commercial breaks than are older listeners, that more radio listening occurs in the car than in any other location and that radio commercial loads have increased in recent years.

**2. On average, radio holds more than 92% of its lead-in audience during commercial breaks.** Arbitron and Coleman analyzed the audience of commercial breaks based on data compiled by Leslie Wood Research. The analysis is based on 93,876 commercial breaks from November and December 2005, using Arbitron’s PPM audience estimates and commercial occurrence data from Media Monitors. We compared the audience level for each minute of a commercial break to the audience for the minute before the commercials began. Not surprisingly, the audience for one-minute breaks is nearly the same as the lead-in audience (99.6%), and the lowest-rated minute during two-minute pods is 95% of the size of the audience prior to the spot break. What is perhaps more surprising is that radio does a remarkable job of holding onto its audience even during longer commercial breaks. The audience levels of the lowest-rated minute during breaks of three to six minutes are virtually identical, ranging from 88% to 89% of the average break’s lead-in audience. On average, the lowest-rated minute during commercial breaks is 91.8% of the lead-in audience.



These findings about radio’s ability to maintain audience levels during commercial breaks are well aligned with those contained in *Spot Load Study 2005*, which Arbitron completed with Edison Media Research. That study found that Americans overwhelmingly felt that commercials were a “fair price” to pay for free radio programming. Furthermore, that study found that most listeners perceive that they usually listened to at least one spot in a typical commercial break.

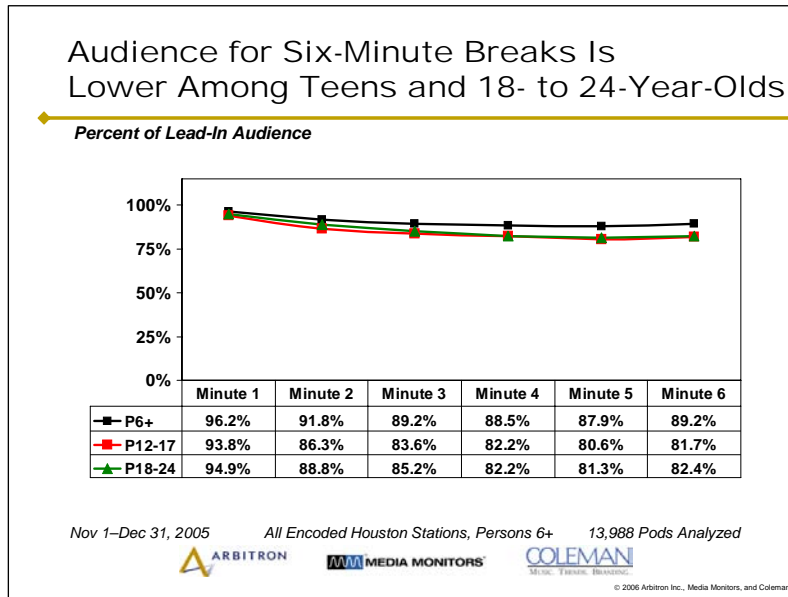
- 3. Radio audience levels do not drop significantly between the third, fourth, fifth and sixth minutes of a commercial break.** Some believe that the radio audience continues to decline throughout the span of commercial breaks. These data show that audience levels essentially “level out” roughly three minutes into a six-minute commercial break, as many listeners return to stations toward the end of stop sets. This behavior suggests that listeners time the length of commercial pods and return to the station at roughly the same audience level as the minute prior to the spot break.



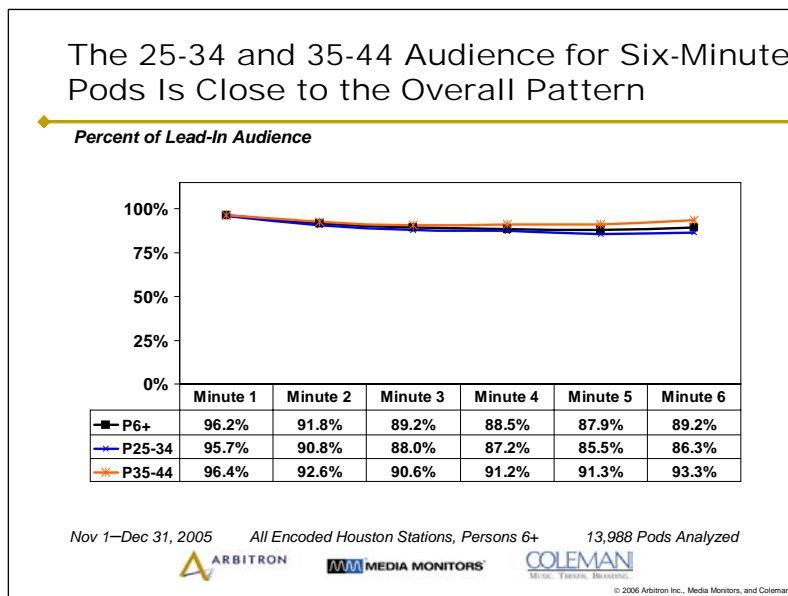
Reader’s Note: Many in the industry have wondered whether audience levels would be higher if stations utilized fewer, longer commercial breaks or more frequent, shorter ones. These findings on the effects of commercial break duration are not an endorsement of one approach over the other, because our findings do not take into account the impact that differing lengths of noncommercial programming have on stations’ audiences. This is a subject we hope to tackle in future studies.

**4. Younger listeners are more likely to tune out of commercials than older listeners.**

Among all listeners 6+, the audience for the lowest-rated minute in a six-minute commercial break is 87.9% of the size of the audience during the minute prior to the break. Teens and 18- to 24-year-old listeners, however, are the most sensitive to longer commercial breaks. Among teens, the lowest-rated minute in a six-minute commercial break has a net audience of 80.6% of the audience in the minute prior to the break. Among Persons 18-24, this same figure is 81.3%.

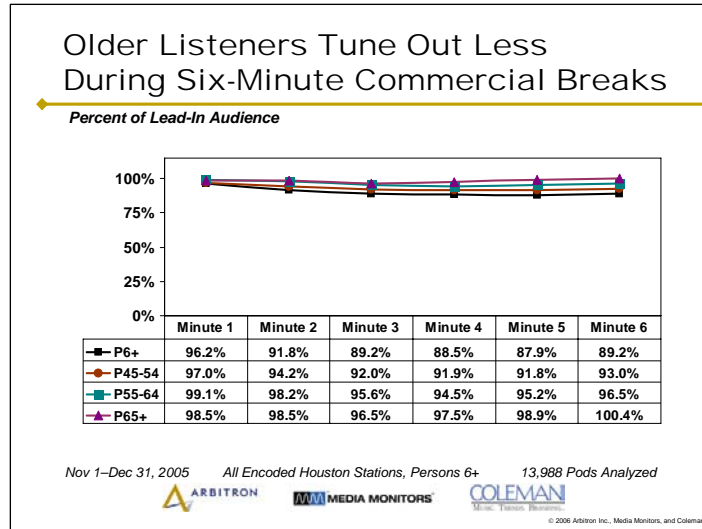


The audience during commercial breaks among Persons 25-34 and 35-44 resembles the pattern we observe among all Persons 6+. Among Persons 25-34, the audience for the lowest-rated minute of a six-minute break is 85.5% of the lead-in minute. Among Persons 35-44, the lowest-rated minute is 90.6% of the audience before the spots are aired.





Older listeners are less likely to tune out during commercial breaks. The audience for the lowest-rated minute of a six-minute break is 91.8% of the lead-in minute among Persons 45-54. These figures increase to 94.5% and 96.5% among Persons 55-64 and Persons 65+, respectively.

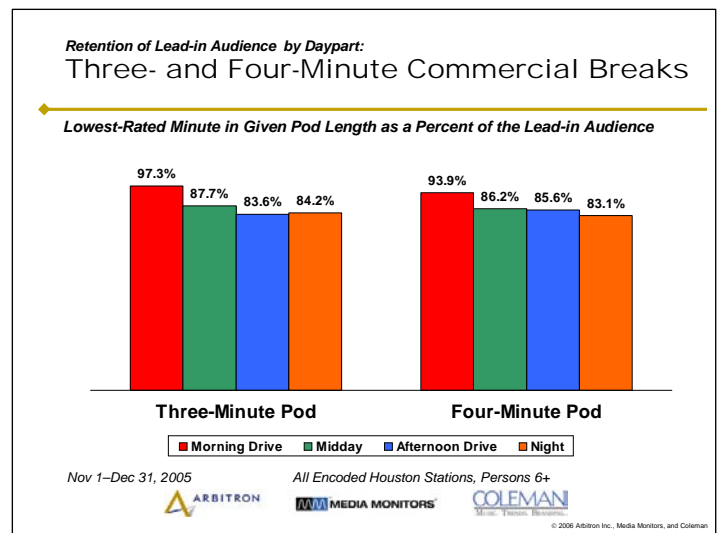
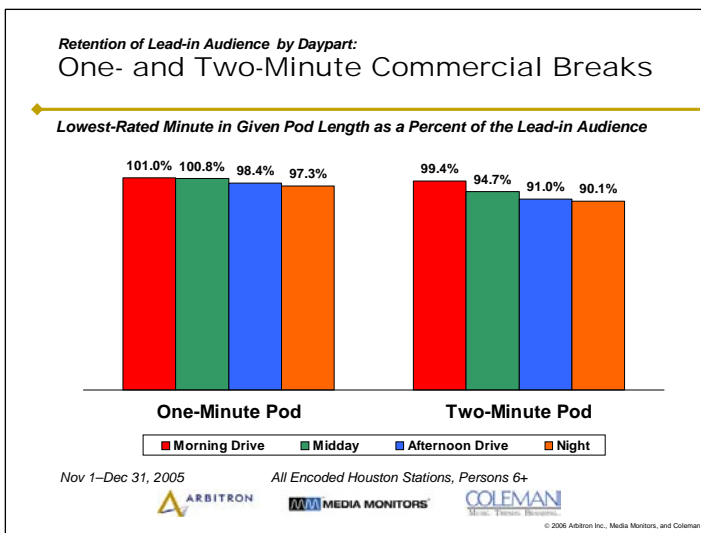


**5. Commercial breaks during morning drive hold more than 94% of the lead-in audience.**

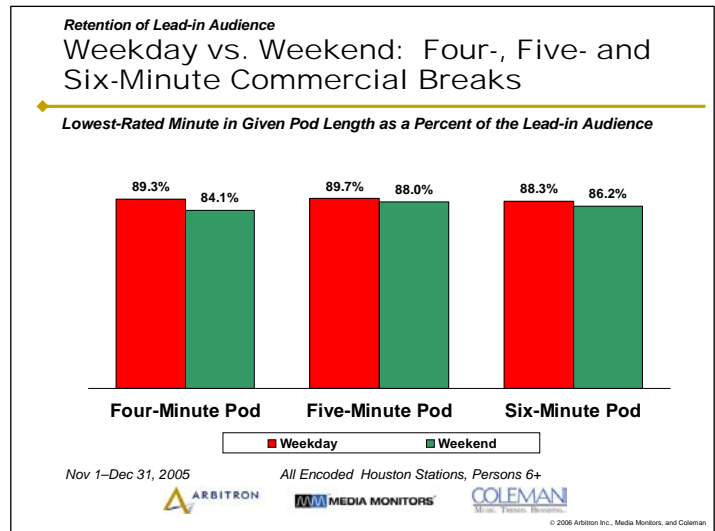
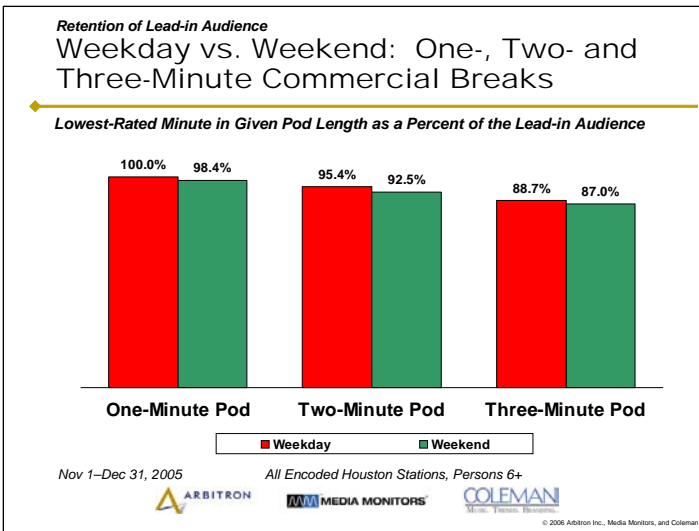
Morning-drive listening holds more than 94% of the lead-in audience during commercial breaks ranging from one to six minutes in duration. The higher level of audience retention in the morning-drive daypart suggests greater listener engagement and substantiates the value of morning-drive inventory.

Midday is the next “best” daypart for retention of lead-in audience during commercial breaks. For shorter pods of one to two minutes, midday commercial breaks retain 95% of the lead-in audience and more than 86% for pods running three to six minutes in length.

Spot breaks of three to six minutes retain between 84% and 87% of the lead-in audience in afternoon drive. Commercial breaks at night retain a slightly smaller proportion of the lead-in audience compared with morning drive, midday and afternoon drive.



- 6. Listening levels are less likely to decline during weekday commercial breaks than during weekend commercial breaks.** Spot breaks from one minute to six minutes in duration have a slightly higher net audience than commercial breaks that occur during the weekend. The difference between weekday and weekend net audience during breaks ranges from a low of 1.6 points for one-minute breaks to a high of 5.2 points for four-minute spot breaks.



- 7. According to Arbitron’s quarterly ratings, only one-third of listening occurs in-car, but people in the advertising agency industry believe the proportion is much higher.** Approximately one-third (34.6%) of listening during an Average Quarter-Hour among Persons 12+ occurs while in-car, according to Arbitron’s 2006 edition of *Radio Today*. However, people in the advertising agency industry believe that a far higher proportion of listening occurs in-car where “button pushing” occurs most often. People in the advertising agency industry estimate that 52.3% of all listening occurs in-car according to a survey on Arbitron’s Web site in August 2006.

## Implications for Broadcasters

- 1. Broadcasters should make advertisers more aware that radio is a commercial-friendly medium.** There is no doubt that radio's ability to deliver audience for its commercials exceeds the advertisers' expectations. People in the advertising agency industry estimate that the audience during commercial breaks is only 63% of the lead-in audience. This new study shows, on average, radio holds more than 92% of its lead-in audience during commercial breaks. This is clearly a perceptual gap that if closed would benefit radio.
- 2. Radio programmers should focus on building strong brands that generate listener loyalty and not worry a lot about the negative impact of running commercials.** On average, the audience for the lowest rated minute during commercial breaks is 92% of the size of the audience before commercials start. For years, radio programmers have focused on strategies for maintaining audience through commercial breaks. Certainly, this study does not suggest that minimizing the audience loss from commercials is no longer a worthwhile endeavor, but it does show that audience loss due to commercials may not deserve the hyper-focus it has received from radio programmers.
- 3. Programmers of stations that cater to a younger audience should be more aware of potential audience loss due to commercials, but even they should not obsess over the issue.** This research clearly dispels the myth that all young listeners switch stations every time a commercial airs. For years, and in various forms of research, we have heard listeners complain about commercials in all media (including broadcast television, cable television and the Internet, in addition to radio), but this research suggests that, at least for radio, these complaints do not convert to the dire behavior many believe. Younger listeners hear most radio commercials on the stations they listen to, and in this respect, they are not much different from their older brothers, sisters and parents.
- 4. Broadcasters should not assume that because the sixth minute of a commercial break has the same audience as the third minute in a break more commercials should be run or longer breaks are better.** This research only looks at the audience during commercial breaks compared with the prebreak audience levels. It does not examine the rate at which the audience recovers after the commercial breaks are over, and it does not compare audience levels for commercial and noncommercial programming. Because of its design, this research does not answer the question of whether it is better to have fewer, longer breaks or more frequent, shorter breaks. This question will be examined by Arbitron, Media Monitors and Coleman in future research.
- 5. Radio should be cautious about "overselling" its role as an in-car medium.** While there is little question that radio's ability to reach consumers in their cars immediately before many purchase decisions is a compelling attribute, the touting of this benefit has led many to overstate the proportion of radio listening that occurs in cars. We believe this contributes to the overestimation of the amount of "button pushing" that occurs when radio stations air spots, since it is in cars where listeners' ability to change the stations during commercials is greatest.

## Implications for Advertisers

- 1. Advertisers should recognize that radio is a commercial-friendly medium.** The long-held perception that listeners tune away from commercials in large numbers is simply not true. On average, the audience for the lowest-rated minute during commercial breaks is 92% of the size of the audience before commercials start. While commercial avoidance certainly exists, this study indicates that it is overstated by consumers and overestimated by advertisers.
- 2. Advertisers should not be overly concerned about their position in radio commercial breaks.** With the exception of the first commercial in a spot break, the audience for all commercials is pretty similar. This suggests that advertisers do not need to worry about not having audience available to hear their message in the third, fourth, fifth or even sixth minute of a commercial break. Furthermore, while the audience is higher for the first minute in a break, it is only a few percentage points higher than in the second position or deeper in the set. Since the lowest point in a break has nearly 90% of the program audience, the differences in audience size at any point in a break are generally far less than 10%.
- 3. Advertisers should not be particularly concerned about commercials running in afternoon drive and weekends, since commercial audience levels in those times are also high.** This supports the idea that even in cars most people are not actively avoiding commercials.
- 4. The high level of audience retention during commercial breaks in the morning-drive daypart suggests greater listener engagement in the morning and substantiates the value of morning-drive inventory.** Data from this study reaffirm the significance of the morning daypart for advertisers.

## How the Study Was Conducted

Our goal was to determine what happens to the audience when commercials come on the radio. Specifically, how much does the audience change during the spot break, itself, compared with the minute prior to the start of the commercials? This study looks at the audience for 93,876 unique commercial pods during the two-month period of November and December 2005.

### PPM

For the past 15 years, Arbitron has worked to make passive electronic measurement a reality in the United States and overseas with its PPM (Portable People Meter) service. PPM is an audience measurement technology that can detect inaudible codes embedded within audio programming. Randomly selected people carry the PPM device with them, and it detects the encoded audio that person is exposed to each day. PPM is passive because respondents don't need to remember their listening behavior and write it down. All panelists need to do is take their PPM with them, and it does the rest automatically. PPM detects exposure to encoded audio programming, notes the time and length of the exposure and stores the information. Each day, the panelists recharge the unit and the data are automatically sent to Arbitron for processing. PPM has been up and running for more than a year, as a demonstration market in Houston, Texas, and it is commercially deployed in several countries around the world. Arbitron is poised to roll out the service in the Top 50 U.S. markets by 2010.



PPM is ideally suited for the level of detail required for this study. Since we wanted to analyze the audience for many commercial pods on specific days, a reliable panel was required. The panel of 2,100 people in Houston provides a robust daily sample size that produces remarkably reliable audience estimates for any given day. While Arbitron's sample for a given day in the *diary* service is approximately 340 people (1/12<sup>th</sup> of the total quarterly sample), the average daily sample for PPM is nearly four times as large, with 1,400 people contributing data each day.

PPM's passive electronic measurement dramatically reduces response bias (forgetting to record listening, recording listening that didn't occur or recording more listening than occurred) associated with recall-based measurement. While people are able to provide adequate records of listening to radio over a period of a week with recall-based measurement such as the Arbitron diary, their ability to recall listening for a given spot break on a given day is limited. With PPM, people don't need to note their behavior and remember to tell us about it. PPM does that automatically. Panelists simply need to remember to bring the device with them during the day, and Arbitron's patented motion detector and compliance systems help ensure that they do.

## Media Monitors

Media Monitors, LLC is a world leader in radio spot monitoring and Newspaper Ad Tracking<sup>SM</sup>, providing services for broadcasters, newspapers, media research firms and advertising agencies.

For decades, it was expensive and tedious for radio advertisers to verify the number of times a spot played or whether the right copy ran on-air. In addition, manual monitoring methods were incomplete, because they did not cover the full range of major properties in a market and often only monitored selected periods during the year. Now, using the patented technology of Media Monitors, clients can have details on a particular radio spot or an entire radio and print campaign at their fingertips in seconds. Media Monitors records all of the audio from top-rated radio stations using field sites in major markets, including Houston, upon which this study is based. Media Monitors' patented method of audio fingerprinting technology is then used to identify spots. These are forwarded to Media Monitors' Data Centers, where teams of spot specialists research and identify new advertisers and songs. Play information is then added to the existing online database where thousands of daily users can easily access, sort and examine it using a simple Web interface.

Media Monitors data are also a crucial component in analyzing the impact of commercials on radio audiences. Media Monitors enabled us to identify and analyze a vast quantity of more than 90,000 commercial pods/breaks for the months of November and December 2005, using a consistent and highly regarded systematic approach.



## Appendix

The following tables provide estimates of the audience by demographic category for each minute of radio commercial breaks ranging from one to six minutes in duration. These estimates are expressed as a percentage of the audience for the minute prior to the start of each respective commercial break.

### % of Lead-In Audience: Six-Minute Commercial Breaks

	Minute 1	Minute 2	Minute 3	Minute 4	Minute 5	Minute 6
P6+	96.2%	91.8%	89.2%	88.5%	87.9%	89.2%*
P6-11	96.2%	89.6%	87.0%	87.2%	86.5%	89.2%
P12-17	93.8%	86.3%	83.6%	82.2%	80.6%	81.7%
P18-24	94.9%	88.8%	85.2%	82.2%	81.3%	82.4%
P25-34	95.7%	90.8%	88.0%	87.2%	85.5%	86.3%
P35-44	96.4%	92.6%	90.6%	91.2%	91.3%	93.3%
P45-54	97.0%	94.2%	92.0%	91.9%	91.8%	93.0%
P55-64	99.1%	98.2%	95.6%	94.5%	95.2%	96.5%
P65+	98.5%	98.5%	96.5%	97.5%	98.9%	100.4%

### % of Lead-In Audience: Five-Minute Commercial Breaks

	Minute 1	Minute 2	Minute 3	Minute 4	Minute 5
P6+	95.9%	91.3%	89.6%	89.4%	91.5%
P6-11	96.3%	92.0%	89.0%	87.4%	90.2%
P12-17	93.1%	86.0%	84.3%	83.6%	84.9%
P18-24	93.2%	85.9%	81.6%	80.8%	83.5%
P25-34	95.2%	89.6%	88.2%	87.7%	89.6%
P35-44	94.7%	89.6%	87.0%	87.4%	89.7%
P45-54	96.6%	93.7%	93.0%	93.5%	94.9%
P55-64	100.6%	98.5%	98.8%	99.4%	101.5%
P65+	100.9%	102.2%	102.5%	103.5%	106.2%

**\*How to read:** For Persons 6+, the audience to the last minute of a six-minute commercial break is 89.2% of the size of the audience for the minute prior to the start of the pod.



## Appendix *(continued)*

### % of Lead-In Audience: Four-Minute Commercial Breaks

	Minute 1	Minute 2	Minute 3	Minute 4
P6+	93.3%	88.5%	87.7%	89.7%*
P6-11	93.8%	88.6%	87.0%	89.0%
P12-17	91.9%	86.5%	84.7%	85.8%
P18-24	92.2%	85.3%	84.3%	86.3%
P25-34	92.0%	86.0%	85.1%	86.9%
P35-44	92.7%	87.5%	86.8%	88.7%
P45-54	94.9%	90.8%	90.0%	93.2%
P55-64	94.4%	92.1%	92.0%	94.9%
P65+	97.4%	97.0%	96.8%	97.9%

### % of Lead-In Audience: Three-Minute Commercial Breaks

	Minute 1	Minute 2	Minute 3
P6+	92.9%	88.5%	88.8%
P6-11	93.6%	88.2%	88.0%
P12-17	91.5%	83.3%	83.1%
P18-24	91.2%	84.3%	84.9%
P25-34	91.5%	86.6%	87.6%
P35-44	92.6%	88.4%	88.3%
P45-54	93.9%	90.8%	90.7%
P55-64	94.3%	93.7%	94.5%
P65+	98.2%	95.6%	95.9%

**\*How to read:** For Persons 6+, the audience to the last minute of a four-minute commercial break is 89.7% of the size of the audience for the minute prior to the start of the pod.

## Appendix *(continued)*

### % of Lead-In Audience: Two-Minute Commercial Breaks

	Minute 1	Minute 2
P6+	97.1%	94.7%*
P6-11	98.0%	93.0%
P12-17	92.3%	89.9%
P18-24	93.0%	86.6%
P25-34	93.8%	90.1%
P35-44	97.2%	94.8%
P45-54	98.4%	97.3%
P55-64	99.6%	99.0%
P65+	100.7%	100.3%

### % of Lead-In Audience: One-Minute Commercial Breaks

	Minute 1
P6+	99.6%
P6-11	99.7%
P12-17	98.8%
P18-24	98.0%
P25-34	97.5%
P35-44	99.4%
P45-54	99.8%
P55-64	101.0%
P65+	101.6%

**\*How to read:** For Persons 6+, the audience to the last minute of a two-minute commercial break is 94.7% of the size of the audience for the minute prior to the start of the pod.

## About Arbitron

Arbitron Inc. (NYSE: ARB) is an international media and marketing research firm serving radio broadcasters, cable companies, advertisers, advertising agencies and outdoor advertising companies in the United States, Mexico and Europe. Arbitron's core businesses are measuring network and local market radio audiences across the United States; surveying the retail, media and product patterns of local market consumers; and providing application software used for analyzing media audience and marketing information data. The Company has also developed the Portable People Meter (PPM<sup>SM</sup>), a new technology for media and marketing research.

Arbitron's marketing and business units are supported by its research and technology organization, located in Columbia, Maryland. Arbitron has approximately 1,700 employees; its executive offices are located in New York City.

Through its Scarborough Research joint venture with VNU, Inc., Arbitron also provides media and marketing research services to the broadcast television, magazine, newspaper and online industries.

**Additional information about Arbitron: [www.arbitron.com](http://www.arbitron.com).**

## About Media Monitors<sup>SM</sup>

Media Monitors, LLC is a world leader in radio spot monitoring and Newspaper Ad Tracking<sup>SM</sup>, providing services for broadcasters, newspapers, media research firms and advertising agencies. Our services include Radio Spot Monitoring, Newspaper Ad Tracking, Spot Ten<sup>®</sup> weekly charts of radio advertisers, and custom research projects upon request. The Media Monitors broadcast content recognition process of audio fingerprinting used by Media Monitors is protected by U.S. Patent 5,437,050.

For decades, it was expensive and tedious for radio advertisers to verify the number of times a spot played or whether the right copy ran on-air. Now, using the patented technology of Media Monitors, sales executives can have details on a particular radio spot or an entire radio and print campaign at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio commercials and also provides newspaper ad data for its customers.

**Additional information about Media Monitors: [www.mediamonitors.com](http://www.mediamonitors.com).**

## About Coleman

Coleman, headquartered in Research Triangle Park, North Carolina, with offices in Los Angeles and Hamburg, Germany, is a media research firm that has provided its clients with deeper insights into music trends and branding opportunities since 1978. Its client base includes MTV Networks, as well as hundreds of radio stations in North America, South America and Europe, including those owned by CBS Radio, Emmis Communications, Lincoln Financial Media, Spanish Broadcasting System, ABC Radio, Entercom Communications Corporation, Grupo



Radio Centro, Bonneville International Corporation, Standard Radio, Sandusky Radio, Lagardère International, Radio One, Beasley Broadcast Group, Inner City Broadcasting, Grupo Prisa, Mid-West Family Broadcasting Group, The Mondadori Group, Connoisseur Media, Corporación Radial del Perú, South Central Communications, SBS Broadcasting, Maverick Media and Hubbard Broadcasting.

**Additional information about Coleman:** [www.ColemanInsights.com](http://www.ColemanInsights.com).

## About Leslie Wood Research

Leslie Wood Research provides sophisticated analytics, media optimizers and media research consulting services for a blue-chip list of customers including Procter & Gamble, Initiative Media, Arbitron Inc., Mediacom, RJ Palmer, Mediamark Research, Time Inc., Dentsu and Competitive Media Reports. Ms. Wood's area of expertise is in applying a strategic framework to clients' most data-intensive opportunities, most recently through Project Apollo, The Fusion Lab and optimizers. The co-inventor of patents representing breakthrough intellectual property for clients, she is most excited by the use of creative analytics to solve communication planning and buying needs.

She is a frequent industry speaker at forums such as the Advertising Research Foundation, Canadian Advertising Research Foundation, Association of National Advertisers, Radio TV Rating Council and Marketing Modelers Group. Currently, she is cochair of the Advertising Research Foundation's Media Effectiveness Council and has authored two articles for the *Journal of Advertising Research*: "Recency in Media Planning Redefined" (August 1997) and "Internet Ad Buys—What Reach and Frequency Do They Deliver?" (February 1998).

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