

**DESCRIPTION
OF METHODOLOGY**

Arbitron Ratings Company
Market Reports
1987

**ARBITRON RATINGS
RADIO**



DESCRIPTION OF METHODOLOGY

Arbitron Ratings Company
Standard and Condensed
Radio Market Reports
1987

LOCAL RADIO MARKET REPORT STANDARD AND CONDENSED

The Arbitron Radio Market Reports provide our clients with reliable information on the size and demographic composition of radio audiences; information essential to sound decision-making for advertising sales and radio programmers.

The Market Reports contain not only the audience estimates for that survey period in a particular Arbitron defined market but also general marketing information and share trends based on prior Arbitron surveys.

DESCRIPTION OF METHODOLOGY

This booklet provides a detailed description of the methodology used in the production of Arbitron Radio Market Reports (both Standard and Condensed). This description replaces other previously published *Description of Methodology* and remains in effect until it is revised and/or replaced by Arbitron Ratings Company. A summary of this description is printed in each Radio Market Report.

Any revisions, modifications or amendments in methodology or service which occur subsequent to the publication of this description will be announced via bulletins and/or similar publications sent to our clients and the Electronic Media Rating Council. All such issued revisions, modifications or amendments become integral and incorporated parts of this text by reference.

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Electronic Media
Rating Council

The Arbitron Radio Market Report Service has been fully accredited by the Electronic Media Rating Council (EMRC) since 1968. To merit continued EMRC accreditation, Arbitron:

1. Adheres to the Council's Disclosure, Ethical and Operational Standards;
2. Provides full and complete information to the Council regarding all details of its operation;
3. Conducts its measurement service substantially in accordance with representations made to their subscribers and the Council; and
4. Submits to and pays the cost of thorough ongoing audits of Arbitron operations and performance by CPA firms engaged by EMRC.

In addition to sizable audit fees, Arbitron provides the EMRC with office, storage and file space, as well as staff and computer time on a continuous basis.

Further information about the EMRC — its accreditation and auditing standards and procedures can be obtained from:

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Executive Director
Electronic Media Rating Council
420 Lexington Avenue
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Introduction

Arbitron Radio Description of Methodology is intended to provide users of our Market Reports with information on the types of estimates included in the reports, the sampling methods used in the surveys on which the reports are based, the methods of obtaining and processing the basic data and the statistical reliability of the resulting estimates.

Such information is designed to assist users through a better understanding of what the audience data published in the reports represent, and their limitations.

The methodology described herein is applicable only to Arbitron Radio Market Reports which are published at regular intervals as defined by Arbitron. Methodology for non-syndicated or special surveys may differ and will be described in the applicable report.

Specific information applicable to individual reports, such as sample size for that market or the distribution of in-tab diaries, is provided in each report.

The Market

MARKET NAME

A market name used by Arbitron Ratings is descriptive of the survey area of that market and generally corresponds to the name established for the Metropolitan Statistical Area (MSA), Primary Metropolitan Statistical Area (PMSA) or Consolidated Metropolitan Statistical Area (CMSA) by the Office of Federal Statistical Policy and Standards for the Office of Management and Budget (OMB)*, unless modified by Arbitron to better reflect market preference or industry usage.

Arbitron's conformity with or deviation from OMB definitions is noted on page 5B of each market report.

As trend analyses may be affected by any change in market definition, it is also noted if any Metro counties have been added or deleted during the periods covered by the Trends section of the report.

Survey areas that do not have an official MSA, PMSA or CMSA designation are named after the city to which the largest number of home stations are licensed or are based on historic broadcast industry designation.

Market Definition

An Arbitron Radio Market can be comprised of up to three geographic areas:

1. Metro Survey Area (Metro)
2. Total Survey Area (TSA) and, if applicable,
3. The Area of Dominant Influence (ADI).

** Metropolitan Statistical Area definitions are modified periodically by the OMB. Additional information concerning the definition, creation, modification and denomination of Metropolitan Statistical Areas may be obtained by contacting the Office of Management and Budget, Washington, DC 20503. Information on how Arbitron uses the OMB Metropolitan Area designations may be obtained from Arbitron Radio's Policies and Procedures Department.*

METRO SURVEY AREA (METRO)

Arbitron Metros generally correspond to the federal government's Metropolitan Statistical Areas (MSAs).

An MSA includes a city (or cities) whose population is specified as that of the central city together with the county or counties in which it is located. The MSA may also include additional or contiguous counties when their economic and social relationships meet the criteria specified for metropolitan integration. Population commuting information and other data supplied by the U.S. Census Bureau are used to define MSAs. An MSA may cross state lines.

Metropolitan Statistical Areas can stand alone, in which case the designation is simply Metropolitan Statistical Area (MSA) or they can be large metropolitan areas composed of smaller metropolitan areas, where both the whole and each component area qualifies as "metropolitan" according to the standard guidelines. The individual metropolitan areas which comprise the large Consolidated Metropolitan Statistical Area (CMSA) are designated Primary Metropolitan Statistical Areas (PMSAs). MSAs and PMSAs, which are the basic (non-overlapping) metropolitan units, are most frequently used by businesses and other users of census data, although some of Arbitron's radio Metros do conform to the CMSA definitions.

For areas that do not have an OMB-defined metropolitan area, Arbitron usually defines the Metro Survey Area to include the county(ies) of the majority of the local area station's city(ies) of license. Metro Survey Areas may cross state lines.

Although in most cases (outside of New England*) radio Metros are defined in terms of whole counties, it may be necessary to split counties into two or more sample units in order to accommodate variance in signal reception and/or radio listening patterns. These geographic splits are done at the zip code level and are based on population estimates from the 1980 decennial Census updated annually. Once divided, the individual segments of a county are treated as separate counties (or sampling units) for purposes of Metro Survey Area definition, sample placement and returned sample weighting.

Metro definitions are reviewed for update once every 10 years, when the OMB updates its definitions based on decennial census data. In the review process, consideration is given to long-standing historical definitions. Planned changes are announced in advance so consideration may also be given to views of subscribers.

In the 10-year period between the OMB review/update, Arbitron will consider changes to an existing market definition upon expression of interest by half or more of the market subscriber base.

Upon expression of such interest, Arbitron will evaluate the change using information supplied to it by all interested parties and any other relevant and available information.

The following conditions are considered in evaluating a proposed change:

- radio listening patterns within proposed metro area
- topographic patterns affecting signal reception
- proximity to other Metro Survey Areas
- local trade and commuter patterns
- unusual marketing situations in selling to local, regional and/or national advertisers as described by the radio stations serving the area
- various other marketing and/or research considerations which will impact upon a change.

* In New England, because of the high population density, the OMB metropolitan areas are frequently defined two ways. The more precise definitions are based on towns and are called MSAs (or PMSAs or CMSAs). As an alternative definition, whole county definitions called New England County Metropolitan Areas (NECMAs) are also available. Arbitron uses one of the two (depending on the preference of metro subscribers) in most New England survey areas.

Upon completion of the review, if Arbitron finds no reason to object to the proposed change, the matter will be submitted to Metro-licensed subscribers within the market for consideration in a preference poll. The change will be made if 80 percent or more of the eligible voting subscribers favor it (100 percent in cases of fewer than five eligible voting subscribers).

Arbitron reserves the right to exercise its best professional research judgment in determining definitions for radio Metro Survey Areas if the process described above appears unreasonable, illogical or impractical in light of known conditions.

TOTAL SURVEY AREA (TSA)

The Total Survey Area (TSA) of an Arbitron Radio Market is designed to provide a comprehensive measure of listening to Metro-licensed stations. As in the Metro, the TSA is defined in terms of counties and may cross state lines. Counties are not split for the purpose of defining the TSA; however, any geographically split county sampling units which were created for the purpose of defining the Metro will be analyzed separately in the TSA qualification procedure. TSAs of adjacent markets can, and frequently do, overlap.

TSA definitions are based on historical radio listening patterns. They are updated biennially, from an analysis of diary data used for the most recent County Coverage study. The last update was Fall 1985, based on all diaries returned for the 1984 calendar year; the next update will be effective Fall 1987, based on all 1986 diaries.

TSA Qualification Criteria

A county or portion of a county (i.e., geographic split) will be added to the TSA of a given market if the following conditions are met:

- at least 10 in-tab diaries are received from the county; and
- the Metro-licensed stations receive a minimum of 10 diary mentions; and
- the mentions to Metro-licensed stations account for at least 10 percent of the total station mentions from that county (9.5+ rounds to 10).

Exceptions: The "10-10-10" rule outlined above is the basis for TSA qualification. However, strict application of the rule may not always produce a logical TSA, nor provide for the qualification of a county in which very few diaries are historically placed.

Therefore, a county may also be added to the TSA of a particular market if:

- at least 15 percent of its mentions were of Metro-licensed stations, regardless of the number of in-tab diaries or mentions of Metro-licensed stations; or
- at least 75 percent of the county is surrounded by other counties within the market definition and inclusion would maintain geographic contiguity of the market definition.

A county will not be added, regardless of the listening data, if it is not contiguous with the rest of that market's TSA.

TSA Retention Criteria

In order to stabilize market definitions over time (by minimizing the instances of deleting and then re-adding counties which hover around the 10 percent threshold), Arbitron has set the criteria for being retained in the TSA a bit lower than the initial qualification criteria.

In order to be retained in the TSA:

- the Metro-licensed stations must receive only eight diary mentions; and
- the mentions to Metro-licensed stations must account for only 8 percent of the total station mentions from that county (7.5+ rounds to 8).

Exceptions:

- *Standard:* The same exceptions which enable a county to be added (the 15 percent listening exception and the 75 percent contiguity exception) would also enable a county to be retained.
- *In-tab:* Counties currently in the TSA of a given market will also be retained in that market if the number of in-tab diaries is fewer than 10 (that is, insufficient to support analysis).

Exceptions/Limitations

Arbitron reserves the right to exercise its best professional judgment in modifying, suspending and/or waiving any procedure that would result in the addition or deletion of a county or sampling unit which would appear unreasonable or illogical in light of known topographic and/or geographic factors, or other special considerations.

The TSA does not necessarily include all counties or sampling units in which all home stations have equal coverage, nor does the TSA definition imply that all stations have equal coverage in all Metro and/or Total Survey Area counties. Since market definitions may overlap, a station's TSA audience estimates appearing in one Radio Market Report cannot be added to its TSA audience estimates reported in any other Radio Market Report.

AREA OF DOMINANT INFLUENCE (ADI)

In addition to reporting radio audience estimates for the Metro and TSA of each market, Arbitron develops and reports listening estimates for the Top 50 ADIs (based on the number of television households). ADI estimates are published in the Radio Market Reports of all radio markets whose name is carried in the ADI name (e.g., The Charleston-Huntington ADI is reported in the Charleston and Huntington-Ashland RMRs; the New York ADI is not reported in the Nassau-Suffolk RMR).

The ADI, as defined by Arbitron, is a geographic survey area based on measurable patterns of television viewing. Each county in the 48 contiguous United States is assigned exclusively to one ADI. The assignment of a county or sampling unit to an ADI is based on shares of the county's total estimated viewing hours. The market whose home television stations achieve the largest total share (percentage) of viewing is determined to be the "dominant influence" in that county or sampling unit, and the county is assigned to that market's ADI. If a county has been divided by Arbitron into more than one geographic sampling unit, each unit is analyzed separately for ADI assignment purposes. Specific criteria for county assignment to an ADI are described in Arbitron Television *Description of Methodology*.

Markets in Alaska, Hawaii and U.S. Territories and Possessions may become ADIs if there are stations in their markets which subscribe to Arbitron's Television Service. Arbitron updates ADI definitions each Fall, at which time individual counties may be reassigned based on recent viewing patterns and/or new criteria.

Page 2A of each Arbitron Radio Market Report includes a map of the counties (or parts of counties) that comprise the survey area for the Report (*see also Report Format, Chapter Seven*). The map is keyed to show which counties or parts of counties make up the Metro, TSA, and when applicable, the ADI.

The Sample

SAMPLE UNIVERSE

Arbitron's sample universe consists of persons 12 years of age and older.

SAMPLE FRAME

The sample frame for Arbitron radio surveys consists of households with telephones. This information is provided by an independent company — Metromail Advertising.

SAMPLE SIZE

Arbitron develops Persons 12+ in-tab targets for each of the following market segments:

- Metro,
- Non-Metro TSA (where applicable), and
- ADI (where applicable).

The metro target is reported in the lead-in pages of each market report.

The actual number of in-tab diaries may be more or less than the in-tab targets due to the effects of:

- interviewer performance;
- respondent cooperation, return and accuracy; and
- non-survey related unique conditions in the market during the sample placement and survey periods, such as inclement weather, power outages, natural disasters or political events.

The Metro targets are essentially root functions of the 12+ population and are computed as follows:

REPORT TYPE	FORMULA
Standard	$T = \frac{2.055}{\sqrt{\text{Metro Pop 12+}}} \times 1.5$
Condensed	$T = \frac{1.9}{\sqrt{\text{Metro Pop 12+}}} \div 1.5$

Maximums and minimums are applied to the formula targets, such that Standard markets do not exceed 4000 or fall below 550; Condensed markets have a maximum of 400 and a minimum of 250. The Non-Metro TSA target is calculated from the Total TSA Effective Sample Base (ESB)* goal for each market. It can be expressed as the number of additional diaries which we would need from *outside* the metro in order to achieve a given effective sample size for the TSA as a whole (Metro + Non-Metro).

The ESB goal is equal to the Metro target plus some constant between 100 and 400, generally depending on market size (from smallest to largest). The calculated Non-Metro TSA target will almost always be greater than the constant because of the higher sampling rate inside the Metro vs. outside.

For example, a market could have a Metro target of 1000 and a market ESB goal of 1200 (constant of 200 added to Metro target of 1000). The Metro accounts for 83 percent of the ESB goal, but may account for only 60 percent of the market (TSA) population. The Metro is therefore oversampled relative to the Non-Metro portion of the TSA. Since the Metro is oversampled, those 1000 diaries are devalued somewhat when the Effective Sample Base of the entire TSA is calculated, and so we need more than 200 diaries outside the Metro in order to achieve a Total TSA ESB of 1200.

The Non-Metro TSA target can be calculated using the following formula:

$$(1) \quad \frac{\text{TSA ESB Goal}}{\text{Metro Target}} = \frac{\left(\frac{\text{Metro Pop}}{\text{Proportion}}\right)^2}{\text{Metro Target}} + \frac{\left(\frac{\text{N-M TSA Pop}}{\text{Proportion}}\right)^2}{\text{N-M TSA Target}}$$

Metro targets for existing markets are reviewed every five years. The last update was effective Fall 1984/Spring 1985 based on the 1/1/83 Market Statistics population estimates (implementation delayed because of extensive OMB metro changes). The next update will be effective Spring 1988 based on 1/1/88 Market Statistics population estimates. Metro targets for new markets, or markets experiencing a Metro definition change, are calculated from the most recent available Market Statistics estimates.

* *The Effective Sample Base is the number of diaries in a simple random sample which would produce the same degree of reliability (in terms of standard error) as a particular Arbitron in-tab sample.*

Metro targets do not always correspond to that which would be produced by the formula with minimums and maximums applied. For instance, Metro targets for markets which lost territory (and therefore, population) as a result of the 1983 OMB redefinitions were grandfathered at pre-OMB levels. Another exceptional case would be that of embedded Metros (Nassau-Suffolk in New York, Anaheim in Los Angeles, etc.), which are sometimes capped at some level below formula.

ADI targets (where applicable) are currently equal to the corresponding Metro targets.

SAMPLE TARGET ALLOCATION

Once established, market segment targets are allocated to the county — or sampling unit — level.

While Arbitron sampling units frequently correspond exactly to whole counties, they may also consist of:

- a portion of a county;
- an independent city; or
- an independent city plus the adjacent county.

For each market segment (Metro, Non-Metro TSA, ADI), the target allocation is based on each sampling unit's proportion of the 12+ population. However, since the ADI overlaps Metro/Non-Metro TSA, two targets are actually derived for many counties within a market. For Metro counties, the target-as-Metro is generally higher than the target-as-ADI; for Non-Metro TSA counties, the target-as-Non-Metro TSA is generally lower than the target-as-ADI. In all cases, the highest target for each sampling unit generated by these two designs is the one which is actually used to order sample.

SAMPLING ORDERING

After sampling unit high targets have been established, those targets are divided by 3 to produce Phase (or four-week) targets.

Historical sample performance statistics such as sample usability, household consent rate, persons-per-household and usable diary return rate — by Phase and Sampling Unit for Listed and by Phase and Metro for ESF — are applied to the targets to produce the number of homes (telephone numbers) which must be ordered from Metromail. While historical trends in these data are valuable as planning tools, they are rarely exact predictors of future sample performance. Manual adjustments may therefore be applied when the historical performance statistics used for ordering a particular geography appear to have been aberrations.

THE METROMAIL FILES

Metromail draws Arbitron's sample from two files:

- The Listed file contains residential phone numbers which are published in the most recent telephone directory for a given county. **Note:** A number is only considered Listed if the directory listing contains a mailable address.
- The Expanded Sample Frame (ESF) or Unlisted file contains a list of potential residential phone numbers — randomly generated — from which listed numbers (resident and business), non-residential exchanges (business or group quarters), number blocks with fewer than five residential listings and unassigned number blocks have been excluded.

Arbitron's ESF sample would therefore be described as:

- persons from homes which are permanently unlisted by choice; plus
- persons from homes which are temporarily unlisted (i.e., available from Directory Assistance but not yet published in the local directory); plus
- persons from homes which are listed in the local directory without a mailable address.

SAMPLE SELECTION

For each Arbitron survey, a completely new sample of households is computer-selected for all markets being surveyed. The individual Phase (four-week) orders are randomly split into four equal weekly samples which are designated for placement for that week only. There is no carryover or substitution of sample from one week to the next.

Listed Sample

(for Metros, TSAs, ADIs)

The Listed Sample is chosen by means of an interval random selection technique from a file of listed numbers sorted numerically within zip code within county. For each county, the number of listings on the file is divided by the number of listings in Arbitron's sample order to produce the size of the interval. From a random start point, the interval boundaries are fixed, and then one number is selected (at a random point within the interval) from each interval. The file of phone numbers for each county is thus passed one complete time.

ESF Sample

(Metros only)

The ESF Sample is selected similarly to Listed, from a file of potential unlisted numbers sorted numerically within zip code within Metro. For each Metro, the number of listings on the file is divided by the number of listings in Arbitron's sample order to produce the size of the interval ('n'). From a random starting point, every "nth" listing is chosen so that the file of potential unlisted phone numbers is passed one complete time.

Buffer Sample

Arbitron monitors both diary placements and usable diary return for all three phases of every radio survey, although diary return statistics for phases 2 and 3 are not available in time for in-survey corrective action.

If diary placement and return statistics indicate that achieving target for a given county is unlikely, buffer sample may be ordered. (Thresholds for ordering buffer sample vary by market segment. The decision to buffer also depends on the relationship of current performance to predicted performance for that particular county or Metro; there are no absolute criteria independent of those factors.) For Listed sample, buffer is ordered from Metromail or hand-drawn from local telephone directories (depending on the market) using the interval selection technique described

above. For ESF sample, buffer is computer-drawn in the same manner and from the same file as the original sample.

LIMITATIONS

In addition to other sources of possible sample errors described elsewhere in this book, users should be aware of the following limitations inherent in Arbitron's sampling procedures:

- a. Arbitron reserves the right to withhold publication of any Radio Market Report whenever, in its best professional judgment, insufficient data are available to meet its minimum research standards or an event has jeopardized the reliability of the data.
- b. The sample is drawn from telephone households only. Persons in non-telephone households are thereby excluded from the sample frame. Metro telephone households not listed in directories are sampled using ESF described elsewhere on this page. Commercial establishments listed in telephone directories are specifically excluded from the sample. Persons residing in listed telephone households may have listening habits which differ from persons residing in households with unlisted telephone numbers.
- c. Sample households determined during the diary placement telephone interview to contain a member affiliated with the broadcast industry are ineligible to participate in Arbitron surveys and are deleted from the sample. The inclusion or exclusion of such media-affiliated households is dependent upon information revealed during the placement telephone interview.
- d. Households on military installations, educational campuses or other such facilities may not ordinarily be listed in local telephone directories but may be included in the ESF Sample as long as they are not otherwise excluded in paragraph (e) below.
- e. Effort is made to exclude residents of group quarters, defined as living arrangements of nine or more unrelated individuals, from the sample. Examples include (but are not necessarily limited to) residents of college dormitories, nursing homes, convents, military barracks and hospitals. To the extent that such persons' listening habits may differ from other persons, they may not be represented in the sample.
- f. All possible updates to local telephone directories may not be available in the data file prepared by Metromail and used as Arbitron's sample frame.

g. Eligible non-responding persons in the original sample of households prevent the in-tab sample from being a perfect probability sample.

h. The sample frame eliminates non-telephone households. The listening habits of persons in non-telephone households may differ from those of persons in telephone households.

i. The sample design and/or response patterns may preclude proper representation of certain groups within the population such as ethnic groups, persons in certain low-income or low-education groups, or individuals whose primary language is other than English or Spanish. These factors may be significant to the extent that radio listening of these groups differs from those of other groups.

j. Population estimates from Market Statistics used in designing the sample are subject to defects and limitations such as sampling, processing and recording errors. In addition, for those years between decennial Census dates, Census data are based upon a sample which is significantly smaller in most regions than that employed by Arbitron. Market Statistics utilizes published government figures in estimating populations for individual sampling units. These population figures do not include adjustments for known or unknown, over- or undercounts of various segments of the population, including undocumented population groups. These defects and limitations in data from Market Statistics are inherent in the Arbitron estimates based thereon.

k. The data upon which Arbitron has based its returned-sample weighting, including ethnic identification, may not be precise. Additionally, zip code information used in this report is subject to defects and limitations. Therefore, defects and limitations found in data supplied by others are inherent in Arbitron estimates based thereon.

Survey Technique and Operations

Please start recording your listening on the date shown on the front cover.

4 THURSDAY							
TIME			STATION			PLACE	
1	From	To	Fill in station "call letters" (If you don't know them, fill in program name or dial setting)	Check One (✓)		Check One (✓)	
				AM	FM	At Home	Away From Home
						In a Car	Some Other Place
Early Morning (5AM to 10AM)							
Night (7PM to 5AM)							

IF YOU DID NOT LISTEN TO RADIO TODAY PLEASE CHECK HERE

Each time you listen to the radio, please be sure to use a new line, and write in the station "call letters."

LISTENING RECORDS

A one-week, open-ended, individual radio listening diary is the instrument used to collect listening information. The raw diary information forms the basis from which Arbitron projects radio audience estimates. The diary is personally maintained over a seven-day period (Arbitron surveys begin on a Thursday and end on a Wednesday) by each survey participant. Bilingual (Spanish-English) diaries are provided to survey participants who, during the placement telephone interview, identify themselves as Hispanic in response to the race/ethnicity question, and to any other individual requesting one.

DIARY PLACEMENT AND RETURN

Arbitron's placement procedures are designed to encourage the full and complete participation by individuals in the designated sample frame. Arbitron's first contact with a Listed sample

household is a letter informing the household of its selection by computer for participation in the radio survey and advising that a telephone interviewer will call soon with more information.

The letter also explains that Arbitron is a legitimate survey research company which is not interested in selling anything, and further suggests that they "check us out with the local Business Information Bureau" if they have a concern.

If the sample household is from the Expanded Sample Frame (ESF), the address of the household is unknown and the first contact is made by telephone. A letter similar to the one sent to Listed households is sent after the telephone interviewer contacts the household, and obtains the household's consent to participate and mailing address. Interviewers do not collect radio listening data. Interviewers are based both in the field and in the Interviewing Center in Laurel, Maryland. All interviewers are closely supervised and use prepared standardized scripts.

Interviewers are instructed to make up to five attempts to reach each Listed sample household and ten attempts to reach each ESF sample household. To increase the likelihood of establishing contact, calls are made at different hours throughout the day and early evening.

When a sample household is reached, one of the first questions asked is whether anyone in the household is employed by or otherwise affiliated with a radio or television station or network. An affirmative answer disqualifies the entire household from participation in the survey, and it is deleted from the sample.

If, in response to a probing question by the interviewer, it is discovered that nine or more unrelated occupants reside in the unit, the household is classified as a group home and is disqualified. Persons in group quarters include persons under care or custody in institutions such as hospitals and nursing homes, and persons in large non-institutional group quarters such as college dormitories, fraternities, sororities, military barracks, monasteries, missions, workers' dormitories or smaller, non-institutional group quarters such as rooming houses, boarding houses, rectories, convents or communes. If less than nine unrelated occupants reside in that unit, the sample is considered usable, and the interview continues.

The role of the interviewer is to stimulate interest in the survey, resulting in the household's full participation. The interviewers are also instructed to gain acceptance of the diaries, determine the number of persons 12 years of age and older in the household, the presence of males 18-24, and verify the household address and county in which it is located. For ESF sample, the interviewer must also obtain a name and address for the household. In Metros where Differential Survey Treatment (DST) and ethnic weighting are used, the interviewer asks a question about the race and/or ethnicity of the household.

Based on information collected by the telephone interviewer, diaries and premiums are mailed to all persons 12+ in consenting households. A token premium (\$.50 or \$1.00), not mentioned during the telephone interview, is sent with each diary.

After the diaries are mailed, households are recontacted to check that the diaries were received, remind respondents of the importance of their diaries and, if necessary, answer questions about how to record listening in the diaries. Interviewers attempt to place this follow-up call two days before the survey begins and will continue to try to reach the household during the survey and up to two days after the survey ends — up to 14 attempts.

On the first day of the survey, a follow-up letter is mailed to each consenting household. The letter thanks the household again for agreeing to participate and includes an additional \$1.00 premium for the household.

SPECIAL SURVEY PROCEDURES

Arbitron has implemented special survey procedures called Differential Survey Treatments (DST) to encourage participation by groups which have a historical pattern of low return rates. In areas where blacks and Hispanics comprise significant proportions of the Metro population, they are eligible for these special procedures. Households with a male 18-24 years old are eligible in all Metros.

Ethnic Control Criteria

Criteria for selecting Metros in which DST and sample weighting are used for blacks or Hispanics are as follows:*

The Metro population age 12+ must include:

1. 10 percent or more blacks or Hispanics (9.5 rounds to 10); or
2. 150,000 or more black or Hispanic population aged 12+.

Differential Survey Treatments

In general, DST consists of higher cash premiums and additional follow-up procedures to encourage respondent participation and diary return.

The procedures for each of the groups who qualify for DST are as follows:

1. In Metros qualifying for black ethnic controls, households identified as black receive the following DST:
 - If the household includes a black male aged 18-34, and there are four or fewer persons 12+ in the household, each person in the household receives a \$5.00 premium with the diary. If the household includes a black male, aged 18-34, and has more than four persons 12+, a \$2.00 premium is sent with each diary. (No follow-up premium is sent.)
 - If the household is without a black male aged 18-34, a \$1.00 premium is sent with each diary and a second \$1.00 premium is sent with a follow-up letter.
 - Three follow-up contacts are made with each household.

* See *Sample Balancing, Chapter Five*, for information on ethnic weighting.

2. In Metros qualifying for Hispanic ethnic controls, households identified as Hispanic receive the following DST:

- A \$2.00 premium is sent with each radio diary.
- Three follow-up contacts are made with each household. These are made by bilingual telephone interviewers whenever possible.*
- All survey materials, with the exception of the preplacement letter, are bilingual.

3. All other Metro households with a male 18-24 are sent a \$2.00 premium for each radio diary.

High Density Areas

High Density Areas (HDA) are sampling units which are established within the Metro of an ethnically controlled market when the population of a county meets certain additional criteria. HDAs allow for sample planning at a more discrete level than the whole county, permitting sample usability, consent rate and person-per-household return rate to be monitored separately.

Page 2B of the Radio Market Report contains information about the total sample and the total black or Hispanic sample returned from the HDA portion of the Metro. HDA definitions are updated annually using the following criteria.

High Density Black Areas (HDBA):

1. The county must be a part of a Metro which qualifies for Ethnic Controls.
2. The county population must be at least 10 percent or more black (effective Fall 1987, 9.5 rounds to 10).
3. The county must have a zip code that is at least 35 percent black. (It is this zip code(s) which will comprise the HDBA.)
4. The proposed HDBA must have sufficient population as a proportion of the total Metro to be allocated a minimum in-tab target of at least nine diaries, and the balance of the county (the non-HDBA portion) must have enough population as a proportion of the total Metro to be allocated a minimum in-tab target of at least nine diaries.

High Density Hispanic Areas (HDHA):

The criteria for a High Density Hispanic Area are the same as above for a High Density Black Area, except a zip code within the county need only have a 25 percent Hispanic population.

* The initial telephone calls are also made by bilingual interviewers whenever possible.

SURVEY OPERATIONS

Administration

Telephone interviewing, placement and follow-up are handled by interviewers based both in the field and the Interviewing Center in Laurel, Maryland. Interviewers are closely monitored, supervised and coordinated by Arbitron's professional management staff.

Supervision of local field interviewing is accomplished by Arbitron's Field Supervisors located in Laurel, Maryland. These personnel are responsible for recruiting, training and supervising the field interviewers and are assisted by local coordinators who provide field supervision and training. Local coordinators, who are recruited and contracted by Arbitron personnel, are supplied with instructional manuals and other training aids.

Local interviewers are trained with Arbitron-produced instruction manuals, cassette tapes and other materials which describe the various interviewing procedures and techniques to be followed. New interviewers are required to demonstrate their knowledge on the content of the instruction materials before receiving their first assignment. Market briefings, procedure reviews and teaching of new techniques are conducted at least once a year in all markets and at least twice a year in the top 10 markets. Under the Interviewer Incentive Plan, interviewers are compensated for the diaries placed and returned. The more diaries placed and returned, the higher the pay.

Quality Control

Arbitron uses several methods of quality control with its interviewers to ensure they call whom they are assigned and are consistent and accurate in the data they collect.

Among the quality control methods used are:

1. **Monitoring:** Supervisors listen in on selected interviews as they take place from the Interviewing Center in the Maryland production facility.
2. **Validation:** Coordinators in the field and the Interviewing Center call back a selected number of households to determine if the interviews were conducted as the interviewers have indicated on their worksheets.
3. **Call Record Sheet Comparison:** A comparative analysis is made of an interviewer's completed call record.
4. **Consent Rate Analysis:** Consent rates are reviewed regularly, and any interviewer having a consistently low or high consent rate is investigated. Those with low consent rates after retraining are terminated.
5. **Computer Reports Analysis:** Computer-generated files on performance are reviewed periodically for items such as phone numbers called and length of phone calls.

Diary Processing

As diaries are returned to Arbitron, they pass through various manual and computer processing phases before the listening data is actually tabulated into final form.

These phases are:

- Radio Edit
- Special Edit
- Data Entry and
- Data Verification

MANUAL DIARY EDIT

Radio Edit

While Arbitron endeavors to utilize all returned diaries, each one must first be carefully examined to make sure that it meets in-tab requirements. During Radio Edit, diaries are examined for usability.

Those considered unusable and subsequently rejected include diaries which are:

- Postmarked prior to or on the last day of the survey week
- Received after the designated survey week cut-off date
- Incomplete or blank. Only diaries with seven usable days are processed. (Usable days include either radio listening entries, a check in the "no listening" box or a written comment on the day page to explain a no-listening day.)
- Reflective of listening by a diarykeeper who is less than 12 years old
- Kept by a person outside of the survey household
- Kept by a person who lives outside of the survey area
- Missing age, sex and/or, if applicable, race information. (Attempt is made to obtain this missing information by telephone callbacks.)
- Diaries deleted for security reasons (i.e., media affiliation)

Unusable diaries are key-entered separately from usable diaries, creating an unusable diary tally file. They are stored for the same length of time as usable diaries. (*See Restrictions on Use of Reports, Chapter Ten.*)

Special Edit

Special Edit procedures are used when further clarification of certain diary entries are necessary before usable diaries can be key entered.

Diary entries which require Special Edit include:

- A call letter(s) with a frequency, numeric or network
- A program, personality or sporting event
- A network
- A frequency
- A slogan identification (ID) (e.g., "Y-103" or "Kick 'N Country")
- Any combination of the above or other such entry that is a non-call letter entry.

Since diary editing is done on a county-by-county basis, the primary editing tool of a special editor is the County Slogan Edit Listing. In addition, special editors refer to the program, personality and sporting event logs returned by stations as part of the Station Information Packet. The Station Information Packet is sent to stations by Arbitron prior to each survey. It contains information about the survey and requests that stations update their programming information by completing and returning the included forms.

The County Slogan Edit Listing is a computerized listing, by county or sampling unit, of all stations whose broadcast signal has previously been determined to reach into the county. It contains the following information for each station: FCC-authorized frequency, city, county and state of license, network affiliation and slogan ID (maximum 25 characters).

When a Slogan ID (e.g., 97FM) is used by a diarykeeper to identify listening, the special editor refers to the County Slogan Edit Listing in determining which station to credit. If the slogan has not been submitted by a station, the listening entry is credited to Unidentified listening. If only one station has reported the use of that slogan ID to Arbitron, then that station will be credited with the entry.

If two or more stations on the same county listing are listed as using the same slogan ID, then a conflict exists. Arbitron uses a statistical technique called Ascription. Ascription assigns credit by using a probability formula based on the proportion of the relative listening levels of the conflicting stations over the previous year. This technique is also used to resolve similar conflicts over sports, programs, personalities, networks, frequencies or call letter aberrations.

Data Entry

Once the diary has been manually edited, it is key-entered into Arbitron's computer system. Diary listening entries are keyed by call letters as deciphered by the data entry operators. "Illegal" (non-FCC licensed) or illogical call letters must be double keyed for quality assurance purposes. Age and sex information is also double keyed for the same reason. Comments noted by diarykeepers are not used in editing and are not key-entered.

Data Verification

After the diaries have been key-entered they are forwarded to Arbitron's Data Verification department, which serves as an internal auditor of the key-entry process. The county, home and person numbers of each diary are compared to a printout of the key-entered diaries. As an additional check, at least 1 percent of all diaries are randomly selected and receive a complete audit (including keyed listening entries from the day pages). Data Verification is also responsible for deleting from the sample diaries rejected via computer edit.

COMPUTER EDIT

Once the data has been entered into the computer, several built-in automatic computer edits take place to further clarify and/or purify the return sample. These computer edits include the flagging of diaries to be rejected and, if possible, the crediting of aberrated call letters to a legal and logical set of calls.

Computer Rejects

Some of the reasons for a computer to reject a diary are as follows:

- Two or more diaries from the same household which have identical age/sex and listening
- Listening that exceeds Arbitron's established thresholds for excessive listening

Aberrated Calls

Careless handwriting and subsequent interpretation by data entry operators or respondent confusion over call letters or the AM/FM bands may result in some key-entered call letters which are not legal or logical in the county in which the diary originated. These instances are referred to as aberrated call letters.

When these aberrated call letters are entered into the computer, the automated processing system will attempt to match or "flip" them to a set of legal and logical calls. For example, WBBB-AM is not legal in County X; however,

a station with calls WBBB-AM is legal in that county — so the computer will "flip" the calls and credit the listening to WBBB-AM.

The system would also permit the crediting of WBBB-FM to WBBB-AM, if WBBB-FM was not a legal or logical station to the county. The computer flips are programmed by a series of established logical procedures followed by the computer. If the computer cannot find a legal or logical station to credit, the entry will remain as originally key-entered.

Computer Tally

Upon completion of the flip process, call letter entries are tallied to determine what stations qualify under the Minimum Reporting Standards (MRS). (See *"The Stations," Chapter Six.*)

DIARY SECURITY

Arbitron has established procedures and policies to prevent tampering with audience measurement samples which might affect reported audience estimates.

a. Arbitron will not knowingly include in its tabulated samples any household having a household member who owns or works full-time or part-time for a radio station, TV station, cable, pay system or programming service, television network or major audience measurement company.

b. Additional procedures have also been established to minimize the potential for diary tampering. These procedures, because of their purpose, remain confidential.

REVISIONS AND REISSUES

Corrections to Published Radio Market Reports

Arbitron Ratings recognizes and wholly accepts its responsibility to publish the most reliable audience information reasonably possible; however, audience estimates obtained from the processing of diaries and published in the Arbitron Radio Market Reports are subject to errors of various types. (Please see *Radio Market Report, page iv, paragraph 45, entitled "Limitations" for further detail regarding limitations on the data.*) To this end, whenever an error is discovered, it is investigated and possible corrective actions are considered. Corrective actions may include but are not limited to: report reissue, a notice of report revision, a letter to all subscribers or a letter to the affected subscriber.

Processing errors fall into two categories, systematic and non-systematic. Arbitron's procedures for dealing with these errors depend on the type and nature of the error.

Systematic Errors

Systematic errors result from the use of incorrect source information such as slogan ID's or a failure to update computer files so that automated processes are correctly performed. Systematic errors may also be the result of a security breach caused by the inclusion of suspect diaries in the tabulation. This type of error is frequently a "biased" error — affecting one or a few stations to the exclusion of others.

Arbitron will evaluate the impact of the error and if it is of sufficient magnitude, may reissue the Report.

Magnitude is measured by considering the percent change (5 percent or greater) and the rank change on the Average Quarter-Hour Persons audience estimates of Metro persons 12+, as reported in the Monday-Sunday 6AM-Midnight daypart. A change in rank of stations will trigger consideration of a reissue.

Non-Systematic Errors

Reports are not reissued to correct errors of a non-systematic nature. An example of a non-systematic error is a data entry error. Although data entry maintains a high accuracy rate, there is a degree of error. This type of error does not result in corrective action consideration since there is no reason to believe that the error resulted in a bias against any particular station or station type. After-the-fact correction would require a complete examination to identify all such errors in order to "purify" the data base — adding an unreasonable expense in exchange for a very small increase in overall precision.

Non-systematic manual edit errors are also not considered for corrective action for the same reasons stated above.

Samples of each data entry operator's and each editor's work are continuously audited throughout the production cycle. Arbitron Ratings has historically maintained high accuracy rates in both the data entry and edit functions.

Errors Not Affecting Audience Estimates

Information other than the audience estimates may be affected by errors. This type of situation is evaluated for reissue or other corrective action on a case-by-case basis. Arbitron will exercise its best professional judgment in determining what, if any, corrective action should be considered. In making this judgment,

Arbitron will focus primarily on the impact the error has on the accuracy and use of the Report.

Examples of errors not affecting audience data are:

- incorrect listing of stations as home to a Metro area (above the line) or outside the Metro area (below the line);
- incorrect simulcast times that result in incorrect AM/FM total lines; and
- incorrect lead-in page data on items such as the technical difficulty information, call letter change information, station facility information, station subscriber status and survey area map.

LIMITATIONS

In addition to certain limitations described elsewhere in this book, the user should be aware of the following limitations:

a. Diaries, or portions thereof, may be completed improperly if the diary instructions are not understood or are not followed. Such diaries may therefore be unusable and excluded from the survey. Some diary entries may have been made on the basis of hearsay, recall, the estimates of the diarykeeper or could have been influenced by comments made by the interviewer or others to survey participants.

b. Human and computer processing errors may occur before or after the diaries are received by Arbitron. Consequently, the degree of variance in the data may be greater than that expected from sampling variance alone.

c. Logical analysis, pre-processing preparation or ascription of the data may affect some of the diary listening entries before the data are projected. These procedures may affect a station's ability to meet MRS. Some diaries, or portions thereof, may also be checked by post-survey week telephone validation calls to diarykeepers; and diaries, or portions thereof, may thereby be modified or excluded from the survey.

d. Arbitron conducts research involving new methods of improving cooperation of diarykeepers and/or securing additional information from such persons. Occasionally, a portion of this research may be integrated with actual surveys, and if and when so done, may cause the degree of variance in the data to be greater than that expected from sampling variance alone.

Sample Weighting

Survey researchers frequently use some form of sample weighting to ensure that the returned data more accurately reflect the behavior of the universe they represent. Weighting is appropriate when the following two conditions are present:

- certain segments of the population are disproportionately represented in the sample, and
- the behavior being measured (in this case, radio listening) is likely to be different for those segments.

The weighting system used by Arbitron is called *sample balancing*. It is an iterative marginal weighting technique designed to maximize statistical reliability while minimizing bias in the tabulated data. This method, used by the U.S. Bureau of the Census for its sample surveys, was developed by Drs. W. Edwards Deming and Frederick S. Stephen and is outlined in Chapter 7 of Dr. Deming's book *Statistical Adjustment of Data*.

Maximum reliability and minimum bias are achieved by performing the least amount of weighting necessary to correct for sample disproportionalities that could distort the listening estimates. It would be possible to perform more weighting — i.e., weight to more discrete levels, as in cell weighting — but more extreme weights would actually decrease the reliability of the resulting estimates.

Arbitron radio samples are weighted on up to three variables:

1. Geography. All markets and survey areas are weighted to the individual county or split-county or county cluster level.

2. Age/Sex. All markets and survey areas are weighted to the 16 individual age/sex classes:

Men 12-17	Women 12-17
Men 18-24	Women 18-24
Men 25-34	Women 25-34
Men 35-44	Women 35-44
Men 45-49	Women 45-49
Men 50-54	Women 50-54
Men 55-64	Women 55-64
Men 65+	Women 65+

3. Race/Ethnicity. Some markets are weighted for race (black/non-black); some are weighted for Hispanic ethnicity (Hispanic/non-Hispanic); some are weighted for both (black/Hispanic/other). In "dual DST" markets (i.e., markets with both black and Hispanic controls), households which identify themselves as both black and Hispanic are counted as Hispanic for sample balancing and market report processing.

MARGINALS

Geography and Age/Sex are the two *marginal categories* always present in sample balancing. Race/Ethnicity may or may not be present as a marginal category.

Each marginal category is composed of *marginal classes*. The number of geographic classes will vary by market and survey area, as will the number of race/ethnicity classes. But the number of age/sex classes is always 16.

Note: In black or Hispanic DST markets, race/ethnicity is controlled as a marginal category when black or Hispanic in-tab is not sufficient to support an individual model.

MODELS

Every market is sample balanced in sections called *models*. The market can be likened to a pie, which is cut into a number of pieces, the sum of which is the whole pie. The simplest configuration would be one piece, or model. A single-model market would be one which has no TSA, no ethnic control procedures and no measured ADI, such as Ann Arbor. Most markets are sectioned into two or more models for sample balancing purposes, however.

Models are generally established along survey area lines. For example, Metro counties are sample balanced separately from Non-Metro counties as one model. If no ADI is measured, the Non-Metro TSA counties would comprise the second model and the total number of models for the market would be two.

If an ADI is measured for the market, the Metro/ADI counties could comprise one model, the Non-Metro TSA/ADI counties a second model and the Non-Metro TSA-only counties a third model, for a total of three for the market.

Models are also established for race/ethnicity in black or Hispanic DST markets with sufficient black or Hispanic in-tab. For example, in the two-model market above, if Hispanic in-tab was at least 100, two Metro models may be established: one for Metro Hispanic and one for Metro non-Hispanic. The total number of models for the market would then be three.

The in-tab for each model is weighted (sample balanced) to the model population for each class of the three marginal categories described above: age/sex, geography and race/ethnicity (if applicable). Each model is sample balanced completely separate from the other models for that market, and of course a diary is assigned to only one model within a market.

THE MECHANICS OF MARGINAL WEIGHTING

Marginal weighting means that the in-tab for the model is weighted to represent the model population for each individual *marginal class* specifically set up for that model.

As an example, suppose Metro model A was being weighted for two ethnic classes (Hispanic/non-Hispanic), the 16 age/sex classes and three county classes.

Step One: If Hispanic persons 12+ represented 15.0 percent of model population but only 12.0 percent of model in-tab, a weight of 1.25 ($.15/.12$) would be applied to all Hispanic diaries.

Similarly, since non-Hispanic persons 12+ represented only 85.0 percent of model population but 88.0 percent of model in-tab, a weight of .97 ($.85/.88$) would be applied to all non-Hispanic diaries.

Note: The calculation and application of weights is a cumulative process; each successive step begins with diaries adjusted from all previous steps.

Step Two: If County A represented only 15.0 percent of model population but 20.0 percent of model in-tab, a weight of .75 ($.15/.20$) would be applied to all County A diaries.

The same process applies for County B diaries and County C diaries.

Step Three: If Women 35-44 represented 6.0 percent of model population but only 5.0 percent of model in-tab, a weight of 1.20 would be applied to all Women 35-44 diaries.

The same process applies for 15 remaining age/sex classes.

This round of adjustments is called one *iteration*. Each diary has been weighted three times: once for ethnicity, once for county and once for age/sex, with each successive adjustment taking into account the result(s) of previous adjustment(s).

It is extremely unlikely that after the county and age/sex adjustments, the weighted Hispanic in-tab would still equal 15.0 percent of the total sample. Because some Hispanic respondents were weighted up for county, some down for county, some up for age/sex, some down for age/sex, weighted Hispanic in-tab might now be only 14.5 percent of the total sample. So, another iteration.

Step One: This time, the weights will be much smaller than before. For example .15/.145 would produce a weight of only 1.03 for all Hispanic diaries and .85/.855 would produce a weight of only 0.99 for all non-Hispanic diaries.

Step Two: Another round for County.

Step Three: Another round for Age/Sex (end of second iteration).

The adjustments are multiplicative. For example, Hispanic diaries received a weight of 1.25 in the first iteration and 1.03 in the second, for a total adjustment of 1.29 thus far. The iterations will continue until no further adjustment is necessary (i.e., until the adjustment for each marginal category is so slight that it does not affect the proportions for any of the other categories). This point of resolution is called *convergence*.

The resulting weights will be the basis for diary values used to process the Radio Market Report.

CALCULATION OF PERSONS PER DIARY VALUES (PPDVs)

Sample Balancing produces weights for each marginal class within a model. Each diary belongs to one class within each marginal category. Therefore, each diary is weighted multiple times. In the previous example, a diary from a Hispanic woman age 42 from County A might receive the following weights.

Hispanic weight:	1.28
County A weight:	.79
Women 35-44 weight:	1.23

This would compute to an overall weight of 1.24 ($1.28 \times .79 \times 1.23$). Her diary value would be equal to the model population divided by the model in-tab (or average diary value) times the weight. (If the model population were 82,500 and the in-tab were 165, the average PPDV would be 500; with a weighting factor of 1.24, that particular diary would have a PPDV of 500×1.24 or 620.)

It should be noted that all calculations are performed to more significant places than the above examples, which are deliberately simplistic for illustration purposes.

Minimum Reporting Standards for AM-FM Combination Stations

Arbitron considers only stations who have submitted simulcast schedules for the respective survey as eligible for MRS combinations. An AM-FM combination station is included in the Market Report if it has met the following MRS for the operations classification of the station.

1. AM-FM affiliates which simulcast less than 10 percent of the total number of quarter-hours both stations are simultaneously on the air (Monday-Sunday 6AM-Midnight) are considered to be separately programmed stations. Therefore, each station will be considered independent and each must independently satisfy the criteria used for AM-only or FM-only stations.

2. AM-FM affiliates which simulcast 10 percent to 90 percent of the total number of quarter-hours when simultaneously on the air (Monday-Sunday 6AM-Midnight) are considered to be simulcast stations. If one of the two stations meets all the MRS criteria required for AM-only or FM-only stations, the second station may be included in the Report if:

a. it independently satisfies the criteria required by paragraph a and b (page 17), and
b. it achieves the average quarter-hour rating required by paragraph c (page 17) for any one of the four basic Monday-Friday dayparts which are:

- 6AM-10AM
- 10AM- 3PM
- 3PM- 7PM
- 7PM-Midnight

Handwritten note: *QS AQH in any of 4 dayparts M-F basic*

3. AM-FM affiliates which simulcast more than 90 percent of the total quarter-hours that both stations are simultaneously on the air (Monday-Sunday 6AM-Midnight) are identified as total simulcast stations and treated as one station in all the MRS requirements outlined on page 17 in "Criteria for Reporting Stations". Consequently, if the combined audience of the two stations is sufficient to meet all the above criteria, then both stations will be listed in the Report, even though one (or both) station(s) might not meet the MRS criteria if considered individually.

Handwritten notes: *10 metro mentions* and *2.5 core Rating*

AM-FM Totals

AM-FM affiliates whose programming is simulcast 10 percent or more of the total number of quarter-hours when both stations are on the air simultaneously during the Monday-Sunday 6AM-Midnight period will have estimates of their combined audiences reported when such affiliates are simulcast 100 percent of the time they are both on the air during the reported daypart.

AM-FM totals are reported in the Target Audience, Specific Audience and Audience Composition sections of the Radio Market Report.

Cable-Originated Radio Stations

Cable-originated radio stations that qualify under Arbitron's MRS criteria are not reported in the printed Arbitron Radio Market Reports but may be available in peripheral products.

Daytime Station On-Air Calculation

Arbitron Radio uses a monthly broadcast schedule for sign-on/sign-off times.

Winter Survey	January Standard Time
Spring Survey	April Daylight Saving Time
Summer Survey	September Daylight Saving Time
Fall Survey	December Standard Time

These broadcast schedules are used because Arbitron's radio audience calculation system can only apply one sign-on/sign-off schedule per station to all of the diaries returned within a survey period.

LOCATION CATEGORIES

Stations are sequenced alphabetically (except in the case of simulcast partners) in the Market Reports by call letters within location categories.

Depending on the type of report, listing sequences are:

Listing Sequence for Metro and TSA Reports

- a. Stations Home to Arbitron Radio Metro Area
- b. Stations Outside Arbitron Radio Metro Area
- c. Special Station Activities

Listing Sequence for Metro, ADI and TSA Reports (where applicable)

- a. Stations Home to Arbitron Radio Metro Area
- b. Stations Outside Arbitron Radio Metro Area but Home to ADI
- c. Stations Outside Arbitron Radio Metro Area and ADI
- d. Special Station Activities

The Stations

CRITERIA FOR REPORTING STATIONS

Arbitron's criteria for including and reporting stations in the local Market Reports are referred to as Minimum Reporting Standards (MRS) and are applied to all commercial stations with reported listening in the market.

To be eligible for consideration under MRS, a commercial radio station must engage in systematic regular commercial broadcasting pursuant to the authority, rules and regulations of the Federal Communications Commission or other appropriate governmental authority. Non-commercial radio stations are not listed in Arbitron Market Reports; however, listening to non-commercial stations and to commercial stations which fail to meet MRS are included in the Metro Total and Total Listening in the Metro Survey Area for that report.

When a commercial station changes to non-commercial or a non-commercial changes to commercial during an Arbitron survey period, the operational status used to calculate audience estimates is the one that was in effect for the majority of consecutive days during the survey period.

To ensure that all commercial stations have equal opportunity to qualify for inclusion, the criteria are applied to every commercial station each time the market is surveyed.

Home stations and stations licensed outside of the Metro Survey Area are reviewed by the same MRS criteria.

Operation Classifications

The MRS applied to a station is determined by the operation classification of that station (i.e., whether the station has an AM or FM affiliate and if so, the amount of simulcast programming).

Operations Classification definitions are as follows:

1. AM-only or FM-only: A commercial station authorized to broadcast only the AM or only the FM band and does not have an affiliate.

2. AM-FM Affiliate:

a. Commercial affiliated AM and FM stations which simulcast less than 10 percent of the total number of quarter-hours when both stations are simultaneously on the air (Monday-Sunday 6AM-Midnight).

b. Commercial affiliated AM-FM stations which simulcast 10 to 90 percent of the total number of quarter-hours when both stations are simultaneously on the air (Monday-Sunday 6AM-Midnight).

c. Commercial affiliated AM-FM stations which simulcast more than 90 percent of the total number of quarter-hours when both stations are simultaneously on the air (Monday-Sunday 6AM-Midnight).

MINIMUM REPORTING STANDARDS (MRS)

Minimum Reporting Standards for AM-only and FM-only Stations: A commercial AM-only or FM-only station is included in the Market Report if it has met all of the following Minimum Reporting Standards:

a. The station must have received five or more minutes of listening in a quarter-hour in at least 10 Metro in-tab diaries during the market survey for which the Report is being produced. (Five or more minutes of listening in a quarter-hour in at least 10 ADI in-tab diaries for ADI qualification.)

b. The station must have an unrounded Metro Cume Rating of 0.5 percent or greater among persons 12+ during the Monday-Sunday, 6AM-Midnight period (ADI Cume Rating of 0.5 percent or greater among persons 12+ during the Monday-Sunday, 6AM-Midnight period for ADI qualification).*

c. The station must have an Average Quarter-Hour Metro Rating, of at least 0.05 percent among persons 12+ for the time the station is on the air during the Monday-Sunday 6AM-Midnight period (Average Quarter-Hour ADI Rating of .05 percent among persons 12+ for the time the station is on the air during the Monday-Sunday 6AM-Midnight period for ADI qualification).

* Audience estimates for a station that does not meet MRS for the Metro (or ADI, if applicable) cannot be obtained in any way from the Market Report, as TSA data and estimates are limited to stations that have first qualified for reporting in the Metro (or ADI, if applicable).

Stations listed under Stations Home to Arbitron Radio Metro area are generally referred to as “home stations”; other reported stations may be referred to as “outside”. A station qualifies for the “home” category if one of the following conditions exists.

1. The station is licensed to a city (or other political subdivision) located in the Metro Survey Area;
2. An AM or FM affiliate station, licensed to a city outside the Metro and which simulcasts at least 10 percent of its total time on the air and 100 percent in a given daypart on its affiliated station which is licensed to a city within the Metro and thereby is a “home” station (see Operations Classification on page 17);
3. A station licensed to a non-Metro county may become eligible for “home” (above-the-line) status in an Arbitron Metro providing the following guidelines are met:
 - a. The station uses the same Multi-City* of identification at least once an hour during each measured survey period;
 - b. The station’s secondary city must be located in a Metro county of an Arbitron radio market;
 - c. A station presently licensed to one Metro and identifying with cities in two or more distinct Arbitron Metros may select its “home” market providing that at least 60 percent of its Average Quarter-Hour audience (based on data from the previous year) is in the alternate Metro and it chooses to be listed in that market as a “home” station.
4. A station can be home to only one Metro. (The only exception is a station licensed to a Metro area which is totally enveloped by another Arbitron Metro.) To maintain home status in the alternate Metro for subsequent years, at least 50 percent of the station’s AQH audience in its combination of Metros must be maintained in that alternate Metro. A station that is licensed to one Metro city and elects home market status in the alternate city of identification forfeits its home market status in the Metro of its city of license.

* *Multi-City refers to those stations who use two or more city names in their once-per-hour ID. The FCC requires them to use their licensed city first. A station may submit two cities to Arbitron for listing in our reports. Depending on the location of these cities, a station may appear as a home station in a report.*

Stations are reported in all local market reports by location categories separated by dashed lines which serve as the demarcation for “above-the-line” or “below-the-line” status.

Any station(s) qualifying for the Report which Arbitron has determined to be in violation of certain special station activity guidelines (see Chapter Eight) will be reported in a separate category and sequenced alphabetically within that category as:

“Station(s) determined to have engaged in a special station activity. See page 5B.”

This category of stations will always appear below all other categories/stations included in the printed Report. A simulcast station cited for violation of a Special Station Activity will cause its AM or FM counterpart to also be cited.

Arbitron reserves the right to take any other action(s) it deems reasonably appropriate to deter Rating Distortion, Rating Bias and any other Special Station Activities. Arbitron reserves the right to call attention to such special activities in its printed Market Reports or any other reporting, reprinting or re-formatting media of Arbitron radio audience estimates.

Categories and sequencing as described herein are maintained for all reported stations throughout all sections of the Report.

STATION INFORMATION

To the extent Arbitron is able to obtain such information in a timely fashion, certain non-audience data pertinent to reported stations are included in the Arbitron Radio Market Report for purposes of evaluation and utility. This information is listed adjacent to the station’s call letters on page 3B of the printed Report (see sample page in Report Format, Chapter Seven).

The information is obtained directly from the reported stations, Arbitron’s files and the FCC. In addition, Arbitron may use for reference recent issues of Spot Radio Rates and Data and Network Rates and Data (both published by Standard Rates and Data Service, Inc., Wilmette, Illinois) and/or other broadcast industry trade publications and other notices.

Most information obtained directly from the stations is furnished to Arbitron via a *Station Information Packet* mailed to the stations and then returned to Arbitron. This packet contains forms (see facsimile in Appendix) and is used by Arbitron to collect data required for the editing of returned diaries and the processing of the Report. Arbitron mails the form to stations approximately seven weeks prior to the first day of the upcoming scheduled survey. Stations have approximately 25 calendar days from the Arbitron mailing date to return the completed form to Arbitron.

The information reported on page 3B of a Report includes day/night power, frequency, network affiliation, city of license and alternate city and county and state of license, and the national representative of each station qualifying for the Report.

If a station qualifies for home status under the Multi-City Guidelines, the FCC city and alternate city of ID will appear in brackets accompanied by the following footnote at the bottom of page 3B:

(City of Identification) indicates Metro status by virtue of stations chosen home city of identification rather than by stations FCC authorized city of license.

Other stations may appear as Multi-City stations without brackets. Multi-City stations without brackets may already be home to a Metro or may not request to be home in an alternate Metro.

Arbitron subscribers to the syndicated service are identified by the parenthetical symbol "(s)". A station must have subscribed to the service at least two days prior to publication of the Report to ensure such a notation. Arbitron also issues to all subscribers a post-publication subscriber list.

Reported call letters are those in use on the last day. In the event a station has changed call letters during the survey period, the first call letters reported are those in use on the last day of the survey, with the stations's call letters in use on the first day of the survey noted immediately thereafter. The specifics of each call letter change are listed on page 5B of the Radio Market Report.

SLOGAN ID CONFLICTS

All broadcasters are encouraged to list their active slogan IDs and program names on the Station Information Form*. These slogan IDs and program name listings are used to facilitate the proper crediting of diary entries. **THESE LISTINGS DO NOT ESTABLISH ANY RIGHTS TO A SLOGAN ID OR PROGRAM NAME AND ARE NOT A SUBSTITUTE FOR REGISTRATION OF A TRADEMARK AND/OR SERVICE MARK.** The acquisition of exclusive rights to a slogan ID or program name is a matter handled by legal process, not Arbitron. Any action for unfair competition or trademark infringement is also a legal matter between or among the concerned broadcasters.

1. Similar Slogan ID: If two or more stations are using the same or a similar slogan ID, a conflict is created in our editing process as the slogan ID could be meant to represent either station.

The following rules are used to resolve such conflicts:

- **The 1% TALO (Total Audience Listening Output) Rule:** If only one of the stations in conflict was mentioned in at least 1 percent of the county's diaries from the previous available survey year, credit is automatically given to that station.
- **Automatic Slogan Assignment:** If there is more than one station in conflict and each station has been mentioned in at least 1 percent of the diaries, credit for the entry will be assigned using the "Ascription" technique. (*See Chapter Four, Special Edit*)

* Arbitron reserves the right to question or reconfirm the actual use of any slogan ID and will not include non-slogan IDs on its Slogan ID listing. These include but are not limited to: call letters, exact frequencies, city of license of ID, programs and formats. Arbitron's other information sources will be updated as appropriate with this information.

2. Slogan ID Air Check Tapes: To receive credit for slogan ID entries, a station must use that slogan at least once every 60 minutes (Monday-Sunday 6AM-Midnight) during the survey period. A station may send an air-check tape to Arbitron to document another station's non-use of the slogan. The tape must be 70 minutes long and start five minutes before the top of the hour and end five minutes after the top of the next hour mark (e.g., 6:55AM to 8:05AM) and be recorded by an outside monitoring source which is not affiliated with the challenging station.

The monitoring source must provide along with the tape a notarized letter stating the following:

- Station providing the tape
- Station taped
- Date
- Start and stop time of air check
(*Note: 70 minutes required*)
- Slogan ID in question
- Tape is complete and unedited.

The tape and a notarized letter should be sent to:

Radio Policies and Procedures
Arbitron Ratings Company
312 Marshall Avenue
Laurel, Maryland 20707

Arbitron will make a decision based on the tape. If the slogan ID in question is not used during the 70-minute air check, it will be deleted from the Arbitron Slogan ID listing for that survey. An air-checked station may demonstrate that the failure to use a slogan ID within a 70-minute time period was an incidental oversight, by providing Arbitron with a three-hour tape encompassing the 70-minute air-checked time period (for the same day, date and time) plus one contiguous hour before and one contiguous hour after the air-checked time period. Arbitron will reinstate the slogan ID in question if it was in fact used in the hour before and after the air-checked time period.

The station in question must also provide a notarized letter stating the items listed above and giving the three-hour-ten-minute time frame required.

LIMITATIONS

In addition to certain limitations described elsewhere in this book, the user should also be aware of the following limitations.

- a. Certain data, such as when the station was on and off the air, facilities, call letters used, slogans claimed, format, programming, National Representative and time periods when AM-FM affiliates were simulcast or separately programmed, are based on data supplied by the stations and/or recent industry publications or notices. These data may not be accurate or timely and may affect the way certain audience estimates are reported. Noted periods of technical difficulties have not been used to delete or modify diary entries.
- b. Situations in which stations have or have had the same call letters or have changed call letters may result in respondent confusion in correctly identifying the station to which the listening occurred.
- c. Reported trends estimates may not reflect actual audiences over time due to methodological changes, changes in station operations/facilities/special activities, changes in survey area definitions or populations, or conditions not under Arbitron's control.

Report Format

Audience Measurements

SURVEY DURATION

An Arbitron radio survey is conducted over a 12 week period (Quarterly Measurement). All estimates represent listening for an "average week" of the period being reported. The use of average week estimates tends to decrease the effect of atypical programming or other anomalous conditions which may arise during an individual week of the survey.

DAYS REPORTED

Except for Saturday and Sunday, listening estimates for individual days are not reported. Rather, certain combinations of days that have been observed over the years to have a definite relationship to radio listening activity are reported.

The combinations and individual days reported are:

- Monday through Sunday
- Monday through Friday
- Saturday and Sunday (weekend)
- Saturday only
- Sunday only

TIME PERIODS/DAYPARTS

Selected dayparts and hour by hour data are reported. The total number of daypart and time periods is 37; 20 one-hour long periods and 17 which are longer than one hour. (See *Appendix for a list of time periods.*) Certain time period averages and Cume data are available only on magnetic computer tape.

AGE/SEX GROUPS

Arbitron radio population estimates include only persons aged 12 and older — referenced as "Persons 12+." Data are tallied for 37 separate age/sex groups which include: men, women, teens, and total persons. They range in age from 12 to 65+. (See *Appendix for a list of age/sex groups.*) An additional 37 variations of the 37 groups are reported either in the Market Report or through the Arbitron Information on Demand (AID) computer system. These demos can be broken out into discrete demographics (e.g., Men 18-24, Men 25-34, Women 35-44 etc) or into combinations of discrete demographics referred to as target demographics (e.g., Men 18-34, Women 35-54 etc.).

TYPES OF ESTIMATES

Arbitron radio estimates can be classified into two basic categories:

1. Average Quarter-Hour Listening

Average Quarter-Hour Listening (AQH) is an estimate of the number of persons of a given demographic listening to a station in an average quarter-hour of a particular daypart.

For example:

If a station is reported with 6900 AQH persons in the Monday-Friday 6AM-10AM daypart, then it is estimated that at any given quarter-hour during that daypart, 6900 persons were listening to that station.

2. Cume Listening

Cume Listening is an estimate of the number of different persons who listened to a station for at least five minutes within a quarter-hour in a given daypart. Cume estimates are also referred to as "cumulative", "unduplicated" or "reach" estimates.

A specific list of the types of estimates is found in Arbitron Radio Reports (*see descriptions in the Glossary*).

The areas for which estimates are tallied are as follows:

- Average Quarter-Hour Persons (Metro, TSA, ADI)
- Average Quarter-Hour Ratings (Metro, ADI)
- Average Quarter-Hour Shares (Metro, ADI)
- Cume Persons (Metro, TSA, ADI)
- Cume Ratings (Metro)
- Exclusive Cume Persons (Metro)*
- Percent at Home (Metro)
- Percent In-Car (Metro)
- Percent Other (Metro)
- Time Spent Listening (Metro)
- AM-FM Totals (Metro, TSA, ADI)

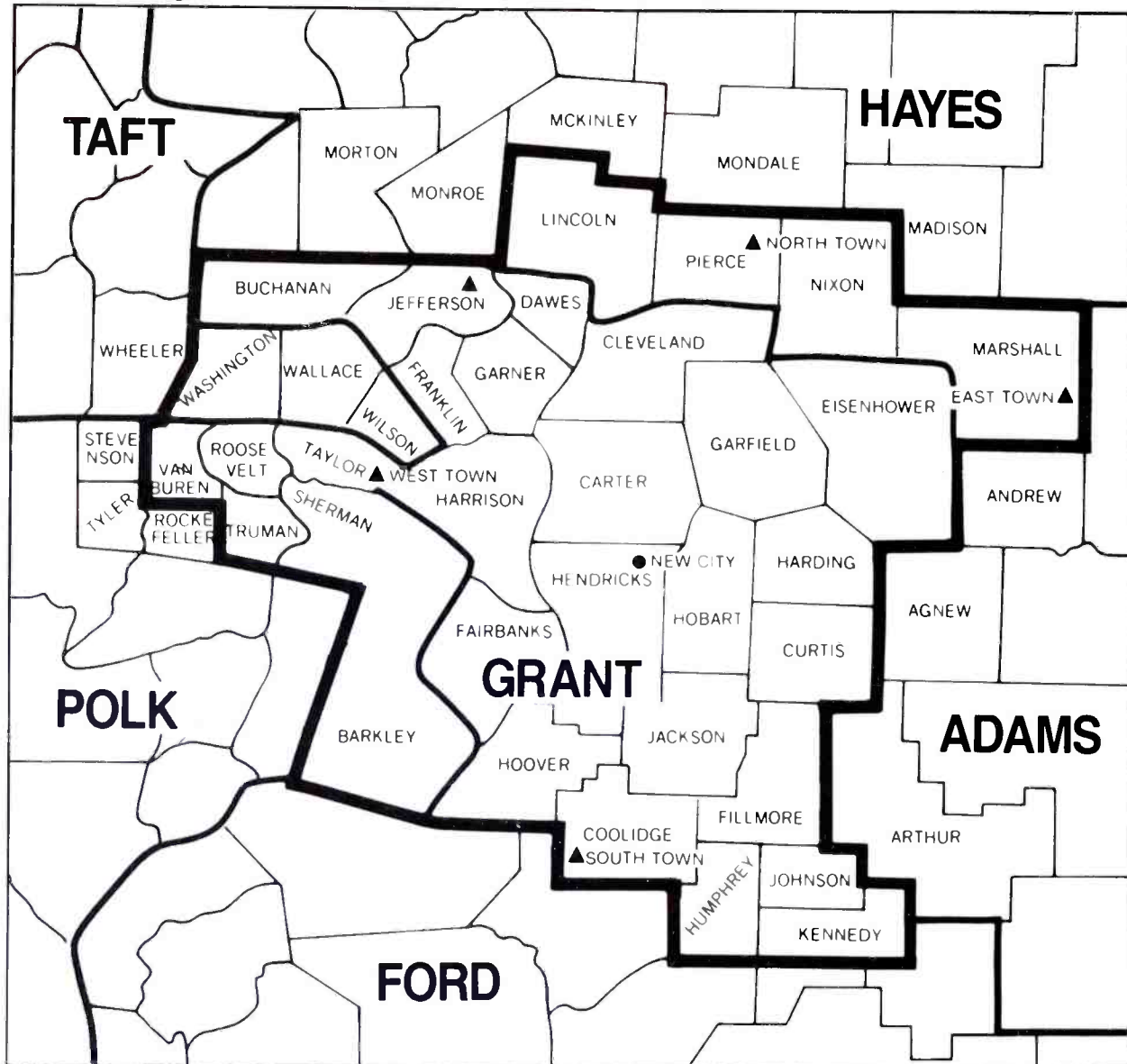
READING THE RADIO MARKET REPORT

The examples on the following pages are sample pages from a Standard Radio Market Report with an ADI. The sample pages are arranged in the same sequence as in a Radio Market Report. The information which follows is illustrative of the Standard Market Report unless noted otherwise.

* Exclusive Cumes for ADI are available on magnetic tape only.

Your City

1 ▶



© Arbitron Ratings Company

2 ▶ Metro ³ ▶ ADI TSA ◀ 4

Non-subscribers to this report may not reproduce this map in any form for sales, marketing, advertising or promotional purposes without the express written permission of the Arbitron Ratings Company.

For definitions of MSA, TSA and ADI, see Paragraphs 16, 25 and 2 in the back of this report.

6 ▶ **Market Rank: 34** ◀ 5
Market Surveyed: WINTER, SPRING, SUMMER, FALL

7 ▶ REPORT CONTENTS

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ARBITRON RATINGS

2A

REPORT CONTENTS AND MAP PAGE EXPLANATION

The example shown on page 24 is a sample of the second page (page 2A) of an Arbitron Radio Market Report. In addition to a map of the Radio Market survey area and table of contents, it contains a copyright infringement warning, market rank and frequency of measurement.

1► The Map: This illustrates the individual survey area for which audience estimates are reported. Areas in dark grey are not a part of the market definition (unless it is a part of an ADI to be reported for that particular market), and will not have audience estimates included in the Report.

2► The Metro Survey Area (Metro): A Metro Survey Area of the reported market is shown in white.

3► The Total Survey Area (TSA): A Total Survey Area of the reported market is shown in light grey.

4► The Area of Dominant Influence (ADI): The Area of Dominant Influence of the reported market, if applicable, is differentiated by a bold black border around the ADI counties.

5► Market Rank

6► Market survey frequency

7► Report Contents

* *Exclusive Cumes for ADI are available on magnetic tape only.*

Population Estimates and Tabulated Diaries by County

1 ▶	2 ▶ Estimated		3 ▶ In-Tab	Counties	ST	5 ▶ HDA		Area	Estimated Population	In-Tab	Counties	ST	HDA
	Area	Population				BLK/HSP	BLK/HSP						
	MTA	76,100	67	GRAHAM	US								
	MTA	501,600	514	FLOWER	US								
	MTA	698,900	750	ROOKS	US	B							
	MTA	202,100	186	ROSE	US								
	MTA	103,800	118	WEBSTER	US								
	MTA	78,700	51	HARLAND	US	H							
	TA	142,500	132	LUCAS	US								
	TA	202,100	153	SENECA	US								
	TA	41,900	20	GRANA	US	B H							
	A	248,200	208	ARMSTRONG	US								
	A	61,300	30	PAGE	US								
	A	48,000	82	POLK	US								

6 ▶	Metro Combined High Density Ethnic Area(s)				
		Total		Ethnic	
		In-Tab	Est. Pop	In-Tab	Ethnic Pop
	HDBA	210	152,000	85	61,000
	HDHA	23	25,000	15	15,000

M-METRO SAMPLING UNIT T-TSA COUNTY A-ADI COUNTY

FOR TOTAL METRO IN-TAB COUNTS FOR APPLICABLE ETHNIC GROUPS PLEASE SEE PAGE 3A OR 5B

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

2B

POPULATION ESTIMATES AND TABULATED DIARIES BY EXPLANATION

1▶ Area: The specific designation of the Arbitron sampling unit and a coded indicator of its relationship to the market definition. The codes "M", "T" and, if applicable, "A" are used to identify respectively Metro, TSA and ADI sampling units. Where a sampling unit qualifies for inclusion in more than one area, a code for each area will appear.

2▶ Estimated Population: The estimated population of persons 12 years and older in a sampling unit as determined by Market Statistics, based on the 1980 U.S. Census estimates. These population estimates are updated annually as of the first of January, by Market Statistics.

3▶ In-Tab: The number of usable diaries returned from diarykeepers in a sampling unit.

4▶ Counties/State: The county/sampling unit name and state within the survey area.

5▶ HDA BLK/HSP: An indicator used to denote the county(ies) that contain a High Density Black (HDB) or High Density Hispanic Area (HDH).

6▶ Metro Combined High Density Ethnic Area: For each High Density Ethnic Area, Metro subtotals are provided for total in-tab and population of the combined HDBAs and/or HDHAs. Also provided is the exclusive ethnic in-tab and population of the HDAs.

**POPULATION ESTIMATES AND
SAMPLE DISTRIBUTION BY SEX-AGE GROUP EXAMPLE**

Population Estimates and Sample Distribution by Sex-Age Group

1 Metro Survey Area						Total Survey Area					
	2 Estimated Population	Est. Pop. % Tot. Pers. 12+	In-Tab Sample	% Unwgt. In-Tab Sample	% Wgt. In-Tab Sample		Estimated Population	Est. Pop. % Tot. Pers. 12+	In-Tab Sample	% Unwgt. In-Tab Sample	% Wgt. In-Tab Sample
Men 12-24	1,550,800	11.2	593	10.2	11.2	Men 12-24	1,952,900	11.3	1,048	9.7	11.3
Men 18-24	1,080,600	6.5	582	5.5	6.5	Men 18-24	8,59,300	6.4	321	5.4	6.4
Men 25-34	1,584,500	9.5	931	8.8	9.5	Men 25-34	1,270,300	9.4	328	8.9	9.4
Men 35-44	1,297,400	7.8	859	8.1	7.8	Men 35-44	1,039,300	7.7	458	7.9	7.7
Men 45-49	499,300	3.0	291	2.8	3.0	Men 45-49	406,000	3.0	165	2.8	3.0
Men 50-54	500,700	3.0	322	3.0	3.0	Men 50-54	408,500	3.0	194	3.3	3.0
Men 55-64	957,100	5.7	645	6.1	5.7	Men 55-64	773,800	5.7	357	6.0	5.7
Men 65+	970,400	5.8	522	4.9	5.8	Men 65+	766,000	5.7	265	4.5	5.7
Men 18+	6,890,000	41.2	4,192	39.3	41.2	Men 18+	9,523,200	40.9	2,298	38.7	40.9
Women 12-24	1,562,600	11.3	733	12.6	11.3	Women 12-24	1,941,100	11.3	1,328	12.3	11.3
Women 18-24	1,107,700	6.6	764	7.2	6.6	Women 18-24	896,300	6.6	456	7.7	6.6
Women 25-34	1,704,100	10.2	1,107	10.5	10.2	Women 25-34	1,381,000	10.2	626	10.5	10.2
Women 35-44	1,423,500	8.5	981	9.3	5.5	Women 35-44	1,159,500	6.6	558	9.4	8.6
Women 45-49	548,100	3.3	402	3.8	5.3	Women 45-49	451,900	3.3	235	4.0	3.3
Women 50-54	552,700	3.3	414	3.9	3.3	Women 50-54	455,900	3.4	237	4.0	3.4
Women 55-64	1,118,600	6.7	744	7.0	6.7	Women 55-64	907,400	6.7	405	6.8	6.7
Women 65+	1,956,600	9.3	731	6.9	9.3	Women 65+	1,247,400	9.2	363	6.1	9.2
Women 18+	8,011,300	47.9	5,143	48.6	47.9	Women 18+	6,499,400	48.2	2,880	48.5	48.2
Persons 18+	14,901,300	89.0	9,295	87.9	99.0	Adults 18+	12,022,600	89.1	5,178	87.2	89.1
Teens 12-17	1,833,100	11.0	1,281	12.1	11.0	Teens 12-17	1,467,300	10.9	757	12.8	10.9
Black Persons 12+	SEE PAGE 5B FOR INFORMATION										
Hispanic Persons 12+	SEE PAGE 5B FOR INFORMATION										
Total Persons 12+	16,734,400		10,576			Total Persons 12+	13,489,600		5,935		

6 Diary Placement and Return Information					Area of Dominant Influence				
	Metro	ADI	TSA		Estimated Population	Est. Pop. % Tot. Pers. 12+	In-Tab Sample	% Unwgt. In-Tab Sample	% Wgt. In-Tab Sample
Listed Residences in Designated Sample	3,809	9,277	7,393	Men 18-24	958,600	6.4	446	3.7	6.4
ESF Residences in Designated Sample	3,273	3,781	4,623	Men 25-34	1,420,000	9.4	667	8.6	9.4
Total Residences in Designated Sample	7,082	9,058	12,013	Men 35-44	1,171,100	7.8	623	8.0	7.8
Listed Residences Estimated Persons 12+	8,928	12,457	12,408	Men 45-49	453,000	3.0	224	2.9	3.0
ESF Residences Estimated Persons 12+	8,789	10,069	12,214	Men 50-54	453,600	3.0	249	3.2	3.0
Total Residences Estimated Persons 12+	17,717	22,326	29,622	Men 55-64	860,500	5.7	467	6.0	5.7
Listed Contacts (homes in which telephone was answered)	3,689	5,064	7,074	Men 65+	872,800	5.8	368	4.7	5.8
ESF Contacts (homes in which telephone was answered)	3,195	3,687	4,510	Men 18+	6,169,500	41.1	3,044	39.1	41.1
Total Contacts (homes in which telephone was answered)	6,884	8,751	11,584	Women 18-24	989,300	6.6	573	7.4	6.6
Listed Homes in Which Diaries Were Placed	3,312	4,528	6,195	Women 25-34	1,536,500	10.2	805	10.3	10.2
ESF Homes in Which Diaries Were Placed	2,174	2,528	3,108	Women 35-44	1,293,100	8.6	733	9.4	8.6
Total Homes in Which Diaries Were Placed	5,486	7,056	9,303	Women 45-49	499,200	3.3	294	3.8	3.3
Listed Individuals Who Were Sent a Diary	7,812	10,776	14,719	Women 50-54	502,200	3.3	303	3.9	3.3
ESF Individuals Who Were Sent a Diary	5,866	6,766	8,252	Women 55-64	1,058,000	6.7	544	7.0	6.7
Total Individuals Who Were Sent a Diary	13,678	17,542	22,971	Women 65+	1,403,500	9.3	515	6.6	9.3
Listed Individuals Who Returned a Usable Diary (In-tab)	3,399	4,843	6,965	Women 18+	7,231,900	48.0	3,767	48.4	48.0
ESF Individuals Who Returned a Usable Diary (In-tab)	2,536	2,945	3,611	Adults 18+	13,421,400	89.0	8,811	87.5	89.0
Total Individuals Who Returned a Usable Diary (In-tab)	5,935	7,780	10,576	Teens 12-17	1,650,700	11.0	977	12.3	11.0
Sample Target	4,000			Total Persons 12+	15,072,100		7,788		

8 Metro Persons Living in Group Quarters				
	Est Pop.	% Military	% College	% Other Group Quarters
Total Persons 12+	13,409,000	0	5	1.4

These population estimates are based upon 1980 U.S. Bureau of the Census estimates updated and projected to January 1, 1986, by Market Statistics based on data from Sales Management's 1986 Survey of Buying Power.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

POPULATION ESTIMATES AND SAMPLE DISTRIBUTION BY SEX-AGE EXPLANATION

1▶ The estimated population of reported demographic categories within the survey area(s) are reported for the Metro Survey Area, the Total Survey Area, and Area of Dominant Influence (where applicable).

2▶ The ratio (expressed as a percentage) of each reported demographic's estimated population to the estimated population of all persons age 12 or older within the relevant survey area.

3▶ The number of persons in each of the demographic categories who returned a usable diary in the Metro Survey Area, Area of Dominant Influence (if applicable) and Total Survey Area. The Total Persons 12+ in this column corresponds to the Total Individuals Who Returned a Usable Diary (In-Tab) of the Diary Placement and Return Information table on this page (see No. 7).

4▶ The number of in-tab unweighted diaries from persons in reported demographics, expressed as a percentage of the total number of unweighted in-tab diaries from all persons age 12 or older.

5▶ The distribution of weighted in-tab diaries for reported demographics expressed as a percentage of the total number of tabulated diaries from all persons age 12 or older.

6▶ The reported number of: estimated residences in the predesignated sample, homes contacted in which diaries were placed, persons with whom diaries were placed and the persons who returned usable diaries for the Metro, ADI (if applicable) and TSA. Standard and ESF sample statistics are reported separately and as a part of the total sample.

7▶ The number of in-tab diaries Arbitron targeted for the Metro Survey Area prior to the survey. In its ongoing evaluation of sample performance, Arbitron tracks the in-tab performance as it relates to the sample target in each market.

8▶ The total persons 12+ in the Metro and the percent of those persons living in military housing, college dormitories and other group quarters.

Facilities of Stations Listed in this Report

Station	Power (Watts) Day Night	Frequency (AM in kHz) (FM in mHz)	Network Affiliation	City of License or ◀Identification▶	County	ST	National Representative
HOME TO ARBITRON RADIO METRO AREA ◀4							
(S) WAAA-AM	5,000 5,000	1260	MBS	(YOUR CITY) ◀6	ROSE	US	WAAA RADIO ◀7
WBBB-FM	21,000 21,000	102.5	IND	YOUR CITY	ROSE	US	WBBB RADIO
(S) WCCC-AM	50,000 50,000	1100	NBC	YOUR CITY	ROSE	US	WCCC RADIO
(S) WDDD-FM	50,000 50,000	95.7	ABC C	YOUR CITY	ROSE	US	WDDD RADIO, THE
WEEE-AM	5,000 5,000	910	NBN	YOUR CITY	ROSE	US	WEEE RADIO
◀2▶ WFFF-FM	27,500 27,500	100.7	IND	YOUR CITY	ROSE	US	WFFF RADIO
WGGG-FM	3,000 3,000	103.9	IND	YOUR CITY	ROSE	US	WGGG RADIO, INC
(S) WHHH-AM	5,000 5,000	610	ABC E	YOUR CITY	ROSE	US	WHHH RADIO
(S) WIII-FM	20,000 20,000	89.1	ABC FM	YOUR CITY	ROSE	US	WIII RADIO AND ASSOCIATES
WJJJ-AM	5,000	1270	IND	YOUR CITY	ROSE	US	WJJJ RADIO
WJJJ-FM	3,000 3,000	107.1	IND ◀5	YOUR CITY	ROSE	US	WJJJ RADIO
(S) WKKK-FM	50,000 50,000	105.3	SOURCE	YOUR CITY	ROSE	US	WKKK RADIO COMPANY
(S) WLLL-AM	1,000 250	1490	ABC I	YOUR CITY	ROSE	US	WLLL RADIO
WMMM-AM	5,000 1,000	1150	CBS	YOUR CITY	ROSE	US	WMMM RADIO, THE
WNNN-FM	94,000 94,000	96.9	RKO	YOUR CITY	ROSE	US	WNNN RADIO & ASSOCIATES
OUTSIDE ARBITRON RADIO METRO AREA BUT HOME TO ADI							
WOOO-AM	1,000	1300	IND	THEIR CITY	MORTON	US	WOOO RADIO SALES
(S) WOOO-FM	33,000 33,000	104.1	IND	THEIR CITY	MORTON	US	WOOO RADIO, INC
WPPP	5,000 5,000	980	ABC C	THEIR CITY	MORTON	US	WPPP RADIO
OUTSIDE ARBITRON RADIO METRO AREA AND ADI							
WQQQ-FM	10,000 10,000	94.5	ABC FM	OTHER CITY	HERSHEY	US	WQQQ RADIO ASSOCIATES
WRRR-AM	5,000 5,000	550	IND	OTHER CITY	HERSHEY	US	WRRR RADIO, INC

Footnote Symbols (*) Listed only in Metro and Total Survey Area (+) Listed only in Area of Dominant Influence (S) Subscribing stations: Deadline - two days prior to market report publication. City of ◀Identification▶ indicates Metro status by virtue of station's chosen home City of Identification rather than by station's FCC authorized City of License. (See Paragraph 34 in the back of this report.)

Network Affiliations:	ABC C/American Contemporary Radio Network	CBS/CBS Radio Network	SBN/Sheridan Broadcasting Network
	ABC D/American Direction Network	CNN/Cable News Network	SMN/Satellite Music Network
	ABC E/American Entertainment Network	IND/(Denotes Independent Stations)	Source/NBC - The Source
	ABC FM/American FM Radio Network	MBS/Mutual Broadcasting System Radio Network	TRNSTR/Transtar
	ABC I/American Information Radio Network	NBC/National Broadcasting Company Radio Network	UPI/United Press International Radio Network
	ABC R/American Rock Radio Network	NBC T/NBC Talknet	US1/United Stations Radio Networks, Inc.-1
	ABC T/ABC Talk Radio	NBN/National Black Network	US2/United Stations Radio Networks, Inc.-2
	APR/Associated Press Radio Network	RADRAD/CBS Radio Radio Network	

The data above is the most current data available to Arbitron as of this survey period. (For explanation of reporting criteria, see Pars 34-37 in the back of this report.)

The COUNTY listing reflects the geographic location of the station's City of License which may, in some instances, be in a portion of a county defined by

Arbitron. Stations which provided or reported having no national representative information are indicated above by N/A or NONE respectively.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

FACILITIES OF STATIONS LISTED IN THIS REPORT EXPLANATION

1▶ The (S) symbol adjacent to a station's call letters indicate that the station is a current subscriber to the Arbitron Market Report Service.

2▶ The call letters assigned by the FCC or other appropriate governmental authority listed alphabetically by geographic category except in cases of simulcast AM/FM pairs. All call letters include an AM or FM designation.

3▶ The day and night-time broadcast Effective Radiated Power as authorized by the FCC or other appropriate governmental authority.

4▶ The operating broadcast frequency as authorized by the FCC or other appropriate governmental authority.

5▶ Abbreviations for the network affiliation(s). (Full network names appear at the bottom of page.)

6▶ Each station's city and county of license as authorized by the FCC or other appropriate governmental authority. If a station identifies with multiple cities, an alternate city will be printed if the station uses the ID once an hour and informs Arbitron. Stations home to the metro, or one who simulcasts with a home station, are printed without brackets and those who are home to the Metro due to Multi-City ID status appear with brackets [].

7▶ National Representative.

Metro Market Profile

MARKET NAME

The Arbitron Metro Market Profile is designed to provide demographic and socio-economic characteristics, retail sales and computer spending estimates, print media circulation and passenger car registration data for all of the 1986 markets. This Market Profile section is provided to assist radio stations and advertisers in evaluating media opportunities.

For your convenience in obtaining additional information regarding the data contained on these pages, Arbitron Radio has included the address and telephone number of each vendor or each supplier.

Arbitron has provided a definition of each Census data category. ClusterPlus grouping, Sales Data and Top Ten Employer industry data have also received source and referencing notations.

Metro Area Lifestyle Profile by ClusterPlusSM Groups ◀1

GROUP	DESCRIPTION	NATIONAL % PERSONS 12 +	METRO % PERSONS 12 +	INDEX OF CONCENTRATION
G01	WELL EDUCATED, AFFLUENT, SUBURBAN PROFESSIONALS	7.29	2.97	41
G02	URBAN, UPSCALE, PROFESSIONALS, FEW CHILDREN	5.16	1.27	25
G03	YOUNGER, MOBILE, UPSCALE FAMILIES, CHILDREN, NEW HOMES	10.74	14.27	133
G04	YOUNG, MOBILE, ABOVE AVG INCOME, WHITE COLLAR WORKERS	12.14	5.68	31
G05	MIDDLE AGE, ABOVE AVG INCOME, WHITE COLLAR WORKERS	11.86	49.58	418
G06	YOUNGER, MOBILE, SINGLES, FEW CHILDREN, URBAN AREAS	11.74	7.59	65
G07	AVERAGE INCOME, BLUE COLLAR FAMILIES, RURAL AREAS	10.54	8.85	84
G08	OLDER, LOWER INCOME, RURAL AREAS, OLD HOMES	10.22	7.28	71
G09	DOWNSCALE, ETHNIC, URBAN APARTMENT AREAS, OLD HOUSING	6.57	2.45	37
G10	LESS EDUCATED, DOWNSCALE, RURAL, FAMILIES WITH CHILDREN	7.74	0.07	1

ClusterPlus is a service mark of Donnelley Information Services, 1351 Washington Boulevard, Stamford, Connecticut, 06902. The ClusterPlus lifestyle clusters are the property of Donnelley Marketing Information Services, a company of the Dun and Bradstreet Corporation, which has licensed their use to Arbitron.

ClusterPlusSM

ClusterPlus is a market segmentation system developed by Donnelley Market Information Services to profile a market or audience by lifestyles. Based on the 1980 Census, Donnelley has analyzed over 1600 demographic characteristics by ZIP code. Among the characteristics analyzed are value and type of housing, marital status, presence and ages of children in a household, ethnicity, urban-suburban-rural location, as well as age, sex, income, occupation and level of education. Donnelley updates its analysis annually. Every residential ZIP code in the US is assigned to the one cluster which best describes the lifestyle of the people who live there.

The result is 47 distinct lifestyle clusters, each of which describes a unique consumer group. These clusters are organized into ten major cluster groups with similar lifestyle characteristics. This geodemographic system provides a variety of new ways to describe your market and its radio audience, which could include specific analyses of listening data.

To the upper left is a list of the ten ClusterPlus groups with their lifestyle descriptions. Each ClusterPlus group's concentration is shown as a percentage (persons 12+) of the National and this metro's population. The INDEX OF CONCENTRATION compares the market's composition by each cluster group with the national concentration. An index of 100 would indicate that the market has the same percent concentration as the nation; an index of 200 means that the market's percent concentration is twice that of the nation.

Sales Data

Effective Buying Income, Total Retail Sales, Retail Expenditures and eleven categories of store sales have been compiled by Market Statistics and furnished to Arbitron. These data, based on Sales and Marketing Management's 1986 SURVEY OF BUYING POWER updated to January 1986, were rearranged according to Arbitron's Fall 1986 Metro definitions.

METRO EFFECTIVE BUYING INCOME ◀2

Effective Buying Income (EBI) (\$000)	\$5,916,332
Median Buying Income	\$28,265
EBI per Household	\$31,073

METRO RETAIL SALES DATA (\$000)

Total Retail Sales ◀3	\$2,538,727
Retail Expenditures per Household (\$) ◀4	\$13,334
Food Stores	\$537,095
Supermarkets	\$511,414
Eating & Drinking Places	\$218,219
General Merchandise Stores	\$413,739
Department Stores	\$376,275
Apparel and Accessories Stores	\$101,095
Automotive Dealers	\$455,485
Building Materials & Hardware Stores	\$106,492
Drug Stores	\$89,657
Furniture and Appliance Stores	\$44,956
Radio, TV & Music Stores	\$10,963

TOP TEN EMPLOYER INDUSTRIES ◀5

The Top Ten Employer Industry Classifications are defined below by a Federal Government Census called STANDARD INDUSTRIAL CLASSIFICATION(SIC). SIC's are sorted by the primary activity of individual business establishments based on the 1984 County Business Pattern Reports of the U.S. Census.

EMPLOYER	# OF EMPLOYEES	% OF TOTAL
1) EATING & DRINKING PLACES	19,282	13.0
2) HEALTH SERVICES	14,610	6.1
3) BUSINESS SERVICES	18,225	12.3
4) WHLS TRADE-DURABLE GOODS	10,210	6.9
5) SPECIAL TRADE CONTRACTOR	8,255	5.6
6) FOOD STORES	5,898	4.0
7) INSURANCE CARRIERS	5,517	3.7
8) COMMUNICATION	4,911	3.3
9) CHEM & ALLIED PRODUCTS	3,323	2.8
10) MISCELLANEOUS RETAIL	3,725	2.5
TOTAL METRO EMPLOYEES	148,273	
TOP 10 TOTAL EMPLOYEES	90,714	61.2 %

METRO MARKET PROFILE EXPLANATION

1▶ Demographic lifestyle characteristics of the Metro population of the market. (Updated annually)

2▶ Effective Buying Income

3▶ Total Retail Sales

4▶ Retail Expenditures and 11 categories of store sales (furnished by Market Statistics).

5▶ The top ten employer industries, number of employees and percent of the total.

Metro Market Profile (continued)

MARKET NAME

Metro Census Data

Market Statistics has furnished Ethnic Populations, Household Data, Retail Sales and Employer Industries to Arbitron on a county level. Arbitron has accumulated this information to conform with 1986-87 Metro definitions. All data are based on 1980 Census data. Income by Households as well as Ethnic Population information, is updated to January 1, 1987, except where noted (see text below). For further information, contact: Market Statistics, 633 Third Avenue, New York, New York 10017, (212) 986-4800.

Ethnic Populations are reported for all Standard and Condensed Markets. Ethnic sampling procedures need not be in place. The percent for each demo is based on persons 12+.

Ethnic Population	Blacks		Hispanics	
	Count	%	Count	%
PERSONS 12+	00,000	100.0	00,000	100.0
TEENS 12-17	00,000	00.0	00,000	00.0
MEN				
18-24	00,000	00.0	00,000	00.0
25-34	00,000	00.0	00,000	00.0
35-44	00,000	00.0	00,000	00.0
45-49	00,000	00.0	00,000	00.0
50-54	00,000	00.0	00,000	00.0
55-64	00,000	00.0	00,000	00.0
65+	00,000	00.0	00,000	00.0
WOMEN				
18-24	00,000	00.0	00,000	00.0
25-34	00,000	00.0	00,000	00.0
35-44	00,000	00.0	00,000	00.0
45-49	00,000	00.0	00,000	00.0
50-54	00,000	00.0	00,000	00.0
55-64	00,000	00.0	00,000	00.0
65+	00,000	00.0	00,000	00.0

Data has been adjusted to reflect geographically split counties. Details for each census category follow.

1. **Total Households** are based on 1980 Census data, updated to January 1, 1987.

2. **Income by Households** are grouped into eight discrete income categories. The income reported is disposable total household income or income after personal taxes, non-tax payment and personal contributions for Social Security are deducted. Total (1987) households are used in the percent calculations. Median income is shown for all Metro households, updated to 1987.

3. **Value of Owner-Occupied Households** are estimates of the number of owner-occupied housing units falling into six household value groups. This census figure excludes condominiums, mobile homes, households located on 10 or more acres, households located on commercial property, and two-household units sharing the same address. The median value for all owner occupied units in the Metro is shown.

4. **Monthly Contract of Renter-Occupied Households** are the number of rented housing units grouped into six monthly contract groups. This census excludes no-cash rental units. Median rent is shown for all rented units in this Metro.

5. **Household Size** categories are based on 1980 Census data, updated to January 1, 1987.

6. **Seasonal Household** is defined as a housing unit used or intended for use only during certain seasons of the year; they are not included in the total household base.

7. **Education** represents the educational levels of all persons 25+.

8. **Colleges and Universities** are taken from the Fall 1984 survey of colleges and universities conducted by the National Center for Education Statistics. Only students enrolled in an accredited degree program are included in the enrollment figures. Percentages for the full-time enrollment are based on total enrollment.

9. **Occupation** data represent the number of persons 16+ that are employed in each of six occupation categories. A total of the six categories is shown. Percentages are based on total persons 16+ (1980 Census). Occupations included in each category are listed below:

Managerial/Executive, administrative and managerial occupations, professionals; specialty occupations.

Technical/Technicians and related support occupations, sales and administrative support positions, including clerical.

Service Worker/Private household occupations, protective service occupations and other services.

Farm Workers/Farming, forestry and fishing occupations.

Precision Production/Craft and repair occupations.

Operators/Machine operators, assemblers, inspectors, transportation and material moving occupations, handlers, equipment cleaners, and laborers.

10. **Farm Residents/** estimate represents all persons living on a farm located in the Metro (1980 Census).

11. **Transportation to Work** information is based on estimated employed persons 16+. Percents are calculated on all persons 16+ (1980 Census).

12. **Car Ownership by Household/ Total** (1987) households are distributed into one of four Car Ownership categories. Percentages are based on total 1987 households.

	Updated Census*	Metro %		Updated Census*	Metro %
1▶ Total Households	000,000	00.0	6▶ Seasonal Households	000,000	00.0
2▶ Income of Households			7▶ Education Persons 25+		
Under 10,000	000,000	00.0	Elementary 0-8 Grd	000,000	00.0
10,000-14,999	000,000	00.0	High School 1-3 yr	000,000	00.0
15,000-19,999	000,000	00.0	High School Grad	000,000	00.0
20,000-29,999	000,000	00.0	College 1-3 yrs	000,000	00.0
30,000-39,999	000,000	00.0	College 4+	000,000	00.0
40,000-49,999	000,000	00.0	Total Persons 25+	000,000	00.0
50,000-74,999	000,000	00.0	8▶ Colleges & Universities*		
75,000+	000,000	00.0	Total Enrollment	000,000	00.0
Median Income (\$)	000,000	00.0	Full Time Enrollment	000,000	00.0
3▶ Value of Owner-Occupied Households			9▶ Occupation		
Less than 30,000	000,000	00.0	Managerial	000,000	00.0
30,000-49,999	000,000	00.0	Technical	000,000	00.0
50,000-79,999	000,000	00.0	Service Worker	000,000	00.0
80,000-99,999	000,000	00.0	Farm Worker	000,000	00.0
100,000-149,999	000,000	00.0	Precision Production	000,000	00.0
150,000+	000,000	00.0	Operators	000,000	00.0
Median Value (\$)	000,000	00.0	10▶ Farm Residents	000,000	00.0
4▶ Monthly Contract of Renter-Occupied Households			11▶ Transportation to Work		
Less than \$150	000,000	00.0	Public	000,000	00.0
150-199	000,000	00.0	Driving to Work	000,000	00.0
200-299	000,000	00.0	Car Pool	000,000	00.0
300-399	000,000	00.0	Other	000,000	00.0
400-499	000,000	00.0	12▶ Car Ownership by Household		
500+	000,000	00.0	0 Cars	000,000	00.0
Median Rent	000,000	00.0	1 Car	000,000	00.0
5▶ Household Size			2 Cars	000,000	00.0
1 Person	000,000	00.0	3+ Cars	000,000	00.0
2 Persons	000,000	00.0			
3-4 Persons	000,000	00.0			
5+ Persons	000,000	00.0			

*except where noted (see text below)

METRO MARKET PROFILE EXPLANATION

1▶ Demographic Census Data for the ethnic population and percents in the Metro.

2▶ Socio-economic totals and percent of the Metro population. Includes household size, household income, education level, occupation, etc.

METRO MARKET PROFILE EXAMPLE

Metro Market Profile (continued)

Newspaper and Magazine Circulation

Newspaper and magazine circulation data, as of September 1986, were obtained from the Audit Bureau of Circulations' Data Bank Service, 900 North Meacham Road, Schaumburg, Illinois 60195, (312) 885-0910, and is Copyright 1984, Audit Bureau of Circulations. Reprinted by permission. Copying or reprinting this information by others is prohibited.

Newspaper circulation figures represent approximate averages of paid circulation reported to and covered by the latest available Audit Report. Combined circulation for AM newspapers that publish updated editions throughout the day are reported under the AM Column, and are indicated * in the PM Column. Magazine figures are the latest paid circulation for a single issue.

	AM Circ	%	PM Circ	%
THE BULLETIN			00,000	0
YOUR EXAMINER	00,000	—		
HIS EXAMINER	00,000	0	00,000	—
THEIR BULLETIN	00,000	0	00,000	0
THE BULLETIN			00,000	0
YOUR EXAMINER	00,000	—		
HIS EXAMINER	00,000	0	00,000	—
THEIR BULLETIN	00,000	0	00,000	0

Magazine	Circulation	%	Magazine	Circulation	%
BET HO	00,000	0.0	COSMO	00,000	0.0
FAM CR	00,000	0.0	FARM J	00,000	0.0
FORTNE	00,000	0.0	GOODHK	00,000	0.0
LHJ	00,000	0.0	MCCALL	00,000	0.0
NAT GE	00,000	0.0	NEWSWK	00,000	0.0
NW YKR	00,000	0.0	PENTHE	00,000	0.0
PEOPLE	00,000	0.0	PLAY B	00,000	0.0
R DGST	00,000	0.0	RED BK	00,000	0.0
17	00,000	0.0	SPORT I	00,000	0.0
TIME	00,000	0.0	TV GUI	00,000	0.0
USNEWS	00,000	0.0	VOGUE	00,000	0.0
WO DAY	00,000	0.0			

Passenger Car Registrations

Share of New Private Passenger Car Registration is supplied by the Motor Statistical Division of R. L. Polk and Co. Polk prepares monthly reports (actual counts) of new cars registered in each state. Fleet, other commercial or government registrations are not included. Figures shown are for the first three quarters of the 1986 model year. Further automotive statistical information may be obtained from the Motor Statistical Division, R. L. Polk and Co., 431 Howard Street, Detroit, Michigan 48231, (313) 961-9470.

Manufacturer	1986 Model Year %
AMERICAN MOTORS CORPORATION	00.0
CHRYSLER CORPORATION	00.0
FORD MOTOR COMPANY	00.0
GENERAL MOTORS CORPORATION	00.0
OTHER	00.0
TOTAL	100.0

Metro Demographic Ratings Profile

	Persons	Men				Women		
		12+	12-24	25-54	35-64	12-24	25-54	35-64
MON-SUN 6AM-MID								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	
MON-FRI 6AM-10AM								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	
MON-FRI 10AM-3PM								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	
MON-FRI 3PM-7PM								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	
MON-FRI 7PM-MID								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	
WEEKEND 6AM-MID								
AQH	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
CUME	00.0	00.0	00.0	00.0	00.0	00.0	00.0	
TSL	000	000	000	000	000	000	000	

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

METRO MARKET PROFILE EXPLANATION

1▶ The newspapers' AM and PM adjusted circulation (based on 12-month net paid average), and the percentage of penetration in the Metro (furnished by Audit Bureau of Circulations' Data Bank Service).

2▶ The magazines' circulation (based on the latest paid circulation available for a single issue) and the percentage of penetration for the Metro (furnished by Audit Bureau of Circulations' Data Bank Service).

3▶ The share of the major automotive manufacturers in the United States and other new private passenger car registrations within the Metro (furnished by the Motor Statistical Division of R.L. Polk and Company).

4▶ Metro Demographic Rating Profile (new section) contains Metro AQH Ratings, Cume Ratings and Metro Time Spent Listening (TSL) for six dayparts and seven demographics.

Policies and Procedures for Special Station Activities and Rating Distortion

The information appearing on these pages relating to Rating Distortion, Rating Bias and Extemporaneous Comments is furnished solely for the use of Arbitron clients in making their own evaluations of the audience estimates reported. Such activities or occurrences may or may not have had an effect on listening and/or the recording thereof. Arbitron makes no attempt to assess their impact. The information appearing on this page related to Rating Distortion Activities is based upon Arbitron's policy statement dated May 20, 1977, and Policies and Procedures releases of February 1978, December 1981 and January 1987.

Special Station Activities/Stations or other identified sources may initiate a complaint about another station's activities as they may relate to Arbitron's Special Station Activities (SSA) guidelines. All complaints must be in writing and addressed to: Special Station Activity Committee, Arbitron Radio, The Arbitron Building, Laurel, MD 20707. Arbitron will accept complaints up to the day after the final date of the survey.

a. Rating Distortion/Any action(s) conducted by a radio station which may result in manipulated or inflated audience estimates through diarykeeper bribery, breaches of diary security, promotional gimmicks or other forms of manipulation. These activities may affect the way in which diarykeepers record their listening, causing them to falsify their listening record without causing a corresponding change in actual listening.

The following categories may not be inclusive:

1. **Diary Manipulation** may involve a direct request to diarykeepers/survey participants for "your support when filling out a survey form" (diary, etc.), or the station "would appreciate your listing us along with your other favorite stations" or other similar statements encouraging the reporting of listening other than actual listening.

2. **Promotional Gimmicks** include, but are not limited to: contests which may look like a survey, contests which offer prizes based on amounts of listening recorded or claimed, attempts by a station to cause diarykeepers to lose their anonymity, promotional "time sheet" and/or "payroll" activities where winners are paid according to claimed listening, and promotions which might cause a diarykeeper to surrender a diary in trade for a prize or for cash.

3. **Breaches of Diary Security** may take several forms such as: public or private appeals or offers to pay diarykeepers to either falsify reported listening or surrender live diaries.

Arbitron may delete from its reports, computer tapes or other peripheral products the audience estimates for stations that have engaged in Rating Distortion activities. When a station's audience estimates are deleted for Rating Distortion activities, a notice will appear on the cover of the Arbitron Radio Market Report and the station's activities will be noted on Page 5B. An appropriate note will be placed in all other applicable Arbitron services.

b. Rating Bias/Announcements or statements on-air, in print or other media which may interfere with and therefore bias the objectivity of the survey process. This interference includes

activities which sensitize the public to current or future Arbitron surveys, Arbitron diaries, "generic" radio listening surveys or any part of the process of measuring radio listening. These activities are generally pre-planned, repeated or stylized promotional messages that alert, inform or request cooperation with radio audience measurement services, or diary recording or reporting. These announcements may ask those participating in an audience survey to listen all day, or to take special notice of call letters, a personality name, or a present or future radio listening survey.

Rating Bias may also take the form of a Special Contest or Station Research activity, if there is the potential to cause a survey participant to act atypically. "Write it down" promotions are not generally considered atypical unless they specifically mention a survey or diary. A Special Contest is one which is demonstrated to be atypical in content and scope, and for which there is no precedent by that station or any station in that market area. Rating Bias does not include permissible sourcing of previous survey information in the form of permissible station advertising activities which note a station's actual performance in prior surveys, as permitted by contractual agreement with Arbitron.

For stations determined to have engaged in Rating Bias activities, Arbitron will: 1) place a cover notice on applicable reports, 2) place a note on Page 5B, 3) place the station's audience estimates at the bottom of each page below a distinguishing line, and 4) place a notice on our computer tapes and certain other peripheral products. Special Contest activities typically warrant a 5B note only.

c. Extemporaneous Comments/Any reference on the air or in print that mentions or alludes to a current or future Arbitron survey, diary(ies) or radio rating(s). As the name implies, these are "one-time-only", "unplanned", "slip of the tongue" or humorous comments.

Once a station's activity has been reviewed and determined to be an extemporaneous comment, Arbitron may take varying degrees of actions to identify the situation. Typically, the initial activity results in the station's call letters and a brief description of the activity being on Page 5B of the respective market report. Alternatively, depending on the content or frequency of the activity, Arbitron may invoke the same procedures as are used for Rating Bias or Rating Distortion violations.

General Information/With respect to Rating Distortion, Rating Bias and Extemporaneous Comments:

a. In the event that SSA activities occur in a Continuous Measurement Market (surveyed 48 weeks of the year), Arbitron's responsive actions will generally apply only to the survey in which the activity occurred. In Non-Continuous Measurement Markets, Arbitron will consider any SSA activity which occurs during the four weeks prior to the survey period.

b. Arbitron reserves the right to use any available means to draw attention to any station activity which might affect the survey or its results even though it does not meet any of the specific criteria stated above.

c. To initiate an inquiry by the Special Station Activity Committee (SSAC), all complaints, inquiries or information must be in written form

from an identified source (i.e., station, representative, agency, network or citizen) accompanied by evidence such as a newspaper clipping, verified air-check or direct mail advertisement. Anonymous information may be used to initiate a review only if, in the opinion of the committee, the activity has the potential to be classified as Rating Distortion.

d. The initiation of a formal inquiry into a reported incident is solely within the discretion of the Arbitron Special Station Activity Committee or committee chairperson.

e. A simulcast station, which is cited for engaging in a special station activity, also will cause its AM or FM counterpart to be cited.

SURVEY ANNOUNCEMENTS

Relating to Survey Announcements/The National Association of Broadcasters (NAB) is "...concerned with the effects of the practice, engaged by some stations of exhorting the public to cooperate with radio ratings surveys" in progress.

The Electronic Media Rating Council (EMRC) opposes "...any attempt by stations to exhort the public to cooperate with radio audience measurement services whether over the air or by any other means, and recommends to syndicated audience measurement services that the practice be discouraged because of its possible biasing effects." The EMRC has amended its minimum standards to define Survey Announcements as biasing.

The American Association of Advertising Agencies (AAAA) "...opposes any attempt in any medium to exhort the public to cooperate with any audience measurement survey by calling attention to such research by any means."

The Arbitron Radio Advisory Council has reiterated its "...continuing opposition to rating bias in the form of on-air survey announcements" and "off-air announcements that call attention to the scheduled survey dates or diary methodology. This opposition includes direct mail, newspapers, or... advertising."

FTC GUIDELINES

The FTC Guidelines Regarding Deceptive Claims of Broadcast Audience Coverage point out that radio stations "...should not engage in activities calculated to distort or inflate such data — for example, by conducting a special contest, or instituting unusual advertising or other promotional efforts designed to increase audiences only during the survey period."

It is the opinion of Arbitron that while many stations may engage in promotional activities during a survey period and may not be attempting to distort audiences, some stations may conduct their promotional activity for the specific purpose of biasing or distorting audience estimates during the rating period. Such activities could affect the behavior of survey participants, thereby changing audience estimates from what they would have been if no such activity had been conducted during the survey period.

Arbitron Radio urges all broadcasters not to engage in any of the above activities.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

5A

POLICIES AND PROCEDURES FOR SPECIAL STATION ACTIVITIES AND RATING DISTORTION EXPLANATION

These pages contain general descriptive information regarding Special Station Activities and rating distortion. Please see Chapter Eight of this book for additional explanation on these topics.

Special Notices and Station Activities

THE REPORT

This section generally contains specifics about the market report.

1 CITATION

Specifics on Special Station Activities are explained here

2 THE MARKET

METRO DEFINITION/The metro definition of this market conforms to the metro definition that was implemented by the U.S. Office of Management and Budget in June 1983.

Trend analyses may be affected by any change in definition. There are no changes in the metro definition for the reporting periods covered by the Share Trends section of this report.

3 THE SAMPLE

ESF SAMPLE/Arbitron estimates the percent of Metro telephone households not listed in telephone directories used in selecting the sample to be

Market	Percent
Radio Market, USA	36.5

THE STATIONS ◀4

NEW STATIONS, CALL LETTER CHANGES, AND TREND DATA

Current Call Letters	Former Call Letters	Prior Trend Data	On-Air Date/Date of Change
WAAA-FM	WRRR-FM		February 10, 1987
WMMM-FM	WSSS-FM	Spring 1986 Winter 1986	August 4, 1986

Stations are identified in this report under their current call letters and the audience estimates reflect listening recorded for the new and, if applicable, the old call letters. The Trends section displays trend data pertaining to both the old and the new call letters. Survey dates will be listed in the "Prior Trend Information" column whenever trend information exists for a station that has changed call letters. The date of the call letter change will also be included in order to identify which call letters were in use during a particular survey. Audience estimates for any new stations beginning broadcast activities during the survey are reported for an "average" week of the twelve week period, including those weeks when the station was not on the air.

ARBITRON RATINGS

SPECIAL NOTICES AND STATION ACTIVITIES EXPLANATION

This page, referred to as Page 5B, contains information about situations that are unique to each Report. Arbitron includes information which contributes to a user's evaluation of the reported audience estimates.

- 1▶** Instances of Rating Distortion, Rating Bias and Extemporaneous Comments and other Special Station Activities are described.
- 2▶** Information relating to a market's survey area (i.e., Metro definition) are summarized.
- 3▶** Information for such factors as: the population in-tab, the percent of ESF sample in a Metro, and the definition of a Metro with only partial ethnic controls.
- 4▶** Notices regarding reported stations on the following factors: call letter changes, new stations in the market, technical difficulties*, and changes in operational status or daytime/full-time status.

* *A technical difficulty is a condition experienced by a reported station during an Arbitron survey period which impairs the normal broadcast operating capacity or ability of the station such that it aborts or interrupts transmission or operates at reduced power. The technical difficulty must have had a duration of five or more consecutive minutes within a quarter-hour and the station must provide written notice of the particulars to Arbitron. Notices of Technical Difficulty are reported on the Special Notices page (5B) of the printed Report.*

METRO AUDIENCE TRENDS EXAMPLE

Metro Audience Trends

4▶ PERSONS 12 +

		3▶ MONDAY-SUNDAY 6AM-MID				MONDAY-FRIDAY 6AM-10AM					
		WINTER 86	SPRING 86	SUMMER 86	FALL 86	WINTER 87	WINTER 86	SPRING 86	SUMMER 86	FALL 86	WINTER 87
	WAAA										
	SHARE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1▶	AQH (00)	000	000	000	000	000	000	000	000	000	000
	CUME RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0
6▶ +	WBBB										
	SHARE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	AQH (00)	000	000	000	000	000	000	000	000	000	000
	CUME RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0
	WCCC-FM										
	SHARE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	AQH (00)	000	000	000	000	000	000	000	000	000	000
	CUME RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0
	WDDD										
	SHARE	7▶ **	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	AQH (00)	**	000	000	000	000	000	000	000	000	000
	CUME RTG	**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0
5▶ +	WEEE										
	WBCD										
	SHARE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	AQH (00)	000	000	000	000	000	000	000	000	000	000
	CUME RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0
	TOTALS										
2▶	AQH RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	AQH (00)	000	000	000	000	000	000	000	000	000	000
	CUME RTG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0

Footnote Symbols: ** Station(s) not reported this survey + Station(s) reported with different call letters in prior surveys - see Page 5B

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

METRO AUDIENCE TRENDS EXPLANATION

The Metro Audience Trends section provides an indication of individual station performance and the relative standing among other reported stations for the current survey and survey periods prior to the one reported in that Market Report. The duration reported may include as many as five discrete Arbitron survey rating periods, always including the most recent. Trends may not always reflect actual changes due to changes in methodology, station operations, etc. These estimates appear in Condensed as well as Standard Reports.

1▶ The estimates for individual stations are reported by certain demographics within specific dayparts using Average Quarter Hour Shares, Average Quarter-Hour Persons and Cume Ratings estimates.

2▶ Total listening (Metro Totals) in the market, expressed as an AQH Rating, AQH Persons and Cume Rating are also reported. The AQH Rating is the sum of all reported stations' Average Quarter-Hour estimates plus those not meeting Minimum Reporting Standards and unidentified listening.

3▶ Reported dayparts are as follows:

Monday-Sunday 6AM-Midnight
Monday-Friday 6AM-10AM
Monday-Friday 10AM-3PM
Monday-Friday 3PM-7PM
Monday-Friday 7PM-Midnight
Weekend 6AM-Midnight

4▶ Reported demographics are as follows:

Persons 12+
Persons 25-54
Persons 18-34
Persons 35-64

5▶ Call letter changes occurring during the survey will show a "+" flag **and** the previous calls.

6▶ Call letter changes occurring anywhere in the reported trends show the "+" flag only.

7▶ A "***" indicates station not reported for that survey.

TARGET AUDIENCE EXAMPLE

Target Audience
2 ► PERSONS 12 - 24

	MONDAY-FRIDAY 6AM-10PM				MONDAY-FRIDAY 10AM-3PM				MONDAY-FRIDAY 3PM-7PM				MONDAY-FRIDAY 7PM-MID				WEEKEND 10AM-7PM			
	AQH (00)	CUME (00)	AQH RTG	AQH SHR	AQH (00)	CUME (00)	AQH RTG	AQH SHR	AQH (00)	CUME (00)	AQH RTG	AQH SHR	AQH (00)	CUME (00)	AQH RTG	AQH SHR	AQH (00)	CUME (00)	AQH RTG	AQH SHR
1 ►																				
3 ► + WAAA																				
WEFG																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
WBBB																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
WCCC-FM																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
WDDD																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
WEEE																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
WFFF																				
METRO	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
TSA	00	000	0	0.0	000	000	0.0	0.0	00	000	00.0	.0	000	000	0.0	0.0	000	00	0.0	0.0
METRO TOTALS	000	000	00.0	00.0	000	000	00.0	00.0	000	000	00.0	00.0	000	000	00.0	00.0	000	000	00.0	00.0

Footnote Symbols: * Audience estimates adjusted for actual broadcast schedule. + Station(s) changed call letters since the prior survey - see page 5B.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

TARGET AUDIENCE EXPLANATION

Audience estimates for specific age groups, teens and adults by sex are reported for various dayparts. These estimates appear in Condensed (Specific Demographics) as well as Standard Reports and ADI (Specific Demographics).

1▶ The kinds of estimates reported are as follows:

Average Quarter-Hour (AQH) Persons
(Metro and TSA)

Cume Persons (Metro and TSA)

Average Quarter-Hour (AQH)
Ratings (Metro)

Average Quarter-Hour Share (Metro)

Metro Totals (AQH Persons,
Cume Persons, AQH Ratings)

(See Glossary for definitions.)

2▶ Estimates for specific adult age groups (Persons, Men and Women 12-24, 18-34*, 18-49*, 25-49*, 25-54*, 35-64*, 35+* and Teens 12-17) are reported for the following dayparts:

Monday-Friday 6AM-10AM*

Monday-Friday 10AM-3PM*

Monday-Friday 3PM-7PM*

Monday-Friday 7PM-Midnight*

Weekend 10AM-7PM*

Saturday 6AM-10AM

Saturday 10AM-3PM

Saturday 3PM-7PM

Saturday 7PM-Midnight

Weekend 6AM-Midnight

Sunday 10AM-3PM

Sunday 3PM-7PM

Monday-Friday 6AM-7PM

Monday-Friday Combined Drive
6AM-10AM & 3PM-7PM

Monday-Sunday 6AM-Midnight

3▶ Call letter changes occurring during the survey will show a "+" flag and the previous calls.

* Also in Condensed Reports.

SPECIFIC AUDIENCE EXAMPLE

3 Specific Audience
MONDAY-SUNDAY 6AM - MID

2

4 + WAAA
 WPQR
 METRO
 TSA
 WBBB
 METRO
 TSA
 WCCC
 METRO
 TSA
 WDDD
 METRO
 TSA
 WEEE
 METRO
 TSA
 WFFF
 METRO
 TSA
 WGGG
 METRO
 TSA

1 AQH (00)

	Persons 12+	Men 18+	Men 18-24	Men 25-34	Men 35-44	Men 45-54	Men 55-64	Women 18+	Women 18-24	Women 25-34	Women 35-44	Women 45-54	Women 55-64	Teens 12-17
WAAA														
WPQR														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WBBB														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WCCC														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WDDD														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WEEE														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WFFF														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
WGGG														
METRO	000	000	00	000	00	000	000	0000	000	000	00	0	000	000
TSA	00	000	0	00	000	000	0	00	00	000	000	00	000	000
TOTALS														
METRO AQH	000	0000	00	000	000	000	000	0000	000	000	000	00	0000	0000

Footnote Symbols : * Audience estimates adjusted for actual broadcast schedule. + Station(s) changed call letters since the prior surveys - see Page 5B
 # Both of the previous footnotes apply

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

SPECIFIC AUDIENCE EXPLANATION

Specific audience estimates provide a more detailed breakout than Target Audience. Additionally AQH (00) and Cume (00) estimates appear on facing pages and AQH Share and Cume Rating appear on facing pages.

1▶ Estimates reported for each demographic include:

AQH (00) and Cume (00) on facing pages
(Metro & TSA)

AQH Share and Cume Ratings on facing pages
(Metro Only)

2▶ Reported demographics are as follows:

Persons 12+

Men 18+, 18-24, 25-34, 35-44, 45-54, 55-64

Women 18+, 18-24, 25-34, 35-44, 45-54, 55-64

Teens 12-17

3▶ The reported dayparts are:

Mon-Sun 6AM-MID Sat 6AM-10AM Sun 6AM-10AM

Mon-Fri 6AM-10AM Sat 10AM-3PM Sun 10AM-3PM

Mon-Fri 10AM-3PM Sat 3PM-7PM Sun 3PM-7PM

Mon-Fri 3PM-7PM Sat 7PM-MID Sun 7PM-MID

Mon-Fri 7PM-MID

4▶ Call letter changes occurring during the survey will show a "+" flag and the previous calls.

AUDIENCE COMPOSITION EXAMPLE

3 Audience Composition MONDAY-SUNDAY 6AM - MID

1 METRO AQH (00)														
2	Persons 12+	Men 18+	Men 18-24	Men 25-34	Men 35-44	Men 45-54	Men 55-64	Women 18+	Women 18-24	Women 25-34	Women 35-44	Women 45-54	Women 55-64	Teens 12-17
4 + WAAA														
WRST	0000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WBBB	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WCCC	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WDDD	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WEEE	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WFFF	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
WGGG	000	000	00	000	00	000	000	0000	000	000	00	00	000	000
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0	0	0
TOTALS														
AQH	0000	0000	00	0000	000	0000	0000	00000	0000	0000	000	000	0000	0000
PCT (%)	000	00	0	000	00	000	000	000	000	000	00	00	000	000

Footnote Symbols: * Audience estimates adjusted for actual broadcast schedule. + Station(s) changed call letters since the prior survey - see Page 5B.
Both of the previous footnotes apply.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

AUDIENCE COMPOSITION EXPLANATION

Audience Composition provides AQH Persons and Cume Persons estimates for the broad daypart Monday-Sunday 6AM to Midnight for an “overall picture” of a station’s audience demographic make-up. A station’s estimated AQH and Cume demographics are accompanied by the percent each comprises of the total audience. Metro Total Persons and percents are calculated for station comparisons.

1▶ Estimates reported for each demographic include:

Average Quarter-Hour (AQH) Persons, and percentage of distribution by demographic.

Cume Persons, and percentage of distribution by demographic.

2▶ Reported demographics are as follows:

Persons 12+

Men 18+, 18-24, 25-34, 35-44, 45-54, 55-64

Women 18+, 18-24, 25-34, 35-44, 45-54, 55-64

Teens 12-17

3▶ The reported daypart is:

Mon-Sun 6AM-MID

4▶ Call letter changes occurring during the survey will show a “+” flag and the previous calls.

HOURLY-BY-HOURLY EXAMPLE

**Hour-by-Hour
MONDAY-FRIDAY**

		METRO AQH (00)																				
		5AM 6AM	6AM 7AM	7AM 8AM	8AM 9AM	9AM 10AM	10AM 11AM	11AM NOON	NOON 1PM	1PM 2PM	2PM 3PM	3PM 4PM	4PM 5PM	5PM 6PM	6PM 7PM	7PM 8PM	8PM 9PM	9PM 10PM	10PM 11PM	11PM MID	MID 1AM	
3	+ WAAA																					
	WEFG																					
2	P12+ SHR	0.0	00.0	0	0.0	0.00	0.0	0.0	0.0	0	0	0.0	0	0	0	0.0	0.0	00.0	0	0.0	0.0	
	P12+	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	TEENS	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
1	M 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	WBBB																					
	P12+ SHR	0.0	00.0	0	0.0	0.00	0.0	0.0	0.0	0	0	0.0	0	0	0	0.0	0.0	00.0	0	0.0	0.0	
	P12+	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	TEENS	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	TOTALS																					
	P12+ SHR	0.0	00.0	0	0.0	0.00	0.0	0.0	0.0	0	0	0.0	0	0	0	0.0	0.0	00.0	0	0.0	0.0	
	TEENS	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 18-34	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 25-54	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	M 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	
	W 35-64	00	000	0	00	000	00	00	00	0	0	00	0	0	0	00	00	000	0	00	00	

Footnote Symbols: + Station(s) changed call letters since the prior survey - see Page 5B

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

HOUR-BY-HOUR EXPLANATION

Audience estimates are reported for one-hour time periods Monday-Friday from 5AM-1AM, enabling Report users to assess station performance in more discrete time periods than the standard dayparts.

1▶ Average Quarter-Hour Persons estimates (Metro) are reported for the following:

Persons 12+

Teens 12-17

Men 18-34, 25-54, 35-64

Women 18-34, 25-54, 35-64

2▶ Metro Shares are also reported for Persons 12+.

3▶ Call letter changes occurring during the survey will show a "+" flag and the previous calls.

LISTENING LOCATIONS EXAMPLE

Listening Locations

2 ▶ PERSONS 12 +

1 ▶ METRO AQH (00)

3 ▶												
1 ▶												
MONDAY-FRIDAY COMBINED DRIVE			MONDAY-FRIDAY 10AM-3PM			WEEKEND 10AM-7PM			MONDAY-SUNDAY 6AM-MID			
At Home	In-Car	Other	At Home	In-Car	Other	At Home	In-Car	Other	At Home	In-Car	Other	
4 ▶ + WAAA												
WRST	0000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WBBB	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WCCC	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0 0	0	0	0 0	0	0	00	0	0	0	0
WDDD	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WEEE	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WFFF	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WGGG	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
TOTALS												
AQH	000	000	000	000	000	000	000	000	000	000	000	000
PCT (%)	00	00	00	00	00	00	00	00	00	00	00	00

Footnote Symbols: * Audience estimates adjusted for actual broadcast schedule. + Station(s) changed call letters since the prior survey - see Page 5B.

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

276

LISTENING LOCATIONS EXPLANATION

To the extent respondents record such listening, Arbitron reports audience estimates for listening which occurs "At Home", "In-Car", and "Some Other Place". These estimates appear in Condensed as well as Standard Reports.

1▶ The estimates are as follows

Average Quarter-Hour Persons (Metro)

At Home, In-Car and Other plus percentage of distribution by location

Station AQH estimates are provided for At Home, In Car, and Some Other Place for each reported daypart. Station percents for each respective location within each daypart appear below the respective AQH estimates.

2▶ The demographics are as follows

Persons 12+

Men 18+

Women 18+

3▶ The dayparts are as follows

Monday-Friday 6AM-10AM + 3PM-7PM
(Combined Drive)

Monday-Friday 10AM-3PM

Weekend 10AM-7PM

Monday-Sunday 6AM-Midnight

4▶ Call letter changes occurring anywhere in the reported trends show the "+" flag only.

EXCLUSIVE AUDIENCE EXAMPLE

2 ▶ Exclusive Audience
MONDAY-SUNDAY 6AM-MID

1 ▶

METRO CUME (00)												
	PERSONS 12 +		PERSONS 12-24		PERSONS 18-34		PERSONS 25-54		PERSONS 35-64		PERSONS 35 +	
	Total	Exclusive	Total	Exclusive	Total	Exclusive	Total	Exclusive	Total	Exclusive	Total	Exclusive
3 ▶ + WAAA	0000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WBBB	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WCCC	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	000	0	00	0	0	0	0	00	0	0	0	0
WDDD	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WEEE	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WFFF	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WGGG	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0
WHHH	000	000	00	000	00	000	000	0000	000	000	00	00
PCT (%)	00	0	0	0	0	0	0	00	0	0	0	0

Footnote Symbols: * Audience estimates adjusted for actual broadcast schedule + Station(s) changed call letters since the prior survey - see Page 5B.
 # Both of the previous footnotes apply

MARKET NAME

ARBITRON RATINGS

SURVEY PERIOD

EXCLUSIVE AUDIENCE EXPLANATION

The Exclusive Audience section of the Report provides cume and exclusive cume estimates of the number of different persons who listened to only one station during a survey week for at least five minutes within a quarter-hour in a given daypart.

1▶ The reported demographics are as follows:

Persons 12+

Persons 12-24, 18-34, 25-54, 35-64, 35+

2▶ The reported dayparts are as follows:

Monday-Sunday 6AM-Midnight

Monday-Friday 6AM-10AM

Monday-Friday 10AM-3PM

Monday-Friday 3PM-7PM

Monday-Friday 7PM-Midnight

3▶ Call letter changes occurring anywhere in the reported trends show the “+” flag only.

ADI Target Audience

1 ▶
2 ▶ + WPPP
WEFG

P12+
TEENS
M 18-34
W 18-34
M 18-49
W 18-49
M 25-49
W 25-49
M 25-54
W 25-54
M 35-64
W 35-64

WQQQ
P12+
TEENS
M 18-34
W 18-34
M 18-49
W 18-49
M 25-49
W 25-49
M 25-54
W 25-54
M 35-64
W 35-64

	SATURDAY 6AM-10AM			SATURDAY 10AM-3PM			SATURDAY 3PM-7PM			SATURDAY 7PM-MID			SUNDAY 10AM-3PM			SUNDAY 3PM-7PM		
	AQH (00)	AQH RTG	CUME (00)	AQH (00)	AQH RTG	CUME (00)	AQH (00)	AQH RTG	CUME (00)	AQH (00)	AQH RTG	CUME (00)	AQH (00)	AQH RTG	CUME (00)	AQH (00)	AQH RTG	CUME (00)
P12+	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
TEENS	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
WQQQ																		
P12+	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
TEENS	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
TOTALS																		
P12+	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
TEENS	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-34	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 18-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-49	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 25-54	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
M 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00
W 35-64	00	.0	000	00	.0	000	00	.0	000	00	.0	000	00	.0	000	000	0.0	00

Footnote Symbols: * Audience estimates adjusted for actual broadcast schedule. + Station(s) changed call letters since the prior survey - see Page 5B.

ADI TARGET AUDIENCE EXPLANATION

The ADI section provides estimates of radio listening within the Area of Dominant Influence (ADI). This information is provided to assist those in planning the use of radio as an advertising medium. It illustrates the variety of stations which have measurable and reportable audiences in the ADI. Only Market Reports for the Standard Radio Markets that are among the top 50 ranked ADIs (ranking based on TV households within the ADI) contain an ADI Listening estimates section.

1▶ Average Quarter-Hour Persons, and AQH Cume Persons Rating estimates for:

Monday-Sunday 6AM-Midnight
Monday-Friday 6AM-10AM
Monday-Friday 10AM-3PM
Monday-Friday 3PM-7PM
Monday-Friday 7PM-Midnight
Weekend 10AM-7PM
Saturday 6AM-10AM
Saturday 10AM-3PM
Saturday 3PM-7PM
Saturday 7PM-Midnight
Sunday 10AM-3PM
Sunday 3PM-7PM

2▶ Call letter changes occurring during the survey will show a "+" flag and the previous calls.

Special Station Activities

The interests of radio stations, ratings services, agencies, advertisers and ultimately the entire broadcast industry are served through maintaining a sensitivity to the potential effects of certain station activities on audience estimates.

Arbitron uses all available pertinent and relevant information regarding Special Station Activities (SSA) and will take all reasonable steps to identify, note or otherwise call attention to such special activities in its Reports. The information is provided for our clients' use in their evaluation of the reported audience estimates. Arbitron makes no attempt to assess the impact of such activities or conditions.

RATING DISTORTION

Rating Distortion is any action(s) conducted by a radio station which may result in manipulated or inflated audience estimates through confusion, diarykeeper bribery, breaches of diary security, promotional gimmicks or other forms of endorsement. Radio Distortion should not be confused with hypoing. (See *Federal Trade Commission, page 61.*) Rating Distortion activities may affect the way in which diarykeepers record or report their listening without causing a corresponding change in actual listening.

The following examples are illustrative and are not to be considered all-inclusive:

- **Breaches of Diary Security** can take different forms including public or private appeals or offers to pay diarykeepers to falsify reported listening or surrender their diaries.
- **Promotional Gimmicks** may include, but are not limited to, contests which may resemble a survey; contests which offer prizes based on the amount of listening recorded or claimed; an attempt to cause a diarykeeper(s) to lose his/her anonymity; promotional "time sheet" and/or "payroll" activities where winners are paid according to 'claimed' listening; or activities which may cause a diarykeeper to surrender his/her diary in trade for a prize or for any reason or any promotion in which participants are to use their diaries in any manner.

- **Diary Manipulation** may include breaches of diary security, diarykeeper confusion or promotional or other similar activities. It may also be a request to survey participants such as "for your support when filling out a survey form . . ." (diary, etc.), or "the station would appreciate your listing us along with your other favorite stations". This type of statement encourages the reporting of listening other than actual listening.

Rating Distortion does not include a station's promotion which requests that persons "write down" the times of day that a particular record is played on the station and offers a reward based on the accuracy of the list of times reported. This promotion does not constitute Rating Distortion because it requires that a person actually listen to the station to qualify for a prize and does not involve a diary.

Rating Distortion is sometimes confused with "hypoing". While hypoing refers to station activities designed to cause more actual listening during a survey period, Rating Distortion involves activities that may cause diarykeepers to report or record more or different listening than actually occurred. Examples of potential Rating Distortion activities are given in a booklet entitled "Special Station Activities Handbook", available from Arbitron Ratings upon request.

Arbitron's Response

ARBITRON MAY DELETE FROM ITS PUBLISHED REPORTS, COMPUTER TAPES AND OTHER PERIPHERAL PRODUCTS THE AUDIENCE ESTIMATES FOR STATIONS THAT HAVE ENGAGED IN RATING DISTORTION ACTIVITIES AS DETERMINED BY THE ARBITRON SPECIAL STATION ACTIVITY COMMITTEE.

If the station activity is a pre-planned, repeated, stylized or an apparent official action by management or personnel, **FULL DELISTMENT WILL BE RECOMMENDED.** Arbitron reserves the right to tailor our response to the facts and circumstances of the activity based on the severity of the offense. Extemporaneous comments or promotions may invoke delistment if, in the sole judgment of Arbitron, the broadcaster or on-air talent has management responsibility and/or if he/she is informed or knowledgeable about Arbitron's SSA guidelines.

Our business is to measure and estimate listening as it actually occurred during a survey period. When a station engages in Rating Distortion activities, it is interfering with this objective and is taking unfair advantage of other stations in the market. We "delist" the station for lessening the validity of listening estimates by undermining the credibility and usability of Arbitron audience estimates and radio itself. This position is supported by the National Association of Broadcasters, the Arbitron Ratings Radio Advisory Council and the Electronic Media Rating Council.

In addition to delisting, a cover notice and page 5B note will appear in the respective report. Complete information regarding the station's activity, our position and the station's viewpoint will be printed on page 5B. An appropriate note will be placed in all other appropriate Arbitron services.

SIMULCAST STATIONS DELISTED IN VIOLATION OF RATING DISTORTION WILL ALSO CAUSE ITS AM OR FM COUNTERPART TO BE DELISTED.

RATING BIAS

Rating Bias encompasses three previously separate areas: Survey Announcements, Diary Promotional Announcements and Special Contests.

1. Rating Bias includes announcements or statements on-air, in print or other media which may interfere with and therefore bias the objectivity of the survey process. This interference may include activities which sensitize the public to current or future Arbitron surveys, Arbitron diaries, "generic" radio listening surveys or any part of the process of measuring radio listening. These activities are generally pre-planned, repeated or stylized promotional messages that alert, inform or request cooperation with radio audience measurement services, or refer to diary recording or reporting. These announcements may ask those participating in an audience survey to listen all day, to be cooperative, to be careful with their entries, or to take special notice of call letters, personality name or a present or future radio listening survey.

2. Rating Bias may also take the form of a contest or station research activity, if there is the potential to cause a survey participant to act atypically. "Write it down" promotions are not generally considered to be Rating Bias unless they specifically mention a survey or a diary.

3. Rating bias does not include the sourcing of survey information in the form of station advertising, which notes a station's actual performance in prior surveys, as permitted by contractual agreement with Arbitron.

Arbitron's Response

Rating bias activities will typically warrant below-the-line treatment in addition to a cover notice, 5B note and a notice on our computer tapes and other peripheral products.

Arbitron Ratings may publish a list of the call letters of each station which engaged in Survey Announcements and may circulate that list to Arbitron Ratings' advertiser and agency subscribers.

SIMULCAST STATIONS CITED IN VIOLATION OF A RATING BIAS WILL CAUSE ITS AM OR FM COUNTERPART TO ALSO BE CITED.

Extemporaneous Comments

As the name implies, these are “one-time-only”, “unplanned”, “slip of the tongue”, “humorous” comments, innuendos or other similar statements on air or in print which reference diaries, radio ratings or Arbitron surveys. Discussion initiated by call-in listeners about current surveys, diaries etc., are not cited if the responsible radio personality discontinues the discussion immediately. However, if the personality initiates the discussion or continues in a listener-initiated discussion, a notice may be issued. Repeated and/or continued extemporaneous comments during a survey period may be acted on in a more severe fashion.

Arbitron’s Response

First time occurrences of Extemporaneous Comments are noted on page 5B only. If several such incidents are noted during a survey or within a one-year period, Arbitron reserves the right to take more comprehensive measures to highlight the activity(ies).

SIMULCAST STATIONS CITED IN VIOLATION OF EXTEMPORANEOUS COMMENTS WILL CAUSE ITS AM OR FM COUNTERPART TO ALSO BE CITED.

TIME CONSIDERATION

With respect to Rating Distortion, Rating Bias and Extemporaneous Comments:

In continuously measured markets, Arbitron will consider a claim of Special Station Activity at any time throughout the year and will focus on any potential impact it may have on the current or the next immediate survey in that market. In all other markets, Arbitron will consider any SSA activity which occurs during the four weeks prior to the start of the survey period or during the survey itself.

DISCLAIMER

ARBITRON RESERVES THE RIGHT TO USE ANY AVAILABLE MEANS TO DRAW ATTENTION TO A STATION ACTIVITY EVEN THOUGH SUCH ACTIVITY DOES NOT MEET ANY OF THE ABOVE SPECIFIC CRITERIA BUT MIGHT AFFECT THE SURVEY OR ITS RESULTS.

COMPLAINT PROCEDURES

a. To initiate an inquiry by the Special Station Activity Committee, all complaints, inquiries or information must be in writing from an

identified source (i.e. station, representative, agency, network or citizen) and accompanied by evidence such as a newspaper clipping, air-check or direct mail advertisement. Arbitron may accept an admission by a station or other credible information broadcasted or published in the media concerning a stations activities.

Anonymous information may be considered if, in the opinion of the committee, the activity has the potential to be classified as Rating Distortion.

b. The chairperson will review each reported incident and determine if a formal inquiry is warranted. An inquiry will be initiated if there is an indication of violation and the complaint is within the scope of established Arbitron guidelines. Station requests for advice on future activities will be handled in the same manner.

c. Arbitron inquiries for additional information will be in written form and sent by overnight delivery. The station will ordinarily be allotted a response time of approximately two weeks. Arbitron reserves the right to shorten the response time for survey publication or other reasonable business needs. To permit investigation and timely report delivery, complaints will not be accepted after the last day of the survey.

d. The station in question will be called prior to the end of the response period to determine if they plan to respond. If no written response is forthcoming, any information obtained from the letter of complaint and phone call to the station in question may be used in consideration of the final disposition.

e. If the chairperson determines that more than two weeks will be required to reach a final decision, a letter stating that the matter is under consideration will be forwarded to the complaining and responding parties to inform them of the delay.

f. Once a decision is reached, the chairperson will issue a letter to the station in question, the complaining party and all other interested parties. In cases of Rating Distortion, the Radio Product Manager will issue a letter or notice (in addition to any report notations) to all clients in the market and appropriate Arbitron personnel.

g. Arbitron welcomes questions and comments about its Special Station Activities guidelines. Such comments or letters of complaint about a station activity should be addressed to:

Special Station Activity Committee
Arbitron Radio Policies and Procedures
The Arbitron Building, 312 Marshall Avenue,
Laurel, MD 20707

FEDERAL TRADE COMMISSION GUIDELINES (FTC)

The FTC has issued Guidelines regarding deceptive claims of Broadcasting Audience Coverage (issued July 8, 1965). These Guidelines are still in effect and are reprinted in full here:

"1. A person (or firm) making a claim concerning the size, composition or other important characteristics of a listening or viewing audience is responsible for seeing to it that the claim is truthful and not deceptive. If he bases his claim on the results of an audience survey, he assumes responsibility for interpreting the data accurately. Thus, he should not engage in activities calculated to distort or to inflate such data — for example, by conducting a special contest, or otherwise varying his usual programming, or instituting unusual advertising or other promotion efforts, designed to increase audiences only during the survey period. Such variation from normal practices is known as 'hyponing'.

It is also improper to cite or quote from a survey report or survey data in such a way as to create a misleading impression of the results of the survey, as by unfairly basing audience claims on results achieved only during certain periods of the broadcast day or on a survey of only a segment of the total potential audience.

2. Audience data are based on sample surveys not derived from complete measurements of audiences. As such, they are statistical estimates, and, at best, are of only limited reliability due to errors and distortions inherent in the statistical methods yielding such data. Claims as to audience coverage based on audience surveys should therefore be qualified in recognition of the fact that survey data are inherently imperfect. Any such claim should be accompanied by a disclosure that any figures cited or quoted are estimates only or are based upon estimates, and are not accurate to any precise mathematical degree unless based upon a true probability sample. Audience surveys are not in practice based upon true probability samples.

3. Such claims should not be based on data obtained in a survey that the person (or firm) making the claim knows or has reason to know was not designed, conducted, and analyzed in accordance with accepted statistical principles and procedures, reasonably free from avoidable bias and based on a properly selected sample of adequate size. Such claims should not be based on survey reports or data that do not reasonably reflect current audience coverage, either because the passage of time has made the data outdated, or because a later survey report encompassing essentially the same area has been published, or because of the entry or departure of a competitor, or any other reason.

These guidelines are offered to broadcasters and others concerned for consideration in avoiding possible violation of the Federal Trade Commission Act."

Reliability of Arbitron Estimates

The accuracy of any survey result can be thought of as having two components:

Reliability (*refers specifically to sampling error*) and

Validity (*refers to non-sampling aspects of the survey such as the strengths and biases associated with the survey instrument, length of the survey, etc.*).

Arbitron estimates are subject to statistical variance (sampling error) associated with all surveys using a sample of the universe. They are also subject to certain non-sampling errors, limitations and qualifications.

This chapter is specifically concerned with reliability, which can be defined as how close the survey estimate comes to the result that would be achieved through a complete Census of the same population (defined by the Sample Frame), using the same level of care and the same data collection procedures as the survey. It is important to keep in mind that although reliability measures how much confidence we can have in the statistical power of an estimate, it is not a measure of the validity of the estimate.

The statistical measure of sampling error is called **standard error**. The standard error of any estimate, applied to that estimate (plus and minus), produces a range called a **confidence interval**. When a confidence interval is equal to plus or minus one standard error, we can say we are 68 percent confident that the true listening behavior of the particular population segment falls within the interval. The level of confidence increases as the number of standard errors (1.0, 1.64, 1.96, etc.) used to construct the interval increases. All other things equal, the smaller the standard error, the more reliable the estimate.

QUANTIFYING RELIABILITY OF AUDIENCE ESTIMATES

The standard error of a rating based on a simple random sample would be calculated as follows:

$$\sqrt{\frac{(p * q)}{n}}$$

Where:

p = the rating

q = 100 minus the rating, and

n = sample size

If Arbitron surveys were based on a simple random sample of persons who were each asked only one question (e.g., Did you listen to station WAAA for at least five minutes between 9:00 and 9:15 a.m. Monday morning?), then 'n' would be a straight count of the number of persons responding to the question.

But most surveys aren't based on simple random samples. (Sampling of multiple persons-per-household and county-level sample stratification are two 'non-srs' aspects of Arbitron's sampling methodology.) Nor are survey respondents — audience survey respondents in particular — asked just one question. In essence, every respondent is asked hundreds of questions like the one above in order to produce one rating for each qualifying radio station for each daypart.

Since the Arbitron sample isn't a simple random sample, the sample size isn't a simple 'n'; it's a quantity other than 'n'. Therefore, the formula for computing the standard error of an Arbitron estimate would be expressed as follows:

$$\sqrt{\frac{(p * q)}{ESB}}$$

Where:

p = the rating

q = 100 minus the rating

ESB = the Effective Sample Base*

Since 'p' and 'q' are virtually given, it follows that when Arbitron first sought to develop a means of quantifying the reliability of its audience estimates, the essential task was to develop a method for computing the ESB for each audience estimate.

* *Effective Sample Base (ESB): An estimate of the size of a simple random sample which would provide the same degree of reliability as the sample actually used to produce the particular estimate in an Arbitron Market Report.*

ARBITRON REPLICATION II: A STUDY OF THE RELIABILITY OF RADIO RATINGS*.

In 1971, Arbitron responded to the challenge of the National Association of Broadcasters and the Broadcast Rating Council (now known as the Electronic Media Rating Council, EMRC) to all rating services to study the reliability of their audience estimates.

In 1974, preliminary results on radio reliability were published in *Arbitron Replication: A Study of the Reliability of Broadcast Ratings*. Then in 1981, *Arbitron Replication II: A Study of the Reliability of Radio Ratings* was completed. The purpose of this exhaustive study, conducted in association with the EMRC, was to determine the factors that affect Radio ESBs (effective sample sizes) and to provide users with a simple, accurate method of estimating sampling error in the Radio Market Reports.

Key results of the study include:

1. Identification of a number of factors which affect ESB: multiple observations per respondent, number of respondents per household, survey area (Metro, TSA, ADI), weighting;
2. Development of a model which would reflect the impact of each of these factors on the ESB (and therefore standard error) of a specific audience estimate;
3. Translation of model variables into a form which could be applied to all radio audience estimates by any Market Report user.

The Replication II study, which was based on 19 markets, was later validated by the EMRC using nine additional markets. The purpose of the validation study was to verify that the Replication methodology could consistently predict actual standard errors — to within very narrow tolerances. Special analyses were also conducted to determine how well the model predicted standard errors in extreme situations (high turnover station, low turnover station, high power station, low power station, etc.). The methodology was found to meet the rigorous validation tests conducted by the EMRC.

* For further reading on this topic see the publication of this study, which is available on request and includes the results as well as the statistical methodology.

CALCULATING THE STANDARD ERROR OF AN ARBITRON ESTIMATE

Since 1981, all Arbitron Radio Market Reports have contained ESBs based on the Replication II model for every demographic, daypart and survey area reported in the book. However, rather than being shown at face value, the square root of the ESB is given so that the standard error of the estimate can be more readily computed.

Table A (page v)

Table A is actually the numerator of the standard error calculation. It contains the square root of the quantity $p \cdot q$ for each theoretical rating from 0.1 to 50.0. Because Table A values depend only on the value of the specific ratings, they are constant for all markets and surveys. The table stops at a rating of 50.0 because $p \cdot q$ (or $p \cdot 100 - p$) for a particular rating is the same as $p \cdot q$ for 100 minus the rating. (Example: $p \cdot q$ for a rating of 57.2 (or $57.2 \cdot 42.8$) is the same as $p \cdot q$ for a rating of 42.8 (or $42.8 \cdot 57.2$).

Table B (page vi)

Table B is actually the denominator of the standard error calculation. It contains the square root of the ESB for each estimate in the Market Report by demographic, daypart and survey area and is custom-derived for each market and survey.

ESB values take into account:

- variable factors (such as actual in-tab for the demographic group, and the amount of weighting which was applied to discrete demographics within that age/sex/survey area), and
- constant factors (such as the number of quarter hours in the particular estimate and the effect of multiple persons-per-household on the audience estimate).

See Appendix for illustration of both tables.

The standard error for a specific rating is obtained by dividing the Table A value by the Table B value:

$$\text{(Standard Error)} = \frac{\text{Table A}}{\text{Table B}} = \frac{\sqrt{p(100-p)}}{\sqrt{\text{ESB}}}$$

Suppose WAAA achieves a rating of 6.9 among Women 25-54 in Monday-Friday 6AM-10AM. The reliability of the estimate would be assessed as follows:

- Table A value for rating of 6.9 is 25.35
(see *Appendix*)
- Table B value for Women 25-54 Monday-Friday 6AM-10AM is 33.76 (see *Appendix*)
- One standard error (1.0 se) =
25.35 / 33.76 = .75 (rounds to .8)
- 68 percent confidence interval (1.0 se) =
6.9 ± .8 = 6.1 to 7.7
- 90 percent confidence interval (1.64 se) =
6.9 ± 1.2 = 5.7 to 8.1

Additional examples and instructions can be found on page v of the Radio Market Report, next to Table A.

Restrictions on Use of Reports

ARBITRON MARKET REPORT

Arbitron Market Reports are copyrighted and contain data and estimates proprietary to Arbitron. The map and audience information in Market Reports is copyrighted pursuant to the 1976 Revision of the United States Copyright Act.

Arbitron Market Reports are provided to Arbitron clients pursuant to the terms of written License Agreements between Arbitron and such clients.

Only subscribers and their authorized representatives have the right to use audience estimates contained in Market Reports.

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Arbitron recommends that the appropriate market, survey period, survey area, time period and kind of audience estimate (e.g., Your City, May 1986, Total Survey Area, Monday-Friday, 8:00PM-9:00PM, average quarter-hour estimates, Men 18-49) be stated and that it be mentioned that the audience estimates are subject to the qualifications and limitations stated in the Arbitron Market Report.

Users of this report are referred to the current policies of the Federal Government relating to the use of audience estimates. No Market Report nor any of its contents may be used in any manner by non-clients of Arbitron without written permission from Arbitron.

RETENTION OF RADIO SURVEY MATERIALS

In-tab Arbitron listening diaries used for the projection of audience estimates for a Report, along with all unusable diaries and other survey materials, will be stored for one year from the date on which the subject Report was first mailed to subscribers by Arbitron. After such time they are destroyed. Subscribers to Reports are advised that if special cross-tabulations or evaluations of reported estimates are desired, they should be ordered before the retention period has expired. Upon proper appointment, subscribers to a Market Report may examine and analyze, but not copy, the in-tab diaries for the Market Report at Arbitron's Laurel, Maryland, office.

WARNING

The audience estimates and other information contained in all Arbitron Standard and Condensed Radio Market Reports are copyrighted. The willful unauthorized use of any of the contents of any Report constitutes copyright infringements which could subject the infringer to civil damages of up to \$50,000 and criminal penalties of up to one year imprisonment and a \$10,000 fine pursuant to Sections 504 and 506 of the Federal Copyright Revision Act of 1976.

Glossary of Terms

Age/Sex Populations: Estimates of population, broken out by various age/sex groups within a county.

AM-FM Total: A figure shown in market reports for AM-FM affiliates in time periods when they are simulcast.

Arbitron Survey Week Number (Julian Week): All weeks in a year are assigned a number from 01-53 consecutively, beginning with the week in which January 1 falls. The number appears on the diary label and serves as a quality check to ensure that a diary is placed in the correct week of a survey.

Area of Dominant Influence (ADI): An exclusive geographic area, defined by Arbitron Television, consisting of sampling units in which the home market television stations receive a preponderance of viewing. Every county or sampling unit in the United States (excluding Alaska and Hawaii) is allocated exclusively to one ADI.

Ascription: A statistical technique that allocates radio listening proportionate to each of the conflicting station's diaries as calculated on a county basis using TALO from the previous surveys, excluding the most recently completed survey for those markets with back-to-back surveys. Diary credit is automatically randomly assigned in proportion to the relative listening levels of the conflicting stations over the previous year.

Audience: A group of individuals that are counted in a radio audience according to any one of several alternative criteria.

Audience Turnover: The average ratio between the cumulative audience listening to the average audience listening. If, for example, 200 different persons listened to a particular station at a particular time and day during the 12-week survey, but only an average of 50 persons was listening at any one time, the audience turnover would be 4.0.

Average Quarter-Hour Persons: The estimated number of persons who listened to a station for a minimum of five minutes within a given quarter-hour. The estimate is based on the average of reported listening in the total number of quarter-hours the station was on the air during a reported time period. This estimate is shown for the Metro, TSA and, where applicable, the ADI.

Average Quarter-Hour Rating: The Average Quarter-Hour Persons estimate expressed as a percentage of the universe. This estimate is shown in the Metro and, where applicable, the ADI.

Average Quarter-Hour Share: The Average Quarter-Hour Persons estimate for a given station expressed as a percentage of the Average Quarter-Hour Persons estimate for the total listening in the Metro within a given time period. This estimate is shown only in the Metro.

Away-From-Home Listening: An estimate of listening for which the diarykeeper indicated that listening was done away from home, either in a car or some other place.

Below-the-Line Listing: Describes how a station's estimates are printed in a Radio Market Report. A station is given below-the-line listing for various reasons such as certain Special Station Activities.

Broadcasting: All transmissions of over-the-air radio or television signals.

Broadcast Rating Council (BRC): See Electronic Media Rating Council (EMRC).

Buffer Sample: Additional sample that is hand-drawn by Arbitron Ratings' Data Collection department for unusual situations when there is not enough computer-drawn sample because of changes in the usability rate and/or consent rate and persons-per-household. May be selected from telephone books or ordered from Metromail Advertising Company. Also known as Buffer.

Condensed Radio Market: Generally a small to mid-sized radio market; most are surveyed once a year for the Spring Report. The Metro and TSA sample objectives are considerably smaller than those for Standard Radio Markets, and an abbreviated version of the Standard Radio Market Report is produced.

Conflict: Two or more qualifying stations using the same or similar slogan, program, personality, sports or frequency identification in the same county.

Consolidated Metropolitan Statistical Area (CMSA): As defined by the U.S. Government's Office of Management and Budget, a grouping of closely related Primary Metropolitan Statistical Areas.

County Slogan Edit Listing: An internal document used to process diary entries. A county-by-county listing of all stations reaching the county which notes the call letters, slogan ID, city and county of license, exact frequency and network affiliation(s).

Cume Persons: The estimated number of different persons who listened to a station for a minimum of five minutes within a given daypart. (Cume estimates may also be referred to as "cumulative", "unduplicated" or "reach" estimates.) This estimate is shown in the Metro, TSA and ADI.

Cume Rating: The estimated number of Cume Persons expressed as a percentage of the universe. This estimate is shown for the Metro only.

Data Entry: The process of entering individual data items, usually after they have been coded, onto a computerized record or data file. Normally, this is accomplished through manually "keying" or keypunching each item; however, data entry may be totally automated through the use of optical scanners and similar electronic devices.

Daypart: The days of a week and time frames for which listening estimates are calculated (e.g., Monday-Sunday 6AM-Midnight, Monday-Friday 6AM-10AM).

Demographics: Statistical identification of human populations according to sex, age, race, income, etc.

Discrete Demographics: Uncombined or non-overlapping sex/age groupings for listening estimates (e.g., men and/or women 18-24, 25-34, 35-44) as opposed to "target" group demographics (e.g., men and/or women 18+, 18-34, 18-49, 25-49).

Effective Radiated Power (ERP): Effective Radiated Power is used in conjunction with HAAT and the FCC's Table 73.333 to determine a station's reach in miles/meters. ERP is the product of the transmitter output power less transmission line loss times: 1) antenna power gain or 2) antenna field gain squared. (See *FCC Prediction of coverage 73.313 10/86.*)

Effective Sample Base (ESB): An estimate of the size of simple random samples (in which all diaries have equal values) that would be required to provide the same degree of statistical reliability as the sample actually used to produce the estimates in a report.

Electronic Media Rating Council (EMRC): An organization that accredits broadcast ratings services. The EMRC mandates and performs annual audits of the compliance of a service with certain minimum standards.

Ethnic Controls: Arbitron Ratings placement and weighting techniques used in the qualifying Metros of Arbitron Radio Markets to establish better representation of the black and/or Hispanic populations.

Exclusive Cume Listening: The estimated number of Cume Persons in the Metro who listened to one and only one station within a given daypart.

Expanded Sample Frame (ESF): A universe that consists of unlisted telephone households; households which do not appear in the current or available telephone directories because either (a) they have requested their telephone number not to be listed or (b) they are households where the assigned telephone number is not listed in the directory because their telephone service began after publication of the most recent directory.

Facility Form: (See *Station Information Form.*)

Field Interviewers: Interviewers who work from their homes and function as independent contractors under Arbitron's supervision and direction. The role of Arbitron's Field Interviewers is to contact, recruit and follow-up with sample households. They do not collect radio listening data from respondents.

Flip: A computerized edit procedure that assigns aberrated call letters to legal call letters; or the AM designation of a set of call letters may be changed to an FM designation (e.g., WODC-AM flips to WOBC-AM and WOBC-FM flips to WOBC-AM).

Follow-Up Contact: A contact made to sample persons or households after the initial contact and recruitment stage. The purpose may be to remind respondents to complete and return their diaries, obtain missing data items, convert prior refusals or thank respondents for cooperating with the survey.

Frequency: An FCC authorized AM or FM band designation assigned to a city service area and a licensee.

Gross Impressions (GIs): The average number of persons that listen multiplied by the number of times the commercial or spot is to run.

$$\text{Gross Impressions} = \frac{\text{Average Persons}}{\text{Number of Spots}}$$

Gross Rating Points (GRPs): The total of all rating points achieved in a reporting area for a specific schedule of commercials or spots.

$$\text{GRPs} = \frac{\text{Average Rating}}{\text{Number of Spots}}$$

Group Quarters: Residences of nine or more unrelated individuals. For example: persons living in college dormitories, homes for the aged, military barracks, rooming houses, hospitals and institutions.

Height Above Average Terrain (HAAT): Antenna height above average terrain is used in conjunction with ERP and the FCC's Table 73.333 to determine a station's reach in miles/meters. To calculate HAAT, one determines the antenna height above the terrain from two to 10 miles in eight primary compass directions.

Home Number: A unique four-digit number assigned to each household within a county being sampled.

Home Station: Any station licensed to a city located within the Metro, Home County and/or ADI of the market being reported. For reporting qualification, see "Criteria for Reporting Stations." (In Radio, via qualification under Arbitron's Multi-City of Identification criteria, a station may be granted "home" station status.)

In-Tab: The number of usable diaries actually tabulated in producing an Arbitron Ratings report.

Interviewer Effects: (Also called "Interviewer Variance" or "Interviewer Bias.") Refers to any differences or variations in responses to survey questions which can be attributed to differences between interviewers, rather than differences between respondents. Interviewer effects generally occur when interviewers fail to administer survey questionnaires in a highly standardized and consistent manner for all of the respondents interviewed. Variations in responses caused by interviewer effects may result in increased response bias and reduce the overall reliability and/or validity of survey results. Arbitron interviewers do not collect survey data.

Listed Sample: Names, addresses and telephone numbers of selected potential diary-keepers derived from telephone directories and provided to Arbitron by Metromail, Inc.

Market Statistics: A company from which Arbitron Ratings obtains annual population and Metro Market Profile estimates for each of the radio markets covered by our Syndicated Local Market Reports.

Market Totals: The estimated number of persons in a market who listened to all radio stations which include qualifying stations, stations that did not meet the Minimum Reporting Standards, non-commercial stations and unidentified stations.

Mentions: The number of different diaries in which a station is mentioned once with at least five minutes of listening in a quarter-hour (does not indicate all the entries to a station in one diary).

Metromail, Inc.: A vendor located in Lincoln, Nebraska, who provides Arbitron with names, addresses and telephone numbers from which the survey sample is drawn.

Metro Survey Area: Metro Survey Areas which generally correspond to Metropolitan Statistical Areas (MSAs) as defined by the U.S. Department of Commerce, Office of Federal Statistical Policy and Standards, and subject to exceptions dictated by historical industry usage and other marketing considerations.

Metro Totals and ADI Totals (Total Listening in Metro Survey Area or Total Listening in the ADI): The Metro and ADI total estimates include estimates of listening to all commercial radio stations including reported stations, stations that did not meet the Minimum Reporting Standards, and noncommercial and unidentified stations.

Minimum Reporting Standard (MRS): The standard minimum requirements (minimum amounts of listening during a survey) which a station must meet in a given market, in order to be listed in the report of that market.

Multi-City of Identification: If a station ID's with multiple cities, an alternate city will be printed in the local Radio Market Report if the station uses the ID once an hour and informs Arbitron. The city of license is required to be named first in all multi-city identification announcements (see FCC guidelines section 73.1201 (B) (2), amended October 19, 1983). Stations home to the Metro are printed without brackets and those who are home to the Metro due to Multi-City ID status appear with brackets [] .

National Association of Broadcasters (NAB): The radio and television station owner association headquartered in Washington, D.C. A main function of the NAB is to provide guidance for fair and ethical practices within the broadcasting industry. The NAB Code

establishes programming and advertising standards for radio and television. Subscription to the code is voluntary, but code members include the majority of stations and all three television networks.

Network Affiliate: A broadcasting station (usually independently owned) which has a contractual agreement with a network which grants the network an option on specific time periods for the broadcast of network-originated programming.

One Percent (1%) TALO Rule: An Arbitron Radio procedure that establishes a cut-off point for resolving conflicts over listening credit through ascription. In order to be included in the ascription process, a station must have received at least one percent (1%) of the total number of in-tab diary mentions in a given county during the previous available year. TALO (Total Audience Listening Output) is the total number of in-tab diary mentions, for all stations combined, in each county during that preceding year.

Persons-Per-Diary Value (PPDV): The numerical value assigned to each in-tab diary for the process of projecting audience estimates to the entire 12+ population in a market. The PPDV reflects the number of persons in the geographic age/sex group represented by each in-tab diary after sample balancing has been performed.

Pre-Alerted Survey: A survey in which respondents are notified of their selection for the survey in advance of the actual data collection. This pre-notification to the sampled person or household is usually made by telephone or mail contact. It has been shown to increase both response and data quality relative to similar surveys having no pre-notification of respondents.

Premium: A token cash payment mailed with the diaries to serve as an inducement for a diarykeeper to participate in the survey and return the diary to Arbitron. A premium is sent for each person 12 years of age and older in a consenting household. The amount of the premium may vary.

Radio Market Report (RMR): A syndicated report for a designated market; also known as SRMR (Standard Radio Market Report) or CRMR (Condensed Radio Market Report).

Rating: The percentage of the total survey population listening to a given station during a specified time period. (See Average Quarter-Hour Rating and Cume Rating.)

Reach (Station): The total of the counties in which Arbitron has determined that a specific radio station signal may be received. The formula is based primarily on FCC Table 73.333 using ERP and HAAT.

Reliability: The extent to which a sample result reproduces the same result that would be obtained by attempting a complete census with the same care and the same survey methodology as was used with the sample. Reliability is often referred to as stability or precision. The degree of the reliability of estimates based on probability samples is usually expressed in terms of standard error, or the error around the estimate. The smaller the standard error the more reliable (stable) the estimate.

Respondent: A person in the sample. May also be used to label only those sampled persons who provide information in response to survey questions.

Response Rate: At the simplest level, the proportion of originally designated sample persons who provide usable data to the survey. In practice, the calculation of final response rates generally involves certain adjustments to account for: (1) unusable sample and (2) incomplete or otherwise unusable diaries or questionnaires. In radio surveys, response rates are most appropriately determined by dividing the total number of in-tab (usable) diaries or interviews obtained by the total usable starting sample. The resulting fraction may then be converted to a percentage.

Share: The percentage of individuals listening to radio who are listening to a specific station at a particular time.

Simulcast: The simultaneous broadcasting of one station's total uninterrupted broadcast flow by another station without any variation.

Slogan Identifier (ID): Another means, aside from call letters, for a radio station to identify itself. Each station is allowed to maintain slogan ID(s) of up to 25 characters on Arbitron's slogan listings. An alternate station name used in place of or in addition to call letters, exact AM or FM frequency, truncated AM frequency, city, county, network, program, personality, sports or generic format descriptor.

Station Information Form: A computer-generated form that lists essential station information including: power (day and night), frequency, sign-on/sign-off times, simulcasting (if any), slogan ID, network affiliates and national representative (if applicable). The Station Information Form is part of the Station Information Packet which is forwarded to qualifying stations for verification prior to the survey period.

Station Information Packet: A set of forms mailed by Arbitron Ratings to qualifying radio stations approximately 50 days prior to each survey; allows the station to change its slogan ID, sign-on/sign-off times and programming changes; included are forms for: Station Information, Programming Schedule Information and Sports Programming, and in Spring of each year, Multi-City of ID.

Station Reach Listing: A county-by-county listing of stations that can be received in a county. This listing is based on previous diary history and is updated with recent diary information as well as changes in power/antenna height.

Target Demographics: Audience groupings containing multiple discrete demographics (e.g., men and/or women 18+, 18-34, 18-49, 25-49) as opposed to discrete demographics (e.g., men and/or women 18-24, 25-34, 35-44).

Technical Difficulties (TD): Time period(s) of five or more consecutive minutes, in a quarter-hour, during the survey period in which a station listed in an Arbitron Ratings market report notified Arbitron Ratings in writing of technical difficulties including, but not limited to, times it was off the air or operating at reduced power.

Total Audience Listening Output

(TALO): The number of diaries in which a station is “mentioned” in a market, a county or other designated geographic area; a county-by-county printout of the number of mentions in in-tab diaries for each station; can be used to rank stations and to calculate weekly Cumes and raw bases.

Total Survey Area (TSA): A geographic area that includes all counties assigned to a market as defined by Arbitron. For radio, it is a geographic area that includes the Metro Survey Area (MSA) plus certain counties outside the MSA.

Uncombined Listening Estimates:

(See Discrete Demographics.)

Universe: The estimated total number of persons in the age/sex group and geographic area being reported.

Unlisted Sample: Telephone numbers that are not in the data bank of numbers listed in telephone directories. See also Expanded Sample Frame (ESF).

Unusable Diaries: Returned diaries determined to be unusable according to established Arbitron Ratings diary edit procedures.

Unusable Sample: Any household included in the original designated sample determined to be ineligible for survey participation for a variety of reasons, including: (1) disconnected telephone with no new listing within the survey area; (2) those which volunteer that they are institutional housing with nine or more occupants; (3) nonresidential listing; (4) those which state that a member of the household is media affiliated (in accordance with Arbitron’s definition).

UUUU: Unidentified; listening that could not be interpreted as belonging to a specific station.

Frequently Used Abbreviations:

ADI	Area of Dominant Influence
AQH	Average Quarter-Hour
CMSA	Consolidated Metropolitan Statistical Area
CRMR	Condensed Radio Market Report
DST	Differential Survey Treatment
EMRC	Electronic Media Rating Council
ERP	Effective Radiated Power
ESB	Effective Sample Base
ESF	Expanded Sample Frame
HAAT	Height Above Average Terrain
HDBA	High Density Black Area
HDHA	High Density Hispanic Area
MRS	Minimum Reporting Standards
MSA	Metro Survey Area
NAB	National Association of Broadcasters
NECMA	New England County Metropolitan Area
PMSA	Primary Metropolitan Statistical Area
PPDV	Person Per Diary Value
PPH	Persons Per Household
QM	Quarterly Measurement
RAB	Radio Advertising Board
RMR	Radio Market Report
SRDS	Standard Rate and Data Service, Inc.
SRMR	Standard Radio Market Report
TALO	Total Audience Listening Output
TD	Technical Difficulty
TSA	Total Survey Area
TSL	Time Spent Listening

Appendix

TIME PERIODS AND DAYPARTS

The following are the combinations of time periods and dayparts reported by Arbitron. Listening estimates for some time periods are available only on magnetic tape for computer applications.

AQH DAYPART	AQH DAYPART	CUME DAYPART
MON-FRI 6AM-10AM	SAT 1PM-2PM*	MON-SUN 6AM-MID
MON-FRI 10AM-3PM	SAT 2PM-3PM*	MON-FRI 6AM-10AM
MON-FRI 3PM-7PM	SAT 3PM-4PM*	MON-FRI 10AM-3PM
MON-FRI 7PM-MID	SAT 4PM-5PM*	MON-FRI 3PM-7PM
MON-FRI 6AM-7PM	SAT 5PM-6PM*	MON-FRI 7PM-MID
MON-FRI 6AM-MID*	SAT 6PM-7PM*	MON-FRI 6AM-7PM
MON-FRI 6AM-10AM + 3PM-7PM	SAT 7PM-8PM*	MON-FRI 6AM-MID*
MON-FRI 1AM-5AM*	SAT 8PM-9PM*	MON-FRI 6AM-3PM*
MON-FRI 12AM-1AM	SAT 9PM-10PM*	MON-FRI 10AM-7PM*
MON-FRI 5AM-6AM	SAT 10PM-11PM*	MON-FRI 10AM-MID*
MON-FRI 6AM-7AM	SAT 11PM-12AM*	MON-FRI 3PM-MID*
MON-FRI 7AM-8AM	SUN 6AM-10AM	MON-FRI 6AM-10AM & 3PM-7PM
MON-FRI 8AM-9AM	SUN 10AM-3PM	MON-FRI 6AM-3PM & 7PM-MID*
MON-FRI 9AM-10AM	SUN 3PM-7PM	MON-FRI 6AM-10AM & 3PM-MID*
MON-FRI 10AM-11AM	SUN 7PM-MID	MON-FRI 6AM-10AM & 7PM-MID*
MON-FRI 11AM-12PM	SUN 1AM-5AM*	MON-FRI 10AM-3PM & 7PM-MID*
MON-FRI 12PM-1PM	SUN 12AM-1AM*	MON-FRI 6AM-10AM & 3PM-7PM
MON-FRI 1PM-2PM	SUN 5AM-6AM*	SAT-SUN 6AM-MID*
MON-FRI 2PM-3PM	SUN 6AM-7AM*	+SAT-SUN 10AM-7PM
MON-FRI 3PM-4PM	SUN 7AM-8AM*	MON-SAT 6AM-10AM*
MON-FRI 4PM-5PM	SUN 8AM-9AM*	MON-SAT 10AM-3PM*
MON-FRI 5PM-6PM	SUN 9AM-10AM*	MON-SAT 3PM-7PM*
MON-FRI 6PM-7PM	SUN 10AM-11AM*	MON-SAT 7PM-MID*
MON-FRI 7PM-8PM	SUN 11AM-12PM*	MON-SAT 6AM-10AM* & 3PM-7PM*
MON-FRI 8PM-9PM	SUN 12PM-1PM*	MON-SAT 5AM-10AM*
MON-FRI 9PM-10PM	SUN 1PM-2PM*	MON-SUN 3PM-MID*
MON-FRI 10PM-11PM	SUN 2PM-3PM*	MON-SUN 7PM-MID*
MON-FRI 11PM-12AM	SUN 3PM-4PM*	MON-SUN 10AM-3PM*
SAT 6AM-10AM	SUN 4PM-5PM*	MON-SUN 10AM-3PM* & 7PM-MID*
SAT 10AM-3PM	SUN 5PM-6PM*	SAT 6AM-10AM
SAT 3PM-7PM	SUN 6PM-7PM*	SAT 10AM-3PM
SAT 7PM-MID	SUN 7PM-8PM*	SAT 3PM-7PM
SAT 1AM-5AM*	SUN 8PM-9PM*	SAT 7PM-MID
SAT 12AM-1AM*	SUN 9PM-10PM*	SUN 6AM-10AM
SAT 5AM-6AM*	SUN 10PM-11PM*	SUN 10AM-3PM
SAT 6AM-7AM*	SUN 11PM-12AM*	SUN 3PM-7PM
SAT 7AM-8AM*	SAT-SUN 6AM-MID	SUN 7PM-MID
SAT 8AM-9AM*	MON-SAT 6AM-10AM*	SAT-SUN 6AM-MID
SAT 9AM-10AM*	MON-SAT 10AM-3PM*	
SAT 10AM-11AM*	MON-SAT 3PM-7PM*	
SAT 11AM-12PM*	MON-SAT 7PM-MID*	
SAT 12PM-1PM*	MON-SUN 6AM-MID	
+SAT-SUN 10AM-7PM		
	AT HOME/AWAY	
	MON-FRI 10AM-3PM	
	MON-FRI 7PM-MID	
	MON-FRI 6AM-10AM & 3PM-7PM	
	+SAT-SUN 10AM-7PM	
	+MON-SUN 6AM-MID	
		EXCLUSIVE CUME DAYPART
		MON-SUN 6AM-MID
		MON-FRI 6AM-10AM
		MON-FRI 10AM-3PM
		MON-FRI 3PM-7PM
		MON-FRI 7PM-MID

+ New — 1987
* Tape only

AGE/SEX GROUPS

The following are the 16 age/sex groups used by Arbitron to stratify the returned sample for weighting. These groups serve as the building blocks to create demographic groups which are reported.

Boys 12-17	Girls 12-17
Men 18-24	Women 18-24
Men 25-34	Women 25-34
Men 35-44	Women 35-44
Men 45-49	Women 45-49
Men 50-54	Women 50-54
Men 55-64	Women 55-64
Men 65 +	Women 65 +

Age/sex groups reported by Arbitron in various report formats are:

Men 18 +	Women 18 +	Persons 12 +
Men 12-24	Women 12-24	Teens 12-17
Men 18-24	Women 18-24	Persons 12-24
Men 18-34	Women 18-34	Persons 18-34
Men 18-49	Women 18-49	Persons 18-49
Men 25-34	Women 25-34	Persons 25-49
Men 25-49	Women 25-49	Persons 25-54
Men 25-54	Women 25-54	Persons 25-64
Men 35-44	Women 35-44	Persons 35 +
Men 35-64	Women 35-64	
Men 45-54	Women 45-54	
Men 35 +	Women 35 +	
Men 55-64	Women 55-64	
Men 65 + *		
Women 65 + *		

* Tape only

STATION INFORMATION FORM EXAMPLE

AM STATION INFORMATION - ARBITRON RADIO				SURVEY ID
CALL LETTERS :				1 2 3 4 5 6
FREQUENCY :	DAY POWER :	NIGHT POWER :	BELOW IS THE SLOGAN IDENTIFIER ARBITRON CURRENTLY HAS ON FILE. PLEASE LINE OUT THE SLOGAN ID IF A CHANGE HAS BEEN MADE AND ENTER NEW OR CORRECTED SLOGAN ID IN THE 25 CHARACTER SPACE PROVIDED. SEE INSTRUCTION PAGE FOR FURTHER INFORMATION.	
NETWORK AFFILIATION :				
NATIONAL REP :	SLOGAN ID CURRENTLY ON FILE			
FM AFFILIATE :	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>			

SEPTEMBER BROADCAST TIMES

BROADCAST SCHEDULE (IN MILITARY TIME)										TO INDICATE CHANGES PLEASE LINE OUT AND ENTER CORRECTION	
8	9	1	2	3	4	5	6	7			
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF

SIMULCAST SCHEDULE (IN MILITARY TIME)										PLEASE INCLUDE SIMULCAST TIMES	
8	9	1	2	3	4	5	6	7			
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF

FORMAT CURRENTLY ON FILE

PLEASE LINE OUT THE FORMAT LISTED ABOVE IF A CHANGE HAS BEEN MADE AND ENTER THE SINGLE FORMAT DESCRIPTION BELOW WHICH BEST DESCRIBES YOUR STATION.

01. ADULT CONTEMPORARY (A/C)	11. JAZZ
02. ADULT ORIENTED ROCK (A/O)	12. MIDDLE OF THE ROAD (M/O)
03. ADULT MUSIC/CLASSIC LIST	13. MORNING INFORMATION
04. R/F BANDS	14. OLDIES
05. R/AC	15. RELIGIOUS
06. CLASSICAL	16. ROCK
07. CONTEMPORARY (C/R) RADIO (C/R)	17. RHYTHM & BLUES
08. COUNTRY/WESTERN	18. SPANISH LANGUAGE
09. EDUCATIONAL	19. URBAN CONTEMPORARY
10. Gospel	20. OTHER

PLEASE SIGN BELOW TO LET US KNOW THAT YOU HAVE REVIEWED THE INFORMATION ON THIS FORM FOR ACCURACY AND SO THAT WE MAY CALL YOU IF WE HAVE QUESTIONS.

PLEASE SIGN

SIGNATURE _____

NAME _____

TITLE _____

DATE _____

PHONE _____

THANK YOU FOR YOUR HELP

PLEASE RETURN THIS FORM TOGETHER WITH THE OTHERS IN THIS PACKET TO THIS ADDRESS

ARBITRON RATINGS

ATTN: RADIO STATION INFORMATION

4320 AMMENDALE ROAD

BELTSVILLE, MARYLAND 20705

AN ENVELOPE HAS BEEN PROVIDED FOR YOUR CONVENIENCE. FURTHER UPDATES SHOULD BE FORWARDED TO THE ARBITRON BUILDING, ATTN: RADIO POLICIES AND PROCEDURES, LAUREL, MARYLAND 20707

PLEASE DETACH AND RETURN

STATION INFORMATION FORM

The form is modified to reflect the date of survey (Winter, Spring, Summer or Fall) and is sent to all stations to complete and return to Arbitron. The information is used in the compilation of the Market Reports. An example of this form appears on page 74.

ARBITRON RADIO RELIABILITY TABLES A AND B

On the following pages are examples of Arbitron's Radio Reliability Tables A and B as they appear in the back of each Standard and Condensed Radio Market Report (except for the ADI section of Table B which is included only for Standard Radio Markets with reported ADI survey areas).

ARBITRON RADIO RELIABILITY TABLE A

ARBITRON RADIO RELIABILITY — TABLE A

RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE	RATING	VALUE
0 1	3 16	5 1	22 00	10 1	30 13	15 1	35 80	20 1	40 07	20 1	43 36	30 1	45 87	35 1	47 73	40 1	49 01	45 1	49 76
0 2	4 47	5 2	22 20	10 2	30 26	15 2	35 90	20 2	40 15	25 2	43 42	30 2	45 91	35 2	47 76	40 2	49 03	45 2	49 77
0 3	5 47	5 3	22 40	10 3	30 40	15 3	36 00	20 3	40 22	25 3	43 47	30 3	45 96	35 3	47 79	40 3	49 05	45 3	49 78
0 4	6 31	5 4	22 60	10 4	30 53	15 4	36 09	20 4	40 30	25 4	43 53	30 4	46 00	35 4	47 82	40 4	49 07	45 4	49 79
0 5	7 05	5 5	22 80	10 5	30 66	15 5	36 19	20 5	40 37	25 5	43 59	30 5	46 04	35 5	47 85	40 5	49 09	45 5	49 80
0 6	7 72	5 6	22 99	10 6	30 78	15 6	36 29	20 6	40 44	25 6	43 64	30 6	46 08	35 6	47 88	40 6	49 11	45 6	49 81
0 7	8 34	5 7	23 18	10 7	30 91	15 7	36 38	20 7	40 52	25 7	43 70	30 7	46 12	35 7	47 91	40 7	49 13	45 7	49 82
0 8	8 91	5 8	23 37	10 8	31 04	15 8	36 47	20 8	40 59	25 8	43 75	30 8	46 17	35 8	47 94	40 8	49 15	45 8	49 83
0 9	9 44	5 9	23 56	10 9	31 16	15 9	36 57	20 9	40 66	25 9	43 81	30 9	46 21	35 9	47 97	40 9	49 16	45 9	49 84
1 0	9 95	6 0	23 75	11 0	31 29	16 0	36 66	21 0	40 73	26 0	43 86	31 0	46 25	36 0	48 00	41 0	49 18	46 0	49 84
1 1	10 43	6 1	23 93	11 1	31 41	16 1	36 75	21 1	40 80	26 1	43 92	31 1	46 29	36 1	48 03	41 1	49 20	46 1	49 85
1 2	10 89	6 2	24 12	11 2	31 54	16 2	36 85	21 2	40 87	26 2	43 97	31 2	46 33	36 2	48 06	41 2	49 22	46 2	49 86
1 3	11 33	6 3	24 30	11 3	31 66	16 3	36 94	21 3	40 94	26 3	44 03	31 3	46 37	36 3	48 09	41 3	49 24	46 3	49 86
1 4	11 75	6 4	24 48	11 4	31 78	16 4	37 03	21 4	41 01	26 4	44 08	31 4	46 41	36 4	48 11	41 4	49 25	46 4	49 87
1 5	12 16	6 5	24 65	11 5	31 90	16 5	37 12	21 5	41 08	26 5	44 13	31 5	46 45	36 5	48 14	41 5	49 27	46 5	49 88
1 6	12 55	6 6	24 83	11 6	32 02	16 6	37 21	21 6	41 15	26 6	44 19	31 6	46 49	36 6	48 17	41 6	49 29	46 6	49 88
1 7	12 93	6 7	25 00	11 7	32 14	16 7	37 30	21 7	41 22	26 7	44 24	31 7	46 53	36 7	48 20	41 7	49 31	46 7	49 89
1 8	13 30	6 8	25 17	11 8	32 26	16 8	37 39	21 8	41 29	26 8	44 29	31 8	46 57	36 8	48 23	41 8	49 32	46 8	49 90
1 9	13 65	6 9	25 35	11 9	32 38	16 9	37 48	21 9	41 36	26 9	44 34	31 9	46 61	36 9	48 25	41 9	49 34	46 9	49 90
2 0	14 00	7 0	25 51	12 0	32 50	17 0	37 56	22 0	41 42	27 0	44 40	32 0	46 65	37 0	48 28	42 0	49 36	47 0	49 91
2 1	14 34	7 1	25 68	12 1	32 61	17 1	37 65	22 1	41 49	27 1	44 45	32 1	46 69	37 1	48 31	42 1	49 37	47 1	49 92
2 2	14 67	7 2	25 85	12 2	32 73	17 2	37 74	22 2	41 56	27 2	44 50	32 2	46 72	37 2	48 33	42 2	49 39	47 2	49 92
2 3	14 99	7 3	26 01	12 3	32 84	17 3	37 82	22 3	41 63	27 3	44 55	32 3	46 76	37 3	48 36	42 3	49 40	47 3	49 93
2 4	15 30	7 4	26 18	12 4	32 96	17 4	37 91	22 4	41 69	27 4	44 60	32 4	46 80	37 4	48 39	42 4	49 42	47 4	49 93
2 5	15 61	7 5	26 34	12 5	33 07	17 5	38 00	22 5	41 76	27 5	44 65	32 5	46 84	37 5	48 41	42 5	49 43	47 5	49 94
2 6	15 91	7 6	26 50	12 6	33 18	17 6	38 08	22 6	41 82	27 6	44 70	32 6	46 87	37 6	48 44	42 6	49 45	47 6	49 94
2 7	16 21	7 7	26 66	12 7	33 30	17 7	38 17	22 7	41 89	27 7	44 75	32 7	46 91	37 7	48 46	42 7	49 46	47 7	49 95
2 8	16 50	7 8	26 82	12 8	33 41	17 8	38 25	22 8	41 95	27 8	44 80	32 8	46 95	37 8	48 49	42 8	49 48	47 8	49 95
2 9	16 78	7 9	26 97	12 9	33 52	17 9	38 34	22 9	42 02	27 9	44 85	32 9	46 98	37 9	48 51	42 9	49 49	47 9	49 96
3 0	17 06	8 0	27 13	13 0	33 63	18 0	38 42	23 0	42 08	28 0	44 90	33 0	47 02	38 0	48 54	43 0	49 51	48 0	49 96
3 1	17 33	8 1	27 28	13 1	33 74	18 1	38 50	23 1	42 15	28 1	44 95	33 1	47 06	38 1	48 56	43 1	49 52	48 1	49 96
3 2	17 60	8 2	27 44	13 2	33 85	18 2	38 58	23 2	42 21	28 2	45 00	33 2	47 09	38 2	48 59	43 2	49 54	48 2	49 97
3 3	17 86	8 3	27 59	13 3	33 96	18 3	38 67	23 3	42 27	28 3	45 05	33 3	47 13	38 3	48 61	43 3	49 55	48 3	49 97
3 4	18 12	8 4	27 74	13 4	34 07	18 4	38 75	23 4	42 34	28 4	45 09	33 4	47 16	38 4	48 64	43 4	49 56	48 4	49 97
3 5	18 38	8 5	27 89	13 5	34 17	18 5	38 83	23 5	42 40	28 5	45 14	33 5	47 20	38 5	48 66	43 5	49 58	48 5	49 98
3 6	18 63	8 6	28 04	13 6	34 28	18 6	38 91	23 6	42 46	28 6	45 19	33 6	47 23	38 6	48 68	43 6	49 59	48 6	49 98
3 7	18 88	8 7	28 18	13 7	34 38	18 7	38 99	23 7	42 52	28 7	45 24	33 7	47 27	38 7	48 71	43 7	49 60	48 7	49 98
3 8	19 12	8 8	28 33	13 8	34 49	18 8	39 07	23 8	42 59	28 8	45 28	33 8	47 30	38 8	48 73	43 8	49 61	48 8	49 99
3 9	19 36	8 9	28 47	13 9	34 59	18 9	39 15	23 9	42 65	28 9	45 33	33 9	47 34	38 9	48 75	43 9	49 63	48 9	49 99
4 0	19 60	9 0	28 62	14 0	34 70	19 0	39 23	24 0	42 71	29 0	45 38	34 0	47 37	39 0	48 77	44 0	49 64	49 0	49 99
4 1	19 83	9 1	28 76	14 1	34 80	19 1	39 31	24 1	42 77	29 1	45 42	34 1	47 40	39 1	48 80	44 1	49 65	49 1	49 99
4 2	20 06	9 2	28 90	14 2	34 91	19 2	39 39	24 2	42 83	29 2	45 47	34 2	47 44	39 2	48 82	44 2	49 66	49 2	49 99
4 3	20 29	9 3	29 04	14 3	35 01	19 3	39 47	24 3	42 89	29 3	45 51	34 3	47 47	39 3	48 84	44 3	49 67	49 3	50 00
4 4	20 51	9 4	29 18	14 4	35 11	19 4	39 54	24 4	42 95	29 4	45 56	34 4	47 50	39 4	48 86	44 4	49 69	49 4	50 00
4 5	20 73	9 5	29 32	14 5	35 21	19 5	39 62	24 5	43 01	29 5	45 60	34 5	47 54	39 5	48 89	44 5	49 70	49 5	50 00
4 6	20 95	9 6	29 46	14 6	35 31	19 6	39 70	24 6	43 07	29 6	45 65	34 6	47 57	39 6	48 91	44 6	49 71	49 6	50 00
4 7	21 16	9 7	29 60	14 7	35 41	19 7	39 77	24 7	43 13	29 7	45 69	34 7	47 60	39 7	48 93	44 7	49 72	49 7	50 00
4 8	21 38	9 8	29 73	14 8	35 51	19 8	39 85	24 8	43 19	29 8	45 74	34 8	47 63	39 8	48 95	44 8	49 73	49 8	50 00
4 9	21 59	9 9	29 87	14 9	35 61	19 9	39 92	24 9	43 24	29 9	45 78	34 9	47 67	39 9	48 97	44 9	49 74	49 9	50 00
5 0	21 79	10 0	30 00	15 0	35 71	20 0	40 00	25 0	43 30	30 0	45 83	35 0	47 70	40 0	48 99	45 0	49 75	50 0	50 00

Note: When rating is greater than 50.0, use the value given for a rating equal to 100.0 minus the original rating. For example, if the rating were 87.3, use the value shown for a rating of 12.7 (100.0 - 87.3).

INSTRUCTIONS FOR ESTIMATING RELIABILITY AND EFFECTIVE SAMPLE BASES (ESBs)

TO ESTIMATE STANDARD ERROR OF A RATING

The approximate Standard Error (one sigma level) for specific ratings published in this report may be determined by dividing a value obtained from Table A by a value obtained from Table B.

The Table A value depends only on the value of the specific rating. For example, if the rating is 1.2, the Table A value is 10.89.

Table B values are shown for each of the geographic areas included in this report: Metro, TSA and (if applicable) ADI. Using the appropriate geographic area, find the Table B value on the basis of demographic group and estimate type for the specific rating. For example, for a week-day 6AM-10AM Average Quarter-Hour Rating among Males 18-34 in the Metro area, the Table B value would be determined from the appropriate row (Males 18-34) and column (estimate type Monday-Friday 6AM-10AM or Monday-Friday 3PM-7PM) of the Metro section of Table B.

The Standard Error (one sigma level) is estimated by dividing the Table A value by the Table B value. For example, if the Table A value was found to be 7.05 and the Table B value was found to be 28.20, the Standard Error would be $7.05 \div 28.20 = 0.25$. Note: Table B values differ from report to report, hence, the 28.20 value is used here for illustrative purposes only.

It should be noted that columns 2-11 of Table B refer to Average Quarter-Hour Ratings only. Column 1 of Table B is to be used for any Cume Rating.

TO ESTIMATE STANDARD ERROR OF A PROJECTED AUDIENCE NUMBER

In order to determine the Standard Error for audiences expressed in terms of projected numbers of persons rather than ratings, first calculate the corresponding rating. (The rating is calculated by dividing the projected audience by the corresponding population base and multiplying the result by 100.0.)

After the rating is calculated, proceed as described above for determining the Standard Error for the audience expressed as a rating. Then, multiply the resulting Standard Error of the rating by the corresponding population base and divide the result by 100 to produce the Standard Error estimate for the projected number of persons.

For example, if the projected audience is 1,300 and the corresponding population is 100,000, the corresponding rating would be $(1,300 \div 100,000) \times 100 = 1.3$. If the Standard Error for this rating were found to be 0.30, the Standard Error for the projected number of persons would be $(0.30 \times 100,000) \div 100 = \pm 300$.

TO CONVERT STANDARD ERRORS TO CONFIDENCE INTERVALS

Standard Error levels determined as described above may be used to determine 68%, 90%, 95% and 99% confidence intervals by adding and subtracting the appropriate multiple of the Standard Error to and from the corresponding rating or audience estimate. The multiples are 1.00, 1.64, 1.96 and 2.58, respectively.

For example, if the estimated rating is 2.0 and its estimated Standard Error is 0.30, the lower 95% confidence limit is $2.0 \text{ minus } (1.96 \times 0.30)$ which equals 1.412, and the upper 95% con-

fidence limit is $2.0 \text{ plus } (1.96 \times 0.30)$ which equals 2.588.

TO ESTIMATE EFFECTIVE SAMPLE BASE (ESB) SIZES

Users may determine the approximate ESB for various sex-age groups and estimate types (including different geographic areas) by squaring the values shown in Table B. (Also see Paragraph 4.3, Page iii, for further discussion concerning ESB values.)

For example, if the Table B value shown for Males 18+ for Monday-Friday 6AM-10AM Average Quarter-Hour Estimates in the Metro area is 50, the corresponding ESB value is 50 squared which equals 2500.

TO OBTAIN ADDITIONAL METHODOLOGY DETAILS

The derivation of these tables and the above procedures for the estimation of reliability and Effective Sample Bases is described in the Arbitron publication entitled *Arbitron Replication II: A Study of the Reliability of Radio Ratings*. A discussion of more complex applications (such as determining the statistical significance between audience estimates for two different stations as reported in the same report, or determining the statistical significance of an audience difference between two reports for the same station) can also be found in that publication.

Limitations

Although Arbitron believes that the above described procedures provide report users with useful estimates of Standard Errors, the reader should note the limitations described in Paragraphs 3.1, 4.2, 4.3, 4.4, 4.6 and 4.7 herein on Pages ii-iv.

ARBITRON RADIO RELIABILITY TABLE B (METRO & TSA)

Average Quarter Hour Estimates

Metro Survey Area	All Cume Estimates	Sat 8A-10A Sun 6A-10A Sat 3P-7P Sun 3P-7P	Weekdays Single Hour	Sat 10A-3P Sun 10A-3P Sat 7P-MID Sun 7P-MID	Weekend 10A-7P	Mon-Fri 6A-10A Mon-Fri 3P-7P	Mon-Fri 10A-3P Mon-Fri 7P-MID	Weekend 6A-MID	Mon-Fri 6A-10A + 3P-7P	Mon-Fri 6A-7P	Mon-Sun 6A-MID
Persons 12+	28.55	42.93	44.73	42.49	*****	53.28	53.78	62.92	63.07	*****	67.66
Men 18+	20.84	31.68	*****	30.83	*****	39.94	37.61	*****	45.41	*****	50.43
Men 18-24	7.64	12.78	*****	12.09	*****	17.55	16.43	*****	*****	*****	22.27
Men 25-34	10.57	16.68	*****	16.42	*****	21.52	20.58	*****	*****	*****	28.02
Men 35-44	10.34	15.96	*****	16.04	*****	20.72	19.33	*****	*****	*****	25.96
Men 45-54	8.67	12.91	*****	13.28	*****	16.95	16.07	*****	*****	*****	21.49
Men 55-64	6.97	10.53	*****	10.71	*****	14.10	13.43	*****	*****	*****	18.82
Men 12-24	11.08	19.50	*****	18.98	24.81	24.59	23.16	28.81	27.96	25.96	31.05
Men 18-34	13.20	20.71	21.58	19.99	25.37	27.02	25.34	30.68	30.64	29.74	34.75
Men 18-49	17.68	27.43	*****	26.57	32.01	34.77	31.89	38.71	38.67	37.52	43.85
Men 25-49	16.22	24.57	*****	24.21	30.11	30.95	28.60	36.42	33.85	31.74	39.14
Men 25-54	17.14	25.60	26.06	25.44	31.38	32.41	29.81	37.95	35.27	33.08	40.79
Men 35-64	15.23	22.26	22.65	22.73	28.11	28.87	26.78	34.00	31.60	29.63	36.54
Men 35+	16.15	24.12	*****	24.04	28.50	30.27	28.62	34.47	32.03	30.04	38.52
Women 18+	22.72	33.44	*****	33.05	*****	40.90	41.58	*****	48.54	*****	52.22
Women 18-24	8.18	13.19	*****	12.49	*****	17.05	16.63	*****	*****	*****	22.18
Women 25-34	11.68	18.13	*****	18.01	*****	23.37	22.61	*****	*****	*****	29.93
Women 35-44	10.55	16.21	*****	16.31	*****	20.98	20.32	*****	*****	*****	27.22
Women 45-54	8.60	12.98	*****	12.83	*****	16.23	15.79	*****	*****	*****	20.42
Women 55-64	8.37	12.13	*****	12.14	*****	15.47	15.47	*****	*****	*****	19.99
Women 12-24	11.33	18.56	*****	18.34	23.54	22.70	23.08	27.83	26.94	24.74	28.98
Women 18-34	14.37	22.15	23.11	21.39	27.34	27.97	27.09	33.21	31.04	29.70	36.03
Women 18-49	18.31	28.07	*****	27.42	33.83	35.00	33.57	41.09	38.41	36.75	44.58
Women 25-49	17.06	25.33	*****	25.27	31.26	32.11	30.55	37.96	36.39	34.79	41.01
Women 25-54	18.08	26.54	27.69	26.51	32.65	33.76	31.75	39.65	38.01	36.34	42.83
Women 35-64	16.15	23.39	24.40	23.42	28.28	29.45	28.10	34.35	32.93	31.48	37.11
Women 35+	17.72	26.22	*****	25.62	29.66	31.94	31.06	36.02	34.54	33.02	40.47
Persons 12-24	15.00	24.50	*****	24.17	30.59	30.38	29.48	35.87	35.96	33.16	38.57
Persons 18-34	18.27	28.20	*****	27.29	35.06	35.96	34.75	42.25	42.35	39.05	45.42
Persons 18-49	23.62	36.03	*****	35.06	43.82	44.92	42.55	52.80	52.93	48.82	56.78
Persons 25-49	21.43	32.13	*****	31.84	39.33	40.33	38.10	47.39	47.50	43.81	50.95
Persons 25-54	22.57	33.44	*****	33.35	41.36	42.17	39.78	49.83	49.95	46.07	53.58
Persons 35-64	20.24	29.22	*****	29.54	36.49	37.44	35.66	43.97	44.08	40.65	47.28
Persons 35+	21.86	32.25	*****	31.81	37.68	39.98	38.80	45.40	45.51	41.97	50.76
Teens	10.66	17.46	19.78	17.80	22.57	23.87	26.39	27.13	28.36	28.86	31.47
Total Survey Area											
Persons 12+	30.60	44.86	46.95	44.11	*****	56.02	57.02	65.45	67.06	*****	71.16
Men 18+	21.65	31.98	*****	31.12	*****	40.89	38.44	*****	46.86	*****	51.40
Men 18-24	6.58	10.69	*****	10.20	*****	14.67	13.61	*****	*****	*****	18.63
Men 25-34	11.06	17.54	*****	17.16	*****	22.35	21.31	*****	*****	*****	29.07
Men 35-44	11.30	17.28	*****	17.28	*****	21.92	20.86	*****	*****	*****	27.88
Men 45-54	9.81	14.55	*****	14.84	*****	18.88	17.90	*****	*****	*****	23.50
Men 55-64	8.37	12.48	*****	12.63	*****	16.49	16.02	*****	*****	*****	21.94
Men 12-24	10.17	17.25	*****	16.78	21.66	22.05	20.73	25.56	25.27	23.27	27.72
Men 18-34	12.28	19.12	19.88	18.55	23.85	24.95	23.07	28.34	28.30	27.24	32.24
Men 18-49	17.22	26.00	*****	25.35	30.75	32.99	30.26	36.55	36.50	35.12	41.58
Men 25-49	17.01	25.62	*****	25.22	31.71	31.90	29.79	37.69	34.65	32.77	40.39
Men 25-54	18.21	26.97	27.28	26.74	33.23	33.91	31.48	39.49	36.30	34.33	42.32
Men 35-64	16.90	24.44	24.73	24.76	31.34	31.59	29.67	37.25	34.24	32.39	39.92
Men 35+	18.36	26.90	*****	26.56	32.09	34.09	31.86	38.14	35.06	33.16	43.14
Women 18+	24.81	36.09	*****	35.17	*****	43.98	44.94	*****	*****	*****	56.41
Women 18-24	8.33	13.72	*****	12.65	*****	17.21	16.60	*****	*****	*****	22.17
Women 25-34	12.11	18.50	*****	18.54	*****	24.18	23.28	*****	*****	*****	30.92
Women 35-44	11.20	17.17	*****	16.95	*****	21.70	21.11	*****	*****	*****	28.15
Women 45-54	10.71	16.21	*****	16.08	*****	19.98	19.67	*****	*****	*****	25.30
Women 55-64	9.70	14.04	*****	14.01	*****	17.91	17.94	*****	*****	*****	22.87
Women 12-24	12.22	19.24	*****	18.75	23.95	23.44	23.95	28.89	28.18	25.49	30.07
Women 18-34	14.59	22.55	23.19	21.41	28.05	28.37	27.02	34.39	31.38	29.87	36.43
Women 18-49	19.43	29.12	*****	27.95	35.46	36.04	34.07	43.48	39.67	37.76	46.05
Women 25-49	18.01	26.57	27.79	26.45	32.62	33.68	32.15	39.99	37.96	36.76	43.26
Women 25-54	19.42	28.37	29.66	28.18	34.59	35.82	33.84	42.40	40.25	38.98	45.87
Women 35-64	17.94	26.25	27.45	25.94	31.21	32.49	31.20	38.27	36.33	35.18	41.40
Women 35+	20.17	29.87	*****	28.78	33.06	36.28	34.66	40.53	38.47	37.26	46.28
Persons 12-24	14.59	22.91	*****	22.45	28.08	28.75	27.65	33.50	34.32	31.22	36.42
Persons 18-34	17.60	26.85	*****	25.99	33.56	34.38	32.36	40.40	41.39	37.65	43.93
Persons 18-49	23.76	35.38	*****	34.33	43.36	44.69	41.72	52.19	53.48	48.64	56.75
Persons 25-49	22.60	33.35	*****	32.96	40.60	42.02	39.93	48.88	50.08	45.55	53.14
Persons 25-54	24.19	35.32	*****	35.04	42.96	44.49	42.32	51.72	52.99	48.20	56.23
Persons 35-64	22.51	32.24	*****	32.41	39.87	41.24	39.87	47.99	49.17	44.73	52.18
Persons 35+	24.91	36.14	*****	35.41	41.58	45.34	43.61	50.05	51.28	46.64	57.45
Teens	11.95	19.16	21.70	19.49	24.86	25.43	28.97	29.84	30.32	30.87	33.60

***** Report does not include data for this demographic group.

TULSA

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WINTER 1987

ARBITRON RADIO RELIABILITY TABLE B (ADI)

Average Quarter Hour Estimates

ADI Survey Area	All Cume Estimates	Sat 6A-10A Sat 3P-7P Sun 3P-7P	Sat 10A-3P Sun 10A-3P Sat 7P-MID	Mon-Fri 6A-10A Mon-Fri 3P-7P	Mon-Fri 10A-3P Mon-Fri 7P-MID	Mon-Sun 6A-MID	Weekend 10A-7P
Persons 12+	29.80	48.68	47.81	60.81	58.61	79.63	59.37
Men 18-34	14.31	21.89	21.31	28.29	26.44	37.55	29.86
Men 18-49	19.48	29.11	28.55	36.58	34.09	47.07	37.43
Men 25-49	17.91	26.79	26.61	33.56	31.95	43.74	34.78
Men 25-54	19.09	28.17	28.13	35.59	33.62	45.50	36.18
Men 35-64	18.28	26.45	27.02	34.45	32.30	42.07	33.45
Women 18-34	14.40	22.24	21.34	27.99	27.34	36.51	26.19
Women 18-49	20.16	30.21	29.37	37.75	36.58	48.64	34.89
Women 25-49	18.91	27.86	27.88	35.75	34.50	47.56	34.12
Women 25-54	20.19	29.37	29.37	37.60	35.93	49.83	35.75
Women 35-64	20.31	29.62	29.42	36.94	36.37	48.61	34.87
Persons 18-34
Persons 18-49
Persons 25-54
Persons 35-64
Teens	11.73	18.81	19.05	25.54	27.96	34.30	24.82

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