

Arbitron Tutorial

by Beedle-Um-Bum Larry, 1995

Originally sent in six email installments to the Freepacifica list. Remember that in '95 there was no DN! And much of the programming was quite different.

This series of essays considered the use of Arbitron ratings as a tool for Pacifica programming decision-making. While the information is specific to station KPFA in Berkeley, Pacifica's general trend of dealing with their audiences in the same manner as commercial audiences is clear in these reports.

[A list subscriber] asked about Arbitrons. Arbitron is one of several companies that do surveys aimed at determining how many and what kinds of people tune in to particular radio and TV programs and stations. Arbitron is the one usually consulted for "authoritative" information on radio, just as Nielsen is the leading authority on TV audiences.

1.0 ARBITRON RATINGS AND TERMINOLOGY

In this section, I'll define some of the basic terms used in discussing Arbitron reports. This is very important if you are going to understand discussions about what KPFA/Pacifica management is doing, because their admitted purpose in making changes is to cause major increases in the Arbitron numbers. I'd suggest keeping this message for future reference because a lot of these terms can be confusing, and they come up over and over again in reports and memos from management. In the next message, I'll fill in some of the background that [. . .] requested on how Arbitron gets their measurements. After that, I hope to turn to the specific data that KPFA used in designing the new format--which really helps you to see what they were trying to do.

Metro Survey Area (or just "METRO")

The San Francisco-Oakland-San Jose Metro Survey Area consists of the following counties: Sonoma, Marin, Napa, Solano, Contra Costa, Alameda, Santa Clara, and San Mateo. This is the central city region usually discussed when comparing Arbitron reports on commercial stations.

Area of Dominant Influence ("ADI")

Used mostly for television rating. This is the Metro Survey Area plus two more counties: Mendocino and Lake, and minus the eastern part of Solano County (which belongs to the Sacramento ADI). Whereas Metro Survey Areas can overlap, each location is defined as belonging to only one ADI.

Total Survey Area ("TSA")

The overall area considered when examining radio listenership. This is the Metro Survey Area plus the following counties: Glenn, Butte, Colusa, Sutter, Yuba, western Nevada, western Placer, Yolo, Sacramento, western El Dorado, Amador, San Joaquin, Calaveras, Stanislaus, Tuolumne, Merced, Mariposa, Santa Cruz, Monterey, San Benito. This area corresponds quite closely to the general signal area reached by KPFA, but it does not include much of the area reached by KFCF.

Diary Mention

A survey participant is given a diary with each day broken down into quarter-hour segments. He/she is supposed to note in each segment any station to which he/she listened for at least 5 minutes during that quarter hour, also noting whether the listening was "at home," "in car," or "other" (which is usually regarded as an "at work" value). The number of diary mentions in some period of time larger than a quarter hour could include multiple mentions by the same survey participant.

Daypart

A time period for which audience estimates are reported. In reports to the stations, most results are given for time blocks regarded as significant by radio program specialists, such as "morning drive time" (6 to 10 am, Monday through Friday). However, detailed tables are available that break down the results into half-hour blocks.

Cume Persons

An estimation of the number of different persons who listened to the station for at least five minutes during some daypart.

Cume Rating

The Cume Persons expressed as a percentage of the population of the area being considered. Usually given for the Metro only.

Average Quarter-Hour Persons ("AQHPERSONS")

An estimation of the number of different people listening to the station for at least 5 minutes during an average quarter-hour segment of the daypart under consideration.

Average Quarter-Hour Rating ("AQHRATING")

The Average Quarter-Hour Persons expressed as a percentage of the total population of the appropriate area.

Average Quarter-Hour Share ("AQHSHARE")

The Average Quarter-Hour Persons expressed as a percentage of the Average Quarter-Hour Persons for all radio during the daypart.

Time Spent Listening("TSL")

An estimate (in hours and minutes) of the total time the average person listening to the station was tuned to the station during the daypart.

I think that this covers the terms most commonly used in discussing Arbitron reports. [. . .]
Probably the most important distinctions are:

- Ratings vs Shares (% of population vs % of people using radio)
- AQH vs Cume (average listenership vs different people listening).

Let me expand a little on the latter distinction. The Cume Persons listening to KPFA during Morning Drive would be an estimate of the number of different people who listened to KPFA between 6 and 10 am Mon-Fri during an average week. The AQH Persons listening to KPFA during Morning Drive would be an average of the estimation for each quarter hour during the week. Thus you might have 9,000 people tuning in for at least five minutes during the average quarter-hour (AQH Persons), but 50,000 different people tuning in at some time or other during

the week (Cume Persons). The former value gives you a rough measure of the average audience at any moment during a daypart; the latter gives you a measure of how many different people you reach altogether during that daypart.

Of course, the Arbitron reports are broken down by demographics such as particular location, age, sex, and ethnic background. These details are of major importance to advertisers and often are more important in program decisions than the overall numbers that you'll see quoted in the newspaper.

Note that KPFA has a lot of subscribers outside the Metro Survey Area, but most of the figures reported by Arbitron and used by management are taken only for the Metro.

To add one more layer of complexity, KPFA makes use of a service called Audigraphics that takes the Arbitron "book" (report) and turns it into a whole book full of pretty graphs with spiffy titles. This is what the KPFA people like to carry around and cite when justifying their changes. Audigraphics adds a few more terms that you may hear management use.

People Using Radio ("PUR")

An estimate of either the AQH Persons or the Cume Persons listening to any station(s) at all in the appropriate time period. Because this term is not well defined, you need to be particularly careful that people are not mixing AQH and Cume when they use it.

Core Listeners

These are people whose TSL for KPFA is greater than their TSL for any other station.

Fringe Listeners

KPFA listeners who have a larger TSL for some other station than for KPFA.

Loyalty

The average listener's KPFA TSL as a percentage of their total radio TSL.

As we'll see later, these values with their emotionally laden names are bandied about heavily by the consultants. For example, KPFA's listeners are "less loyal" than those of the average commercial station--obviously a bad situation. In fact, it just means that KPFA listeners tend to listen to a variety of stations in addition to KPFA, rather than keeping their radios glued to the same station continuously.

As I said, keep this message handy. You'll need it as we get into the specifics of what the consultants told KPFA about their old programming. These Arbitron and AudiGraphics reports are incredibly complex, and management can readily find some numbers (or graphs) to use as justification for most any decision they might choose to make. You really need to pore over the details to be able to decide whether they are making sense or are completely misinterpreting some survey result.

In the next section, we'll take a quick look at how Arbitron gets their numbers and how reliable they are when applied to KPFA.

2.0 ARBITRON RATINGS AND METHODOLOGY

This section deals with the way Arbitron conducts its surveys. This information is not essential to understand the rationale behind KPFA's changes, but it is important if you wish to be able to discuss the validity of the Arbitron/AudiGraphics information and its applicability to KPFA.

Arbitron conducts four 12-week surveys per year (with one-week gaps between surveys): Spring (Apr-June), Summer (June-Sept), Fall (Sept-Dec), Winter (Dec-Apr). Exact dates vary from year to year.)

Obtaining Random Phone Numbers

The first step is to obtain a random set of phone numbers proportional to population in the various counties of the area surveyed. This includes numbers randomly selected from listed numbers, plus computer-generated possible unlisted numbers (which now make up well over half the number of residential phones, and so must be included to avoid a serious bias). The total sample for the survey is divided randomly into roughly equal weekly groups. For listed numbers, a letter is sent first to explain that an Arbitron interviewer will be calling. The initial telephone contact is used to reject anyone who admits to a media affiliation, to ask consent to participate in the survey, and to find out how many persons of age 12+ live in the household. Businesses and households with more than nine persons of age 12+ are rejected (in other words, dorms and group homes of various kinds are not included in the survey). Information on the race/ethnicity and demographics of the household are obtained. Every effort is made to reach each of the phone numbers initially selected, with calls being made at various hours of day and evening several times.

A one-week diary for each person aged 12+ is mailed. Phone followups verify that the diaries arrived and offer help if there are any questions about procedure. At the end of the week, another call is made to remind about mailing the diaries and to be sure that all instructions were understood. Bilingual (Spanish-English) diaries are provided for those who identify themselves as Hispanic or for anyone who requests one. Small payments are offered for completed diaries.

Some of the submitted diaries are rejected (incomplete diaries, those sent in before the end of the week, those lacking essential information). Entries other than call letters (slogans, frequencies, names of hosts or programs, invalid call letters, etc.) are allocated if possible to valid station call letters. The diary mentions for each quarter hour of the week are computer-entered and tabulated.

Weighting the Variables

A weighting system is used to compensate for deviations in the sample from the desired balance of demographic factors. For example, if fewer usable diaries than desired are received from Marin County or from African-American women, then each diary used from the under-represented category will be counted as slightly more than one diary.

In the fine print at the back of each report is a section on how to compute the reliability of results. For example, does a value of 2.2 mean somewhere between 2.1 and 2.3 or does it mean somewhere between 1.5 and 3.0? It takes a dedicated person with statistical training to wade through that section and actually check out the reliabilities. Believe me, none of the KPFA management do so, and the consultants have no interest in emphasizing the unreliability of the data on which they earn their livings.

Because Arbitron reports are used mainly to establish advertising rates and to sell advertising for particular stations, only commercial stations are listed in the regular Arbitron books. However, the CPB [Corporation for Public Broadcasting] has paid for each public radio station to get an Arbitron report including all the noncommercial stations once a year. . .

Exclusions

Some things to note. Non-telephone households are excluded. Group living situations are excluded (more than nine persons of age 12 or above). People not fluent in English or Spanish are probably excluded. Although the survey is weighted to give the appropriate balance by county, age, sex, and ethnic group, it almost certainly over-counts people who like to participate in surveys and under-counts the kind of people who are afraid or hostile to such surveys. People with media affiliations can be included if they lie about it. It should also be noted that KPFA programmers often fail to mention any identifying information about the station or the program for periods of several minutes or even an hour. Thus, KPFA is likely to fail to get credit for any listeners who happen across us and listen for a brief period, but never become regular listeners.

Example - Spring 1993 Survey

The information I have at hand comes from the Spring 1993 survey. For that survey, the number of households in the Metro Survey Area was estimated at 2,326,600, with a total population estimated at 5,262,000. The total number of diaries tabulated was 4,483. For the Total Survey Area, 9,522 diaries were tabulated to represent an estimated population of 8,519,200. Thus each diary was assumed to be representative of about 1,200 people in the Metro sample, or about 900 people in the Total Survey Area. Let's say roughly that each diary represents the listening habits of 1,000 people. I think that Arbitron may have significantly increased its sample sizes since 1993, so just to be generous, let's assume that each diary represents 500 people.

This means that the 18,000 or so KPFA subscribers (I'm not sure what the current figure is) would be represented by about 36 or less diaries. You can see how well the variety of listening patterns will be reflected in this survey! More recent surveys indicate that KPFA's Cume Persons runs around 110,000 to 150,000. In other words, somewhere around 300 or fewer diaries mention KPFA at all. This is enough to give a reliable picture of our total listenership (which doesn't vary much at all from survey to survey) and of our peak listenerships for the Morning Show and the KPFA News. However, at many other times of the day, we are talking about 20 diaries or less, so that variations of several percent from survey to survey are common. Remember that when you try to get down to details (particular programs, particular age groups or ethnic groups), you're fundamentally dealing with a survey of 300 or fewer KPFA listeners--not a very big sample on which to draw conclusions.

Reading the Results

My own opinion is that you need to compare at least three or four consecutive surveys before drawing any conclusions, placing faith only in those patterns that seem consistent through nearly all surveys. If somebody wanted to wade through those complicated calculations, it would be interesting to see what kinds of error ranges we are talking about on the numbers that are being

used for planning purposes.

One final note: Three of the four surveys each year will include at least a week of marathon programming, so listenership data for particular dayparts may be significantly altered by nonstandard marathon programming. Any preemptions for hearings, live coverage of marches, special holiday programming, etc., would similarly distort any attempt to draw conclusions about individual programs. In my time at KPFA, I have never known anyone (or any consultant) to bother to try to figure out how much the results are affected by these deviations from the program schedule, or to take any account of them.

Okay, there's a bit of background and a few suggestions about appropriate places to be skeptical. Next time around, we start looking at what the consultants were telling KPFA about their listenership.

3.0 MEASURING THE AUDIENCE WITH ARBITRON

In this section, we'll begin to look at the actual Arbitron/AudiGraphics numbers that management used when planning the new format (plus whatever other information I have that seems to suggest differing conclusions). The focus in this section will be on general measures of KPFA's audience. In future sections, we'll look in more detail at demographics and dayparts--the data that supposedly justifies much of the new format.

I'm told that the main reference used in June and July when the new format was being developed was a report prepared by Walrus Research of Greenbush WI, titled "The Audience for KPFA-FM: Arbitron and AudiGraphics, January 1995". This report is based primarily upon the Spring 1994 Arbitron survey (31 March - 22 June 1994). Note that the survey period includes two weeks of marathon (8 - 22 June). I did not go back over the Folios to check for other preemptions of regular programming, because many such preemptions never get listed in the Folio. (Anyone want to go back and check through Programmer's Memos and such?) At the time this report was being prepared, the Arbitron results for the Fall 1994 survey had just been released, and a few figures from that survey are mentioned in the report. However, in general, the decisions about the new format were based on a single survey that was more than a year old.

One of the main statements Ginny Z Berson has made in justifying the need for a new format is that KPFA's total listenership has remained stagnant for the past decade, while the population of the area has grown. (I've never seen her mention that this period represents pretty closely the time since she first became Program Director and began tinkering with the format.) However, let's see what the surveys say about our general audience.

The Spring 1994 Arbitron indicates that KPFA reached an average of about 111,000 different persons per week (Cume Persons). The Walrus report mentions briefly that the figure for Fall 1994 was 138,000. I've been told by someone outside KPFA that the figure for Spring 1995 was 150,000. In other words, the audience has been growing steadily recently at a rate of around 35% per year. Not bad, I'd say. This increase is much greater than the rate of increase of population as well. The Metro Cume Rating for Spring 1994 was 2.1; that for Fall 1994 was 2.6; I don't have the value for Spring 1995. (This means that our Cume Persons rose from 2.1% of the population to 2.6% during 1994.) Doesn't seem like a picture of stagnation to me.

Some historical perspective. I first saw KPFA's Arbitron ratings in the early 1980s. During the next decade, our Metro Cume Rating fluctuated between 2.0 and 2.6. In general, it goes up when leftist people are concerned about what the government is doing (the Iran-Contra Hearings until it became clear that Reagan would not be implicated personally; the Gulf War build-up; etc.), and it goes down when people feel that more liberal forces are fixing things up a bit and they can relax a little. Thus, I would have predicted that our ratings would drop during the beginning of the Clinton administration, but would now be rising again as people become more and more concerned about the Republican Congress. This seems to fit the ratings values that are available better than Berson's view that the station has been stagnating because of poor programming.

Comparisons

What about other stations? Metro Cume Ratings for the leading commercial stations in the Spring 1994 survey were: KGO 16.8, KCBS 16.1, KNBR 14.3, KYLD 13.3, KMEL 12.9. Note that the top three stations were all News/Talk formats--the kind of station to which many people tend to tune at least once or twice during a week, just to get traffic or weather reports if nothing else. The next two were Top 40 stations that attract a lot of young radio listeners with a very limited and repetitive selection of guaranteed hits and little or no informative programming. If you drop down several stations (to between #10 and #20 in the listing), you will find a group of stations with similar Metro Cume Ratings: KKSF (adult alternative music) 7.2, KQED (NPR talk) 6.8, KFOG (album cuts) 6.7, KABL (oldies music) 6.3. Note that KQED's slightly liberal attitudes and intelligent programming leave it with a Cume Rating less than half that of the leading commercial talk stations. I'd suggest that KPFA (with strongly leftist viewpoints, very eclectic programming including lots of "ethnic" programming, and low-budget "rough edges") is doing quite well to have around 1/3 of KQED's numbers. It's going to take a lot of moving to the center, dropping the programs that reflect the viewpoints of the oppressed, and spending huge amounts of money on better production values to move much closer to KQED's ratings.

To quote from the Walrus Report: "KPFA is down at the bottom tier of the market. Stations with ume ratings of about 2 percent include KOFY (a Spanish AM) 2.6 percent, KDIA (a black AM) .0 and KARA (an FM oldies out of Santa Clara) 2.3 percent." However, the report carefully avoids any mention of the ratings for other eclectic, progressive, non-commercial stations in the arket.

For comparison, KQED's Cume Persons were 360,000 in Spring 1994 and 423,800 in Fall 1994. (Fall Cume Rating 8.0.)

So Who's Listening?

Now let's turn to AQH Persons (roughly, the average number of people listing at any one time). or Spring 1994, the Walrus report lists the following values: KGO 68,100; KCBS 43,800; KQED 7,300; KJAZ 9,200; KPFA 5,300. Again, KPFA has around 1/3 the audience of KQED. In Fall 194, KQED had 21,700 and KPFA 6,100.

Finally, we turn to AQH Shares (roughly, the percentage of radios in use that are tuned to a given station), the values most often given in the press when Arbitron results are presented. In Spring 194, the AQH PUR for the Metro Survey Area was 868,900. Thus KPFA's AQH Persons of 5,300 represented a share of 0.6. In Fall 1994, KPFA's share was 0.7 and KQED's was 2.6. Here are the

top shares from the Spring 1994 Survey: KGO (news/talk) 7.8, KNBR (n/t) 5.4, KCBS (n/t) 5.0, KMEL (top 40/rhythm) 4.2, KYLZ/KYLD (top 40/rhythm) 4.1, KOIT-AM/FM (adult contemporary) 4.0. KQED's share would rank it lower than at least a dozen commercial stations. KPFA would rank lower than over 30 commercial stations.

The impression that KPFA has been losing audience may be due to its declining impact outside the Metro Survey Area. I have no historical figures on this for comparison, but the Walrus report notes that 98% of KPFA's listening audience is within the Metro Area. I certainly have a strong impression from my own contacts as programmer with audience that we have lost a lot of listeners in the northern Central Valley and the Sierra foothills. A lot of this is due to the steady relaxation of FCC controls, allowing more and more stations to overpower us in the edges of our former listening region. Furthermore, new listener sponsored stations along the North Coast may have drawn some of our listeners and subscribers away. Finally, some people have suggested that the new transmitter antenna installed several years ago led to poorer (or at least more spotty) reception in outlying areas.

This has gotten long enough. Into more details on subsequent messages. Isn't this fun? Soon you'll be qualified to be a Program Director!

4.0 KPFA DEMOGRAPHICS

In this section, we'll look at what the "Walrus Report" has to say about the demographics of KPFA listeners. Remember that these figures are fairly reliable for the overall KPFA audience, somewhat less so for the most popular dayparts (Morning Show and Evening News), but almost totally unreliable for most other specific timeslots (where values vary wildly from one survey to the next). However, the consultant and KPFA management apparently take all these figures as equally significant.

KPFA's Cume Persons (different persons (listeners) per week) are 52% male; the TSL runs 55% male. In other words, men slightly outnumber women in the audience, and they also tend to listen for slightly more time each week than women do. However, Walrus notes: "That ought to be considered the lack of an appeal by sex, because most stations skew strongly one way or the other. For example, a hard rock station will skew 75% male. A soft AC station will skew 75% female." KQED-FM has a distribution similar to KPFA's - just slightly more male listeners than female.

KPFA's Cume Persons are 6% African-American, 8% Hispanic, and 86% "other" (Arbitron has no separate category for Asians). The TSL has an almost identical distribution. I couldn't find corresponding figures for KQED in the Walrus report.

Ah, Middle Age

The median age of KPFA's Cume Persons is about 39; that for KQED is about 48. Walrus says: "The most interesting demographic skew in KPFA's appeal is age. One third of the audience is within 35-44. The next largest demo is 45-54, then 25-34. Hardly anyone over age 54 listens to KPFA, and few listen under age 30. ... KPFA's demographic range is identical with that for NPR. Any public radio station which carries Morning Edition and ATC generates an audience that looks

like KPFA's audience by age." Well, KPFA's median is 9 years younger--a noticeable difference, I'd say--particularly since only KALW among stations used extensively by our listeners has a younger median age than we do (about 36 for KALW).

Here's the age breakdown (estimated from a bar graph):

	Cume Persons	TSL
12-24	8%	16%
25-34	19%	20%
35-44	32%	30%
45-54	22%	22%
55-64	8%	8%
65-74	7%	3%
75+	4%	1%

Now, I'd look at these figures and say that we have a surprisingly healthy listenership among young adults. To me, the surprising thing is the small proportion of our listenership from among people my age (55) and older. Walrus, however, has dire predictions that our listenership (and PR's) will dwindle over the years unless we do something to attract younger listeners. I think you'd find it hard to claim that KPFA has ever done much to appeal strongly to young listeners, and yet we have a sizeable audience of people who must have come to the station after age 25. Management bought Walrus's argument here; I don't.

Age and Gender Shifts

The Walrus report goes on to draw lots of conclusions about how these demographics change for different dayparts. The Morning Show audience, for example, has median age around 43 and is around 70% male. For the Morning Concert, the median age drops to around 33 and the audience shifts to around 55% female. The Evening News has a median age around 37 and an audience around 52% female. (The black & Hispanic segment of the audience varies between 10% and 20% through the day, with no clear pattern obvious - these look to me, and to Walrus, like random sampling errors rather than shifts with particular programming.)

The demographics for most other shows don't mean much because of the small audiences and hence small samples, plus the fact that in most cases you are averaging across five different shows during the week, so that the average values have little meaning.

Watching the Clock

Walrus asks: "Is the Morning Show a guy thing?" Interesting question. Also interesting to note that the Pacifica News audience runs about 65% male, with a sharp swing to a slightly female audience for the KPFA news. An unasked question (by Walrus or by KPFA, so far as I know): How do the demographics of People Using Radio change with the hours? Do some of these changes simply reflect overall shifts in age and sex of people able to listen to radio at different hours?

Walrus goes on to analyze Saturday and Sunday demographics, but remember that these samples are so small that the numbers are highly suspect. (Values estimated from graphs.)

Saturday

7am Median age 51, 75% male, 39% black & Hispanic
10am Median age 45, 60% male, 20% black & Hispanic
12n Median age 37, 54% female, 0% black & Hispanic
2pm Median age 37, 53% male, 10% black & Hispanic
4pm Median age 45, 62% male, 35% black & Hispanic
6pm Median age 52, 50% male, 35% black & Hispanic
8pm Median age 30, 100% female, 0% black & Hispanic
10pm No measurable audience

Sunday 7am Median age 40, 62% male, 0% black & Hispanic
10am Median age 44, 51% female, 11% black & Hispanic
12n Median age 35, 63% male, 15% black & Hispanic
2pm Median age 47, 60% male, 10% black & Hispanic
4pm Median age 48, 51% male, 6% black & Hispanic
6pm Median age 40, 72% male, 8% black & Hispanic
8pm Median age 33, 100% female, 32% black & Hispanic
10pm Median age 41, 100% female, 14% black & Hispanic
12m Median age 33, 75% male, 0% black & Hispanic

The main point that Walrus makes about these numbers is that the station is drawing a big audience of one sort for a show, then driving that audience away and attracting a different one for the next show. This, of course, is what one would expect with an eclectic station. However, the argument is that we would get much better ratings if we kept the same kind of show all day, or at least grouped similar shows together, so that we could hold the same audience longer. If you look at the new weekend schedules, you will see that KPFA has tried to cluster the shows as recommended.

A couple of interesting points about these numbers, though. Recall that a stated goal of the new schedule is to attract younger listeners. Yet, Ellwood/Strachwitz, who attracted a very young audience if these figures are to be believed, were dropped. It's also interesting that Bonnie Simmons drew a slightly female audience, but the audience shifted back to slightly male for Women's Magazine. Similarly, most of the women listeners tuned away during Focus on Women in Music on Sundays.

Of course, when looking at management's changes, you must combine these demographics with the ratings discussed earlier. A show may have desirable demographics but a very tiny audience.

Playing to the Opposition

Walrus tends to assume that many changes in KPFA's audience may simply be due to KQED's programming. That is, some program on KQED may draw away enough men or women, older or younger people to have a major effect on our demographics and ratings. In such cases, they recommend counter programming. That is, if KQED is appealing to older males at a given time, we should program a show with strong appeal to younger females, and so forth.

Next: geographic distributions of KPFA listeners.

5.0 TIME AND PLACE

First, a note about the previous installment. In the Walrus report, I find a graph showing KPFA's and KQED's Metro Cume Ratings over the past decade. The values shown here do not match my memories of the figures given out during the 1980s, but I cannot find my old documents, so I will assume that Walrus has it right. They show KPFA rising steadily from a rating of 1.4 in 1984 to 2.5 in 1992, falling back below 2.0 in 1993, and then climbing to 2.6 in Fall 1994. This would fit perfectly with my suggestion that KPFA would have lost audience after Clinton's election and regained it subsequently. It's hard to see why a format that led to steady audience growth for eight years then failed for one year and in 1993-95 had been leading to growth again if the explanation is sought only in an outdated approach to radio.

The same graph shows that KQED's rating grew more erratically from 3.3 in 1984 to 6.4 in 1991, stalled for a year, jumped to 7.9 in 1993, dropped back below 7.0 in Spring 1994, and went back up to 8.0 in Fall 1994. First, I'd just note that these erratic shifts in ratings seem to confirm that the Arbitron values from any one survey should not be taken very seriously. Whether they jump wildly because of marathons or other program changes, because of changing current events, or just because of sampling error, it obviously would be foolish to base any major plans upon one or two surveys. Note that KQED's audience jumped from 1992 to 1993, just as KPFA's dropped. Again, this fits with the idea that people seek more mainstream listening fare when they think that they can stop worrying so much about what the government is doing.

If we take this graph at face value, KQED's rating has grown from an average of around 4% in 1984-86 to an average of around 7.5 in 1993-94 (we're talking here about Cume Persons as percentage of population). In the same comparison, KPFA has grown from around 1.5% to around 2.0%. Thus KQED has increased its rating by around 88%, while KPFA has increased its rating by only around 33%. Given that KQED did a major format revision during this decade, eliminating music from its schedule and concentrating on news and talk, it's not surprising that they have a greater improvement than we do. Furthermore, I could make these numbers look very different simply by selecting different start and end points for the estimate (Walrus' graph gives points only for every other year, making it very hard to tell how selective they have been). Given all this possible confusion, it's interesting to note the heading that Walrus puts on this page: "In Ten Years KPFA Has Gained Perhaps One Rating Point While NPR Doubled Its Reach". Even when their case could look quite good with honest figures, they can't resist comparing apples to oranges.

5.1 Time

Dayparts

In this section, we'll look at KPFA's audience as it changes during the day. Most commercial stations measure their audiences in "dayparts" such as morning drive, midday, afternoon drive, evening. These "chunks" of time correspond to the shifts of their fulltime on-air personalities, so both personnel evaluation and advertising sales are tailored around the averages for dayparts. KPFA's eclectic schedule requires a more flexible approach, so AudiGraphics uses graphs to present the changes in audience hour-by-hour through the day (Arbitron does not give out audience estimates between midnight and 5 a.m.).

Weekday (Monday-Friday) Listening to KPFA (estimates from graph)

AQH	Persons
5am	500
6am	4,000
7am	12,000
8am	10,500
9am	8,000
10am	7,500
11am	6,500
12 n	7,000
1pm	8,500
2pm	8,000
3pm	8,000
4pm	6,500
5pm	5,000
6pm	6,000
7pm	2,500
8pm	4,500
9pm	3,000
10pm	1,500
11pm	100

The first thing I would note is that this seems to be a fairly drastic shift from the pattern I recall in the 80s (again, my memory may be wrong). I remember midday as having a very low audience, rising again to a peak for the Evening News. These figures indicate that our audience was actually dropping off after the early afternoon music programs, with a scarcely noticeable increase during the Evening News. Figures for Fall 1994 are similar, but with the 7am peak rising only to about 7,500, a valley at 1pm of 3,000, and a peak at 5-6pm of about 8,000. Again, note the drastic differences between the two surveys! The Fall survey is much more similar to what I recall.

What I cannot find in the Walrus report is a similar graph showing the AQH Shares--the really significant figures. Walrus does note: "A **critical** finding: The curve of listening to KPFA generally looks like PUR." In other words, the ups and downs during the day simply reflect the number of people using radios--you cannot conclude that any of our programming is more or less successful than other programming, or that we are gaining or losing listeners at particular times of the day because of our eclectic format. Presumably, our AQH Shares remain more-or-less constant at all hours. Another quote from Walrus: "There are few peaks of tune-in that would indicate listeners seeking out a particular program on KPFA." Or, to put it another way, as Walrus doesn't, there are few valleys to indicate listeners avoiding us.

The Morning

For comparison, in the Spring 1994 survey, KQED's 7am peak in AQH Persons (with Morning Edition) is around 47,000, and their peak during afternoon drive (with All Things Considered at 5pm) is around 26,000. In other words, despite presenting shows that each have budgets far exceeding KPFA's total budget and that are designed to be much more comfortable listening for the average person, KQED is able to draw only around four times the average audience that KPFA does.

It will be interesting to see whether the current changes in the Morning Show (eliminating long

segments of a single person talking, trying to have two hosts and two guests exchanging short lively "soundbites" whenever possible, keeping segments on a single topic to no more than 20 minutes, and interspersing serious (depressing) topics with light "people" stories) will significantly increase the audience. I can imagine such cosmetic changes perhaps drawing 25% more listeners (while people like me stop listening), but I find it hard to imagine that KPFA can ever come close to matching the draw of Morning Edition.

Weekends

Quickly, here are the AQH Persons figures for Saturday and Sunday from the Spring 1994 survey (estimated from a graph):

	Saturday	Sunday
5am	0	0
6am	0	500
7am	500	4,500
8am	5,000	12,500
9am	10,000	6,000
10am	9,500	4,500
11am	9,000	1,000
12n	2,500	6,000
1pm	4,000	4,500
2pm	4,000	4,000
3pm	4,500	4,000
4pm	4,000	4,500
5pm	500	2,500
6pm	4,000	1,000
7pm	2,500	1,000
8pm	2,000	1,000
9pm	1,000	500
10pm	0	1,000
11pm	0	1,500

Well, this looks like impressive evidence that Johnny Otis, Mary Berg, and Robbie Osman were the big weekend audience draws. For comparison, KQED's Saturday peaks were 40,000 at 10am (Car Talk) and 22,000 at 6pm (Prairie Home Companion). On Sunday, KQED peaked with 29,000 at 10am and 17,500 at 5pm (I'm not familiar with the programs at these hours).

Sampling Error

Before you put too much stock in this, however, note that the figures for Fall 1994 were quite different, with KPFA showing a Saturday peak of 13,500 at 9am, dropping to around 9,000 from 11am to 1pm, to around 3,000 from 2pm to 5pm, and then to nearly zero after that. On the other hand, the Sunday figures in the Fall 1994 survey show about 9,500 listeners from 7am to 10am, a jump to 17,000 at noon, back to 9,500 at 1pm, a dropoff through the afternoon to 3,500 at 4pm, a peak of 6,500 at 6pm, around 1,000 to 2,000 through the evening, and a jump to 7,000 at 11pm. How can two consecutive surveys give such different results? Walrus admits that sampling error is probably the major cause. It also says in passing that the AudiGraphics report labeled Spring 1994 is actually an average of Winter and Spring 1994 (making it even harder to correct for preemptions, and the data even more outdated). Despite this attempt to correct for sampling error,

it's clear that you can't put any real faith in the values for Saturday and Sunday beyond noting that the most popular programs tend to show up that way consistently. (Averaging over five days of the week makes the Monday-Friday figures five times more reliable, and hence fairly consistent from survey to survey, although even there the deviations during non-peak times of the day are significant.)

Well, I'm a cynic, but my conclusion is that the Arbitrons don't tell us much more than what we already knew: our audience is bigger for the Morning Show and Evening News (and for shows in similar time periods on weekends), but these peaks really are mainly the result of the fact that more people are listening to radio at those times. It's quite possible that any show put in those time slots would (after a period during which its fans find it) draw a similar audience.

I see little in these surveys to provide any "scientific" justification for tinkering with the schedule. I do think that changes are good, but they really must be based primarily upon the intuition and creativity of the management and programmers. Attempts to rationalize changes as responsive to surveys I would argue are just evasions of responsibility.

However, we've still not gotten to the data that management cite for many of their changes. They're going to even finer levels of detail to look at geographics and demographics, based upon even tinier subsets of the survey data (hence even more subject to sampling error). Those are the topics of over 90% of the Walrus report that management used so heavily.

5.2 Place: Geographic Data

In this section, we look at the geographic distribution of KPFA listeners as described in the Walrus report.

Arbitron breaks down some counties into Western and Eastern sections. It also identifies some regions as HDBA (High Density Black Area) or HDHA (High Density Hispanic Area); in such cases the remainder of the county or half-county is described by the term "Balance". For example, Alameda West HDBA is the portion of western Alameda County (mostly Oakland and Berkeley) with a high density of African American residents. Alameda West Balance is the portion of western Alameda County that does **not** contain concentrations of black or Hispanic population.

Here are the counties or subsets that contain the largest percentages of the overall KPFA Cume Persons (different persons per week):

17% Marin

16% Alameda West Balance

16% Contra Costa West Balance

15% Sonoma

14% San Francisco Balance

Poor Showing in Black and Hispanic Areas

Thus, 78% of KPFA's listeners live in Marin or Sonoma Counties or in the non-black/non-Hispanic areas of western Alameda, western Contra Costa, or San Francisco counties. In regard to black or Hispanic listening areas, Walrus says only: "For example, only 3% of KPFA's listening audience resides in Alameda West HDBA."

By ZIP codes, Walrus locates the bulk of KPFA listeners in:

19% 945xx
 18% 949xx
 17% 941xx

Figures based on the Spring 1994 AudiGraphics report (in turn based on Fall 1993 and Spring 1994 Arbitron surveys):

	Percent of Listeners Listening		TSL
Inside Metro Survey Area	94	98	5:23
TSA outside MSA	6	2	2:11
Marin	12	17	7:12
Alameda West Balance	20	16	4:17
Contra Costa West Balance	6	16	13:11
Sonoma	10	15	7:30
San Francisco Balance	12	14	5:56
Santa Clara West Balance	9	6	3:23
San Mateo Balance	6	3	3:10
Alameda West HDBA	5	3	3:37
All Other Counties	20	10	2:34
945xx	14	19	7:04
949xx	15	18	6:20
941xx	18	17	4:50
947xx	11	10	4:48
954xx	7	9	6:12
946xx	11	8	3:37
940xx	8	4	2:56
951xx	4	3	3:39
All other ZIP prefixes	12	13	5:28
94705	3	5	8:18
94114	3	4	7:53
94618	4	4	4:31

Walrus says: "You can use geographical information to understand your audience. The folks in Marin are not considered to be among the oppressed masses, correct?" Well, in fact there is Marin City, but my experience working in the subscriptions department tends to support Walrus' interpretation here: KPFA has not been very successful in attracting an audience among the minority and poor people we seek to serve. Our listeners, like our subscribers, come overwhelmingly from the relatively well-to-do areas in the East Bay, North Bay, and San Francisco/Peninsula.

Still to come, quick looks at what Walrus said about KPFA's core vs fringe listeners, and about other stations to which KPFA listeners also listen.

6.0 CORE AND FRINGE

Onward to the AudiGraphics concepts of core and fringe audiences, with the related concept of loyalty. Recall that core listeners are those who average more hours with KPFA per week than with any other station; Walrus interprets this to mean that KPFA is "their favorite, first choice station." Fringe listeners are those who do listen to KPFA but average more hours per week with at least one other station (which of course is then interpreted as their "favorite" station).

This is rather a strange concept if you think about it. If I spend more hours per week reading the daily newspaper than reading The Nation, does that automatically mean that I regard the newspaper as my "favorite" (or most important) source of information? Walrus goes much farther with these concepts, and this is an important influence on the thinking of current KPFA paid staff in planning the program changes:

"Core listeners are much more likely to become members, because the station is personally important to them. Note: we said *the*station* is important, not necessarily a particular program. If you think about it, a station which plays a lot of different programs aimed at different kinds of listeners just about guarantees that the station itself becomes less important."

Well, I could devote an entire essay to comments on those few sentences, but I'll let them pass. I just suggest strongly that you think about the implications and how this compares with your own experience about what makes you pledge (or what brings in pledges if you've done plugging for the station).

Loyalty

Walrus goes on to say that 22% of KPFA's listeners are core and 78% are fringe. On average, a core listener has a TSL of 13 hours 46 minutes per week (almost two hours per day). Because of this large TSL, core listeners contribute 57% of the listening to the station. "Whenever you open the mike, over half the listeners out there at that time are core." (Average TSL for fringe listeners is 2h51m per week.) KPFA's core listeners average 23 hours per week of total radio use, whereas fringe listeners average 27. AudiGraphics then uses the concept of "loyalty"-- the percentage of total listening time devoted to KPFA. KPFA's core listeners are 60% loyal, but fringe listeners are 11% loyal.

Walrus draws the following conclusions: "On average, KPFA listeners are 20% loyal. That means 80% of their radio listening goes to competing stations! The average KPFA listener uses the station 5:12 per week but uses radio over 20 hours per week. So loyalty to KPFA is only 20%. The typical NPR station with an all news format or dual news and music format achieves 33% loyalty. In our research for NFCB we have confirmed that community radio stations like KPFA uniformly achieve low loyalty. It's not the quality of your programs, rather the inconsistency of the program schedule. Listeners do not know what program they will hear if they punch the KPFA button. Then it changes anyway."

So, the directions KPFA is going based on advice from Walrus should be clear--the more we can be like NPR, the greater our audience loyalty will be, and thus the more listening and pledges we should generate.

What is ignored in all this is a very important fact about the KPFA audience. The percentage of listeners (as determined by Arbitron) who subscribe is much higher for KPFA than for the typical NPR station (so much for this concept of "loyalty"). The percentage of pledges that are paid at KPFA is much higher than for most noncommercial stations and particularly NPR stations.

My next (and final) essay will deal with "competing" stations, but it is instructive to note that among people who listen to both KPFA and KQED (our main "competitor"), loyalty is 25% to KQED and 20% to KPFA. Walrus concludes that "you may think of them as KPFA listeners--your listeners--but on average they give more TSL, occasions of tune in and loyalty to the competition. So they really belong to the competing stations primarily, and only sometimes come over to KPFA. And this explains, finally, why on air fund raising is so difficult on KPFA. If you'd like to increase listener support, you need to win loyal listeners--become their primary, favorite radio station." It would certainly be interesting to know how pledge statistics compare for the two stations with these crossover listeners, but of course such data is not provided by Arbitron or AudiGraphics, and Walrus is simply guessing. I would just note that KQED has three times as many listeners as KPFA, but among those who do listen to both stations, KQED gets only slightly more listening time than KPFA does. What this suggests to me is that KPFA might vastly increase its audience if it just found a way to get all those KQED listeners to sample KPFA--in other words, more emphasis on public relations rather than program changes.

I won't go on much longer, but I'd just note that the Walrus analysis is based upon assumptions that guarantee the desired conclusions. Only a formatted station with very little variety can attract highly loyal listeners (people who rarely listen to other stations), so KPFA must inevitably be losing this "competition" with KQED. It's also worth noting that KJAZ, a station with a uniform format very popular with a small group of loyal listeners, was unable to survive as a commercial broadcast station. It also failed to survive on cable as a partially listener-supported station. The reasons for this are complicated (few people have cable hooked to their radios, and it is hard to get contributions to a station that carries advertising), but it certainly is possible that KPFA could end up in worse shape if the shift to a more uniform format doesn't bring in a very large increase in listeners to compensate for the drop-off in the percentage of subscribers (although Walrus would expect an increase, in defiance of all known statistics about subscribership at noncommercial stations).

(signed) A fringe (disloyal?) KPFA listener

SUMMARY

This is the final essay in my series summarizing the suggestions made in the "Walrus Report," which was a major influence on KPFA's new format. The figures here are based upon the Spring 1994 AudiGraphics report, which combines the Fall 1993 and Spring 1994 Arbitron surveys.

A Few More Statistics

Recall that KPFA had about 24,000 "core listeners" (those who average more hours per week listening to KPFA than to any other station) and about 87,000 "fringe listeners" (those who average more hours per week with at least one other station than with KPFA) in Spring 1994 (current figures had increased by over 30% before the format change).

The other stations most listened to by KPFA listeners were KQED, KJAZ, KGO, KCBS, KDFC, and KALW.

The average KPFA listener spent 20% of his/her radio-listening time with KPFA, 11% with KQED, and 6% with KJAZ. The average core KPFA listener spent 60% with KPFA, 10% with KQED, and 4% with KJAZ. The average fringe KPFA listener spent 12% with KQED, 11% with KPFA, and 6% with KJAZ.

Figures for men and women were similar, except that KKSF replaced KJAZ as the second-place "competition" for KPFA among women.

For the age range of 25 to 55, the results were similar except that time spent listening to KQED increased from 8% for 25-34, through 11% for 35-44, to 17% for 45-54, whereas time spent listening to KPFA went only from 21% through 22% to 23%. In other words, we were "losing the competition" with KQED much more heavily with older listeners than with younger listeners.

The "Competition"

Among KPFA listeners, the other significant stations tend to pull away mostly male listeners (with around 80% of those spending time with KALX being male, and KJAZ and KCBS drawing KPFA listeners who are about 70% male). Only KQED and KDFC among "major competitors" draw away listeners who are about 50% male.

Walrus says: "Among those listeners who cross over to KQED, the TSL is under 6 hours to KPFA but 7 hours to KQED. Among those who cross over to KJAZ, the jazz station earns more listening by about an hour per week. The difference is really big for KGO and KCBS. Your listeners who use the AM news talk stations listen two hours to the competition for one hour to KPFA."

Results are similar in terms of the average number of occasions per week when people tune to the different stations. Also in terms of loyalty to the different stations to which people listen. Again, Walrus emphasizes that "KPFA loses the competition in each case."

Walrus: "The point is that you may think of them as KPFA listeners--your listeners--but on average they give more TSL, occasions of tune in and loyalty to the competition. So they really belong to the competing stations primarily, and only sometimes come over to KPFA. And this explains, finally, why on air fund raising is so difficult on KPFA. If you'd like to increase listener support, you need to win loyal listeners --become their primary, favorite radio station."

Well, it's interesting to note that KQED is laying off staff (mostly TV, it's true), and KJAZ has gone out of business, while KPFA has steadily improved its audience and income. Who's losing this competition?

Flashpoints

A few more examples of the kind of recommendations Walrus made. The report notes that on weekdays KPFA is preferred by those who listen to both KQED and KPFA only between 6 and 7am, 5 and 7pm, and around 10pm (the latter based on a very small sample). Walrus suggests that a lot of the Morning Edition audience apparently crosses over to listen to Flashpoints and the KPFA Evening News, and that similar programming might draw more KQED listeners in the morning. This presumably is the reason for adding more news breaks in the Morning Show and

trying to make it more similar to Morning Edition (not quite what Walrus said-- presumably the afternoon programming draws listeners because it is NOT a copy of the KQED programming). Only Flashpoints and the Evening News were drawing a majority of KQED core listeners who ever listen to KPFA away from KQED. Similarly, KCBS drew away most of the shared listeners in the morning, but these listeners preferred KPFA in the afternoon drivetime.

It's interesting to note, though, that one of the few places in the weekday schedule where KPFA was drawing more of the shared listeners fringe to both stations than KQED was, was in the early afternoon-- the "folkish" music shows that were changed to talk programming.

KPFA's Program Changes

Well, these lengthy essays have only touched upon a few of the many graphs and charts provided to KPFA management. You can find something to support most any change you might want to make, but the changes KPFA did make seem to be based largely upon the generalizations that the Walrus Report expressed in words, rather than upon careful study of the details in the graphs and charts.

My main question is why, with listenership and income increasing at a quite dramatic rate under the old format, it was deemed necessary to make such a dramatic and abrupt programming change rather than gradually shifting things around (a little at a time) to try to fine-tune a structure that was working pretty well. The answer seems to be that the impetus came from a Pacifica directive to increase ratings (something that Marci Lockwood has denied), with these reports providing some suggestions about what to try.

Most radio people say that it takes a year after a programming change for the audience to build up to something approaching the long-range potential of the new schedule. KPFA has stated that the Fall Marathon will have very little special programming, but will instead try to raise money from the regular programs that have been on the air only a couple of months. This could produce some rude surprises in terms of low marathon income. Recalling that these programming changes were based on year-old data, one wonders whether management will have the patience to wait a year to see if the new schedule actually can draw an improved audience before they decide to make other major shuffles.

Personally, I like the idea of steady changes in the lineup, but if you want to use ratings to control your changes, you need to make them infrequently and stay with each schedule long enough to get reliable data on how it is working.

This concludes our look at ratings and what they mean to KPFA.