

SCREENS, FREQUENCY OF READER AND READERSHIP CLAIMS: THE BIGGER PICTURE

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Abstract

The statistical analysis of screening data as obtained from current magazine readership surveys has had the effect of obscuring the role of related variables in describing and informing the average issue audience estimate. This paper will examine the relationship of claimed frequency of reading, circulation, and demography to the operation of the screen.

The role of the screen, to mix a metaphor, is much on the minds of print media researchers these days. At the Hong Kong Symposium, Dr. Appel described the role of the screening question as one that predicted upwards of 80% of the average issue audience of a magazine. He concluded that this was the case, regardless of whether recent reading or issue recognition was employed as the means of establishing the average issue audience. While the two methods differ in their estimation of weekly and monthly audiences and in their capture of out-of-home reading, both rely on the screen for a number of reasons.

In earlier practice, the full through-the-book method used the screen to deal with prestige overclaims. The test issue was then presented to the respondent whether he had passed through the screen or not. As the methodology and the medium evolved, the screen became a means of qualifying potential readers, thereby increasing the number of magazines that could be measured with the issue recognition method. Until Mediamark Research Inc. arrived on the scene in 1979, the role of the screen had been played out of view, since these data were not released as part of the earlier Simmons and later SMRB survey results. I recall asking Timothy Joyce, how he proposed to deal with MRI's screen responses: "Release it, of course" was the prompt reply. For going on 15 years, the MRI survey results of the screen, and the frequency of reading claims, and their relationship to the recent reading question have served the magazine industry well. Together with reader quality information, those elements provide MRI users with a rich source of diagnostics of the average issue audience.

The purpose of this paper is to describe the interaction of all these elements: screens, frequency of reading and the readership claims; and, in the process, hopefully provide some information that summary statistics have a way of obscuring.

The statistical analyses provided by Messrs. Appel and Mallett both relied on magazine circulation to standardize the wide range of audience size across the titles included in the analysis. While the circulation variable was useful to the statistical analysis, careful note should be taken of the fact that magazine circulation is only partially dependent on the population's demand to read. The rise and fall of circulation is a carefully managed business, such that variation in audience should not be assumed to be in a straight line relationship with circulation. Issue-by-issue variation and seasonal variation are not audited, and are not directly measured by either recent reading or issue recognition. Additionally some titles have much longer issue lives than others, weeklies versus monthlies, for instance.

Having noted these circulation facts of life, this paper will address some specific instances in which circulation seems to have moved audience, and other instances where it did not; and then attempt to explain why.

For this analysis, two sets of data were used. In the first instance, a five year circulation/audience trend of seven large women's service magazines over the period of the Spring '87 through the Spring '92 surveys. The remainder of the analysis is based on survey results from the Fall '90, Fall '91, and Fall '92 MRI surveys. Each survey was a sample of 20,000 adult respondents. For the three year trend, some 160 titles common to the three surveys were selected. Daily newspapers and supplements were excluded. Titles screened with different prompts were also excluded, as were titles with unaudited circulation.

For the record, statistical analysis of the screens and their resultant reads are highly correlated over the three year period, and do not contradict the Appel and Mallett findings.

SURVEY R2: RPC/SPC

Fall 1990	.86
Fall 1991	.83
Fall 1992	.81

The largest audience variance among the fifteen titles across the three surveys is less than .05. The variance in circulation for the same 15 titles ranged from .05 to .002. The highest variance in SPC among this top 15 is .04. Nothing terribly interesting here, except that the title with the largest variance in SPC also had the largest circulation variance. Ironically, the number of respondents screened in actually increased by 5% while the circulation declined by 12%. The R/S ratio for this title was, respectively for the Fall '90, '91 and '92 surveys, .48, .49 and .48. Is this an anomaly? The publication described here is a supermarket distributed weekly that hardly depends on 1:1 circulation/readership: it must compete for purchase with everything else at the checkout counter. The screen captured its readers at about the same rate as the growth in population over the three year period. However, the distribution of claimed reading frequency changed dramatically:

Frequency Claims	Fall 1990	Fall 1991	Fall 1992
0 of 4	3417	4932	7551
1 of 4	12709	14536	13911
2 of 4	9632	9206	8876
3 of 4	4142	3565	3709
4 of 4	<u>11379</u>	<u>9276</u>	<u>9278</u>
Total Screens	41279	41515	43323
R/S Ratio	.48	.49	.48

In this example, circulation is not correlated with the number of people who read or looked into this publication in the past six months as much as it is with the increased number of people with an opportunity to read. Nor is it correlated with the number who read in the most recent publication interval. However, the significant falloff in frequent readers and the proportionate increase in infrequent readers is highly correlated with the circulation decline, and reasonably so.

For all magazines, across the three year analysis, the MRI screens have been trending upwards while the R/S ratio has been relatively constant. Audited circulation has declined by 2%: the population has grown by 3%.

	CIRCULATION (000)	SCREENS (000)	R/S%
Fall 1990	225037	2042886	48
Fall 1991	223382	2144268	48
Fall 1992	221261	2261543	47

This trend was apparent in the MRI audience estimates for the seven larger women's service magazines. Circulation for the group had declined even as the screens had increased. Where, if anywhere, could the effects of this decline be detected?

During the five-year period from 1987 to 1992, the population of women grew by 6% while circulation for the seven largest women's service magazines declined by 15%. The number of women screened-in increased by 14%. The R/S ratio declined over the period from .66 to .58, a decrease of 12%. The average issue audience of the seven magazines decreased by as much as 10% in 1990, but in 1992 is down only 1% from 1987. A large shift in the proportion of single copy sales to subscription sales occurred, particularly among the two tri-weekly titles. In-home readership of these titles was flat and did not increase with the population. The readership level of these magazines has been maintained by the increase in out-of-home readers. The number of readers of these titles who work has grown by 15% over this period, while the total population of working women has grown only 4%. In 1992, some 46% (and growing) of the women readers of these titles were in the work force. For these seven magazines, which screen-in most of the US female population, circulation alone cannot explain audience variation. The easy accessibility to these magazines for an increasingly "not-at-home" population of US women, for whom these titles have a very high level of awareness, has created a situation in which readership is constant even as the number of buyers and subscribers has declined. **A 1:1 relationship of readers to copies can only be achieved, if at all, if the survey were to be conducted among only women who subscribe/buy and read.**

Claimed frequency of reading in conjunction with the average issue audience is used by MRI to estimate audience turnover and model audience accumulation. The frequency of reading question is asked immediately after the screen question and before the readership question. To model the audience accumulation, the frequency of reading claims are calibrated by the recent reading question. For example, screened in respondents who claim a frequency of reading 4 out of the average 4 issues published are not assigned a 1.00 probability of reading the average issue. Their probability of reading is calibrated based on whether they read in the last publication interval. The calibration is applied to each frequency group so that the literal or logical probabilities are consistent with the average audience. The literal claims are released on the MRI tape and can be readily accessed for analytical purposes. These data are an important component of the MRI methodology, and, by themselves, a much used qualifier of total audience.

Claimed frequency of reading, on its own, is an informative diagnostic of circulation variance. Given the already established importance of the screening question, and the sampling variation in that estimate over successive surveys, the trend of the distribution of frequency of reading claims can be the "smoking gun" in explaining the relationship of average issue audience to circulation. Reads and screens alone do not furnish sufficient evidence.

What's Going On?

Survey	% of Screens...					Totals...	(000)	(000)
	0/4	1/4	2/4	3/4	4/4	(000) Circ.	Screens	Reads
Fall'90	11	35	21	7	26	225,037	2,042,866	986,870
Fall'91	16	35	19	6	23	223,392	2,144,266	1,031,007
Fall'92	20	33	18	6	23	221,261	2,261,543	1,054,669

In the infancy of magazine total audience research during the '40's and '50's, the high level of readers-per-copy obtained by the full through-the-book method was alarming to the survey producers and their clientele. By then, the radio medium had established national coverage and television had done the same by the 60's. Even then, media planners needed an equivalency of viewers/listeners-per set with readers-per-copy to justify their cost per thousand calculations. So did magazine publishers. To cope with this lack of equivalency, and with next to no research to justify it, common practice was to discount out-of-home magazine total audience as worth only 50% of the in-home audience. In the 60's, the US radio medium concluded that its total audience research was not measuring out-of-home properly, having established that its prime time audience was then more out-of-home than in-home: radio audience measurement methodology was modified to accommodate the fact. In the 90's, the television medium is concerned that the out-of-home audience it gave away the '60's is no longer affordable given the smaller households and not-at-homeness of the '90's. The magazine medium has already dealt with all of these issues more than thirty years ago. Screens, frequency of reading, and readership claims together, are measures of how people use magazines.

If magazine media researchers are to be taught anything by this brief historical resume, it must be that the methodology to measure the medium, having begun with a representative sample, should then measure as much as is practical of the behavior associated with the medium. To paraphrase loosely, "the method must be relevant to the medium."

The data on which these analyses were based are available to all MRI subscribers with computer access via on-line or the MEMRI system. This brief paper has only touched the analysis that could be done. Should any attendee, without subscriber access to MRI, be interested in further analyses for non-commercial purposes, please contact me directly.

