

## **NEWSPAPER SCREENING INTERVALS: SIX MONTHS vs SEVEN DAYS**

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### **Abstract**

Although the use of a six month screen for magazines and a seven day screen for daily newspaper audience measurement is bias against the national newspapers, local newspapers are not so affected.

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### **Background and Objectives**

In the United States the past several years have seen a burgeoning of interest in the screening process preceding the average issue measurement of print media audiences. Up until the time Appel (1993) presented his analysis of the ARF Comparability Study read and screen data in Hong Kong, and Mallett (1993) published his analysis of similar data obtained from Simmons and MRI through the good offices of The Magazine Publishers of America, the screening process was typically regarded as a benign procedure for allowing the respondents to satisfy any need they might have to appear well read while keeping the interview to manageable length.

Because we now know that average issue audience estimates can be manipulated by changing the screen-in levels, the problem has become particularly acute when it comes to the measurement of national newspapers. Although national newspapers principal competition is magazines, because of the ARF's published Guidelines for Newspaper Audience Studies, daily newspapers have been generally subjected to a seven day screen, and Sunday newspapers have been generally subjected to a four week screen. Magazines, however, are generally subjected to a six month screen. These different screening intervals are employed despite the fact that the longer the screening interval the greater the percentage of respondents who will screen-in and claim average issue readership. The common belief has been that so long as the screening interval was more than several times the publishing interval, it did not matter how long the screening interval was and that the average issue audience levels would be unaffected. The research we will present today disputes the validity of this belief.

Although the screening procedure has been virtually ignored in the U. S. as a topic of investigation, it has been known for some time that material numbers of respondents who fail to screen-in would qualify as recent reading or through the book measured readers had the question been asked: Lysaker (1981), Tennstädt and Hansen (1981), Wilson (1981), Meier and Cornish (1983), Vorster (1985) and Cornish (1988). Haukatsalo (1981) also reported the results of a study which indicated that reducing the screening interval from six months to six weeks for weekly publications resulted in a significant reduction in the recent reading average issue audience level. Although the paper also made mention of having reduced the screening interval from six months to six days for daily newspapers, the results were not presented.

The present study was conducted to compare the audience estimates generated for daily newspapers using two different screening intervals - six months and seven days - for each of three different ways of asking the average issue readership question: (1) a past four issue frequency question, (2) a past five issue frequency question and (3) a yesterday/last Friday recent reading question.

### **Method**

#### **The Questionnaire**

The study was conducted by mail using an eight page self-administered questionnaire. The first six pages concerned automobile purchasing and the measurement of 116 magazine titles showing each of the magazine logos using a six month screen and a past four issue frequency question for each title. The seventh page was devoted to the measurement of daily newspapers and Sunday supplements, and the last page concerned demography. There was no rotation of magazine or newspaper titles in order of questioning.

The daily newspaper section of the seventh page contained the logos of The Wall Street Journal, USA Today and The New York Times in that order, and six different question versions were prepared. Three of the versions used a six month screen, and the other three used seven days. For each of the two different variations in the screening question, the first version used a past four issue frequency question. The second used a past five issue question. The third version asked a different question depending upon the day of week the questionnaire was being completed.

On Tuesday through Saturday for each title screened-in respondents were to answer whether the last time they read or looked into a Monday through Friday issue was "yesterday" or "before yesterday." On Sunday and Monday they were to answer whether or not they had read or looked into last week's Friday issue. Because yesterday was not a weekday for those filling out the questionnaire on Sunday or Monday, last Friday was considered a yesterday surrogate.

### **Mailing Procedure**

On April 23, 1993 five hundred of each of the six questionnaire versions were mailed to an every 'nth name sample of names taken from R. L. Polk's file of individuals who bought a new car during the month of November, 1992. The mailing consisted of the questionnaire, a covering letter, a one dollar bill and a business reply return envelope. Those not replying by May 24 were sent a second questionnaire. Questionnaire returns were accepted until July 9. A total of 1403 useable questionnaires were returned representing a response rate of 47.9% after subtracting the 68 questionnaires which were returned by the Post Office.

### **Measurements and Calculations**

For each of the three national newspapers respondents were asked to indicate whether or not they might have read or looked into it in the last six months, or seven days depending upon which of the six question versions they had been sent. Those answering "yes" were then supposed to answer one of the three predesignated versions of the average issue readership question.

For each title, each respondent was then assigned a value ranging from 0.00 to 1.00 depending on their responses to the screening and average issue readership questions. For those titles where neither the screening question nor the readership question was answered, the respondent was assigned a value of 0.00 for that title. For those titles for which the respondent screened-in but did not answer the average issue readership question, such respondents were considered "no answers" and were removed from the base.

Responses to the frequency of reading questions were assigned values calculated by dividing the claimed frequency by the maximum frequency allowed by the scale - either four issues or five. Those classified as issue readers in response to the yesterday/Friday question were given values of 1.00, and all other responses were given values of 0.00. For each title a coverage percentage was then calculated as the mean of the assigned values multiplied by 100. The coverage percentage represents the percent of the population estimated to read the average issue.

### **Summary Of Findings**

From the findings which follow it is clear that regardless of which of the three average issue readership questions was employed, the six month screen consistently produced the higher screen-in levels that were expected and that the higher screen-in levels resulted in correspondingly higher coverage percentages.

### **Screen-in Levels**

As can be seen from Table 1, the expected drop in screen-in level was the result when the screen-in interval was changed from six months to seven days. Such drops were of the order of magnitude of 40% to 50%, and all were statistically significant at the .01 level or better.

Table 1

**Screen-In Percentages**

	6 mo. screen		7 day screen		Diff.	S.E.	t
	%	(Base)	%	(Base)	±%	±%	
<b>USA Today</b>							
4 issue	42.1	(242)	21.8	(238)	-20.3	4.2	4.83
5 issue	44.9	(234)	27.5	(244)	-17.4	4.4	3.95
Yest/Fri.	36.8	(204)	20.7	(241)	-16.1	4.3	3.74
<b>Wall Street Journal</b>							
4 issue	26.9	(242)	15.5	(238)	-11.4	3.7	3.08
5 issue	28.6	(234)	18.0	(244)	-10.6	3.9	2.72
Yest/Fri.	27.5	(204)	11.2	(241)	-16.3	3.7	4.41
<b>N.Y. Times</b>							
4 issue	14.9	(242)	6.3	(238)	-8.6	2.9	2.97
5 issue	13.7	(234)	7.0	(244)	-6.7	2.7	2.48
Yest/Fri.	14.7	(204)	6.6	(241)	-8.1	3.0	2.70

**Coverage Percentages**

Without exception the seven day screen produced lower coverage percentages than did the six month screen, and six of the nine percentage point drops are statistically significant at the .05 level of probability or better. These data are presented in Table 2.

Table 2

**Coverage Percentages**

	6 mo. screen		7 day screen		Diff.	S.E.	t
	%	(Base)	%	(Base)	±%	±%	
<b>USA Today</b>							
4 issue	20.7	(237)	13.5	(236)	-7.2	3.0	2.40**
5 issue	17.9	(230)	12.9	(238)	-5.0	2.6	1.92*
Yest/Fri.	18.2	(192)	11.5	(235)	-6.7	3.5	1.91*
<b>Wall Street Journal</b>							
4 issue	12.8	(235)	10.3	(237)	-2.5	2.5	N.S.
5 issue	12.5	(232)	10.2	(239)	-2.3	2.6	N.S.
Yest/Fri.	12.3	(195)	5.1	(236)	-7.2	2.8	2.57**
<b>N.Y. Times</b>							
4 issue	8.3	(238)	4.6	(237)	-3.7	2.1	1.76*
5 issue	6.2	(232)	3.4	(247)	-2.8	1.7	1.65*
Yest/Fri.	6.5	(199)	3.8	(238)	-2.7	2.1	N.S.

\* P&lt;.05

\*\* P&lt;.01

**Daily Newspapers**

To this point, the analysis has been limited to the three national newspapers: The Wall Street Journal, USA Today and The New York Times. Subsequent to Appel's (1994) publication of his analysis of these data the question was raised whether local newspaper readership would behave the same way since the turnover rates for local newspapers tend to be lower than those with national distribution.

As it turned out the questionnaire which had been contributed by J. D. Power & Associates contained a separate category for other weekday newspapers all of which happen to be locally published. Because our interest was the national newspapers, the data for the local papers had not been tabulated.

In order to answer the newly asked question, the data for the other weekday newspapers were subjected to the same analysis as were the three national papers. That analysis did indeed indicate that the phenomenon we observed for the national papers - higher screen-ins and larger average issue audience estimates when the six month screen rather than the seven day screen was used - did not apply to the local papers.

As can be seen from Table 3, none of the three samples produced significantly different screen-in percentages caused by the difference in screening interval, and two of the three non significant differences actually showed slightly higher levels produced by the seven day screen.

Table 3

**Other Weekday Paper  
Screen-In Percentages**

Readership Question	6 mo. Screen		7 day Screen		Diff. + %	S.E. + %	t
	%	(Base)	%	(Base)			
4 issue	34.7	(242)	39.5	(238)	+4.8	4.4	1.09
5 issue	37.2	(234)	45.1	(244)	+7.9	4.5	1.76
Yesterday/Friday	35.3	(204)	34.0	(241)	-1.3	4.5	<1

As a result, as shown in Table 4, neither were there any significant differences in the coverage percentages.

Table 4

**Other Weekday Paper  
Coverage Percentages**

Readership Question	6 mo. Screen		7 day Screen		Diff. + %	S.E. + %	t
	%	(Base)	%	(Base)			
4 issue	32.6	(233)	38.3	(236)	+5.7	4.3	1.32
5 issue	34.5	(229)	40.7	(241)	+6.2	4.2	1.48
Yesterday/Friday	33.2	(193)	27.6	(228)	-5.6	4.5	1.24

**Discussion**

In theory, if respondent memories were perfect, the reported number of national newspaper issues read out of the four (or five) last published or reported yesterday/last Friday readership should be the same regardless of whether the respondent had previously claimed past six month or past seven day readership. For local daily newspapers, which typically have low turnover rates, the theory appears to be valid. When it comes to national newspapers, however, the facts are inconsistent with the theory. The use of a seven day screen results in smaller national newspaper audience estimates than does a six month screen - a fact which raises serious questions about the propriety of employing a seven day screen for newspapers and a six month screen for magazines when the intention is to compare

their estimated audience sizes. This says nothing about the propriety of using a four week screen for Sunday newspapers, when the same six month screen is used for magazines regardless of whether the publishing frequency is weekly, monthly or longer.

The final answer to these questions must await the day that the validity question is finally answered: Which of several conflicting audience estimates comes closest to the true audience size? Until that question is answered, we believe that the wisest course is to use the longer screening interval for all titles measured, thereby minimizing the number of respondents screened out who would have affirmatively answered the average issue question had it been asked.

What has been the result of this considerable expenditure of effort and research funds? The study findings were called to the attention of the Advertising Research Foundation and, as a result, they have issued a letter stating that the ARF Newspaper Research Guidelines do not apply to studies where both newspaper and magazine audiences are to be compared. The same research has caused MRI to change its measurement procedure for The Wall Street Journal and for USA Today while continuing to measure the other weekday newspapers using the same seven day screen as they have in the past.

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