USING MULTIPLE MEDIA TO
MAXIMIZE RESPONSE RATES

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In the United States and I suspect elsewhere as well, some researchers have as much trouble calculating response rates as they have achieving them. For example, one widely publicized annual study purports to track refusal rates when the key data are gathered from a survey which, obviously, is based only on cooperating respondents.

This paper reports on a method developed and used numerous times to achieve unusually high response rates. But before describing the method and the results it produces, let me define "response rate" as we have calculated it.

Response rate in this paper refers to a fraction, expressed as a percent: The bottom of the fraction consists of all pre-designated households which fall in the sample and the top of the fraction consists of all those predesignated households for which a completed interview was obtained.

Quite simply, in determining response rates for studies like those reported here, once you start with a predesignated sample, the question is, "How many did you try for and how many of these did you get?" For each study, only a single sample was drawn and there were no replacements.

The data presented in this paper consists of the results of full field studies and not experiments. The method was developed and all work conducted for the Audits Bureau of Circulations which has been auditing paid circulation of all major magazines and newspapers in the U.S. for over 75 years. A.B.C. audits circulation of periodicals in Canada and other countries as well.

Each study was conducted as part of an intensive and extensive A.B.C. audit of the paid circulation of large newspapers which compete, head to head, in a major market area. The studies span a number of markets and a number of years as well. The purpose of each study was to verify the home delivery portion of the claimed paid circulation of a newspaper for specific dates.

The information required for each study was household information and not information for individuals. Paid circulation for a specific period requires that for the dates in question:

o   the newspaper be delivered

<u>and</u>

o   the household be a paid subscriber.

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For purposes of these studies a head of household was qualified to provide this information. Thus in most households, survey data could be obtained from either of two individuals.

The universe for a given study was a route list of all households a newspaper claimed as paid subscribers for the specific days in question. Each of these lists included hundreds of thousands of claimed subscribers. For efficiency, it was necessary to develop a sampling method which did not require a prior count of the number of claimed subscribers. Furthermore, there was a need for speed to minimize memory decay by minimizing the time between the delivery dates being checked and the interviewing process.

The multi-stage probability sampling procedure was developed by Fred Nicholson of Audits & Surveys. Each route list page contained a maximum of 20 households. Every Nth page was selected at random. The Nth factor is obtained by dividing the total estimated number of subscribers by the maximum number of names per page which in turn is divided by the desired sample size. This procedure only requires that the route list pages be counted at the same time every Nth page is selected for inclusion in the sample. It is not necessary to count each of the several hundred thousand of names. On each page selected for inclusion in the sample, a random line from one to twenty is selected and that line is designated as part of the sample. If a line is empty, of course, no household for this page is included.

This procedure automatically adjusts for the average number of actual listings per page and it gives each subscriber the same probability of selection.
The total predesignated sample maybe somewhat more or less than the target number because of two factors:

> Total claimed circulation may be more or less than the estimate provided by a newspaper

> and

> The draw is random so that by chance, the number of empty lines selected may be greater or fewer than their true proportion in the universe.

In practice, the newspapers' estimates of the number of claimed subscribers was sufficiently accurate and the samples sufficiently large so that the eventual sample sizes were always very close to the target levels.

It should be noted that if the actual sample drawn deviates by an unacceptable degree from the target level, adjustments based on the original procedure can easily increase or decrease the sample size.

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The entire selection routine was set up on a P.C. so that page and line numbers to be included in the sample were generated in advance of receiving the route lists. In this way detailed sample selection commenced as soon as lists became available.

There were many reasons which necessitated achieving very high response rates on each of the studies we conducted, but that goes well beyond the scope and purpose of this paper.

To maximize response rates, we decided upon a multiple media approach to gathering the necessary information.

The data collection method is referred to as a multi-media approach as all three major data gathering techniques were used.

First, contact was made by direct mail;
Second, contact was attempted by telephone;
Third, contact was attempted by personal visit.

If these efforts still were not successful in generating an interview, material similar to that used in the direct mail contact, including a return mail piece, was left behind at the predesignated household.

The order of use of these techniques is based on cost efficiency as telephone interviewing costs more than mail but less than personal interviewing.

The mail contacts consisted of a letter, printed on A.B.C. letterhead, which explained the purpose of the study, and a return post card on which the required information could be recorded.

For each household, a newspaper claimed one of several alternative delivery frequencies, ranging from seven day delivery to Sunday delivery to delivery only. On the basis the information required for verification regarding receipt and payment for the newspaper covered one to four different days.

As possible, an anchor point or landmark event was used to facilitate recall for the time period in question. For example, one study was timed to cover the week after Thanksgiving and this major holiday served as the anchor point.

There were two such mailings, a week apart. The second mailing included a thank you to any households who had already answered the first mailing.

During the week after the second mailing, telephone interviews were attempted among those who had not responded to the mail contacts. Newspapers provided telephone numbers for many subscribers. For others, directories and contacts with the telephone companies' "Information Service" were used in an attempt to obtain telephone numbers.

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The basic telephone contact program consisted of up to three attempts, one on a weekday afternoon, one on a weekday evening and one on a weekend. For respondents located outside the central area, as required, an additional two telephone calls for a total of five were made. This was done to further reduce the need for personal visits which were, of course, much more expensive outside the central city area.

If any given telephone call resulted in a busy signal, an additional attempt was made during the same working session and this was not counted as an additional callback.

If the results of the mail and telephone contacts did not yield a completed interview, up to two personal visits were made to each household. One was scheduled for a weekday evening and the other for a weekend contact.

If all these efforts did not result in a completed interview or a refusal, a letter requesting cooperation was left at the predesignated household. Also included was a return postcard on which the desired information could be recorded.

So in total, as required, three research media were used including:

    o   2 contacts by mail
    o   3 or 5 contacts by telephone calls and
    o   2 personal visits

for a maximum of seven to nine attempts to obtain a completed interview.

Here are the completion rates for all of the studies we conducted using this multi-media approach.

Study	Approximate Sample Size Per Newspaper	RESPONSE RATE	
		Newspaper A	Newspaper B
1	4500	88.7	90.5
2	4000	94.4	93.4
3	1000	93.4	93.2
4	1300	96.7	95.5

Thus for a total base of about 21,600 respondents across eight test an average response rate of well over 90% was achieved.

After the first study, we were able to shorten the total elapsed time of each study. This, we believe accounts for the completion rates for studies 2 through 4 being even higher than those

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for study 1. For these studies the average response rate was 94.4% with a total respondent base of 12,600.

The basic multiple media approach generated high cooperation rates in all geographical areas served by a newspaper. This is true despite the fact that for all studies, in each central city there is a large concentration of low income households where cooperation rates for studies of newspaper circulation are traditionally low.

RESPONSE RATES BY
GEOGRAPHICAL AREA

	Paper A	Paper B
Central City	93.7%	93.1%
Balance of the Metro Area	95.7	95.5
Outside the Metro Area	95.7	95.7
Total	94.4%	93.4%

The value of making additional contacts through an additional medium turns out to be far from trivial. Each medium makes an important contribution to overall response rate levels.

For example for Newspaper A in study # 1, and this is typical of the results for all studies, the effects of using these incremental procedures was as follows.

SOURCE OF
COOPERATION

	% Total Completed
Mail Contacts	36%
Telephone Contacts	28
Personal Contacts	28
Multiple Methods For Complete Information	8
	100%

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In calculating response rates, a completed interview consisted of those questionnaires for which there were specific answers for every question. Don't know response did not qualify. In some instances, the first response from a respondent did not result in complete information and an additional contact was necessary. In most instances the additional contact was through a second medium and is listed in this analysis under "Multiple Methods".

In summary, the research problem which was addressed by using multiple media lent itself to alternative interviewing methods. It involved obtaining household rather than individual data. Furthermore, the amount of data required for a completed interview was not extensive. In this context, however, the eight studies completed demonstrate that the sequential use of all three major interviewing methods can regularly yield cooperation rates well beyond those obtained using only a single approach.

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