

Commercial Audience:
The "Right" Measure of
Advertising Value

by James Spaeth

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COMMERCIAL AUDIENCE:
THE "RIGHT" MEASURE OF
ADVERTISING VALUE

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I. EXECUTIVE SUMMARY

Currently, media decisions utilize vehicle audience as the measure of advertising value. These measures do not take into account the differences among vehicles in their tendency to expose their audience to the actual advertising message. Decisions based on advertising exposure data would be different from decisions based on vehicle audience data. They would be better decisions since advertising exposure is a more relevant measure of the value sought by advertisers. Even more relevant measures can be considered -- advertising perception and communication and sales response, but these suffer from our present inability to measure them objectively. It is also doubtful that we could separate the effects of the specific advertising message from the effects of the vehicle per se, as we examine these consumer responses. This leaves advertising exposure as the most relevant, presently feasible measure of advertising value.

If we examine the last three decades of commercial audience research we find a variety of techniques have been tried for the collection of advertising exposure data. Coincidental and near coincidental interviews, in-person or by telephone, seem to have been the most successful. In-home observers have produced useful results, but can only be utilized in limited circumstances. This experience has demonstrated that techniques are available to collect advertising exposure data for television -- commercial audience data.

The historical record also provides several important lessons. There is enough variation in the incidence of commercial exposure to refute the assumption that it is a constant proportion of program audience and can thereby be ignored. There is also sufficient evidence of a decline in this incidence to make it doubly worthy of further study. History has demonstrated several consistent patterns in commercial audience incidence which lead us to believe that it is a manageable phenomenon. The most important of these patterns are ---

- . Higher rated programs outperform low rated programs.
- . Commercial audience levels grow through the evening, but there is no clear advantage for evening programs over daytime, on average.
- . In-program commercials exhibit a greater incidence of exposure than do station break commercials.

- . Commercial audience levels vary significantly among viewers and programs, but the patterns of these variations are erratic.

In summary, commercial audience is the most logical measure of advertising value. It has proven measureable and worthy of measure. We understand some aspects of it, but need to learn more. It can lead us to different media decisions . . . better media decisions.

Commercial audience is the right measure of advertising value.

II.

THE ROLE OF COMMERCIAL AUDIENCE

IN MEDIA DECISIONS -

A RATIONAL APPROACH

Why is "commercial audience the right measure of advertising value"?

Before we can consider this question, we must first agree on what "advertising value" means and how it is obtained. While advertising offers many different "values", they all ultimately lead to consumers responding with increased purchases --- sales response, for short. The process through which this response is obtained is described in the Advertising Research Foundation's schematic of the advertising process. This schematic, or model, was first described in the ARF's publication, "Toward Better Media Comparisons", originally published in 1961. This model serves as the conceptual framework for dealing with the question at the top of this page.

The model describes six stages of the advertising process --

- I. Vehicle Distribution
- II. Vehicle Exposure
- III. Advertising Exposure
- IV. Advertising Perception
- V. Advertising Communication
- VI. Sales Response

Stage I is a count of the number of physical units through which the advertising is distributed. In the case of print, circulation would be the appropriate measure. For broadcast, the number of sets tuned to the channel would be comparable. This first stage is closest to the advertiser, who actually purchases the space or time in each physical unit to carry the advertising. On the other hand, it is furthest from the consumer since it does not measure all consumers who see and respond to the advertising.

Stage II measures the total universe with any opportunity to see the advertising. It moves the focus of attention away from the physical unit to the viewer or reader or listener. We progress to the animate from the inanimate, to the viewer from the viewed. Numerically, what generally distinguishes Stage II from Stage I is a single factor, readers per copy for print, viewers per set in television. This single factor transforms the count of advertising units to a count of people exposed to the advertising vehicle. After all, it is these people whom we hope to influence through the advertising process.

With Stage III we finally deal with the advertising itself. Advertising exposure is a measure of the number of confrontations between the advertising and the consumer. For some media, such as broadcast, the number of advertising exposures will typically be less than the number of vehicle exposures since the viewer has only one opportunity to see the advertising and not all viewers may take advantage of this opportunity. In some media, out of home for instance, vehicle exposure and advertising exposure may be identical since the vehicle is the advertising. In other media, such as print, the number of advertising exposures may be greater than the number of vehicle exposures since each vehicle exposure offers multiple opportunities for exposure to the advertising. Clearly, advertising exposure is a very different measure from vehicle exposure. It is equally clear that it is impossible for the advertising to have any effect if the consumer is not exposed to it. This is a critical stage in the model for evaluation of alternative advertising vehicles.

With Stage IV; perception, the nature of our measurement changes. We are no longer inquiring after a simply defined, objectively observable behavior. We begin to deal with the consumer's response to the available stimuli.

For Stages I through III the advertising vehicle could be held accountable for reaching the consumer and confronting him with the advertising.

Stage IV attempts to measure the interaction between the advertising vehicle and the advertising itself and the consumer's response to this set. No longer is the advertising vehicle alone responsible for the outcome. The advertising message also has a responsibility to attract the eye, the ear, and the consciousness. The matter is further complicated by the lack of objective measures. Involuntary responses can be utilized such as galvanic skin response, eye tracking, EKGs, etc. These must be administered in a laboratory setting which calls their projectability into question. The only measures possible in a natural setting depend upon the respondents memory or awareness, both of which are almost certainly imperfect.

Stage V addresses the communication from the advertising to the consumer. At this stage, we shift the lion's share of the burden of responsibility to the advertising away from the advertising vehicle. Certainly the advertising vehicle provides the context for the communication and equally certainly influences the communication process. Nevertheless, it is the advertising message which is the object of the communication.

While Stages IV and V are influenced by a confluence of forces, Stage VI takes a quantum leap of complexity. As we consider sales response, not only the advertising vehicle, but in many cases the advertising message itself becomes a minor player on the stage of the consumer marketplace. Many, many factors influence sales. Isolating the effect of an entire advertising campaign is a difficult enough task. Identifying the contribution of a single ad in a single vehicle and then understanding the value of the vehicle as distinct from the advertising message is almost unthinkable.

Each stage in the process is progressively more relevant to the advertiser. Each stage is progressively more difficult to measure.

Stage I offers the simplest and most direct evaluation of the dissemination of the advertising -- the number of physical units through which the advertising is distributed. Commonly, this is what the advertiser pays for. Stage VI describes why the advertiser pays -- sales response. Stage I is often auditable; the most accountable figure possible. To the advertiser, Stage VI is the most relevant point for measuring advertising value, but obtaining hard data on sales response is very difficult. If we could measure Stage VI directly there would be little need for the intervening stages. Since we cannot yet do this we need to approach this ideal as closely as we can by moving forward across this schematic.

For example, as we move from Stage I to Stage II; from vehicle Distribution to Vehicle Exposure, relevance and discrimination increase sharply. Today, we wouldn't dream of using circulation as the measure of a magazine's advertising value, even though circulation is audited and has all the verisimilitude of the national census, while magazine audiences are perpetually shrouded in controversy. There is simply too great a difference between circulation based decisions and audience based decisions. Variations in readers per copy or viewers per set cannot be estimated based on Stage I data nor can their need be obviated by a few simple assumptions. Furthermore, the character of the total audience may be quite different from the primary audience and hence more or less valuable to the brand being advertised.

The increased ability to accurately identify and weigh advertising value obtained as we move from Stage I to Stage II comes at tremendous cost. The audience research industry was born of this need. The evidence of thriving, competitive audience research companies bears witness to sufficient value to justify this cost.

Consider the step from Stage II to Stage III; Vehicle Exposure to Advertising Exposure. Relevance clearly improves. For television, the most recent research suggests that on average commercial audiences are 40% lower than vehicle audiences. Similar research for magazines suggests that advertising audience in this medium are, on average, 70% greater than vehicle audiences. Equal vehicle audiences can easily obscure this three to one difference in advertising audience. Even for comparisons within television, programs with similar vehicle audiences can exhibit commercial audiences 60% different from each other. Furthermore, in this era of zappers and channel switchers, as much as 20% of audience may change at the commercial break resulting in a qualitatively different audience from the one sought by the advertiser.

All of the above suggests that decisions based on advertising exposure could be much better decisions than those based on vehicle exposure both in terms of the size and quality of the audience reached. At this stage of the process, the value obtained is fully attributable to the advertising vehicle. It is a suitable measure of the value of the vehicle, to be weighed against its cost.

As we move to Stages IV and V the effectiveness of the advertising vehicle and the advertising itself are confounded. At Stage VI even more factors enter the picture. Given current technology and the current analytical state of the art, we are not able to use these last three stages of the model for media evaluation. This, hopefully, will change but at the moment these stages are not available to us. Stage III is.

Advertising exposure, or commercial audience, has been measured in the past and can be measured today. It could be the basis for better media decisions than are made right now. It is a more relevant measure of what advertisers pay for.

Commercial audience is the right measure of advertising value.

III

THREE DECADES OF COMMERCIAL
AUDIENCE RESEARCH - AN
EMPIRICAL APPROACH

INTRODUCTION

Commercial audience, as distinguished from program audience has been an object of study from the earliest days of commercial television. Between 1952 and 1984 twenty studies were conducted in the U. S. and the U. K. These provide a rich data base for the consideration of commercial audience and its role in the advertising decision process. Each of these studies is summarized in some detail in Section V. Our purpose here is to look across studies to compare results on six issues --- the level of commercial audience, the effect of rating level, program type, position in or out of program, daypart/time and demography of the viewer. In the process we will also review the various methodologies employed and in some instances the methodological findings.

THE STUDIES

The first commercial audience research was conducted by George Van Dorp in 1952. He developed a system of rating programs based on the drop in water pressure at the commercial break. While this did not provide actual commercial audience estimates it did document a broad range of responses which varied by programs.

The first use of a survey to estimate commercial audiences was made in 1961 by the London Press Exchange. Personal in-home interviews were made roughly coincidental to the viewing in question. Seventy six percent of the female viewers of evening programs were found to be present for the commercial.

Later the same year, the same technique was used on this side of the Atlantic by W. R. Simmons and Associates on behalf of the N. Y. News. Eighty two percent of the viewers fifteen years old or older were exposed to the commercial during evening programs.

The following year in Britain Lintas executed the first observer study. This required placing non-family members in 100 homes to record the evening viewing behavior of adults in the household. Eighty one percent of the viewing females were exposed to the commercial.

Back in the U. S. that same year Foote, Cone & Belding undertook a telephone near-coincidental study in St. Louis. This approach avoided the high cost of in-home interviews and also extended the data gathering beyond the immediate few minutes preceding the phone call to cover the prior 40 minutes. The level of

commercial audience was found to be 58% of the program audience. This level is quite a bit lower than that found in the first three studies as well as the other studies of its time. Part of this discrepancy is due to the use of total program audience rather than average program audience as the denominator. Foote, Cone & Belding also used this study to compare results obtained via near coincidental to the results of day after interviews as had been employed in their 1961 Queens study. The day after interviews tended to inflate the levels of commercial audience to unexceptionable levels.

Needham, Louis & Brorby brought the telephone near coincidental technique to Chicago in 1966. Using the same methodology as Foote Cone, but using average program audience rather than total program audience as the denominator, the Needham people found commercial audiences to be 79% of program audiences.

In 1964 the observer technique was transplanted here from Britain for two separate, though similar studies. "Observing" was conducted by Television Advertising Representatives in three east coast cities. Gary Steiner of the University of Chicago executed a "spy" study in Chicago. Both studies used teenage or college aged "spies" to record the viewing behavior of the adults in the household. Both found 83% of the females viewing television to be exposed to the commercial.

The following year, Alfred Politz gathered coincidental audience exposure during the door to door field work of his study entitled, "The Audience and Advertising Page Exposure of Twelve Magazines." Only station break commercials were studied. The level of exposure for these was found to be 64% of the surrounding program audiences.

The results of a novel technique called, "Dynascope" were published the same year by Charles Allen of Oklahoma State University. The Dynascope literally photographed the viewing audience. These studies used such small samples that the commercial audience levels are not cited here.

C. E. Hooper conducted a study in 1968 which enabled the comparison of coincidental and near coincidental (covering 15 minutes) telephone interviews. The results were generally comparable. The incidence of commercial exposure was estimated to be 77%.

Later the same year the IPA in Britain also did a methodology comparison experiment. They compared coincidental telephone interviews with near coincidental phone interviews covering the preceding three commercial breaks. These were then compared to data obtained from a weekly diary. Results of the diary were considerably higher than those of the coincidental. Since the quarter hour ratings obtained via coincidental matched the accepted television audience estimates, these were judged valid

and the diary results invalid. Coincidental and near coincidental data were judged to show no significant differences. However, inspection of the data shows a steady increase for in-program breaks and a decline for between program breaks as we move from strict coincidentals to less recent breaks. This indicates caution should be used in applying data which relies too heavily on respondent memory. The pure coincidental data sets the commercial audience incidence at 78%.

The near coincidental approach was used via in-home interviews by McCann Erickson, London in 1972. They found 83% of the program audience exposed to the commercial.

Progress continued in Britain in 1974 when JICTAR commissioned another in-home near coincidental study of commercial audiences. A comparison was made between strict coincidental and near coincidental data. As with the 1968 IPA study the in-program commercial audience incidence rises as the breaks become less recent. However, unlike the IPA study the commercial audience incidence for between program breaks also rises with decreasing recency. Using strict coincidental data the commercial audience incidence was found to be 76%.

A strict telephone coincidental was conducted in 1977 by the Home Testing Panel in Britain. The in-program commercial audience level was 75%.

The baton of methodological experimentation was again picked up in this country in 1978. Newsweek pilot tested a "television recognition" technique during their Eyes On Study. The recognition technique employed video tapes of the previous evening's programming as a memory aid while interviewing respondents concerning their television viewing last night. The levels obtained in this way were compared to the results of a separate telephone near coincidental covering respondent's viewing behavior up to fifteen minutes prior to the phone call. The recognition method overstated commercial audience levels and misrepresented relationships established by the near coincidental. The level of commercial audience was 67% according to the telephone survey. In 1979 the Eyes On Study went national, less the TV recognition measure. On a national basis, the telephone near coincidental technique yielded a commercial audience incidence of 62%. The Eyes On studies appeared to mark a substantial decline in the level of commercial audience from the estimates of the previous decade.

The origins of commercial audience research were recalled the following year when Derek Bunn analyzed surges in British electrical current at the commercial break. As with George Van Dorp's water pressure formula these results were difficult to calibrate to specific counts of commercial viewers. Relative levels

of commercial audience incidence could be compared for various viewing situations.

Commercial audience research nostalgia continued in Britain as Ted Bates Ltd. executed the first observer study in twenty years. This was a very small scale study conducted in late 1983 and early 1984. Due to small sample sizes, only relative results have been published to date. A specific level of commercial audience has not been estimated.

The last study included here is entitled, "Changing Channels", conducted for the Magazine Publishers Association by Audits and Surveys during 1983 in four cities across the U. S. Methodologically, this research resembles the "Eyes On" studies and found a similar level of commercial audience incidence to the Newsweek research --- 59%.

As we try to fully grasp this body of knowledge, one of its most impressive aspects is the great diversity of methods used -- water pressure, electrical current, photographing the audience, video taped memory aids, diaries, coincidentals (near and far)! The full body of commercial audience research is even broader still, but any method which relied excessively on memory or took place in anything but a natural in-home setting has been omitted. Thus, we haven't explored eye cameras or respondents pressing buttons or pedaling bicycles to illuminate TV screens or Galvanic Skin Response or a host of other such bizarre devices.

Out of this great diversity of research techniques I believe we have learned enough to make three statements with confidence

1. Commercial audience measurement must be made through personal interview. Diaries don't work, observer studies limit the universe which can be sampled. Meters measure set tuning, but not viewer behavior, other passive measurement techniques cannot be calibrated.
2. Commercial audience interviews must be made within one hour of the event being measured. Next day interviews inflate results substantially. Same day interviews begin to inflate results when one hour has passed. Precise coincidental measurement is certainly the gold standard, but near coincidental measurement appears workable.
3. Telephone and in-home interviews produce similar results. Telephone interviews are much more cost effective.

These findings should not stand as barriers to the application of new technology or future creativity. They should prevent us from moving backwards.

THE LEVEL OF COMMERCIAL AUDIENCE

The table below summarizes the level of commercial audience incidence for women exposed to evening in-program commercials (except where noted) found in each of the ten U.S. studies which estimated this level.

<u>Commercial Audience Studies</u>	<u>Commercial Audience Incidence</u>
1961 Profile of the Millions	82 (station breaks)
1962 FCB St. Louis	58 (used total program audience)
1963 NLB Chicago	79
1964 Observing	83
1964 Steiner Chicago	83
1966 Politz	64 (station breaks)
1968 Hooper	77
1978 Eyes On	67
1979 Eyes On 1980	62
1983 Changing Channels	59

The average of the seven studies of the sixties was 75%. The three studies of the most recent decade averaged only 63%! If we drop the three methodological outliers from the earlier studies the average rises to 81%. Comparing averages we find a 19 percentage point decline in commercial audience incidence from the sixties to the later seventies, early eighties.

The British studies covering roughly the same period do not exhibit a similar decline.

<u>Commercial Audience Studies</u>	<u>Commercial Audience Incidence</u>
1961 London Press Exchange	76
1962 Lintas	81
1968 IPA	78
1972 McCann-Erickson	83
1974 JICTAR	76
1977 Home Testing Institute	75

In contrast to the U.S. situation the three studies of the sixties and the three studies of the seventies result in the same average commercial audience incidence -- 78%.

THE EFFECT OF RATING LEVEL

Three studies addressed the effect of rating level on commercial audience incidence -- Foote, Cone & Belding, St. Louis in 1962; Needham, Louis & Brorby, Chicago in 1963; and Hooper National Television Index in 1966. In all three cases, we compare programs above and below the median. The 1962 study found a 35% difference favoring high vs. low rated shows. In 1963 the same comparison yields a 10% advantage to high rated shows, but the 1966 study found no difference at all.

Commercial Audience As A Percent Of Program Audience

	1962 FCB St. Louis	1963 NCB Chicago	1966 Hooper National
Low Rated Programs	48	73	77
High Rated Programs	65	80	77

THE EFFECT OF PROGRAM TYPE

Two studies, Foote, Cone & Belding and Needham, Louis & Brorby addressed the effect of program type on commercial audience for both daytime and evening programs. Three other national studies, Politz, Hooper, and Eyes-On, examined the effect of prime time program types only. With the exception of the Needham study significant differences were found among program types. Unfortunately there is very little consistency in the patterns found. Both studies of daytime found Quiz shows somewhat worse than other daytime programs. Beyond this observation the reader is left to hazard his own conclusions.

Commercial Audience As A Percent Of Program Audience

	1962 FCB St. Louis	1963 Chicago	1966 Politz National	1968 Hooper National	1979 Eyes-On National
<u>Prime Time</u>					
Movies	-	-	-	86	53
Drama	48	79	61	87	68
Comedy	68	79	63	81	65
Variety	56	78	67	83	-
Sports	-	-	-	-	80
Action/Adventure	-	-	-	-	52

Commercial Audience As A Percent Of Program Audience

<u>Daytime</u>	<u>FCB</u>	<u>NLB</u>
Serials	61	80
Situation Comedies	67	78
Quiz	54	75

The results do illustrate that differences exist by program and type of program. It may be that the relationships have simply changed over time as program styles and viewer preferences have changed. Or it may be that the particular classifications used are meaningless in terms of their effect on commercial audience. Maybe there is another way of grouping programs which will produce more consistent results over time.

THE EFFECT OF DAYPART AND TIME

Only two studies compared day and prime commercial audiences. The 1962 Foote, Cone & Belding study found a substantial advantage for daytime. This may be at least partly attributable to the use of total program audiences in that study. The total audience will overstate average audience to a greater degree for hour long programs than half hour shows. Since prime time programs average greater duration than daytime programs, the use of total program audience as the denominator for commercial audience incidence favors daytime programs unfairly. In contrast, the 1963 Needham, Louis & Brorby study found a slight advantage for prime time programs. Both of these studies also compared morning to afternoon daytime programs and found little difference.

Six studies compared evening programs hourly. In addition to the two above we have -- the 1961 Profile of The Millions, Gary Steiner's 1964 study, the 1965 Politz study and the 1968 Hooper National Television Index. The exact times used in each study varied by up to a quarter hour, these discrepancies are overlooked in the table below. The pattern across all studies is fairly consistent -- commercial audience grows steadily through the evening.

Commercial Audience As A Percent of Program Audience

	<u>Profile Of The Millions 1961</u>	<u>FCB St. Louis 1962</u>	<u>NLB Chicago 1963</u>	<u>Steiner Chicago 1964</u>	<u>Politz National 1965</u>	<u>Hooper National 1968</u>
<u>Evening</u>	<u>82</u>	<u>58</u>	<u>79</u>	<u>84</u>	<u>64</u>	<u>77</u>
6:30 - 7:00	79	-	-	87	-	-
7:00 - 8:00	81	48	72	84	59	72
8:00 - 9:00	84	61	82	87	63	77
9:00 - 10:00	86	-	-	83	68	81

Commercial Audience As A Percent Of Program Audience

	<u>FCB</u> <u>1962</u>	<u>NLB</u> <u>1963</u>
<u>Daytime</u>	<u>61</u>	<u>76</u>
10:00 - 12:00	64	74
1:00 - 4:00	64	77

THE EFFECT OF POSITION IN/OUT OF PROGRAM

The effect of position within program and placement in vs. out of program on commercial audience levels has been the singly most popular issue for study. Six studies here and three in the U. K. have dealt with one or more of these questions. Only Foote, Cone & Belding considered the question in daytime. They found in-program commercial audiences to be 33% greater than station break commercial audiences. The same study found no difference in audience level for commercials placed in the middle vs. in the beginning or end of the program. The next year's Needham, Louis & Brorby study found a slight advantage for commercials placed in the middle of the show. The two 1964 spy studies considered the same issue, but only in prime time. No significant difference was found by either study. Observing and the Politz study compared station break commercials within the program to those between programs. Politz found little difference, but Observing reported a 10% advantage for station breaks within the programs. Seven studies considered variations in commercial audience level for announcements in vs. adjacent to programs. The Foote, Cone & Belding study found a 49% advantage for in-program commercials. No other study reported such extreme differences. The remaining three U.S. studies average 8% in favor of in-program placement, with a range of 5% to 10%. The three U.K. studies found in-program commercials to present a 5% advantage over out of program commercials, with a range of 3% to 9%.

Commercial Audience As A Percent Of Program Audience

	<u>FCB</u> <u>St.Louis</u> <u>1962</u>	<u>NLB</u> <u>Chicago</u> <u>1963</u>	<u>Observing-</u> <u>ing.</u> <u>1964</u>	<u>Steiner</u> <u>Chicago</u> <u>1964</u>	<u>Politz</u> <u>National</u> <u>1965</u>	<u>Eyes</u> <u>On</u> <u>1978</u>
<u>Prime Time</u>						
In-Program	58	-	85	84	-	68
. opening	-	-	81	86	-	-
. middle	-	-	85	85	-	-
. closing	-	-	85	83	-	-

(cont'd)

Commercial Audience As A Percent Of Program Audience

	<u>FCB</u> <u>St.Louis</u> <u>1962</u>	<u>NLB</u> <u>Chicago</u> <u>1963</u>	<u>Obserview-</u> <u>ing</u> <u>1964</u>	<u>Steiner</u> <u>Chicago</u> <u>1964</u>	<u>Politz</u> <u>National</u> <u>1965</u>	<u>Eye</u> <u>On</u> <u>1971</u>
Station Break	39	-	77	77	64	65
. within	-	-	81	-	65	-
. between	-	-	74	-	63	-
<u>Daytime</u>						
In-program	61	-				
Station Break	46	-				
<u>Day & Prime</u>						
In-program						
Beginning/End	60	76				
Middle	60	80				
	<u>IPA</u> <u>1978</u>	<u>JICTAR</u> <u>1974</u>		<u>HTP</u> <u>1977</u>		
<u>Prime Time</u>						
In-program	78	76		75		
Station Break	75	74		69		

THE EFFECT OF DEMOGRAPHY

Eight studies examined the differences among various demographic groups with respect to their commercial viewing incidence. Generally, prime time in-program commercials were analyzed, but there were two exceptions. The 1983 Needham, Louis & Brorby study also explored daytime. Very neat patterns were found. Commercial audience incidence increases as the audience gets older, poorer, and belongs to a larger household. Observing measured commercial audiences for evening station breaks as well as in-program commercials. No nice neat patterns here. Exposure incidences do grow as the audience ages, but that's the only monotonic relationship. These findings are typical of the eight studies of

prime time in-program commercials. Of the six studies which examined age, only two agree with the pattern found for station breaks, three report a concave function and one a convex relationship. Five of the seven studies comparing men and women found little difference. The exceptions are the oldest, 1961 ITV study, and the most recent of the group, Eyes On. Both found substantially higher levels of commercial exposure among men. The three studies of income produced three different relationships. Household size analyses suffer from a similar lack of consensus. The 1964 Steiner study and the 1978 Eyes On study agree that commercial audience incidence declines with the educational attainment of the audience. Unfortunately, the 1979 Eyes On study contradicts its older sibling.

Most studies agree on only one point. There are meaningful differences in commercial audience incidence among various groups of people. Beyond this, little can be said with any certainty. Clearly, this is a topic for further study.

Commercial Audience As A Percent Of Program Audience

		<u>ITV</u> <u>1961</u>	<u>Lintas</u> <u>1962</u>				<u>Eyes-On</u>	
	<u>NLB</u> <u>1963</u>	<u>NLB</u> <u>1963</u> (Day- time)	<u>Observing</u> <u>1964</u>	<u>Steiner</u> <u>1964</u> (Station break)	<u>Hooper</u> <u>1968</u>		<u>1978</u>	<u>1979</u>
Men	-	-	87	76	84		68	66
Women	-	-	77	75	85		66	58
<u>Housewife</u>								
<u>Age</u>								
Under 35	81	73	85	73	87		66	61
35 - 49	70	77	84	75	90		-	57
50+	79	79	85	77	77		67	65
<u>HH Income</u>								
Low	78	84	-	-	-		68	61
Middle	82	74	-	-	-		-	60
High	69	70	-	-	-		68	66

(cont'd)

	<u>NLB</u> <u>1963</u>	<u>NLB</u> <u>1963</u> (Day- time)	<u>Observing</u> <u>1964</u>	<u>1964</u> (Station break)	<u>Steiner</u> <u>1964</u>	<u>Hooper</u> <u>1968</u>	<u>Eyes-On</u> <u>1978</u> <u>1979</u>	
<u>Household</u> <u>Size</u>								
1 - 2	79	74	84	77	-	-	-	-
3 - 4	74	77	86	79	-	-	-	-
5+	76	78	83	72	-	-	-	-
<u>Education</u>								
Some Grade School	-	-	-	-	89	-	} 69	60
Grade School Grad.	-	-	-	-	83	-		
Some High School	-	-	-	-	89	-		
High School Grad.	-	-	-	-	85	-		
1 or 2 Yrs. College	-	-	-	-	82	-	} 59	64
3-4 Yrs. College	-	-	-	-	83	-		
Beyond College	-	-	-	-	78	-		

CONCLUSION

Several conclusions can be drawn from the history of commercial audience research.

1. Methods exist to measure commercial audience cost effectively.
2. The level of commercial audience has declined in the United States, but not in Britain.
3. Higher rated programs outperform low rated programs.
4. Commercial audience levels grow through the evening. There is no clear advantage for evening programs over daytime.
5. In-program commercials exhibit a greater incidence of exposure than do station break commercials.
6. Commercial audience levels vary significantly among viewers and programs, but the patterns of these variations are erratic.

IV

THE PROSPECTS FOR COMMERCIAL

AUDIENCE DATA

INTRODUCTION

The issue of commercial audience is of tremendous importance. I fear it is frequently belittled and characterized as an insignificant technicality which is unmeasurable and unmanageable. A question to be dispatched with a shrug of the shoulders and a sigh of, "there's nothing we can do about it." Both the clear vision of the advertising process, as elucidated in the ARF model, and the evidence gathered over the last three decades, belie this characterization and reveal the irresponsibility of this posture.

Consider the issue of commercial audience in the grossest of terms. In 1983, 16 billion dollars was spent by advertisers for television commercial time. Audience attrition at the commercial break almost certainly falls between thirty and forty percent today with the possibility of reaching fifty percent at the turn of the decade. In 1983 dollars that amounts to between five and six billion dollars spent to advertise to empty rooms today! This could become eight billion dollars wasted each year by the early nineties.

Our practice of utilizing program audience or quarter hour audience as the measure of advertising media value obscures this tremendous waste. It also hides the opportunities which exist to improve the commercial television system, from the advertiser's perspective. The ARF model makes it clear that if we are to measure the advertising value of a media vehicle and not accept a surrogate we must measure Advertising Exposure directly. Today we base our selection of media vehicle and negotiate the price based not on the real value of the commodity we are purchasing, but based on the size of the package it comes in! Caveat Emptor DeLuxe!

The evidence we have examined confirms the enormous disparity between the size of the package and the size of the contents. It also indicates that the exact proportions vary significantly by situation, necessitating periodic detailed measurement. We cannot simply assume that commercial audience is a constant proportion of program audience. This, of course, presents an opportunity to those prepared to take advantage of it. Unfortunately, the evidence also hints that the problem may be gradually worsening. We can't stand by and watch.

On the positive side, the twenty studies of the last three decades have also identified several research techniques which can be employed to measure commercial audience. Telephone near

coincidental research has demonstrated the greatest practical promise. Observer, or "spy," studies are still practical today to achieve certain research objectives, particularly if precise projectability is not needed. Even the ebb and flow of public utilities can be turned productively toward our ends.

While history has demonstrated the existence of practical means to measure advertising exposure in television, the future appears to promise even greater capabilities. Before considering these we must first dissect commercial audience into two components. The mechanics are simple. First, the television set must be tuned to the appropriate station during the precise time which the commercial under study airs. Second, the viewer must be present in the room during the same precise time. Two component behaviors need be measured -- set tuning and viewer presence. It is quite possible that different approaches may be taken to each of these measurement problems.

SET TUNING

Although we deal, today, with average ratings for programs and quarter hours, set tuning to network programs and some local programs is actually measured more precisely. Nielsen meters collect set status information every 2.7 seconds. Rating data is maintained for each minute. The minute by minute data has simply fallen into disuse. Recently, the Nielsen Company dusted off some of the minute by minute data to examine the issue of channel switching.

Two analyses were performed. The first utilized NTI household meter data for November 8-21, 1982. Sixteen programs spanning daytime and prime time were measured. The major shortcoming to this analysis was the inability to accurately synchronize minute by minute ratings with the precise duration of the commercial break. A second limitation, regarding the issue at hand, is that the results are reported in terms of channel switching (channel changes per minute per 1,000 viewing homes). This focuses the analysis on channel changing rather than set tuning at the commercial break. The analysis also suffered from few programs and too much averaging. Potentially meaningful differences are obscured by gross averages.

This study did reveal several important patterns. Most channel switching occurs at the beginning and end of the program. There is more switching in the early evening (8-9 pm) than the late evening (9-11 pm). Daytime switching levels are lower than prime time.

Average Channel Switches As A
Percent Of Average Audience

	<u>8-9 PM</u>	<u>9-10 PM</u>	<u>10-11 PM</u>	<u>Daytime</u>
1st 3 minutes	21	12	12	9
Nodes	3	1	1	2
Other	3	1	1	2
Last 3 minutes	15	9	11	8

It was also observed that the presence of a remote control for the tuner raised the incidence of channel switching substantially. However, when comparisons were made of average audience during minutes which contained at least some part of a commercial announcement vs. non-commercial minutes, little difference is found. This may be attributable to the lack of precision of the measurement as well as the "averaging out" of significant differences.

Average Audience

	<u>8-9 PM</u>	<u>9-10 PM</u>	<u>10-11 PM</u>	<u>Daytime</u>
Commercial Minutes	17.2	22.8	20.0	8.7
Non-Commercial Min.	17.4	22.5	20.1	8.7

Nielsen followed this first study with a more in-depth analysis of prime time viewing for the week ending March 6, 1983. The same limitation of precision which impeded the 1982 analysis applies here as well. This study replicated the earlier finding that most switching occurs at the break.

Average Channel Switches As A Percent Of Average Audience

<u>Minutes</u>	<u>1/2 Hour Programs</u>		<u>Hour Programs</u>		<u>2-3 Hr. Program</u>	
	<u>Commer. Minutes</u>	<u>Non-Commer. Minutes</u>	<u>Commer. Minutes</u>	<u>Non-Commer. Minutes</u>	<u>Commer. Minutes</u>	<u>Non-Commer. Minutes</u>
1-5	16.8	6.1	14.4	9.8	17.5	10.5
6-25	2.6	2.6	3.0	2.7	4.2	2.7
26-35	7.5	5.4	2.8	2.6	3.6	3.3
36-55			2.1	1.8	3.1	2.5
56-65			8.5	8.3	4.8	4.5
66-85					3.4	2.7
86-95					3.0	3.0
96-115					2.6	2.0
116-120					11.6	6.5

Further comparisons were made of switching among households by cable status, presence of remote tuners, length of show, type of program, time of evening, etc. As with the first study remote tuners and cable tend to be the most striking causal factors. However, all of the factors considered demonstrate some effect on the level of switching. Nevertheless, little difference was found when average audiences are compared between commercial and non-commercial minutes.

	<u>Average Audience</u>	
	<u>Commer. Minutes</u>	<u>Non-Commercial Minutes</u>
1/2 hour programs	16.7	16.6
hour programs	16.9	16.8
2-3 hour programs	13.5	13.6
Adventure programs	15.4	15.3
Drama programs	17.5	17.5
Mystery programs	19.2	18.9
8 - 9 pm	16.3	16.2
9 - 10 pm	18.4	17.9
10 - 11 pm	16.6	16.8
Pay Cable homes	14.1	14.1
Basic Cable homes	14.7	14.7

(cont'd)	Average Audience	
	<u>Commer.</u> <u>Minutes</u>	<u>Non-Commercial</u> <u>Minutes</u>
Non-Cable homes	16.9	16.9
Remote Control homes	15.5	15.6
Non-Remote Control homes	16.0	15.9
Cable and Remote Control homes	13.9	13.9

Neither of these studies squarely addressed the issue of commercial audience at the break. The technical limitations of synchronizing viewing measurement and commercial schedules was a part of the problem. Information Resources did a series of switching studies which culminated in a new offering to be released during October 1984. Initial findings were presented at the Media Research Club of Chicago's Symposium on Commercial Zapping. The IRI study made use of their meter sample of 870 households in Eau Claire, Wisconsin. All of these are cable households with remote tuners, so results will be representative only of that universe. These homes have been demonstrated to have the highest rate of zapping. The study covered 12 weeks of viewing through the day from January 9th through April 1, 1984. Three major differences distinguish the IRI study from the Nielsen Study. On the negative side, the IRI sample is not projectable. The findings may be indicative, illustrative, and diagnostic, but not projectable. More positively, the data base for the analysis is much larger. Over five million gross impressions were measured. Most importantly, the set status data was recorded every five seconds and IRI performed their own commercial monitoring. This permits the precise synchronization of viewing measures with commercial schedules. Using these data, average audiences were measured three minutes before the break, immediately preceding the break, during the break, at the end of the break, and three minutes after the break. This tracking was performed for original viewers separately, from those who switched in. Several important differences were found when these results are compared to the Nielsen Study. First, the over-all level of switching is greater than was found in the Nielsen homes with cable and remote control. Second, while switchers-in compensate to varying degrees for switchers-out, the demographic character of the audience to the commercial may be different from the demographic character of the program audience. Lastly, the relationships among day-parts and in-program vs. out of program are somewhat different from expectations.

Segment Audience As A % Of Program
Audience Three Minutes Before Break

	<u>Break Begins</u>	<u>Mid- Break</u>	<u>Break Ends</u>	<u>Three Minutes After Break</u>
<u>Daytime In-Program</u>				
Original Audience	96.8	93.8	93.6	91.1
Switchers In	2.8	2.6	3.5	7.0
Total	99.6	96.4	97.1	98.1
<u>Daytime On The Hour</u>				
Original Audience	94.9	92.8	91.3	87.2
Switchers In	5.1	5.6	7.8	13.4
Total	100.0	98.4	99.1	100.6
<u>Prime Time In-Program</u>				
Original Audience	95.6	89.9	89.9	86.7
Switchers In	4.3	3.7	5.3	11.7
Total	99.8	93.6	95.2	98.4
<u>Prime Time On The Hour</u>				
Original Audience	87.6	82.5	80.4	76.7
Switchers In	11.2	12.4	16.7	24.9
Total	98.8	94.9	97.1	101.6

None of these three "Zapping" studies fully addresses the issue of commercial audience, but they do demonstrate the ability, to different degrees, of measuring the set status piece of commercial audience. IRI most clearly illustrates the requirements -- meter measurement with fine time resolution and a coordinated method for monitoring commercial schedules. The ability to accomplish this has been demonstrated. There are no technical barriers. This aspect of commercial audience is very plainly within the grasp of our industry.

VIEWER PRESENCE

Unfortunately, we do not have such clear portents of a deus ex machina to solve the problem of measuring viewer presence. The forthcoming experimentation with people meters might bring us closer than our current diary system of measuring persons viewing. But it seems unlikely that brief excursions will always be duly noted by panelists. Beyond people meters, passive measurement devices may be developed before the end of this decade. A good deal of R&D work is going on now. A recent Electronic Media Rating Council Symposium on "The Future of Broadcast Ratings" ranked passive persons measurement as the top priority for the TV ratings system of the future. Should this technique be implemented, commercial audience data for people will become a reality.

There are other possibilities short of mechanical solution, however. A dual approach employing meters, or people meters, and periodic telephone near-coincidentals offers promise. Another "old technology" approach, which is nevertheless innovative, is being explored by Television Audience Assessments, Inc. They employ a series of daily diaries to collect viewers' qualitative response to television programs. Their measures include the viewers' over-all rating of the show (not unlike TV-Q) and their emotional and intellectual involvement with the program.

It is claimed that these measures of involvement, combined into an Impact Score, are indicative of the viewers' propensity to remain in the room for the commercial. This effect is claimed only for in-program commercials. TAA conducted their first study in the Springfield, Illinois ADI. 1615 telephone interviews were gathered between June 21s and June 25, 1981 and June 28th and 29th 1981. Respondents were asked their opinions about and behavior during that evening's prime time programs. These findings led to their Prototype Ratings Study conducted between April 21st and May 4, 1982 in Kansas City, Mo., and New Britain, Connecticut. This study collected the daily diaries mentioned above measuring program appeal and impact for 3,000 individuals. Near coincidental interviews were also conducted by telephone with 454 panelists. These were used to determine commercial exposure in the now classic manner. The results show a promising relationship between intellectual and emotional involvement, as measured by TAA's Impact Score and Commercial Audience.

<u>Impact Score</u>	<u>Commercial Audience As A Percent of Program Audience</u>
17	51
33	52
50	72
67	77
83	87
100	70

OUTLOOK

Giving the foregoing, the outlook is clear. The half-step to commercial audience of measuring set tuning is within reach, we just have to ask for it. The full step, including measures of viewer behavior is feasible today with classic, costly techniques. New techniques are on the way. We can expect to see a progression of developments in this field over the next five to ten years, leading to the cost effective periodic measurement of commercial audience.

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TWENTY STUDIES OF
COMMERCIAL AUDIENCE

INTRODUCTION

This section summarizes the twenty Commercial Audience Studies which meet the two criteria I've chosen. First, the study must isolate advertising exposure for measurement. Second, an objective, unbiased measure of that behavior must be employed.

The isolation of advertising exposure requires that the preceding and subsequent stages of the ARF model have no effect on its measurement. That is, the measurement of advertising exposure must be independent of and separate from vehicle exposure and advertising perception. A few of the studies which follow employ a somewhat different measure of vehicle exposure than the others, but this only affects the reporting of the data, not its measurement. Some studies I've rejected confounded advertising exposure and communication by relying on attentiveness as the object of study. Others confounded advertising exposure and perception by utilizing commercial recall. Even immediate commercial recall suffers from this confounding.

The need for an objective measure means that the studies must deal only with the viewers behavior, not their interpretation of their own behavior, nor the interviewer's interpretation. Also, the broadest possible measure of advertising exposure must be used -- presence in the room during the commercial's broadcast. In this way we don't prejudge advertisings ability to "work" in less than ideal situations.

Considering the need for an unbiased measure, my major concern is with recall. Relying on a viewers memory may introduce error. For this reason some of the more obvious sources of commercial audience data have been omitted.

While there are twenty studies which follow, it must be realized that most of these were small scale experiments, flawed in many ways when evaluated by the standards of national, projectable research. Such a variety of techniques and designs have been employed that it is difficult to find two studies which can be considered comparable. This hampers any attempts to consider replication or to trend the results. Nevertheless, I consider what follows to be a reasonably complete synopsis of what we know about commercial audience for television.

"Using Water Demands to Rate Television Programs"METHODOLOGY

There may be some irony to the fact that the history of commercial audience measurement begins in the water closet. In 1952 George Van Dorp, water commissioner of Toledo, Ohio, noticed severe fluctuations in water pressure at regular intervals during the evening. By precisely measuring the rate of water flow and comparing it to the evening's television schedule on Toledo's only TV station, he was able to correlate surges in water demand to commercial breaks in and between programs. Van Dorp developed the first measure of commercial effectiveness which he fittingly titled "W".

$$W = 5 (D+R) + (10.G.F \div T.C)$$

Where D = Maximum drop in MGD rate of pumpage during the program.

R = Maximum rise in MGD rate of pumpage at the end of the program.

G = Drop in pumpage rate from norm times 2083.

F = Ratio of domestic water consumption to industrial water consumption.

T = Time duration in minutes.

C = Population of water district, in thousands.

FINDINGS

While this technique was not calibrated to audience counts and therefore may not be a practical measure of commercial audience, it is included here because it was the first objective measure of audience loss at the commercial break. Furthermore, it demonstrated that the degree of this loss is not equal for all programs.

<u>Time</u> (PM)	<u>Program</u>	<u>Duration</u> (Minutes)	<u>Pumping</u> <u>Drop</u> (D)	<u>Pumping</u> <u>Rise</u> (R)	<u>Volume</u> (V)	<u>W</u>
Sunday, November 23, 1952						
7:00	Red Skelton	30	4	4	14	54
7:30	Cavalcade of America	30	6	6	0	60
8:00	Ed Sullivan	60	8.5	6	22	84
9:00	T.V. Playhouse	60	7.5	9.5	42	106
10:00	Theatre	30	7	9	1	76
10:30	Jim Ubelhart	30	9.5	5	-9	64
11:00	Shadows of Mystery	60	7	0	1	36

1961 London Press Exchange "ITV Study"

METHODOLOGY

This study was based upon 3,000 personal interviews within homes which viewed the independent television station, ITV, in the London area and in Northern England. The interviewing was undertaken in three waves. During the spring of 1961 non-working housewives were questioned regarding their viewing between 5:45 p.m. and 9:00 p.m. The second and third waves were conducted during October, 1961 and sampled total women and men, respectively. The female interviews covered viewing from 6:00 p.m. to 11:00 p.m. The men were interviewed from 7:00 p.m. to 9:00 p.m. Viewing data and commercial recall were collected during the evening in question, although it is unclear if this was a strict coincidence. Commercial recall data was also gathered during a second interview the following morning.

FINDINGS

The data appear to reflect activity patterns within the home. Weekdays, women's commercial exposure was least between six and seven -- a period of meal preparation or other household chores. This dip appears later in the evening on weekends. The pattern for men shows no such decline.

Commercial Audience as a Percent
Of Program Audience

	<u>Weekdays</u>	<u>Women</u>	<u>Weekends</u>
Commercials Aired 6-11 PM	76		-
" " 6-7 PM	66		87
" " 7-10 PM	80		72
" " 10-11 PM	81		83

Commercial Audience as a Percent
Of Program Audience

	<u>Housewives</u>	<u>Men</u>
Commercials Aired 7-7:30 PM	75	87
" " 7:30-9 PM	80	87

1961 New York News "Profile of the Millions"

METHODOLOGY

This study was conducted for the News by W. R. Simmons and Associates Research utilizing 10,147 personal interviews of persons fifteen or older. The area of study was within a fifty mile radius of New York City during October and November of 1961. A geographically stratified sample yielded a recovery rate of 85.6 percent. One respondent was selected per home. Persons not at home were counted as not viewing. Interviews were made between 6:00 p.m. and 10:00 p.m. on Tuesdays through Saturdays. Final results were weighted to adjust for differential probabilities of selection for each individual.

If a respondent was home the interviewer proceeded to gather information on set status, station tuned and program. The questioning then covered the half hour interval prior to the last station break and the time since then. The respondents attention was then returned to the station break. His presence in the room, attention to television and what channel the TV set was turned to were all established. Since the respondent was asked if they watched any part of the program, the resultant audience measure is total audience rather than average audience. The total audience is a cumulative measure and consequently greater than the average minute audience. Regarding the station break, respondents were asked if they were present for all or part of the break, so, the commercial audience figure is somewhat an overstatement of the average commercial audience. It's impossible to say if these two overstatements in anyway counter balance each other. Nevertheless, the data can be used on a relative basis.

FINDINGS

Data from the study were tabulated by half-hour, day of week and channel. The most notable characteristic of the results is their volatility. In the data presented below, the commercial audience as a percent of program audience varied from a low of 61% to a remarkable high of 103%! The data below expresses the station break audience as a percent of the average of the audiences for the preceding and following half hour. Commercial audience levels tend to improve later in the evening, but not consistently. There are sudden increases for a given time on a given day. Since these increases are not repeated across days for the same time nor are they consistent across time for that day, they might be attributed to individual programs. Unfortunately, the data were not published in sufficient detail to test this hypothesis.

Commercial Audience as a Percent
of Program Audience

<u>Station Break Time</u>	<u>Tues.</u>	<u>Wed.</u>	<u>Thurs.</u>	<u>Fri.</u>	<u>Sat.</u>	<u>Avg.</u>
6:30	70	84	61	82	67	73
7:00	74	79	90	81	103	85
7:30	70	94	69	79	69	76
8:00	87	72	86	95	78	83
8:30	84	83	79	79	80	81
9:00	81	93	89	98	88	88
9:30	83	91	91	73	80	84
Average	78	85	81	84	81	82

1962 Lintas "Television in the Family Setting"

METHODOLOGY

A complete reference to this study hasn't been found. The details which follow are from a Ted Bates Ltd. report on commercial audience research. The Lintas study utilized non-family observers placed in 100 homes. Data concerning viewing behavior at the commercial breaks between 6:30 p.m. and 10:15 p.m. were reported.

FINDINGS

When we adjust for non-viewers, mothers and fathers exhibited similar levels of presence at the commercial break.

	<u>% Mothers</u>	<u>% Fathers</u>
Full or part attention	57	42
Present in room but not viewing	19	16
Out of room for part or all of break	18	16
Out of house or in bed	6	26

If we repercentage these results on a base excluding those "out of house or in bed" we have --

	<u>% Mothers</u>		<u>% Fathers</u>	
	<u>Raw</u>	<u>Adj.</u>	<u>Raw</u>	<u>Adj.</u>
Full or part attention	57	61	42	57
Present in room but not viewing	19	20	16	22
Commercial Audience		81		79
Out of room for part or all of break	18	19	16	22
Out of house or in bed	6	-	26	-

1962 Foote, Cone & Belding "St. Louis Study"

METHODOLOGY

During October and November of 1962 Foote, Cone & Belding executed a telephone coincidental study of commercial audience levels in St. Louis. Over 14,600 random telephone calls were placed resulting in 7,800 completed interviews -- a completion rate of 53%. Data were gathered for 317 different commercials airing throughout the day. Evening viewing (7:00-9:30 p.m.) was measured seven nights a week, daytime viewing (10:00 a.m. - 4:00 p.m.) was measured on weekdays only. In each household only the housewife was interviewed. She was questioned about her viewing during the immediately preceding 10-40 minutes.

In the reports of this study, the commercial audience level is reported as a percent of the total program audience, not the average program audience as became customary in all subsequent studies. Respondents reporting to have viewed any part of the program formed the base for the percentage reported. Our most commonly employed measure of program audience was average -- average minute or average quarter-hour audience. This is in consideration of the dynamics of television viewing. A program will accumulate more viewers over its total duration than it can claim during any one point in time. Therefore, the total program audience is an inflated estimate of the program's audience at any particular time. This distinction would have been more severe in 1962 than today given the greater incidence of hour long programs twenty-two years ago. When this inflated figure is used as the denominator, the resulting commercial audience percentage is underestimated. This is why the level of commercial audience as a percent of program audience reported by this study is smaller than all the other studies of its decade.

The ARF's model of the advertising process, "Toward Better Media Comparisons," can be seen in the design of this study. Measurements were made of the first five stages of the model -- vehicle distribution (television set tuned to the program), vehicle audience (housewife viewed any part of the program), commercial audience (housewife present for commercial) and perception/communication (housewife recalled content). The following brief description of findings will focus on stage three -- commercial exposure.

FINDINGS

1. There is no meaningful difference in commercial audience as a percent of program audience, on average, when comparing programs of different day parts.

Commercial Audience as a
Percent of Program Audience

Daytime Programs	61
Evening Programs	58

2. When comparing commercial audience percentages, on average, for programs by time periods finer than day parts, this study found early evening programs to deliver a substantially lesser proportion of their audience to the commercial than other time periods.

Commercial Audience as a
Percent of Program Audience

10:15 - 12:15 AM	64
1:00 - 4:00 PM	64
7:00 - 8:15 PM	47
8:15 - 9:30 PM	61

3. There are major differences in commercial audience percent on average between programs of difference types. The degree of these differences is greater in this study than in all subsequent studies. This can be traced back to the total versus average program audience question. Program length and type are highly confounded, with drama tending to be longer and comedies shorter in duration. This may have resulted in an understatement of commercial audience for dramas and an overstatement for comedies among evening programs. Differences for daytime programs, while significant, are not as great. These programs tended to be of uniform length. Nevertheless there are meaningful differences in commercial audience by program type for both day parts.

Commercial Audience as a
Percent of Program Audience

Daytime Programs

Serials	61
Situtation Comedy	67
Quiz and Participation	54

Evening Programs

Drama and Adventure	48
Situation Comedy	68
Musical and Variety	57

4. Highly rated programs perform substantially better on the commercial audience dimension as well. Programs were grouped into two equal sets -- one whose programs exhibited household ratings above the median and another with household ratings below the median.

Commercial Audience as a
Percent of Program Audience

HH Rating above the Median	65
HH Rating below the Median	48

5. There is no difference in percent of program audience exposed to the commercial for in-program commercials by position in the program, but, there are significant differences between in-program and station break commercials.

Commercial Audience as a
Percent of Program Audience

Daytime Programs

60 Second in Program Commercials	61
60 Second Station Break "	46

Evening Programs

60 Second in Program Commercials	58
20 Second Station Break "	39
10 Second Station Break "	30

In Program, Day or Evening

Beginning or Ending of Program	60
Middle of Program	60

METHODOLOGY

The St. Louis study was replicated by Needham, Louis & Brorby in the six county Chicago metropolitan area between October 28 and November 21, 1963. 13,000 telephone calls were placed resulting in 7,100 completed near-coincidental interviews -- a completion rate of 55%. The only major methodological difference from the FCB study was that evening viewing was only measured during weekdays. In this study commercial audience was reported as a percent of average program audience rather than as a percent of total program audience, as with the FCB study. This results in generally higher commercial audience percents and will be seen to be more consistent with other contemporary research.

FINDINGS

1. Consistent with the FCB study, no meaningful difference was found in commercial audience as a percent of program audience, on average, when comparing programs of different day parts.

Commercial Audience as a Percent of Program Audience

Daytime Programs	76
Evening Programs	79

2. Significant differences were found, on average, among programs grouped by time periods finer than day parts. Consistent with the FCB study, early evening programs performed worst, although the degree of difference was less.

Commercial Audience as a Percent of Program Audience

10:00 - 12:00 AM	74
1:00 - 4:00 PM	77
7:00 - 8:00 PM	72
8:00 - 9:30 PM	82

3. Differing from the FCB study, very little discrimination was seen among programs by type. Daytime quiz/participation programs exhibited somewhat lower relative levels of commercial audience than programs of other types.

Commercial Audience as a Percent of Program Audience

Daytime Programs

Serials	80
Situation Comedy	78
Quiz and Participation	75

Evening Programs

Drama	79
Situation Comedy	79
Musical & Variety	78

4. Highly rated programs, on average, deliver a greater proportion of commercial viewers than lower rated programs. As with the FCB study, programs were grouped as above or below the median household rating.

Commercial Audience as a
Percent of Program Audience

HH Rating above the Median	80
HH Rating below the Median	73

5. Commercials in the middle of the program were found to offer a very slight advantage over those placed at the beginning or end of the program.

Commercial Audience as a
Percent of Program Audience

Beginning or End of Program	76
Middle of Program	80

6. When commercial audience as a percent of program audience is tabulated for various demographic groups, significant differences are found. However, the inconsistency of these patterns between daytime and evening programs makes it difficult to ascribe meaning to these differences.

Commercial Audience as a
Percent of Program Audience

	<u>Daytime Programs</u>	<u>Evening Programs</u>
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Age of Housewife

Under 35	73	81
35 - 49	77	70
50 and over	79	79

Household Income

Under \$5,000	84	78
\$5,000 - \$8,000	74	82
\$8,000 and over	70	69

Household Size

1 - 2	74	79
3 - 4	77	74
5 +	78	76

7. The issue of effectiveness of program sponsorship versus participation was of major relevance at the time and was explored at length. Given the lack of relevance today, I'll go no further than to say sponsorships were found advantageous. However, this issue was heavily confounded with the question of rating level which has demonstrated effect on commercial audience.

1964 Television Advertising Representatives (TVAR)
"Observing"

METHODOLOGY

This study utilized teenaged "spies" to record the minute by minute activities of the adults of the household while watching television. For each non-program element, such as commercials, billboards, promotions and credits, the adult behavior was recorded more frequently. The spies were not told that the purpose of the study was to measure exposure to commercials, rather, they were told that the purpose was to measure what people watch on television and what they do while they watch.

This technique was pilot tested among 45 homes in Boston during November 1963. It was then expanded to 307 homes, 606 adults, in Boston, Baltimore and Philadelphia during the spring of 1964. 500 15-18 year olds were recruited from high schools and colleges. These "observer-viewers" were accepted only if the adults of their household watched evening television before a "common" set; multi-set viewing could not be accurately monitored. These sampling procedures render the results unprojectable, but informative nonetheless on a relative basis. 13,000 individual commercials were monitored across all nights of the week between 7:30 and 11:00 PM. Each spy measured only a single evening's viewing activity. Three weeks after the original field work, 105 homes across the three markets were observed a second time as a check on the stability of the data and the behavior being measured.

Commercial audience is reported as a percent of program audience. The definition of program audience employed is, anyone viewing any part of the two minutes of the program immediately preceding the commercial. For opening commercials, anyone viewing at least five minutes of the first 15 minutes of the show is counted in the program audience. This definition is an average rather than a total, or cumulative measure, but it is not the same as the average audience for the program or half-hour.

FINDINGS

1. In program commercials expose a greater proportion of the program audience than do station break commercials. Opening in-program commercials appear to be at a disadvantage relative to other in-program commercials, but this might be attributed to the difference definition of program audience used for opening commercials.

Commercial Audience as a
Percent of Program Audience

Station Break Commercials	76
-within hour programs	81
-at end of program	74
In Program Commercials	84
-opening	81
-middle	85
-closing	85

2. The results replicate over time. If we compare the initial and re-observations of the sub-sample of 105 homes which were surveyed twice, we find comparable results.

Commercial Audience as a
Percent of Program Audience

	<u>Initial Observation</u>	<u>Re-Observation</u>
In Program Commercial	85	87
Station Break Commercial	77	76

3. Little variation was seen by market or demographic group. The severe limitations of the sampling frame and sample selection procedures drastically weakens the applicability of this finding.

Commercial Audience as a
Percent of Program Audience

	<u>In Program</u>	<u>Station Break</u>
Boston	84	73
Philadelphia	85	77
Baltimore	84	77
Men	86	76
Women	83	75
Age 35 and under	85	73
Age 35 - 49	84	75
Age 50 and over	85	77
Family size 2 - 3	84	77
Family Size 4	86	79
Family Size 5 or more	83	72
Age of youngest child under 6	84	76
Age of youngest child 6 - 11	81	74
Age of youngest child 12- 18	86	77

1964 Gary Steiner "The People Look at Commercials"

METHODOLOGY

A second spy study was conducted in 1964, this one by Professor Gary Steiner of The University of Chicago. While the concept of this study is similar to the "Observing" study, there are some important differences.

College students were enlisted to surreptitiously observe a single adult in their household and record their behavior while viewing on unlabeled sheets. Observations were made throughout the day, as often as possible, for nine days. This activity was carried out in 325 Chicago area homes from Saturday May 16, 1964 through Sunday, May 24. After editing and checking only data from 183 homes proved usable, resulting in 47,823 separate observations of individual viewers reactions to non-program elements.

Given the use of a non-probability convenience sample, the obvious bias of a college-recruited sample and the small sample size, these results are not projectable. It is also not clear from the published report, exactly what program audience measure was used as the denominator for the commercial audience percents.

FINDINGS

1. On average, network commercials hold the attention of a slightly greater proportion of viewers than do non-network commercials. This result is undoubtedly influenced heavily by the number of non-network commercials in the station break position.

Commercial Audience as a
Percent of Program Audience

Network	84
Non-Network	81

2. In contrast to the two preceding studies, no advantage was found for the later portion of prime time.

Commercial Audience as a
Percent of Program Audience

Central Time

Commercials airing from 6:30 to 7:00 PM	87
7:00 to 8:00 PM	84
8:00 to 9:00 PM	87
9:00 to 10:00 PM	83

3. There is a general consistency in the level of commercial audience percent through a program, except for commercials following station breaks and, to a lesser degree, closing commercials.

Commercial Audience as a
Percent of Program Audience

Initial opening commercials	86
Subsequent opening commercials	86
Initial middle commercials	86
Subsequent middle commercials	84
Commercial after station breaks	77
Initial closing commercial	84
Subsequent closing commercial	82
Commercials after epilogue	82

4. When comparing piggy-backed thirties with other commercial formats, no major differences are found. Integrated and non-integrated piggy-backs performed identically. No major differences were found among commercials of various lengths. However, by inference the total duration of the break may have a negative affect on commercial audience. If we compare piggy-backed thirties to back to back sixties, the sixties show significantly lower levels of commercial audience. This may be due to the longer total duration of a pod containing two minutes of commercial. This is seen again, to a lesser degree, in that 120 second commercials have the second lowest level of commercial audience of all lengths reported. Other circumstances may account for the superiority of 120:s over paired 60:s. The 120:s tended to appear in fully sponsored programs (Bell Telephone Hour, Chrysler Theatre) and tended to be exceptional executions.

Commercial Audience as a
Percent of Program Audience

All Network Commercials	84
Piggy-backs (noted separately by observer)	
-first	86
-second	85
All piggy-backs	
-first	82
-second	84
Isolated piggy-backs	
-first	86
-second	85
Piggy-backs following break on minute commercials	
-first	82
-second	87
Back to back minutes	
-first	74
-second	76
Integrated Piggy-backs	
-first	86
-second	85
Non-integrated "	
-first	86
-second	85

1965 Alfred Polity Media Studies

"Coincidental Recall of Television Viewing"

METHODOLOGY

This analysis was based on data obtained during the fall 1965 phase of "The Audience and Advertising Page Exposures of Twelve Magazines" study. A cross-section of the U.S. population was designated for interview on each of 56 days during October, November, and December, 1965. Each household to be included was selected on a random basis and the interview conducted at a random time during the period being studied. In total 12,277 provided data with 5,245 of those households reporting television viewing at the time of the interview. Households with no one home were recorded as not viewing. Refusing households were assigned the average response obtained from other homes in the same location.

In each household a respondent, ten years of age or older was selected randomly and questioned about her viewing during the immediately preceding station break. The interviewer determined if the respondent was present in the room looking at television during the break and which channel was tuned. The respondents viewing to any part of the preceding half-hour or any subsequent viewing was also ascertained. These two elements were used to compute the percent of program audience exposed to the commercial. However, since the program audience figure employed is a total audience, as in the Foote, Cone & Belding, St. Louis study, the percents obtained understate the average as seen in other contemporary studies which took measurements at the station break.

FINDINGS

1. Commercial audience incidence rises through the evening. This is consistent with previous research, but the reporting of four half-hour breaks reveals a continuous increase from 7:30 to 9:30.

Commercial Audience as a
Percent of Program Audience

Station Break Commercial	
from 7:30 - 8:00 PM	59.4
from 8:00 - 8:30 PM	62.9
from 8:30 - 9:00 PM	64.0
from 9:00 - 9:30 PM	67.9

- Commercial audience is slightly higher for station breaks within hour programs than for station breaks at the end of a program.

Commercial Audience as a
Percent of Program Audience

Station Breaks within Programs	65
Station Breaks at End of Programs	63

- Station Break Commercial audiences vary somewhat by the type of program to which they are adjacent.

Commercial Audience as a
Percent of Program Audience

Commercials adjacent to Dramas	61.4
Commercials adjacent to Comedies	63.0
Commercials adjacent to Variety Programs	67.3

1968 C. E. Hooper Company "National Television Index"

METHODOLOGY

Commercial audience data was gathered for a portion of the Hooper National Television Index for the period, October 28 through November 23, 1968. Coincidental interviews were made by telephone during which viewers behavior at the exact time of the phone call was determined. If a commercial happened to be on at that time, commercial audience data was gathered. This resulted in commercial audience sample sizes one-tenth of the total sample size. To bolster these sample sizes, near coincidental data was also gathered covering any commercial broadcast during the preceding 15 minutes. A sample of 5,000 interviews was gathered on a coincidental basis and 20,000 on a near coincidental basis. The interview procedure required that the respondent be able to say how long ago the last commercial was -- this eliminated 60% of the total sample which was 50,000. Listed telephone homes across the total U.S. provided the sample frame. A national probability sample was drawn over the course of four weeks.

FINDINGS

1. The coincidental and near-coincidental results are generally comparable. The near-coincidental levels are slightly higher and show somewhat less sensitivity than the coincidental data, especially by time of evening.

Commercial Audience as a
Percent of Program Audience

	<u>Coincidental</u>	<u>Non-Coincidental</u>
<u>Average</u>	<u>77</u>	<u>78</u>
Men 18 - 34	86	95
Men 35 - 49	89	91
Men 50 +	78	80
Women 18 - 34	87	90
Women 35 - 49	90	84
Women 50+	77	71
Teens 12 - 17	73	74
Children 2 - 11	53	52
7:30 PM	71	75
8:00 PM	73	80
8:30 PM	75	77
9:00 PM	78	77
9:30 PM	81	79
10:00 PM	82	78
10:30 PM	79	81

Commercial Audience as a
Percent of Program Audience

<u>Rating Level</u>	<u>Coincidental</u>	<u>Near-Coincidental</u>
Under 10	78	78
10 - 15	76	78
15 - 20	77	79
20 - 25	77	76
25 +	74	75

2. Commercial audience percent tends to grow during the evening and then decline at 10:30. Women show a somewhat different pattern. Women generally exhibit a slightly greater chance of seeing the commercial than do men. Teens are consistently lower than men. Children's levels of commercial exposure are substantially lower than others.

Commercial Audience as a Percent
of Program Audience

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Teens</u>	<u>Children</u>
7:30 PM	71	78	78	76	52
8:00 PM	73	80	86	66	52
8:30 PM	75	83	86	67	52
9:00 PM	78	86	88	69	55
9:30 PM	81	86	85	84	59
10:00 PM	82	87	83	80	64
10:30 PM	79	85	85	65	52

3. Commercial audience rose with rating level, but only for men.

Commercial Audience as a Percent
of Program Audience

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Teens</u>	<u>Children</u>
<u>Rating</u>					
Less than 10	77	82	86	68	60
10 - 14.9	76	83	83	75	52
15 - 19.9	77	85	86	71	56
20 - 24.9	77	85	86	75	52
25 +	77	86	84	70	39

4. Levels of commercial vary by program type between 64% and 99%, for total viewers. This range is even greater for demographic groups, but there is no consistency in the patterns among them.

Commercial Audience as a Percent
of Program Audience

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Teens</u>	<u>Children</u>
Format Varies	99	60	92	69	100
General Drama	87	100	89	69	68
Science Fiction	84	54	100	87	60
Gen. Variety	81	96	82	56	58
Sports Events	80	76	73	86	76
Mystery Drama	79	85	83	75	67
News	79	86	77	90	50
Feature Film	79	85	86	73	54
Musical Variety	78	62	83	72	53
Comedy "	77	85	84	66	51
Western Drama	77	81	86	73	53
Suspense Drama	76	77	80	71	63
Quiz/Give Away	76	47	76	93	57
Situation Comedy	74	85	89	72	50
Documentary	70	56	85	90	37
Adventure	64	77	79	57	44

5. There is no difference on average in the level of commercial exposure among the three networks.

Commercial Audience as a Percent
of Program Audience

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Teens</u>	<u>Children</u>
ABC	77	86	85	70	54
CBS	77	83	86	75	53
NBC	77	83	84	77	52

1968 Institute of Practitioners in Advertising/
Incorporated Society of British Advertisers
"Television Presence Research"

METHODOLOGY

The main objective of this study was to compare commercial audience data obtained with a specially designed diary to those obtained via coincidental telephone interviews. The latter were further compared to near-coincidental interviews covering viewing behavior for the hour preceding the telephone contact.

The diary and survey instruments were refined during two pilot tests conducted during 1967 and the early part of 1968. An Enumeration Survey was undertaken during May 1968 to develop two matched probability samples. Persons 16 and over in the Northern ITV viewing area were the sample frame. A geographically stratified sample was drawn of 5420 for the coincidental interviews and 789 for the diaries. The actual field work covered four weeks June 8 - July 5, 1968. 4866 completed coincidental interviews were obtained -- a completion rate of 90%. 547 completed diaries were collected, or 69% of those sampled. After checking and editing these data were weighted to correct for each individual's differential probability of selection. Then each sample was separately balanced to reflect the known demographics of the universe from which they were drawn.

Each diary covered one week with each day divided into two parts -- preceding or following 7:30 PM. Diaries were mailed; a new diary each week. For each program and commercial break during the day the diarist recorded their presence on a five point scale.

Since each coincidental interview would yield a much more limited amount of data than the diary it was necessary to concentrate these interviews on fewer points in time. Calls were restricted to four weekdays (omitting Mondays) and one weekend day (Saturday). These calls were made 2 minutes after each commercial break between 6:00 PM and 10:00 PM on each of the designated days for the same four weeks covered by the diary panel. The interviewer asked about the respondent's presence in the room during the immediately preceding break and then about the two previous breaks. For purposes of comparison to standard quarter hour audience data, the respondent was also questioned regarding his viewing for each of the four preceding quarter hours. The questionnaire then delved into commercial recall and activities other than fully attentive viewing during the preceding hour.

FINDINGS

1. Coincidental data and near-coincidental (one hour recall) data were found comparable. This enabled the combination of these data and, hence, the tripling of sample sizes for each observation. This finding begins to validate the near coincidental!

technique for the collection of commercial audience data. This finding was based upon a two-way analysis of variance, using only data from week two, for program parts, center breaks and end breaks by recency of break. The analysis exhibited no significant variation. This result should be used with caution. An examination of the means reveals an "eyeball" trend, the significance of which is not supported by the frail sample size. It remains to be seen if more robust samples would support this conclusion.

		<u>Recency of Interview</u>				
		<u>Most</u>	<u>Second</u>	<u>Least</u>		
<u>Program Parts</u>						
	Rating	20.1	19.8	21.1		
<u>Center Commercial Breaks</u>						
	Rating	15.8	17.5	19.6		
	% Commercial Audience	78	88	93		
<u>End Commercial Breaks</u>						
	Rating	14.9	14.6	13.7		
	% Commercial Audience	75	74	65		

- The diary developed different commercial audience percents than those with the strict coincidental. Further the quarter hour ratings obtained from the coincidental were in close agreement with the stand television audience data for the same region as collected by TAM (Television Audience Measurement limited). Looking back to the previous item it can be seen that the "error" which was deemed to invalidate the diary data is quite similar to the "insignificant differences" found between the results of the strict and "near" coincidentals.

<u>Commercial Audience As A Percent Of Program Audiences</u>		
	<u>Diary</u>	<u>Coincidental</u>
Center Break Commercials	93	78
End Break Commercials	81	75

Average Rating For Weekdays
6 PM - 9 PM

	<u>Diary</u>	<u>Coincidental</u>	<u>TAM</u>
Center Breaks	28.0	17.0	-
Program Parts Before and After These Breaks	30.0	21.9	-
Quarter Hours Including These Breaks	-	22.3	24.8
End Breaks	19.2	13.0	-
Program Parts Before and After These Breaks	23.8	17.3	-
Quarter Hours Including These Breaks	-	18.8	20.9

3. Using the coincidental data a fairly consistent level of commercial audience was found through the evening for adults, with end break level a bit lower than center breaks. The Housewife data, by comparison, is quite erratic. This may well be due to smaller sample sizes. Since these data are reported by half hour rather than hourly, as with adults, the actual sample size per cell is one quarter the adult level for a comparable time. Housewives exhibit the same general pattern as adults in that end breaks deliver lower levels of commercial audience than do center breaks. Furthermore, Housewife levels overall are generally lower than adult commercial audience levels.

Commercial Audience As A Percent
Of Program Audience
(Weekday Evenings)

<u>Adults</u>	<u>Housewives</u>	<u>Center Breaks</u>	<u>End Breaks</u>
6:00 - 6:59		74	73
	6:00 - 6:29	60	57
	6:30 - 6:59	72	68
7:00 - 7:59		78	77
	7:00 - 7:29	79	78
	7:30 - 7:59	84	49
8:00 - 8:59		80	73
	8:00 - 8:29	78	59
	8:30 - 8:59	67	70

(Cont'd)

Commercial Audience As A Percent
Of Program Audience
(Weekday Evenings)

<u>Adults</u>	<u>Housewives</u>	<u>Center Breaks</u>	<u>End Breaks</u>
9:00 - 9:59		79	71
	9:00 - 9:29	61	64
	9:30 - 9:59	85	69
Average 6-9		78	75
	Average 6-9	76	66

1972 McCANN-ERICKSON/IPC "THE
CHANGING WORLD OF MEDIA - THE
LEVEL OF PRESENCE AND ATTENTION
AT THE COMMERCIAL BREAK"

METHODOLOGY

Near coincidental personal interviews covering the last three commercial breaks were also used for this study. However, due to declining response over the less recent breaks only data for the most recent break were reported. Interviews were conducted between 4:55 p.m. and 9:30 p.m. on September 18, 1972 in the Granada television region. A two-way quota scheme was used controlling for two social classes and three age groups. Final results were weighted to match the known population proportions. 425 housewives were contacted. 79% said the TV was on at the time the interviewer knocked. This resulted in an average of about 35 respondents for each of 12 commercial breaks under study. The interviewer inquired as to the respondent presence, attentiveness, and non-viewing activities during the commercial break. Unaided commercial recall data were also gathered. Since program audience data were not collected, standard JICTAR quarter hour housewife audience data for the evening and region in question form the base for all commercial audience percents.

FINDINGS

83% of the program audience had the opportunity to see the commercial.

	<u>Percent Of Program Audience</u>
Present in room, viewed commercial	69
Present in room, during commercial	14
Commercial Audience	<hr/> 83
Not present in room during commercial	17

1974 JICTAR "TELEVISION AUDIENCE PRESENCE"

METHODOLOGY

Field work for this study was carried out on four Mondays and four Fridays beginning November 4, 1974. Interviews were conducted, in home, with 10,439 housewives and 1562 proxies, a response rate of 52% from the original probability sample of 23,040 households in the Lancashire ITV area. Interviews were conducted at quarter hour intervals from 5:30 p.m. to 9:30 p.m. Each respondent was asked about their set tuning and viewing behavior at the exact time of the call, during the quarter hour preceding the call and the three commercial breaks and intervening program elements prior to the call. Viewing behavior was measured on a five point presence scale. This enabled the collection of average minute program and commercial audience data on a coincidental basis and quarter hour program and commercial break audiences on a near coincidental basis.

FINDINGS

1. After comparing commercial audience data obtained for the break closest to the interview with data obtained from the two less recent breaks, the BMRB staff concluded that the data were comparable enough to combine. However, there is an obvious pattern of increasing commercial audience percent with decreasing recency of commercial break. So as to not cast any doubt on the following results only "most recent break" data was employed.

Housewife Ratings

	<u>Most Recent Break</u>	<u>Second Most Recent Break</u>	<u>Third Most Recent Break</u>
Program Adjacent to End Breaks	28.7	27.0	27.3
End Break Commercial	21.3	20.9	22.9
Commercial Audience Percent	74	77	84
Program Adjacent to Center Breaks	28.5	26.6	26.4
Center Commercial Break	21.8	22.9	23.0
Commercial Audience Percent	76	86	87

2. The primary purpose of this study was to determine if commercial audience percent varies significantly by time of day or day of week. Analysis of the data revealed that variations in commercial audience percent could be explained by the increase or decrease of program audience. That is, when program audience is growing, commercial audience is disproportionately low. When program audiences are decreasing, the commercial audience is very close to the average audience for the surrounding program parts. Equations were developed to reflect these relationships with "a minimum of unexplained variations." The largest discrepancy was three rating points.

Rising Audience

$$Y = 0.55 \cdot X_1 + 0.3 \cdot X_2 - 2.75$$

Falling Audience

$$Y = 0.36 \cdot X_1 + 0.57 \cdot X_2 + 2.0$$

Constant Audience

$$Y = 1.75X_1 - 1.04 X_2 + 4.25$$

Y = Commercial Audience

X₁ = Rating for preceding program part.

X₂ = Rating for succeeding program part.

1977 HOME TESTING PANEL "BEHAVIOR DURING
COMMERCIAL BREAKS IN LONDON ITV AREA"

METHODOLOGY

This study was conducted July 18th through July 22nd 1977 in the London area. Housewives were interviewed by telephone between 7:15 and 10:15 p.m. on weekdays. 1306 numbers were drawn from the telephone directory. Successful interviews were completed with 37% of the, or 481 in total. Calls were timed to commercial breaks to obtain coincidental measures of viewer behavior during commercials. Respondents were asked which program was being viewed just prior to the call. If she was watching ITV (275 of the 481), she was asked about her behavior during the break, the proportion of the commercial break seen and recall of brand names.

FINDINGS

Commercial audience percent is greater within program than at the break. Beyond this result, which is detailed below, this study explored the relationship between claimed attention to commercial and presence and behavior during the break. This analysis cast doubt on a respondent's ability to accurately assess their own attention to commercials.

Commercial Audience As A
Percent of Program Audiences

In Program	75
Between Programs	69
Average	71

1978 NEWSWEEK "EYES ON"

METHODOLOGY

This was a pilot study of three techniques for gathering advertising exposure data --- one for magazines and two for television. The data were collected from March 15, 1978 to April 12, 1978 in the Philadelphia ADI. Personal interviews were utilized for magazine advertising page exposure. Personal interviews utilizing a video tape of the previous evening's programming were employed for the "Television Recognition" technique. A telephone near coincidental covering the last commercial break prior to the call was the third technique used. Weekday evening television from 8:20 to 9:40 p.m. was the subject of both television techniques. In the case of the television recognition method, the programs of the top rated station were recorded. The same station was used for the near coincidental interviews. For both methods households were screened to determine if they viewed the test station five minutes prior and five minutes after the commercial break which had been pre-selected. One adult was randomly selected in each qualifying household and asked the following --

- . To recall the programming before and after the break
- . Was the channel switched during the break
- . Presence in the room during the break
- . Activities during the break

Of 1467 households contacted for the recognition technique, 156 interviews were completed. Of 1395 households contacted for the near coincidental, 283 interviews were completed. Raw results were weighted to correct for the differential probability of selection for individuals and to balance sample demographics to match the Age/Sex characteristics for the ADI.

FINDINGS

1. The recognition technique generally overstates commercial audience in comparison to the near coincidental measurement.
2. The near coincidental method found no significant variation in commercial audience between in program and between program announcement, nor among various demographic groups (age, sex, income) with the exception of educational attainment. Those

respondents who claimed any college education were exposed to advertising at a substantially lesser rate than the rest of the sample.

Commercial Audience As A
Percent of Program Audiences

	<u>Recognition</u>	<u>Near Coincidental</u>
Average	71	67
Between Program Commercials	83	65
In " "	63	68
Men	81	68
Women	65	66
Age 18-44	70	66
Age 45+	73	67
Family Income \$20,000 and over	66	68
Family Income less than \$20,000	76	68
No College	72	69
Any College	70	59

1979 NEWSWEEK "EYES ON TELEVISION 1980"

METHODOLOGY

This was a full scale implementation of the near coincidental pilot tested in 1978. A national multi-stage area probability telephone sample of individuals was drawn. Individuals in households with annual income of \$25,000 or more were over-sampled. Interviewing took place Mondays through Fridays during prime time hours, between October 29th and November 28th 1979. Additional interviews were conducted on Monday nights to provide a more reliable sample for comparisons of Monday Night Football to other programming. For the main sample 2714 households were contacted and 1505 useable interviews obtained --- 55%. Additionally, 3234 households were contacted to obtain the supplementary upper income sample. 760 qualified and provided complete interviews. The total sample then, was 2265. Weights were applied to adjust for oversampling first and then to balance the sample's demographics to the total U.S. population by sex, age, and region. The interviewer collected data as to the individual's viewing, channel watched, switched, presence in room, and activities engaged in during the 15 minutes preceding the call.

FINDINGS

1. Adults in upper income homes (\$35,000+) and with some college are more likely to remain in the room for the commercial. Men show a substantially higher incidence of commercial exposure than do women. Adults 35-49 were found to have a substantially lower level of commercial exposure than the average.

	<u>Commercial Audience As A Percent of Program Audiences</u>
Average	62
Household Income less than \$15,000	61
" " \$15,000 - \$24,999	60
" " \$25,000 - \$34,999	61
" " \$35,000 or greater	66
Any College	64
No College	60
Men	66
Women	58
Age 18-34	61
Age 35-49	57
Age 50+	65

2. Substantial variation was found in the incidence of commercial audience by program type. Sports programming outperformed all other formats.

Commercial Audience As A
Percent of Program Audiences

Monday Night Football	75
Sports Spectacular	80
Action/Adventure	52
Drama	68
Situation Comedies	65
Movies	53

- longer programs result in greater electrical pick-up and, by inference, more non-viewing activity
- the higher the program rating the greater the pick-up at the break and, by the same inference, the lower the commercial audience. Since the P term is in quadratic form the effect exhibits diminished returns at higher levels.

To illustrate these effects, brief political programs with measured audiences were assumed to elicit viewer behavior similar to commercials. With these measured results the relationship between electrical pick-ups and TV rating changes could be calibrated and the original equation re-expressed in terms of rating changes rather than pick-ups. This yields the following illustrations ---

- a 60 minute program with a 20 rating finishing before 10:00 p.m. will lose 4 rating points at the break. In now familiar terms --- a commercial audience percent of 80.
- another 60 minute program in the same circumstances but with a 40 rating would lose 14 rating points -- a commercial audience percent of 65.

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1983/84 TED BATES LTD., "THE TED BATES VIEWING STUDY"

METHODOLOGY

Ted Bates London employed the observer technique last used for the "spy" studies almost twenty years earlier. The advantage of this approach is that it permits the collection of many coincidental observations from each sample member and thereby produces a large amount of data for the analysis of variations by time, day, etc. Furthermore, since the entire panel provides observations for each viewing situation being measured the resulting samples for all situations are matched. In the standard coincidental this is left to chance.

A pilot study was fielded using college students over the summer of 1983 which confirmed the feasibility of the research technique. The full scale study followed over the 1983/84 Christmas vacation, excluding 12/24-12/27. 221 spies were enlisted in the London area. 72% (160) returned useable data. The students were to use a diary to record the viewing behavior of their parents during commercial breaks. For monitoring purposes the day was divided into five parts (up to 5 pm, 5-7 pm, 7-10 pm, 10-10:30, 10:30-close). For each break each of their parents' presence was scored on a five point scale. They also recorded other activities which their parents may have engaged in while viewing. Channel switching during the break was recorded as well. Data was gathered for almost 13,000 breaks and over 300 people.

All of the following commercial audience results are expressed as indices with the average commercial audience percent for each table serving as the base.

FINDINGS

1. In-program commercials (center breaks) consistently outperform out-of-program commercials (end breaks). Commercial audience incidence grows through the day until about 10:30, then declines.

	<u>Commercial Audience Index</u>	
	<u>Center Breaks</u>	<u>End Breaks</u>
Up to 5 pm	98	93
5 - 7 pm	97	94
7 - 10 pm	104	97
10 - 10:30 pm	112	108
10:30 - close	103	93
Average	103	96

2. Women had a lower incidence of commercial exposure generally but not with strict consistency.

<u>Center Breaks</u>	<u>Commercial Audience Index</u>	
	<u>Men</u>	<u>Women</u>
Up to 5 pm	99	91
5 - 7 pm	94	95
7 - 10 pm	100	102
10 - 10:30 pm	111	106
10:30 - close	102	98
Average	101	99

<u>End Breaks</u>	<u>Commercial Audience Index</u>	
	<u>Men</u>	<u>Women</u>
Up to 5 pm	102	93
5 - 7 pm	99	97
7 - 10 pm	100	102
10 - 10:30 pm	113	113
10:30 - close	99	94
Average	101	99

3. Men tend to greater incidences of commercial exposure on weekends than weekdays. The pattern for women is inconsistent.

	<u>Commercial Audience Index</u>			
	<u>Men</u>		<u>Women</u>	
	<u>Weekdays</u>	<u>Weekends</u>	<u>Weekdays</u>	<u>Weekends</u>
Up to 5 pm	102	99	93	88
5 - 7 pm	94	102	96	92
7 - 10 pm	98	107	102	102
10 - 10:30 pm	114	116	108	119
10:30 - close	100	109	97	96
Average	101	105	100	97

4. When respondents are grouped into tertiles by the total amount of ITV1 viewing they do, it can be seen that heavy viewers exhibit a tendency toward less commercial viewing. When only end breaks are considered, medium and heavy viewers reveal lower commercial exposure indices than light viewers.

<u>ITV1 Center Breaks</u>	<u>Commercial Audience Index</u>		
	<u>Light</u>	<u>Medium</u>	<u>Heavy</u>
Up to 5 pm	98	97	93
5 - 7 pm	90	101	94
7 - 10 pm	99	105	98
10 - 10:30 pm	110	105	108
10:30 - close	106	101	95
Average	101	102	98

<u>ITV1 End Breaks</u>			
Up to 5 pm	103	95	96
5 - 7 pm	100	94	100
7 - 10 pm	103	104	95
10 - 10:30 pm	110	114	110
10:30 - close	101	90	100
Average	103	100	99

5. Substantial variation is found in commercial audience index across program type. To isolate the effect of a single program on each break only center breaks were tabulated for this analysis.

	<u>Commercial Audience Index</u>
News, current affairs	106
Serials	104
Series	102
Films	101
Action	99
Quiz	99
Situation Comedy	99
Drama	98
Light Entertainment	97
Sports	91

1983 MAGAZINE PUBLISHERS ASSOCIATION

"CHANGING CHANNELS"

METHODOLOGY

A telephone near coincidental method, similar to that employed twice by Newsweek was the basis of this study. Adults 18+ living in homes passed by cable in the following four localities comprised the universe ---

- . Albany/Schenectady/Troy, New York
- . Lansing, Michigan
- . Charleston, South Carolina
- . San Diego, California

A multi-stage probability sample of telephone homes was drawn yielding 3,756 interviews for the 30 day period, October 22nd through November 20, 1983. Interviews were conducted between 7:45 and 10:00 pm each evening. A single adult was randomly selected in each household and asked about their television tuning, viewing, and switching during the preceding 15 minutes. The respondents presence in the room during the commercial break was also ascertained. The interviewer then moved on to the topic of magazine readership on the previous day. These data were used in comparison to the TV data. The coincidental television data had to be weighted to account for the differential probability of selection of each adult chosen. Further weighting was applied to bring sample age/sex characteristics into line with the universe.

FINDINGS

The incidence of commercial exposure is 10% lower in cable homes than in non-cable homes due entirely to greater levels of channel switching in cable homes.

	<u>Non-Cable Homes</u>	<u>Cable Homes</u>
<u>At The Time of The Commercial:</u>		
100% of those in room all the time	61.2	61.2
50% of those in room part of the time	9.5	8.5
Total In Room During Commercial	<u>70.7</u>	<u>69.7</u>
100% Of Those In The Room All The Time Who --		
Switched channels	4.3	8.8
Turned set off	3.2	4.0

(cont'd.)

	<u>Non-Cable Homes</u>	<u>Cable Homes</u>
--	----------------------------	------------------------

50% Of Those In The Room Part Of
The Time Who ---

Switched channels
Turned set off

1.8

1.5

0.9

0.5

Total Loss Due To Switching:

10.2

14.8

Commercial Audience Percent:

60.5

54.9

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