

# The Business Side of Television

Factual data based on NBC's first nine months of public television service, including opinions and preferences gathered from the viewing audience. Gathered to show the direction in which commercial television service is headed, hence of interest to all those who have a stake in the new art

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IT is practically a universal thought that the day of technically successful television broadcasting is here, but the question remains, "Is television as a broadcast service and a business venture getting anywhere?" Over the years, the purely technical engineering phases of television have been written about, photographed, and marveled at. On the other hand, little or no discussion or data have been available relative to television broadcasting as a business. This is regrettable, because the business and economic problems of television are in many ways more difficult to ponder than the technical. The primary reason for the lack of this type of information, indispensable to the commercial engineer, has been the lack of exploration in the basic operations of regularly scheduled television broadcasting.

Today we may look back on many months of actual experience in regular television broadcasting in the New York Metropolitan Area. The extent and variety of equipment used should make the data gathered from this experience vital to all interests presently active and to those considering participation in some phase of television. In fact, analysis of existing experience in methods of broadcast operation can be used to considerable advantage in guiding studies on the amount and nature of equipment necessary for a given purpose. For instance, in the planning of a television broadcast plant in a given market, it should be beneficial to know what portion of the total hours on the air can be depended upon to be furnished by motion picture film, by direct pick-up from the studio, and by portable equipment in the field. Also, it is just as important to know what the audience is likely to think of the

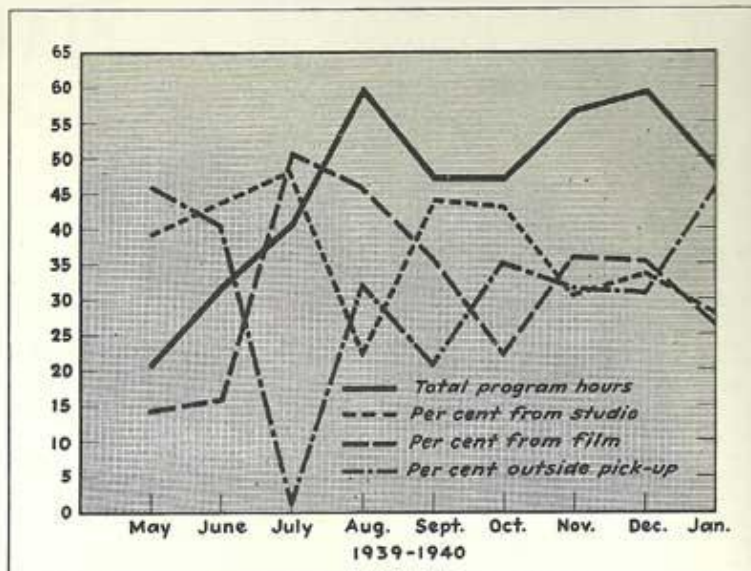


Fig. 1—The extent of the service: Number of program hours by months and percentages of origination from studio, film, and outside pick-up

program fare thus furnished, and to know the cost of furnishing service by the different methods of program origination.

Over a period of months, the National Broadcasting Company has explored this new field, and the discussion which follows is based on data gathered over this period. However, before going to facts and figures, it may be well to review some of the fundamental philosophies associated with broadcasting as a public service, in order to justify the nature of the particular data presented.

#### The Broadcasting Objective

The objectives of television broadcasting (and of sound broadcasting as well), are to increase the size of the audience, and to endeavor to establish more and more of the audi-

ence's good-will. These are the vital objectives because the larger the audience and the more good-will a station enjoys, the more successful is that station as an advertising medium—whence it derives its subsistence. As in all business it follows, then, that one of the most important considerations for operation becomes: What is the lowest practical unit cost of creating this good-will?

To reduce the unit cost of good-will, it is necessary to reduce the cost per hour of programming. Also, the unit cost of good-will may be reduced by increasing the audience acceptability of programs, which automatically increases the number of receivers in the field, and the average number of viewers per receiver. Of course there are additional factors, such as the price of receivers, which have much to do

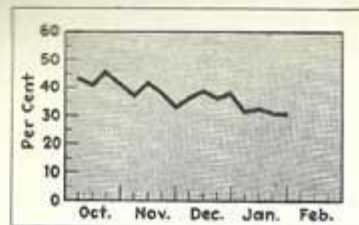
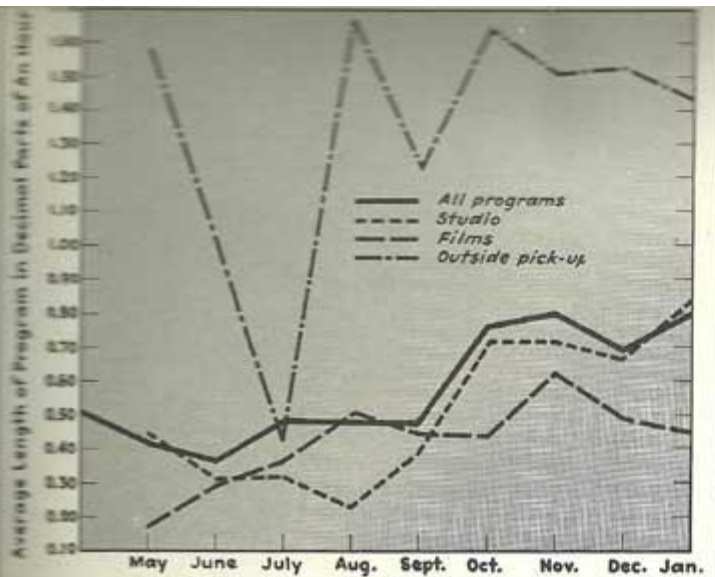


Fig. 3—Audience cooperation: Percentage of listeners who return the postcards with comments on the week's program schedule

Fig. 2—Left, the length of individual programs, which show a definite trend toward longer programs, averaging about three-quarters of an hour

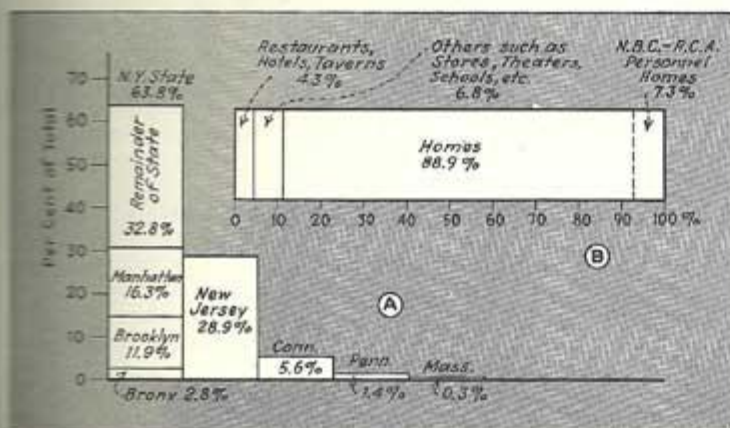


Fig. 4—Distribution of receivers, geographically and by type of establishment. Data revealed by questionnaires circulated to the audience

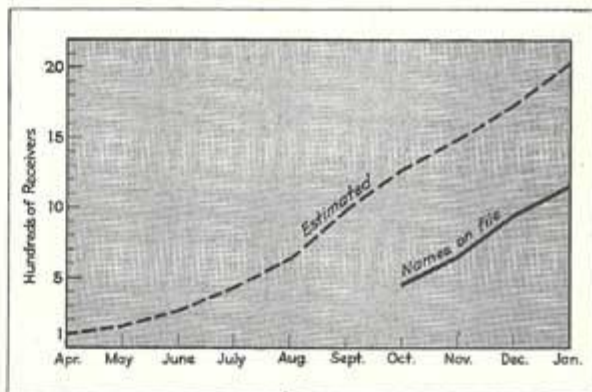


Fig. 5—The size of the audience: The solid line shows the number of names in the N.B.C. file; the dotted line gives the probable actual number of receivers

with the audience size. Here, however, only factors associated particularly with program service will be discussed. Three such factors which immediately suggest themselves, upon consideration of the "unit cost of good-will", are: size of the audience, good-will, and costs.

The good-will of the audience is a function of the number of programs, the program entertainment and educational value, the technical quality of reception, the program schedule punctuality, and additional audience considerations in the form of schedule publication and reliability. Keeping cost records of operation presents no novel problem. However, the form of such records is important if they are to permit swift and accurate analysis.

The first question, then, is the number of scheduled program hours. Regular program service for the

public started April 30, 1939, with the broadcast of President Roosevelt's address at the opening of the New York World's Fair. Figure 1 shows the number of program hours broadcast each month since that date. The total of 409.8 hours is an average of a little more than ten hours a week since the beginning of service. The ten hour service is rendered on a schedule of two hours a day, Wednesday through Sunday, an hour in the afternoon and an hour in the evening.

The second question is the value of the program material. The programs have consisted of live talent studio shows, outside pick-ups, and film. The breakdown of the origination of the programs for the nine months is shown in Fig. 1. It may be noticed from the curves that early operation was more or less a catch-as-catch-can proposition on

program material. However, starting in October, there is a gradual smoothing-out of program scheduling. Figure 2, showing the average length of programs by type of program origination, indicates also the "cut" and "try" period for the first six months, followed by a more uniform operation.

During the first nine months of programming, the watchword had been "try everything". For the purposes of analysis, all programs are broken down into twenty-nine classifications. For summary purposes Table I shows the breakdown of the entire nine months' program material by only the nine major classifications. From the table it can be seen that News, Special Events, and Current Events, at an average of 35.7 per cent; Drama at 29.3 per cent; and Educational at 15.7 per cent lead the other classifications.

These three account for 79.5 per cent of the total program fare. News, Special Events, and Current Events are generally covered by portable equipment in the field, Drama by the live-talent studio set-up, and Educational chiefly by film.

#### Weekly Program Mailing Cards

Since the week of October 1st the National Broadcasting Company has offered to send weekly television programs to all television receiving set owners who submitted their names and addresses by mail. A letter was mailed with the first program schedule requesting data on the type of receiver being used, etc. and requesting comments at any time. The three objectives in mailing out the program schedules were to compile a file of receiver owners, to obtain a means of studying audience reaction to various types of programming, and to create a "Television Family" feeling with the audience, i.e. to foster the idea that the National Broadcasting Company is studying to match its television programs as closely as possible to the desires of the audience. These objectives have been realized satisfactorily, and much useful data has resulted, including information here presented.

Figure 5 shows the number of receivers recorded monthly, since the beginning of the survey in October, 1939. On a few occasions, by comparing the number of names in the file with a complete list of receiver owners known to be in a given area as submitted by receiver distributors in the area, it has been possible to estimate quite satisfactorily the actual number of receivers in the entire area. The dotted line of Fig. 5 was plotted, using these statistical projections. On October 8th, it was estimated that one-fourth of the total names were on file; on November 3rd about one-third the total; and on January 5th, about one-half. The figure of 100 receivers at the beginning of May was an estimate current in the trade at that time.

From a survey conducted the first week in February it was found that on an average there were 2.4 present at receivers in homes during the daytime broadcasts and 5.4 present during the evening. In hotels, stores, and taverns, average figures were 17.6 in the daytime, 31.4 in the evening.

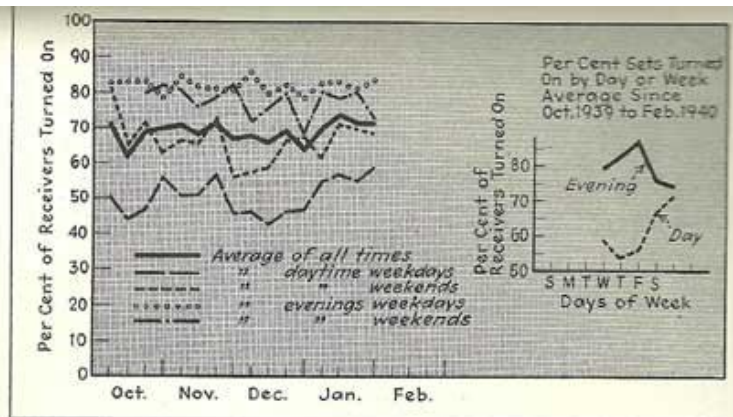


Fig. 6—Percentage of the viewing audience according to the time of the day and the part of the week, as well as by individual days

Using these data on the estimated number of receivers in the area, the potential daytime audience is 9,500 and the evening audience is 19,000.

As of February 9th, Fig. 4 shows the distribution of receivers in the New York Area by type of establishments in which receivers are installed, and the geographic distribution of receivers. The inclusion of the states of Connecticut, Pennsylvania, and Massachusetts in the chart may seem unusual, because of the reception this involves of television images from the Empire State Building beyond the horizon distance of about 50 miles. The receivers included in the geographic survey which are beyond the horizon distance can be assumed to be located in very favorable, high terrain or using special receiving antenna installations, or both. In some instances, special receiving equipment may be in use as well. At these extreme distances it can be safely assumed that the reception cannot be compared as to technical quality, with the reception on receivers located within the dependable coverage area—the horizon distance.

While a discussion of the distribution of manufactured brands of re-

ceivers may be a digression from the purpose of this paper, it is included to indicate the types of receivers, i.e., size picture, etc., which are in the hands of the audience. Table II offers data by manufacturer and by tube sizes for all receivers other than those in the hands of dealers. Table II shows the percentage distribution of all receivers by manufacturers, also in homes only, and in taverns, hotels, restaurants, and other establishments combined. These data must be tempered with the fact that they represent only 40% of the total receiver installations recorded in file, this percentage being the portion of the file for which these facts have been found.

#### Measurement of Good-will

The following data deal with the measurement of the good-will developed over the nine months of operation:

During the first week of October, 1939, when the first batch of program schedules was mailed to the receiver owners, about half of the mailing list responded by mail to a letter which accompanied the schedule requesting comments and sug-

TABLE I—Monthly Breakdown of Program Material

Major Program Type	PERCENT OF TOTAL									
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Monthly Aver.
Children's	.....	.....	.....	.4	.....	.5	.4	1.5	.....	.3
Dancing	4.0	.9	.8	.....	.....	.....	.....	.4	.....	.7
Drama	16.5	13.0	43.6	35.3	34.9	27.4	34.1	31.9	26.8	29.3
Educational	7.3	21.6	19.7	16.2	19.5	20.9	15.6	15.2	5.6	15.7
Miscellaneous	1.8	4.5	12.6	1.2	.6	1.5	.3	.8	.5	2.6
Music	4.1	4.0	7.6	4.4	3.9	1.2	1.8	1.3	1.2	3.3
News — Special & Current	49.2	44.2	6.0	39.3	29.8	32.0	32.5	38.2	49.7	35.7
(Sports)	(21.6)	(11.2)	(.4)	(27.6)	(14.5)	(28.5)	(13.9)	(27.7)	(38.1)	.....
Variety	17.1	11.8	9.7	3.2	11.3	16.5	16.3	10.7	16.2	12.4

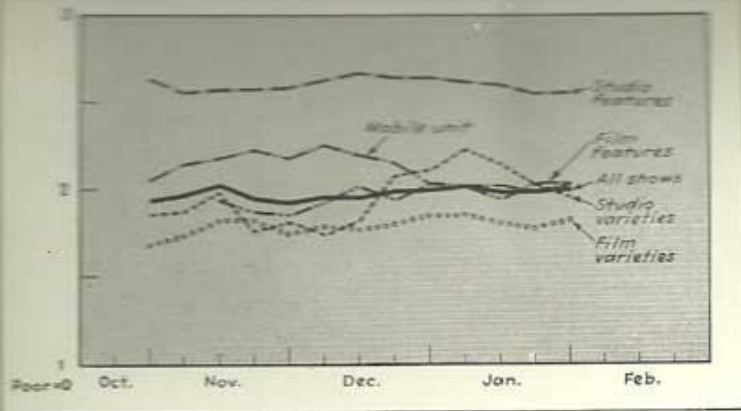


Fig. 7—Audience reaction: On the basis of 0 poor, 1 fair, 2 good, and 3 excellent, the average program rates as good

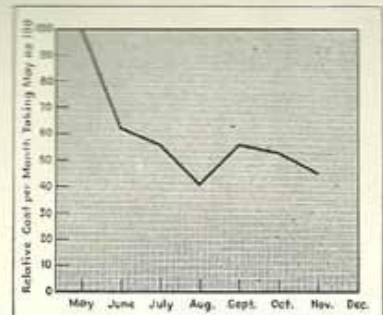


Fig. 8—Program costs have decreased rapidly, roughly in inverse ratio to the number of program hours

gestions. Some of the replies were two or more pages long, containing suggestions and thoughts aimed to help match programs more closely to the various individuals' desires.

In addition to this initial indication of interest, Fig. 3 shows the percentage of returned audience reaction questionnaires for the 16 weeks for which data are available. It is interesting to note that not only has the percentage of return been quite consistent, but also that the high average of 37.5 per cent return is quite unusual for a weekly mailing of this nature. It is practically always the case that should there be a deviation either in timing or in program content from the released schedule, phone inquiries and letters promptly become reminders of the sincere and active interest of the television audience.

Since the start of analysis in October on the amount of use of re-

ceivers, by the audience, there has been a gradual increase in the average percentage of receivers in use during broadcasts. Figure 6 shows these percentages along with breakdowns of these figures for day and evening weekdays and weekends. The chart in the inset shows the consistency of audience attendance by days of the week.

Using the reaction questionnaire attached to the weekly program schedule, every receiver owner has an opportunity to voice his opinion as to the quality and acceptability of each individual program broadcast. In offering this opportunity to the television audience, and keeping operation flexible, programs can readily be trimmed as closely and as quickly as possible to the majority vote of the audience. The results of this weekly reaction survey forms a very sensitive measuring rod of the status of the audience good-will from

week to week. A compilation of the findings from these weekly surveys is shown in Fig. 7.

For analysis purposes, weightings of 3 for excellent, 2 for good, 1 for fair, and 0 for poor, are used. The audience rating averages since October 8, 1939 to date for the five types of programs are:

Studio Features .....	2.61
Mobile Unit .....	2.07
Film Features .....	1.98
Studio Varieties .....	1.93
Film Varieties .....	1.78
Average of all programs to date .....	1.97

In addition to programs broadcast for the home audience, a certain amount of "Test Signal" for television dealers and service men, was furnished, to aid in the work of receiver installation and maintenance. The amount of this signal plus the regular program hours amounted to 1050.27 hours for the nine months, or an average of 26.26 hours a week on the air for the industry to test, install, and service television receivers in the field.

#### What Price Good-Will?

Having an interested audience and generally pleasing it with a given program fare is all well and good, but at what price?

In connection with costs, it is always a consideration whether organization, administration, and cost control can progressively show continued efficiency. The following facts indicate a favorable realization of improving efficiency.

1. The costs of operation are remaining quite constant from month to month, but the end results, the average audience rating of pro-

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TABLE II—Manufacturers Distribution of Receivers in Homes

Manufacturer	SIZE OF PICTURE TUBE				Total
	5 inches or less	7 inches	9 inches	12 inches	
1 .....	16.6	....	26.9	56.5	35.2
2 .....	77.4	....	5.7	16.9	17.2
3 .....	....	....	3.4	96.6	9.4
4 .....	4.5	....	40.9	54.6	7.1
5 .....	100.0	....	....	....	6.2
6 .....	25.0	....	50.0	25.0	2.6
7 .....	....	100.0	....	....	1.9
Home made .....	31.1	17.8	20.0	31.1	14.6
13 Others .....	16.7	5.6	22.2	55.5	5.8
	31.8	4.9	19.2	44.1	100.0

Manufacturers Distribution of Receivers in Taverns, Restaurants, Hotels, Stores, Schools, Theaters, etc.

Manufacturer	SIZE OF PICTURE TUBE				Total
	5 inches or less	7 inches	9 inches	12 inches	
1 .....	11.1	....	16.7	72.2	45.0
2 .....	100.0	....	....	....	10.0
3 .....	....	....	27.3	72.7	27.5
All others .....	....	14.3	14.3	71.4	17.5
	15.0	2.5	17.5	65.0	100.0

## Business of Television

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grams, and the number of program hours have been steadily increasing.

2. Considering the fund of experience and experienced personnel being accumulated month by month, each dollar can be spent more wisely and effectively.

3. Basing one version of "Efficiency" on the average cost per program hour on the air gives the story month by month as shown in accompanying Figure.

It can be seen that the cost per hour in November was 45 per cent of that in May. Of course, there are many reasons for this, besides the one of getting more experience and knowledge of operation. For instance, one other factor is that of utilizing a given "Unit Crew" for the maximum number of hours possible in a work-week, etc.

Of paramount importance is the question, "How is television doing in respect to possibilities of supporting itself as a business venture?" More than five years of active analysis and nine months practice in operation have established certain data. Theorizing for the future, once nebulous but now being nurtured by experience and time, is becoming clearer and more practical.

N.B.C. operated during the past nine months, as did all television stations in the country, on an experimental license. However, for three and one-half years, prior to public service in April, 1939, a considerable amount of research was conducted on the advertising aspects of television. In fact, programs thought suitable for advertising purposes, involving products of many different industries, were tried, using both live-talent studio shows and regular commercial film. A considerable number of manufacturers and advertising agencies cooperated in the production of these shows.

All this, naturally, was done anticipating that television would eventually become an advertising medium. N.B.C. could not plan an immediate sale of its television time as is done in sound broadcasting.

In the meantime it busied itself creating as much program variety as possible in order to build a fund of experience which, it is hoped, will be of much value at such a time when television broadcasting is commercial in the same sense that sound broadcasting is at present.

A point has been made to keep advertisers and advertising agencies constantly informed on the progress of television broadcasting. This service is and has been in the form of lectures, letters, monographs, personal meetings, and an open invitation to all qualified advertising men to visit the television plant. This policy reaped excellent response, with the result that there is now a considerable file of information on the advertising potentialities of television broadcasting.

One phase of cooperation with the advertising industry was to issue an invitation to all advertising agencies to appoint a liaison post in each agency to act as a clearing house for the agency on television matters with N.B.C. There is now quite a long list of agencies who have responded and have been working with the N.B.C. in this manner.

Along with this open policy with the advertising industry, any and all were invited to work with the N.B.C. in putting on shows using facilities at no cost. The results of this offer are self-evident from the facts that 73 different advertisers have cooperated with N.B.C. on 148 individual programs in the first eight months. The 73 advertisers represent seventeen of the major industries. The experimental advertising shows have been broadcast using all three types of program facilities and accounted for about 12 per cent of the total program time.

A word might be said here for the wisdom of permitting a more or less unhampered experimental activity, because by allowing the technique of presenting advertising programs to grow hand in hand with the technique of presenting sustaining programs, the development of a rounded program service for the public is created, instead of a patched-together program fare, which could have been the case if television were suddenly to become commercial without the actual experience in advertising show building over the same length of time as that devoted to the study of sponsored show building.