Abstract of Thesis
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ABSTRACT OF THESIS

SURVEY OF
EXTENSION RADIO PROGRAMS IN
VIGO COUNTY, INDIANA

Submitted by Charles Leland Brown

In partial fulfillment of the requirements
for the Degree of Master of Education
Colorado

Agricultural and Mechanical College
Fort Collins, Colorado

August 1949

COLORADO A. & M. COLLEGE FORT COLLINS, COLORADO 78.788 A O 1949

In recent years several studies have been made concerning the effectiveness of the Agricultural Extension Service radio programs in several states and counties in the United States. These studies have considered various phases of evaluation, such as the radio programs, the listeners, and the results. The writer has been interested in constantly improving the Extension Service radio programs in Vigo County, Indiana, for nearly 10 years. Prior to 1946, the time and length of these programs in Vigo County were changed several times by the radio station management. Since 1946, after a brief study was conducted for the radio station, the broadcasts have been at 12 noon to 12:05 P.M., Monday through Friday. The desire for the constant improvement of these programs prompted this study.

The problem

What recommendations might be made for the improvement of the Extension Service Radio Programs for farm people in Vigo County, Indiana?

<u>Problem analysis.--</u>In order to aid in the answering of the problem question, the following broad sub-questions are presented:

- 1. To what extent do farm people listen to the present programs?
- 2. What types of programs do farm people prefer?
- 3. What benefits do farm people receive from the programs?

Delimitation. -- This study has been limited to personal interviews of 110 farm men and 110 farm women, selected at random from the farms of Vigo County.

Background

From 1933 to the present there has been a continuous daily County Extension Service radio program in the county. Since February, 1935, practically all of the programs have originated from the Vigo County Extension Office through the remote control facilities furnished by radio station WBOW. During the past 16 years over 4800 radio programs have been presented by the County Extension staff.

Methods and Materials

In planning this study, the farm youth were omitted because they are in school eight and one half

months during the year and do not have the opportunity to listen to the County Extension Service radio programs regularly.

Procedure

The personal interview method was used in this study. Farm and home visits were made by the interviewers who worked in teams of two. The teams were divided so that a woman worker could interview the farm woman and a man worker could interview the farm man.

Sampling

This survey includes 110 men and 110 women.

Because of the large urban population which covers
practically all of Harrison township, that township was
excluded from this study. A map of the county was secured
and 22 sampling areas were selected. The Associate
County Agent Leader of Indiana, selected the areas and
marked the starting points on the map. Beginning at
each of the starting points, the interviewers stopped at
the first five farmsteads in each area. In cases where
the farmer or wife, or both, were not at home the next
nearest farmstead was used to complete the sample in a
particular area.

Personal interview survey forms

Two forms were used in conducting the personal interviews, one for farm men and one for farm women.

In general these forms included: age, education, sex, amount of listening, program preference, and result measurement.

Summary and Concluding Statements

Summary of findings as shown by survey sample

In consideration of the inventory of radios on the farms, it was found that over 98 per cent of the farm homes had radios. There were, on an average, 1.8 radios per farm. The farm men 60 years old and older reported fewer radios than any other age group. More radios were located in the living room than in any other place.

It was found that 77.3 per cent of the farm men and 80.9 per cent of the farm women have listened to the programs at least once. Over half of the non-listeners were 50 years of age or older. On the basis of projected daily average listening, it was found that 35.8 per cent of the farm women and 16.5 per cent of the farm men listened daily. The noon hour was the most frequent choice for the time of the broadcasts. The average grade attained in school by the farm men was 9.4 and the farm women 10.0

In consideration of subject matter for the radio programs, both the farm women and farm men as a whole preferred recommended practices. However, the farm women under 30 years of age preferred programs on which meetings

were announced, while the farm women 60 years old and older preferred programs that told about the doings of other people.

County Extension Agents were preferred for the presentation of the broadcasts, except by the farm men under 40 years of age. Both farm men and farm women of all age groups preferred programs of at least 10 minutes duration. The farm men listeners preferred the one voice type of presentation, while the farm women listeners did not indicate a great deal of difference between one voice, interview, or forum programs.

Only a small percentage of the farm listeners indicated that they took some direct action as a result of the broadcast programs. However, approximately 25 per cent of the farm men and 18 per cent of the farm women stated that they had attended a meeting that was announced on the County Extension Office radio program.

Concluding statements

This study has revealed that in the past the Extension Service radio programs in Vigo County, Indiana, have been rather effective. When only one program is given each day, the noon hour is preferred by the highest percentage of farm men and farm women. If additional programs were planned for early morning and evening, more farm people might be reached by the programs. It is pleasing to note that a fair percentage of farm people

listen daily when there are such competing programs as: the WLS Dinner Bell Program and Baukhage over WTHI.

It is believed that the Extension Service radio programs could be improved by lengthening the noon program to 10 minutes. A higher percentage of the programs could be directed to the farm women because more of the women listen regularly than do the farm men. The programs should be planned for farm people under 60 years of age, keeping in mind the ninth or tenth grade educational level.

The Extension Service radio programs should frequently be evaluated by all possible and practical means in order to find ways of improving the programs in the county.

The following proposals are made for the improvement of the Extension Service radio programs in Vigo County, Indiana.

- 1. If it is possible, lengthen the daily programs to at least 10 minutes.
- 2. Plan programs for the farm people under 60 years of age.
- 3. Present a higher percentage of programs that are of interest to the farm women.
- 4. More farm people might be reached if additional programs were planned for the early morning and evening.

- 5. Present programs at about the ninth or tenth grade level.
- 6. Evaluate programs frequently so that they may be improved.

Suggestions for further study

Since it was impossible to make a complete study the following suggestions are made for future study:

- 1. Survey of Vigo County, Indiana, Extension Service radio programs in surrounding counties.
- 2. The extent that other radio programs compete with the Vigo County, Indiana, Extension Service radio programs.
- 3. Methods of measuring the effectiveness of Extension Service radio programs through the development of valid and reliable evaluation criteria.
- 4. The possibilities of the use of television for County Extension Service work.

COLORADO A. L. M. COLLEGE FORT COLLINS, COLORADO

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OF I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY	
SUPERVISION BY CHARLES LELAND BROWN	
ENTITLED SURVEY OF EXTENSION RADIO PROGRAMS IN VIGO	
COUNTY, INDIANA	
BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE	
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Dean of the Graduate School	

Permission to publish this thesis or any part of it must be obtained from the Dean of the Graduate School.

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Chapter I INTRODUCTION

In recent years several studies have been made concerning the effectiveness of the Agricultural Extension Service radio programs in several states and counties in the United States. These studies have considered various phases of evaluation, such as the radio programs, the listeners, and the results. The writer has been interested in constantly improving the Extension Service radio programs in Vigo County, Indiana, for nearly 10 years. Prior to 1946, the time and length of these programs in Vigo County were changed several times by the radio station management. Since 1946, after a brief study was conducted for the radio station, the broadcasts have been at 12 noon to 12:05 P.M., Monday through Friday. The desire for the constant improvement of these programs prompted this study.

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Background

From 1933 to the present there has been a continuous daily County Extension Service radio program in the county. Since February, 1935, practically all of the programs have originated from the Vigo County Extension Office through the remote control facilities furnished by radio station WBOW. During the past 16 years over 4800 radio programs have been presented by the County Extension staff.

Chapter II REVIEW OF LITERATURE

Extent of farm listening

There is a wide variation in the methods of reporting the extent of farm radio listening in the varicus extension studies. In Allen county, Indiana, Johnston (2), 1942, found that 30 per cent of the farm folks heard the county extension program daily or every other day. In Ward county, North Dakota, 94 per cent of the farmers had heard the county agent and 81 per cent of the homemakers had heard the home demonstration agent, according to Crile (1), 1945. The United States Bureau of Agricultural Economics (8), 1946, reports that approximately two thirds of the farm people who have radios listen to farm programs. During the period of a year nearly one half of the farmers and over one half of the homemakers in three Pennsylvania counties listened to the county extension broadcasts, Reist (5), 1948.

Several studies revealed that the noon hour was the best time of day for farm and homemaking programs, (5), (6), and (7), 1948. In the WABI Radio Study (10), 1948, the best listening time was between 7:00 and 8:00 o'clock in the evening and the second best listening time

was the noon hour.

In Pennsylvania, full time farmers and their wives were the principal listeners to agricultural and home economics broadcasts as reported by Reist (5), 1948. While in Texas (7), 1948, more women than men reported they listened to extension broadcasts. A greater number of extension broadcast listeners than any other age group were between the ages of 30 and 39 years and the median grade attained in school for the listeners was the 8th grade for the men and the 10th grade for the women in the WABI Radio Study (10), 1948.

Program preference of farm people

In general, according to several studies, farmers and farm women prefer the interview type or the informal type of farm broadcast. Johnston (2), 1942, found that 68.7 per cent of the farmers and 75.3 per cent of the homemakers in Allen county, Indiana, preferred the extemporaneous type of broadcast program. In Ward county, North Dakota, Crile (1), 1945, found that a large majority of the rural listeners preferred the interview style of presentation. According to the U.S. Bureau of Agricultural Economics (8:ix), 1946, "Most rural listeners seem to take radio programming for granted." It has been pointed out by Schmitz (6), 1948, that Indiana farm homemakers are interested in hearing market reports on poultry

and eggs as well as home economics club news by the straight talk method. In contrast the farmers are interested in discussion topics in every field of agriculture. The most popular type of presentation in Maine was the interview, <u>WABI Radio Study</u> (10), 1948.

Benefits received

There are many ways in which farm radio broadcasts have been evaluated as to results and benefits. As
a direct means of influencing farmers and farm women to
adopt recommended practices, radio does not seem to rank
as high as other methods. However, in any case, it would
seem that a great many things would have influence in the
adoption of new and recommended practices. Farm papers,
meetings, bulletins, calls by salesmen, and visits with
neighboring farm families would seem to have a great deal
of influence, in addition to radio, in the adoption of
recommended practices.

Among the direct sources, farmers ranked radio low in Allem county, Indiana, in the adoption of recommended practices, Johnston (2), 1942. Thirty eight per cent of the farmers and 45 per cent of the homemakers were reached by the Ward county, North Dakota, extension broadcasts, who otherwise had never participated in extension activities, Crile (1), 1945. About 25 per cent of the women and 10 per cent of the men reported they had taken notes, while one half of the men and one fourth of the

women phoned, wrote, or called the Ward county extension office.

Radio owners felt that they would miss radio very much if it were inaccessible to them, according to the U.S. Bureau of Agricultural Economics (8), 1946.
Radio owners also valued radio highly as a source of news and other information and as a source of entertainment and company.

Lazersfeld and Field (3:71), 1946, states,
"That the people who are more susceptible to radio education are those who need it less." They mentioned that
31 per cent of the people surveyed thought that radio added to their practical information on agriculture and homemaking.

In Pennsylvania, Reist (5), 1948, pointed out that almost as many farmers were reached through radio as were reached through farm meetings and organizations and more than one half of the women were reached through radio. "Taking Action" was considered as phoning the county agent, writing him, requesting a farm visit, calling at the office, or attending a farm meeting. In three counties included in the study, 48 per cent to 82 per cent of the farmers took some form of action. It was also pointed out that radio was a very important means of maintaining good will among farm people. According to the WABI Radio Study (10), 1948, only 12 per cent of the farm families

requested information as a result of the extension radio broadcast. In Texas (7), 1948, radio ranked third, next to farm journals, and neighbors and friends as a source of new ideas.

Summary

- l. The extent of farm listening to extension broadcasts seems to be fairly good, according to other extension radio studies.
- 2. In several studies the noon hour was given first choice by the listeners for farm and home making programs.
- 3. One study indicated that the largest group of farmer listeners is from 30 to 39 years of age.
- 4. From the findings of others, the interview, informal and extemporaneous types of presentation seem to be some of the most popular types of extension radio programs for rural listeners.
- 5. Radio is one of a number of means which aid in the adoption of new ideas and recommended practices.
- 6. "Taking Action" as a result of an extension broadcast seems to be one way of evaluating the effectiveness of the extension radio program.

Chapter III METHODS AND MATERIALS

In planning this study, the farm youth were omitted because they are in school eight and one half months during the year and do not have the opportunity to listen to the County Extension Service radio programs regularly. Another reason for eliminating them from this survey was because of a study conducted by Murphy (4), in 1941. Her study dealt with the effectiveness of radio in 4-H club work and it pointed out that only a small percentage of the 4-H club members listened regularly to the 4-H broadcasts.

Procedure

The personal interview method was used in this study. The interviews were made during April and May, 1949. Farm and home visits were made by the interviewers who worked in teams of two. Four teams of interviewers were used. They included: the Associate State County Agent Leader, Assistant State Leader of Home Demonstration Agents, Vigo County Home Demonstration Agent, Vigo County Assistant County Agent, County Extension Office Secretary, County Home Economics Club Council President, Vocational Agriculture Teacher, the County Agent and his wife. The

teams were divided so that a woman worker could interview the farm woman and a man worker could interview the farm man.

Sampling

This survey includes 110 men and 110 women, or about five per cent of the farm men and five per cent of the farm women of the county. According to the 1945 U.S. Farm Census (9:35), there were 2277 farms in Vigo county. The county is composed of 12 townships. Because of the large urban population which covers practically all of Harrison township, that township was excluded from this study. Personal interviews were conducted in each of the other townships.

A map of the county was secured and 22 sampling areas were selected. The Associate County Agent Leader of Indiana selected the areas and marked the starting points on the map, (see Figure 1). The areas were then numbered so that the validity of the sample could be checked after the survey work was completed. Beginning at each of the starting points, the interviewers stopped at the first five farmsteads in each area. In cases where the farmer or wife, or both, were not at home the next nearest farmstead was used to complete the sample in a particular area.

Other sampling methods were considered, but

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Figure 1. A township of Vigo County, Indiana, showing the numbered starting points for each sampling area.

because of the expense, time, and travel involved were discarded. When the survey work was completed the even numbered sampling areas were checked against the odd numbered sampling areas as to average acreage per farm. The average acreage checked within two acres.

Personal interview survey forms

Two forms were used in conducting the personal interviews, one for farm men and one for farm women. 1/ In general these forms included: age, education, sex, amount of listening, program preference, and result measurement. In order to check the form before using them in the field, the County Agent interviewed several farmers and the Home Demonstration Agent did likewise with several farm women. A meeting of all the interviewers was held the evening prior to the day the first interviews were to be conducted. At this meeting the survey forms were discussed so that each of the interviewers understood the meaning of all the items included on the forms. At the end of the first day of interviewing all the interviewers met again and discussed their findings. They also compared survey forms to see if all were collecting the data in the same manner.

^{1/} A copy of both survey forms used may be found in Appendix A.

Chapter IV PRESENTATION AND DISCUSSION OF DATA

Inventory of radios on farms

In consideration of the problems involved in improving the Extension Service radio programs in Vigo County, Indiana, one factor is the number of radios and their location on the various farms. According to the data obtained, Table 1, less than two per cent of the farms had no radios. The average number of radios per farm was 1.8. The lowest average number of radios per farm was found on the farms of the men 60 years old and over. It can be seen, therefore, that the potential listening audience is not limited due to lack of radios.

In all age groups of the farm men, as shown in Table 2, more radios were located in the living room than in any other place. Among those radios located outside the farm house the family car was the most frequent location reported. A higher percentage of the homes of the men under 30 years of age had radios in the kitchen than in any other age group. Since most of the rural radios are located in the farm house it is evident that farm radio programs should be given at a time when the greatest majority of the farm listeners are in the farm home.

Table 1.--NUMBER OF RADIOS PER FARM HOME BY AGE GROUPS OF THE FARM MEN IN VIGO COUNTY, INDIANA, 1949

Number Under 30 of years		30 to 40 years			40 to 50 years		50 to 60 years		60 years and over		Total		
Radios		Numbe	r Per cent	Number	Per cent	Number	r Per cent	Number	Per cent	Number	Per cent	Number	Per cent
0		-		-	-			1	4.3	1.	4.2	2	1.8
1.		7	46.7	8	36.4	12	46.3	10	43.5	13	54.2	50	45.5
2		5	33.3	8	36.4	8	30.6	4	17.4	10	41.6	35	31.8
3		2	13.3	4	18.2	. 3	11.6	5	21.8	_	-	14	12.7
4		1	6.7	1	4.5	2	7.7	3	13.0		-	7	6.4
5			-	1	4.5	1	3.8			-	-	2	1.8
TOTAL		15	100.0	22	100.0	26	100.0	23	100.0	24	100.0	110	100.0
Average radios p farm			1.8	2	2.0		1.9	. 2	2.0	1	.4	1	8

Table 2.--LOCATION OF RADIOS IN THE HOMES OF FARM MEN BY AGE GROUPS IN VIGO COUNTY, INDIANA, 1949

Location of	Under 30 years		30 to 40 years			40 to 50 years		50 to 60 years		60 years and over		Total	
Radios	Number	Per cent	Number	Per cent	Number	Per	Number	Per	Number	Per cent	Number	Per cent	
Kitchen	6	22.2	5	11.1	8	16.0	7	15.6	5	15.2	31.	28.2	
Dining room	1	3.7	4	8.9	10	20.0	5	11.1	6	18.2	26	23.6	
Living room	11	40.8	18	40.0	18	36.0	18	40.0	1.6	48.4	81	73.6	
Bedroom	3	11.1	5	11.1	. 3	6.0	2	4.4	3	9.1	16	14.6	
Car	5	18.5	7	15.6	10	20.0	10	22.3	3	9.1	35	31.8	
Truck	1	3.7	2	4.4	-		2	4.4	-	-	5	4.5	
Barn	-	**	3	6.7	-	_	1	2.2	-	-	4	3.6	
Shop		-	1	2.2	1	2.0	-	•	-	-	2	1.8	
TOTAL	27	100.0	45	100.0	50	100.0	45	100.0	33	100.0	200		

^{*} Per cent of farm homes in sample.

Extent of listening

According to this survey 22.7 per cent of the farm men and 19.1 per cent of the farm women have never heard the broadcast programs. It was necessary to show the extent of listening in terms of daily listening, for comparative purposes. Since there seems to be no standard method of reporting the extent of listening, the method that was used in Pennsylvania (5:5), 1948, was adapted for use in this study.

In order to predict the percentage of daily listeners, it was necessary to express the amounts of monthly and weekly listening in terms of daily listening. Since there were, on an average, 22 programs broadcast during a one month period, the number who reported listening once a month was divided by 22. Therefore the following formula could be developed.

 $Y = \frac{X}{N}$. Where Y equals per cent of daily listening, X equals number listening during a given period, and N equals the number of programs broadcast during the same period.

In the projection, as shown in Table 3, more than twice the number of farm women listen daily to the Vigo County Extension Service radio programs than do the farm men.

Table 3.--DAILY FARM MEN AND FARM WOMEN LISTENERS TO VIGO COUNTY, INDIANA, EXTENSION SERVICE BROADCASTS, BASED UPON 22 PROGRAMS PER MONTH, 1949.

Listening	Farm	Men	Farm	Women
Frequency	Number of cases	Daily listeners	Number of cases	Daily listeners
Once a month	12	0.5	3	0.1
Twice a month	7	0.6	3	0.3
Three times a month	1	0.1	2	0.3
Weekly	18	3.6	10	2.0
Twice a week	17	6.4	38	15.2
Daily	6	6.0	21	21.0
Seldom or irregular*	24	1.0	12	0.5
Never listen	25	-	21	-
TOTAL	110	18.2	110	39.4
Per cent daily listening		16.5		35.8

^{*} Figured at once a month listening.

The amount of listening is only one criterion for evaluating the effectiveness of the radio programs in the past and it does not provide a clue for the improvement of the programs.

One factor which may have an influence on the extent of farm radio listening is the time of the broad-cast program. In Table 4, it is shown that the noon hour was preferred by a majority of both the farm men and farm women listeners surveyed. The findings in this survey, as to time of broadcast, agreed with three out of four Extension Service studies conducted in 1948, (5), (6), (7), and (10). Other supplemental programs could be considered for the evening and early morning, in order to meet the needs of those persons who prefer programs at some other time than the noon hour.

Inasmuch as the educational level of the listeners may have an influence in the organization and planning of a radio program, grade achieved in school should be considered. In Table 5, it is shown that the average grade in school attained by the farm men was 9.4 and farm women 10.0. Therefore, it would seem that programs, in order to be effective, should be planned at the ninth or tenth grade level.

Programs

Types of programs. -- In this study the types of Extension Service radio programs were divided into recommended practices, doings of others, answers to questions, announcements of meetings and markets. In Table 6 recommended practices are shown to have been

Table 4.--LISTENERS' TIME PREFERENCE OF FARM MEN AND FARM WOMEN FOR VIGO COUNTY, INDIANA, EXTENSION SERVICE RADIO PROGRAMS BY AGE GROUPS, 1949

Listeners' time	Unde: ye:	r 30 ars	30 to 40 years		40 to 50 years		50 to 60 years		60 years and ov er		Total	
preference	Numbe:	r Per cent	Numbe	r Per cent	Numbe	r Per cent	Numbe:	r Per cent	Number	Per cent	Number	Per cent
Farm men Noon hour	12	85.7	12	66.7	12	54.5	7	41.2	13	92.9	56	65.9
All other times	2	14.3	6	33.3	10	45.5	10	58.8	1,	7.1	29	34.1.
TOTAL	14	100.0	18	100.0	22	100.0	17	100.0	14	100.0	85	100.0
Farm women Noon hour	11	91.7	23	95.8	23	82.1	16	94.1	6	75.0	79	88.88
All other times		8.3	1	4.2	5	17.9	1	5.9	2	25.0	10	11.2
TOTAL	12	100.0	24	100.0	28	100.0	17	100.0	8	100.0	89	100.0

Table 5.--AVERAGE GRADE IN SCHOOL, BY AGE GROUPS, OF VIGO COUNTY, INDIANA, FARM MEN AND FARM WOMEN, 1949

Sex	Under 30 years		30 to 40 years		40 to 50 years		50 to 60 years		60 years and over		Total	
	Number	r Ave. grade	Number	r Ave. grade	Number	r Ave. grade	Number	Ave. grade	Number	Ave. grade	Number	r Ave. grade
Farm men	15	11.7	22	10.7	26	10.1	23	8.0	24	7.2	110	9.4
Farm women	14	11.1	29	11.4	31	10.8	25	8.4	11	6.9	110	10.0

preferred by many more farm men surveyed than were any of the other types of programs. In the case of the farm women, Table 7, recommended practices received the highest number of choices, but the doings of others ranked a very close second choice. Also the farm women under 30 years of age had a strong preference for announcements of meetings, while the farm women 60 years old and over decidedly preferred programs dealing with the doings of other people.

In 1946, the U.S. Bureau of Agricultural Economics, (8:ix), pointed out that the majority of rural listeners seem to take radio programming for granted. In the present study, when most of the rural listeners were asked about the aforementioned phase of programming, most of them indicated a preference as to the type of program they preferred. Due to the fact that market reports have been included on the regular programs of Radio Station WBOW, there were not many persons who preferred market reports on the Extension Service radio programs.

Table 6.--Type of county extension service radio programs perferred by vigo county, Indiana, farm men, by age groups, 1949

Type	Under yea	-	30 to yea		40 to yes	-	50 to yea		60 ye and o		Tot	al
Program	Number	Per	Number	Per cent	Number	Per	Number	Per cent	Number	Per cent	Number	Per cent
Recommended practices	7	46.6	11	50.0	13	50.0	8	34.8	9	37.5	48	43.6
Doings of others	2	13.3	3	13.7	1	3.8	3	13.0	- ,		9	8.2
Answers to questions	1	6.7	1	4.5	. 1	3.8	1	4.3	1	4.2	5	4.5
Announcement	s l	6.7	1	4.5	2	7.8	2	8.7	-	•••	6	5.5
Markets and crops	2	13.3	1	4.5	4	15.4	-	-	2	8.3	9	8.2
No preference	1	6.7	1	4.5	1	3.8	3	13.0	2	8.3	8	7.3
Never lister	1	6.7	4	18.3	4	15.4	6	26.2	10	41.7	25	22.7
TOTAL	15	100.0	22	100.0	26	100.0	23	100.0	24	100.0	110	100.0

Table 7.--TYPE OF COUNTY EXTENSION SERVICE RADIO PROGRAMS PREFERRED BY VIGO COUNTY, INDIANA, FARM WOMEN, BY AGE GROUPS, 1949

												entrans-regional-region
Type	Under yes	_	30 t c		40 to	50 ars	50 t c	60 ars	60 ye and o		Tot	al
Program	Number	Per cent	Number	Per cent	Number	r Per cent	Number	r Per cent	Number	Per cent	Number	Per cent
Recommended practices	4	28.6	9	31.1	10	32.2	5	20.0	_	_	28	25.5
Doings of others	2	14.3	8	27.6	6	19.4	6	24.0	4	36.4	26	23.7
Answers to questions	1	7.1	4	13.8	. 6	19.4	3	12.0	1	9.1.	15	13.6
Announcement	ts 4	28.6	2	6.9	6	19.4	2	8.0	1	9.1	15	13.6
No preference	1	7.1	1	3.4	,	-	1	4.0	2	18.2	5	4.5
Never lister	n 2	14.3	5	17.2	3	9.6	8	32.0	3	27.2	21	19.1
TOTAL	14	100.0	29	100.0	31	100.0	25	100.0	11	100.0	110	100.0

People on programs.—Considering extension agents, farm people, college specialists, and 4-H club groups; the farm people surveyed selected the county extension agents, as shown in Tables 8 and 9, as their first choice. However, the men under 40 years of age preferred farm people as their first choice. The second choice of all the age groups of both farm men and farm women was for a program on which farm people appeared. Approximately eight per cent of the farm men and women preferred a varied program or did not state a preference. The data indicate that college specialists and 4-H club groups should be used on the County Extension Office radio programs only occasionally.

Length of programs. -- During the past 10 years the Vigo County, Indiana, listeners have been accustomed to a daily five-minute program. When they were asked the question on length of program, 67 per cent of the farm men listeners and 74.2 per cent of the farm women listeners, as shown in Table 10, preferred a program of 10 minutes or longer. All age groups preferred a longer program. The most common comment by those who preferred a longer program was: "If a program is worth listening to at all, it should be at least 10 minutes long."

Table 8.--PREFERENCE OF PEOPLE ON COUNTY EXTENSION SERVICE RADIO PROGRAMS BY VIGO COUNTY, INDIANA, FARM MEN BY AGE GROUPS, 1949

People on	Under yea	-	30 to yea		40 to yea	-	50 to yea	60 ars	60 ye and o		Tot	al
Programa	Number	Per cent	Number	Per cent	Number	Per	Number	Per cent	Number	Per	Number	Per cent
Extension agents	4	26.6	5	22.7	12	46.2	10	43.4	10	41.7	41	37.3
Farm people	6	40.0	8	36.5	2	7.7	2	8.7	2	8.2	20	18.2
College specialists	3 2	13.3	1	4.5.	3	11.5	3	13.1	1	4.2	10	9.1
4-H groups	1	6.7	2	9.0	2	7.7	-	-	-	-	5	4.5
No preference	1	6.7	2	9.0	3	11.5	2	8.7	1	4.2	9	8.2
Never lister	1	6.7	4	18.3	4	15.4	6	26.1	10	41.7	25	22.7
TOTAL	15	100.0	22	100.0	26	100.0	23	100.0	24	100.0	110	100.0

Table 9.--PREFERENCE OF PEOPLE ON COUNTY EXTENSION SERVICE RADIO PROGRAMS BY VIGO COUNTY, INDIANA, FARM WOMEN, BY AGE GROUPS, 1949

People on	Under yea	-	30 to yea		40 to yea	50 rs		60 ars	60 ye and o		Tot	al
Programs	Number	Per	Number	Per	Number	Per cent	Number	Per cent	Number	Per	Number	Per cent
Extension agents	9	64.3	13	44.8	18	58.2	7	28.0	4	36.4	51	46.3
Farm people	2	14.3	3	10.4	5	16.1	3	12.0	2	18.2	15	13.6
College specialists	-	- 1	4	13.8	_		3	12.0	_	_	7	6.4
4-H groups	•••	-	3	10.4	2	6.5	2	8.0		-	7	6.4
No preference	1	7.1	1	3.4	3	9.6	2	8.0	2	18.2	9	8.2
Never listen	2	14.3	5	17.2	3	9.6	8	32.0	3	27.2	21	19.1
TOTAL	14	100.0	29	100.0	31	100.0	25	100.0	11	100.0	110	100.0

Table 10.--LENGTH OF TIME OF EXTENSION SERVICE RADIO PROGRAMS PREFERRED BY VIGO COUNTY, INDIANA, LISTENERS, BY AGE GROUPS AND SEX, 1949

		water track and water					torne di der Coloren, auditari (Citt.) i i que falo e foraggio i describi con della suor song alle sull'					
Length of	Under 30 years		30 to 40 years		40 to 50 years		50 to year		60 years and over		Total	
Time	Number	Per	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cen
arm men												
5 minutes	3 1	7.1	3	16.7	2	9.1	5	29.4	2	14.3	13	15.
7늘 minutes	3 1	7.1	4	22.2	3	13.6	3	17.6	2	14.3	13	15.
10 minutes	3 12	85.8	11	61.1	15	68.2	9	53.0	10	71.4	57	67.
No preferenc	e -	-	-	-	2	9.1	, , , <u>-</u> ,	-	, -	-	2	2.
arm women												
5 minutes	3 -	-	5	20.8	3	10.7	5	29.4	-	-	13	14.
7월 minutes	s 1	8.3	1	4.2	4	14.3	2	11.8	2	25.0	10	11.
10 minutes	s 11	91.7	18	75.0	21	75.0	10	58.8	6	75.0	66	74.

Type of voice presentation on programs. -- As is shown in Table 11, more of the farm men listeners preferred the one voice type of presentation. Their second choice was the interview type of program. The farm women listeners indicated the interview type of presentation as their first choice, but there was not a great deal of difference in their preference for one voice, interview, or forum. Two other studies revealed that the interview or the informal type of program was in demand by farm people in the areas where those studies were conducted, (1) and (10).

Table 11.--TYPE OF PRESENTATION PREFERRED BY VIGO COUNTY, INDIANA, EXTENSION SERVICE RADIO PROGRAM LISTENERS, 1949.

Type of Presentation	ALTO AND ADDRESS OF THE PARTY O	m Men Per cent		Women Per cent
11050110201011	1101111111111	101 00110	T dillo 1	101 00110
One voice	36	42.4	29	32.6
Interview	28	32.9	31	34.9
Forum	14	16.5	24	27.0
No preference	7	8.2	5	5.5
			-	
TOTAL	85	100.0	89	100.0

Results

Action taken by listeners. -- In the attempt to measure the value of the radio programs very little

information was gained. Ten per cent of the farm men listeners, as shown in Table 12, visited the County Extension Office for additional information about the subject matter given on the programs. The farm women listeners did not take much action as a result of the broadcast programs.

Indirect action taken by listeners.—As shown in Table 13, 25.4 per cent of the farm men listeners and 18.2 per cent of the farm women listeners stated that they attended a meeting as a result of a broadcast given by the County Extension Office.

From the foregoing analysis one might conclude that there is something wrong with radio as a means of stimulating farm people to take some form of action. In conducting the interviews on the survey it was noted that many of the people could not recall whether or not it was radio, newspaper, farm magazines, or comments from their neighbors that influenced them to take some sort of action. In several other studies, (1), (2), (5), (7), and (10), there was a wide variation in the results or benefits of farm radio broadcasting and the methods used in reporting these results.

Table 12.--ACTION TAKEN BY LISTENERS OF VIGO COUNTY, INDIANA, EXTENSION SERVICE RADIO PROGRAMS, BY SEX AND AGE, 1949

Action Taken	Under 30 years		30 to 40 years		40 to 50 years		50 to 60 years		60 years and over		Total		
	Numbe		Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per
Tarm men			•										
Phoned of	fice]		6.7	1	4.5	2	7.7	1	4.3		•••	5	4.
Wrote off	ice -	•	***	1	4.5	1	3.8	1	4.3	2	8.3	5	4.
Requested visit	-	-		1	4.5	, (•••	1	4.3	-	-	2	1.
Visited office			-	1	4.5	4	15.4	2	8.7	4	16.7	11	10.
Farm women													
Phoned of	fice I	Ĺ	7.1	1	3.4	3	9.6	-	-	1	9.1	6	5.
Wrote off	ice -	•	-	1	3.4	1	3.2		-	-		2	1.
Requested visit			-	1	3.4	<u> </u>	-	-	-	· .		1	0.
Visited office		-	_	2	6.9	-	-	1	4.0	2	18.2	5	4.

Table 13.--INDIRECT ACTION TAKEN BY LISTENERS OF VIGO COUNTY, INDIANA, EXTENSION SERVICE RADIO PROGRAMS, BY SEX AND AGE, 1949

STORES OF STREET WAS A DULL OF STREET WAS A					and the figure of the control of the state o						-	
Action Taken	Under yea:	rs	30 to 40 years		40 to 50 years		50 to 60 years		60 years		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	ren cen
Ferm men Attended meeting	6	40.0	7	31.8	. 7	26.9	4	17.4	4	16.7	28	25.
Visited de stration	mon-	26.7	4	18.2	1	3.8	3	13.0	1	4.2	13	11.
Visited fa or home	rm 3	20.0	-	_	. 1	3.8	5	21.7	1	4.2	10	9.
Comments f neighbors		-	4	18.2	3	11.5	7	30.4	6	25.0	20	18.
Farm women											*	
Attended meeting	1	7.1	, 7	24.1	7	22.6	3	12.0	2	18.2	20	18.
Visited de stration	mon-	21.4	3	10.3	4	12.9	2	8.0	1	9.1	13	11.
Visited fa or home	rm -		1	3.4	, -	_	1	4.0	-	_	2	1.
Comments f		21.4	8	27.6	5	16.1	1	4.0	-	-	17	15.

In the light of the findings reported in this chapter, several factors must be taken into consideration before proposals are made for the improvement of the Vigo County Extension Service radio programs. Such factors are: age, sex, and education of the listeners, as well as the length, time, and type of program desired. The proposals for the improvements which are suggested by this study will be discussed in the following chapter.

Chapter V SUMMARY AND CONCLUDING STATEMENTS

There has been a continuous daily Extension
Service radio program in Vigo County, Indiana, since 1933.
The desire to improve these radio programs prompted this study. Personal interviews were conducted in 22 different areas in the county. The sample included 110 farm men and 110 farm women.

Summary of findings as shown by survey sample

In consideration of the inventory of radios on the farms, it was found that over 98 per cent of the farm homes had radios. There were, on an average, 1.8 radios per farm. The farm men 60 years old and older reported fewer radios than any other age group. More radios were located in the fliving room than in any other place.

It was found that 77.3 per cent of the farm men and 80.9 per cent of the farm women have listened to the programs at least once. Over half of the non-listeners were 50 years of age or older. On the basis of projected daily average listening, it was found that 35.8 per cent of the farm women and 16.5 per cent of the farm men listened daily. The noon hour was the most frequent

choice for the time of the broadcasts. The average grade attained in school by the farm men was 9.4 and the farm women 10.0.

In consideration of subject matter for the radio programs, both the farm women and farm men as a whole preferred recommended practices. However, the farm women under 30 years of age preferred programs on which meetings were announced, while the farm women 60 years old and older preferred programs that told about the doings of other people.

County Extension Agents were preferred for the presentation of the broadcasts, except by the farm men under 40 years of age. Both farm men and farm women of all age groups preferred programs of at least 10 minutes duration. The farm men listeners preferred the one voice type of presentation, while the farm women listeners did not indicate a great deal of difference between one voice, interview, or forum programs.

Only a small percentage of the farm listeners indicated that they took some direct action as a result of the broadcast programs. However, approximately 25 per cent of the farm men and 18 per cent of the farm women stated that they had attended a meeting that was announced on the County Extension Office radio program.

Concluding statements

This study has revealed that in the past the Extension Service radio programs in Vigo County, Indiana, have been rather effective. When only one program is given each day, the noon hour is preferred by the highest percentage of farm men and farm women. If additional programs were planned for early morning and evening, more farm people might be reached by the programs. It is pleasing to note that a fair percentage of farm people listen daily when there are such competing programs as: the WLS Dinner Bell Program and Baukhage over WTHI.

It is believed that the Extension Service radio programs could be improved by lengthening the noon program to 10 minutes. A higher percentage of the programs could be directed to the farm women because more of the women listen regularly than do the farm men. The programs should be planned for farm people under 60 years of age, keeping in mind the ninth or tenth grade educational level.

The Extension Service radio programs should frequently be evaluated by all possible and practical means in order to find ways of improving the programs in the county.

Suggestions for further study

Since it was impossible to make a complete study the following suggestions are made for future study:

- 1. Survey of Vigo County, Indiana, Extension Service radio programs in surrounding counties.
- 2. The extent that other radio programs compete with the Vigo County, Indiana, Extension Service radio programs.
- 3. Methods of measuring the effectiveness of Extension Service radio programs through the development of valid and reliable evaluation criteria.
- 4. The possibilities of the use of television for County Extension Service work.

APPENDIX

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Appendix A.--SURVEY QUESTIONNAIRES

FOR FARMERS

NAM	E AREA NO. STOP NO.
ADD	RESSTOWNSHIP
1.	DO YOU HAVE A RADIO? HOW MANY? O 1 2 3 4 5 (circle)
2.	WHERE LOCATED? a. Kitchen b. Dining room c. Living room d. Bedroom e. Car f. Truck g. Barn h. Other
3.	IS RADIO IN WORKING ORDER? a. No b. Yes
4.	IF NOT, HOW LONG OUT OF ORDER? Number of weeks 1, 2, 3, 4, 5, more
5.	DO YOU LISTEN TO RADIO? a. No b. Yes
6.	HAVE YOU PERSONALLY CONTACTED A REPRESENTATIVE OF THE COUNTY EXTENSION OFFICE DURING THE PAST YEAR? a. No b. Yes
7.	HAVE YOU HEARD THE BROADCASTS OF YOUR COUNTY EXTENSION OFFICE OVER WEOW?
	Never
3.	DURING WHAT HOUR OF THE DAY DO YOU PREFER THE COUNTY EXTENSION OFFICE BROADCAST? (Circle)
	a. First Choice A.M. 6 7 8 9 10 11 Noon P.M. 1 2 3 4 5 6 7 8 9 b. Second Choice AM 6 7 8 9 10 11 Noon P.M. 1 2 3 4 5 6 7 8 9
9.	WHAT DO YOU WANT TO HEAR? (Indicate preference - 1st, 2nd 3rd)
	a, Announcements of coming events b. Recommended practices c. What others are doing d. Answers to questions e. f.
10.	WHO DO YOU WANT TO HEAR ON PROGRAMS?
	a. County Extension Agents b. Farm people c. College Specialists d. 4-H Club groups e.

11.	HOW DO YOU LIKE PRESENTATION OF BROADCAST?
	a. Once voice b. Interview c. Forum (several poeple) d.
12.	AS A RESULT OF THE BROADCASTS OF THE COUNTY EXTENSION OFFICE HAVE YOU DURING THE PAST YEAR?
	a. Phoned that office?
13.	AS A RESULTOF THE BROADCASTS OF THE COUNTY EXTENSION OFFICE DURING THE PAST YEAR?
	a. Attended a meeting announced?
14.	SCHOOL ATTENDANCE
	a. How many years did you attend grade school? b. How many years did you attend high shcool? c. How many years did you attend college?
15.	WHAT LENGTH OF BROADCAST DO YOU LIKE?
	a. 5 minutes b. 7 1/2 minutes c. 10 minutes
16.	AGE: a. 29 and under b. 30-39 c. 40-49 d. 50-59 e. 60 or over
17.	SIZE OF FARM (ACRES)
18.	ARE YOU A MEMBER OF A FARM ORGANIZATION? a. No b. Yes
19.	WHAT SUCCESTIONS CAN YOU MAKE FOR THE IMPROVEMENT OF THESE BROADCASTS?
20.	COMMENTS BY INTERVIEWERS

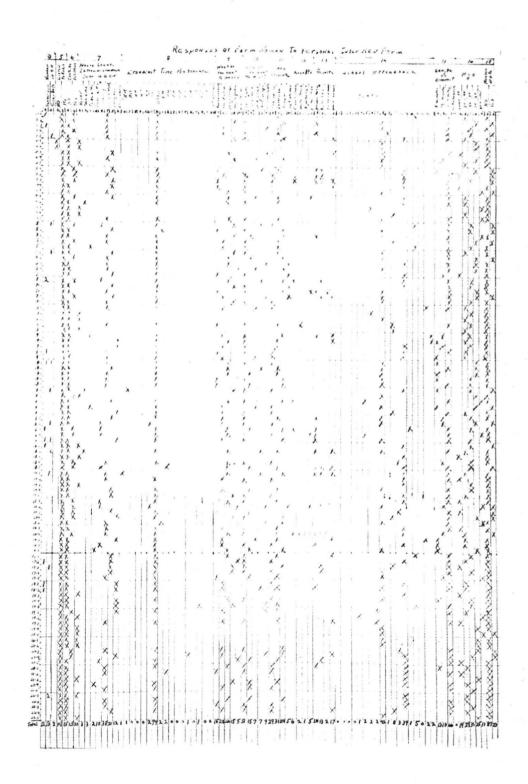
FOR FARM WOMEN

NAM	E AREA NO. STOP NO.
ADD	RESSTOWNSHIP
٥.	DO YOU HAVE CHILDREN IN 4-H? a. No. of girls b. No. of boys
5.	DO YOU LISTEN TO RADIO? a. No b. Yes
6.	HAVE YOU PERSONALLY CONTACTED A REPRESENTATIVE OF THE COUNTY EXTENSION OFFICE DURING THE PAST YEAR? a. No b. Yes
7.	HAVE YOU HEARD THE BROADCASTS OF YOUR COUNTY EXTENSION OFFICE OVER WEOW?
	Never
8.	DURING WHAT HOUR OF THE DAY DO YOU PREFER THE COUNTY EXTENSION OFFICE BROADCAST? (Circle) a. First Choice A.M. 6 7 8 9 10 11 Noon P.M. 1 2 3 4 5 6 7 8 9 b. Second Choice A.M. 6 7 8 9 10 11 Noon P.M. 1 2 3 4 5 6 7 8 9
9.	WHAT DO YOU WANT TO HEAR? (Indicate preference - 1st, 2nd 3rd)
, *	a. Announcements of coming events b. Recommended practices c. What others are doing d. Answers to questions e. f.
10.	WHO DO YOU WANT TO HEAR ON PROGRAMS?
	a. County Extension Agents b. Farm people c. College Specialists d. 4-H Club groups e.
11.	HOW DO YOU LIKE PRESENTATION OF BROADCAST?
	a. One voice b. Interview c. Forum (several people)

12.		A RESULT OF THE BROADCASTS OF THE COUNTY EXTENSION OFFICE HAVE DURING THE PAST YEAR?					
	b. c.	Phoned that office?					
13,	AS A RESULT OF THE BROADCASTS OF THE COUNTY EXTENSION OFFICE DURING THE PAST YEAR?						
	b. c.	Attended a meeting announced?					
14.	a. b.	How many years did you attend grade school? How many years did you attend high school? How many years did you attend college?					
15.	WHAT LENGTH OF BROADCAST DO YOU LIKE?						
		5 minutes b. 7 1/2 minutes c. 10 minutes					
16.	AGE:	a. 29 and under b. 30-39 c. 40-49 d. 50-59 e. 60 or over					
18.	ARE YOU A MEMBER OF A HOME ECONOMICS CLUB? a. No_ b. Yes_						
19.		SUGGESTIONS CAN YOU MAKE FOR THE IMPROVEMENT OF THESE ADCASTS?					
20.	COMMI	ENTS BY INTERVIEWERS?					

Appendix B. -- MASTER DATA SHEETS

Manager Laceston J 9	Nesy rose v	ALIA ILA TO PELSANA.	And with with sen	H Marches	
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BIBLIOGRAPHY

BIBLIOGRAPHY

- 1. Crile, Lucinda, Morrill, Stanley D., and Nessett, Gladys. The effectiveness of the Ward county North Dakota, extension radio program. U.S. Department of Agriculture. Extension Service, Circular, 429:1-21, July 1945.
- 2. Johnston, T. R., and Busche, L. M. Reading habits of farm folks in eleven northeastern Indiana counties. Purdue University. Extension studies circular, 7:1-11, March 1942.
- 3. Lazarsfeld, Paul F., and Field, Henry. The people look at radio. Chapel Hill, N.C., The University of North Carolina Press, 1946. 158 p.
- 4. Murphy, Lillian A. The use of radio in 4-H club work. U.S. Department of Agriculture. Extension Service. Circular, 352:1-13, March 1941.
- 5. Reist, H. N., and Frutchey, F. P. Pennsylvania radio study; Based on surveys in Berks, Lycoming, and Mercer counties. State College, Pa., Pennsylvania State College, Agricultural Extension Service, 1948. 16 p.
- 6. Schmitz, Harold J. What farm people want from radio. Lafayette, Ind., Purdue University, Agricultural Extension Service, 1948. 14 p. mimeograph.
- 7. Texas. A & M College. Extension Service. The Lubbock county study; and evaluation of the effectiveness of Extension work in Lubbock county, Texas, 1947. College Station, Texas, 1948. 30 p. (R-11)

 Report prepared by E. J. Niederfrand, Mary Louise Collings, and Kate Adele Hill.
- 8. U.S. Bureau of Agricultural Economics. Attitudes of rural people toward radio service; a nation-wide survey of farm and small town people.
 Washington, 1946. 133 p.

- 9. U.S. Bureau of the Census. United States census of agriculture: 1945; Vol. part 4, Indiana, statistics for counties. Washington, U.S. Govt.Print.off., 1946. 194 p.
- 10. WABI radio study. Orono, Me., Extension Service,
 University of Maine, 1948. 15 p. mimeograph.
 Extession Service, University of Maine,
 and Division of Field Studies and Training,
 U.S. Department of Agriculture Cooperating.