ADULT RADIO LISTENING PATTERNS AND EXTENT OF LISTENING TO EXTENSION BROADCASTS IN LANCASTER COUNTY, PENNSYLVANIA

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ABSTRACT

ADULT RADIO LISTENING PATTERNS AND EXTENT
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IN LANCASTER COUNTY, PENNSYLVANIA

by Norman E. Engle

For many years the Cooperative Extension Service has utilized radio as a medium to convey information to people to affect its goal of informal education. Insufficient knowledge of the audience available at the time of these broadcasts has reduced its effectiveness.

This study was an attempt to acquire information about adult radio listening habits and to determine how many people were listening to Extension radio programs.

Two samples in the county were selected for study -- one for the farm and one for the general population. The unit of study was the adult male and female in each sample. The farm sample was obtained by random selection of names from a list of farmers maintained by the County Agricultural Stabilization and Conservation Service. The general sample was obtained from names in the telephone directory, so it represented all homes in the county with telephones.

Interviews were conducted by telephone over a three-day period of one week by a team of 23 persons comprised of university staff and faculty, graduate students and local adult leaders. Completed interviews were obtained from 105 adults in the farm sample and 425 in the general sample.

Data were obtained on when people listen to radio, where they are when listening, stations listened to, knowledge of Extension and amount of listening to Extension broadcasts and demographic information on respondents. Analysis involved comparison of samples and males and females between samples. Results were tabulated and analyzed using the computer and chi-square was run on comparisons.

Farm and nonfarm adults follow the same pattern of listening, but a larger percentage of the farm sample listen at most hours during the day. Peak listening times for both samples occur at mealtimes. The largest number of adults listen from 7-8 a.m. when 46.7 per cent of the farm and 31.6 per cent of the general population are listening. The noon hour is the second most popular time when 40 per cent of the farm and 27.5 per cent of the general adults listen.

Demographic characteristics of age, occupation, education and residence were not significant factors in relation to whether or not adults listened to the radio.

Over 75 per cent of all those interviewed listened to five local stations. A majority restricted their listening to one or two local stations.

When sexes were compared on the basis of listening to Extension broadcasts, several factors became significant. It was statistically significant that regular listeners to one type of Extension program listen at proportionate degrees to other Extension programs. A similar pattern was established for occasional listeners, who tended to be occasional listeners of other Extension programs.

Occupation was a factor for males in relation to frequency of listening to Extension broadcasts. Whether or not general females were gardeners was statistically significant.

Some 28 per cent of the farm and 48 per cent of the general sample indicated they had no knowledge of the Extension Service. Over 61 per cent of the general population know none of the county personnel. Forty-five per cent of the farm and 68 per cent of the general audience never listen to the Extension radio programs.

Data on selected radio stations indicate younger adults with blue collar occupations tend to listen to those stations which program a contemporary format. Stations with a more traditional approach attract an older audience which has a somewhat higher education level and a white collar occupation.

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by

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CHAPTER I

INTRODUCTION

The Extension Service in Today's Society

Since its inception with the Smith-Lever Act, the Cooperative Extension Service has been charged with a specific function: "... to aid in the diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same ..."

The 1958 "Scope Report," issued by the Extension Committee on Organization and Policy, outlined a philosophy that Extension should adopt in the future to meet the needs and challenges of a constant and dynamically changing society:

> "Extension workers have been acutely aware of this need (to shift programs and methods to meet ever-changing conditions and demands) from the beginning. The tempo of such changes has been accelerated dramatically during the last decade. Every evidence points to an even faster acceleration in the decade ahead."[1]

Such vision has had its reward. There have been changes and since that predicted decade is about to pass, much of its wisdom can be applied to the decade that lies ahead.

The Extension organization has one purpose -- informal education. In 1954, the National Project of Agricultural Communications (NPAC) was formed to conduct research to learn more about the

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[1] "The Cooperative Extension Service Today," a Statement of Scope and Responsibility. Federal Extension Service. 1958.

process of communication and to train Extension workers in the application of developed techniques to make the process of informal education more effective. The resultant phases of training were based on the relevant and established theories and research on how people communicate and learn.

This basic training in communication has been extended to almost every Extension worker across the United States and Puerto Rico, and to many of the countries served by the Agency for International Development.

Extension's Use of Radio

One direct result of this concerted effort has been a greater reliance on the mass media for disseminating information. For example, in addition to the other channels of communication (meetings, circular letters, publications, etc.), the personnel in Pennsylvania's Extension Service made more than 71,000 radio broadcasts in 1967. This compares with a total of 35,270 broadcasts in 1960.[2] About 42,000 of these broadcasts originated from material prepared by the Radio-TV Unit at The Pennsylvania State University.[3] These features consisted of taped 2 1/2 to 3 1/2-minute discussions with specialists and researchers on the university staff and prepared stories in script form from these sources.

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[2]Hatch, C., et al., "Pennsylvania Extension Radio, 1960," Extension Studies No. 10, University Park, April 1961.

[3]Agricultural Communications Annual Report, 1967.

The 295 AM-FM radio stations in Pennsylvania provide a medium for disseminating information to the 13 million Commonwealth residents. Extension programs are broadcast on 151 of these stations. In addition, 55 stations located outside the state's boundaries are also utilized. The Penn State Radio Service provides material to 233 of these outlets.

The agricultural economy is the largest single unit of production in the Commonwealth. Even so, the change in agriculture in this state is as dramatic as it is across the rest of the nation. While the nation's population rose from 151 million in 1950 to 190 million in 1960, the farm population went from 23 million (15.3 per cent of the total) down to 15 million (8.7 per cent of the total).[4] Recent estimates show this trend continues. In 1959 there were 100,052 farms in Pennsylvania, averaging 118.6 acres in size. In 1964 these figures were 83,086 and 130, respectively,[5] with the number of farm operators dropping from 73,703 to 59,680 in those years.

This pattern showed that if Extension followed a traditional approach of service to agriculture, it was serving a smaller portion of the total population each year. With agriculture becoming more specialized, this smaller number of farmers required more specialized assistance to meet its needs. This in itself did not justify existence of a large Extension Service. So new programs

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[4]Agriculture Statistics, 1963, p. 242.

[5]United States Census of Agriculture, 1964.

were conceived to serve more of those people outside production agriculture who had not been reached before.

There was emphasis on constant evaluation of programs to serve the "old" clientele better and to reach this "new" clientele. Blalock and others pointed out the need for meaningful program direction in stating:

> "Extension must continue to make changes ... in its programs, in order to adjust to the rapidly changing conditions of society."[6]

There is an ever-increasing demand on Extension, especially from the rapidly growing rural nonfarm and urban population. Barcus[7] found that the latter's needs coincide with current Extension activities. How can Extension serve this new audience, as well as its traditional agricultural audience? Barcus' research also applies to this question:

> "The level or knowledge of awareness should be raised in order for people to know whom to contact ... information should be disseminated on the basis of knowledge of existing channels of information flow and the sources which people most often utilize."[8]

Brown[9] reports that "Extension is using radio and television more today than ever before." He also states in a later

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[6] Blalock, T., and Abraham, R., "What the Public Thinks of Extension," Journal of Cooperative Extension, Vol. I, No. 1, Spring 1963, p. 48.

[7] Barcus, F., "Abstract of the Role of Agricultural Extension in the Suburban Community," Community Research Center, Boston University, Cooperative Extension Service, University of Massachusetts, Amherst, November 1962, pp. 1, 22.

[8] Op. cit., pp. 23-24.

[9] Brown, E., "Extension Studies," No. 15, August 1962, The Pennsylvania State University, mimeo.

study, "Radio and television programs reach a large audience. Extension probably reaches more people by radio and television than by any other method. In fact, television and radio are the preferred methods of getting information over meetings for both men and women."[10] He also concludes:

> "Most studies of the total listening audience show that the majority of the audience reached is nonfarm. Evidently most of these radio and television programs have been fairly successful in being of some interest to nonfarm people. Home economists' programs cut across farm and nonfarm interests more than programs of agricultural agents."[11]

Heasley[12] concluded "... radio is one of the most preferred information channels for Extension audiences. As such, radio should be considered accordingly in future program planning." This particular study included only full or part-time farmers. The question arises -- What would be found for the entire audience, since Extension is now servicing more than the agricultural segment?

Need for Research

Many studies conducted to determine radio listening habits or the response to radio listening have been confined primarily to the agricultural sector of the audience, or to try to find

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[10] Brown, E., "Research Findings -- Extension Radio and Television," Extension Studies No. 18, October 1962, The Pennsylvania State University, mimeo, p. 10.

[11] Ibid.

[12] Heasley, D., "Program Planning Survey of Selected Agricultural Items for Montour County, Pennsylvania," Extension Studies No. 34, January 1966, The Pennsylvania State University, p. 13.

out merely who is listening, within this sector. In attempting to reach a "new and broader" audience, who is listening? What are their listening habits? What type of information do they seek from radio? Are Extension programs broadcast at a time when people are listening?

In utilizing a mass medium, such as radio, you cannot select a small target audience to receive your message and tell the others not to listen. This would not be effective use of resources or the medium. Realizing an audience may exist at the time of Extension broadcasts which is much larger than "strictly production agriculture" some Extension staffs have adopted new approaches to their radio broadcasting. In Pennsylvania, there has been a gradual shift from talking to a small group of farmers about production practices, to a philosophy of talking to the entire audience "about agriculture." Such programs may have some appeal to the rest of the audience when they are produced properly.

In addition, a separate programming service has been initiated for the urbanite or nonfarmer, with specific information on horticulture, home and lawn care. These programs have been accepted for use on more and more stations as part of a regular broadcast schedule. No evaluation of their effectiveness has been made.

Such deficiencies prompted this study. What are peoples' listening habits? Who is listening to Extension broadcasts? What are the characteristics of these people listening? Are we programming at a time to reach our best audience? What share of the audience listens to stations broadcasting Extension's programs? Do

the subjects presented elicit response from listeners to seek additional information? Extension has been considered traditionally as a service only to farmers. In reaching this "new and expanded clientele," have we been successful? How do listening patterns of farmers compare with those of the nonfarmer?

This research was conducted to try to answer these questions.

For purposes of manageability, this study was confined to Lancaster County, Pennsylvania. This is one of the richest agricultural areas in the United States, and yet, for purposes of this study, has a balance of rural-urban population.

The following chapter presents the situation and outlines objectives and procedures in conducting the research.

CHAPTER II

OBJECTIVES

This study was designed to measure adult radio listening habits in Lancaster County, Pennsylvania. There were two main objectives. The first was to define listening habits of adults in a farm and general population with a distinction between sex in the two samples.

These habits will be further characterized by time of day adults listen to radio, the types of stations they listen to and where they are or what they are doing when listening. Information will also be obtained about individuals to create a profile on age, education and occupation in relation to stations listened to. This data will then be related to the station's perceived audience type.

The second main objective was to measure listening habits of the farm and general population specifically in relation to Extension radio broadcasts.

Data will be obtained in relation to the individual's knowledge of the Extension Service and personnel in the county office and how frequently he listens to Extension broadcasts.

The following assumptions were tested by the data:

1. Men and women will have distinct listening habits.
2. There will be differences in listening habits among farm and nonfarm audiences.
3. Farm listeners will rely more frequently on Extension broadcasts for information than will

the general audience.

4. There will be greater variation among men than women in listening to Extension broadcasts.
5. The farm population will have a greater knowledge of Extension and its personnel in the county than the general population.

The next section describes the universe sampled and factors considered to test these assumptions.

Location

Lancaster County is located in southeastern Pennsylvania, and had a population in 1960 of 278,359.[1] Of this number, 137,892 (49.5 per cent) were classed as urban and 140,467 (50.5 per cent) as rural. This total represents an increase of approximately 44,000 since 1950 which was almost equally distributed between the rural and urban population. It is apparent that the 22,000 increase in rural residence means these people were living in the country and not farming because the actual farm population declined several thousand in that period. The near equal distribution in population was a factor in selecting the county as the universe for the study.

Other considerations in establishing the study were the 84,104 housing units; 86.8 per cent of them had a phone available; and 90.2 per cent of the homes had radio.[2] These latter figures

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[1] Pennsylvania Statistical Abstract, 1961, Pennsylvania Bureau of Statistics.

[2] Ibid., pp. 20-21.

compare with 74.8 per cent homes with phones[3] and about 97 per cent with radio sets[4] on a national basis.

Radio Outlets Available

Six radio stations broadcast from locations within the county. In addition, some of those stations outside the county radiate a strong enough signal to reach many of the radios within the county.

Extension agents do a daily five-minute broadcast on WGAL at 12:15 p.m. The program is fed to the station by a remote microphone at the Extension office prior to broadcast time, taped and then played at the assigned time.

This program is taped off the air by WDAC-FM for broadcast at 12:55 p.m. and then held for rebroadcast the next day between 5 and 6:30 p.m.

Agents also do a daily five-minute program live on WLAN at 12:15 p.m. This station tapes the program and rebroadcasts it the next day at 5:35 a.m.

Each Extension worker presents his program on an assigned day of the week on both originating stations. For example, the county agent broadcasts every Monday; the associate agent every Tuesday; the home economist every Wednesday; and others through the week.

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[3] United States Census, 1960.

[4] 1960 Broadcasting Yearbook, p. 22.

Three of the county radio stations broadcast the Extension programs produced at Penn State which are distributed to stations in and contiguous to Pennsylvania. One station airs the programs at 5:35 a.m., another at 6 to 6:30 a.m. and the third at 10:30 a.m. and 12:20 p.m. Station management determines if these programs are used and the time they are broadcast.

Figure 1 represents an outline of the county and the relative location of radio stations mentioned in the study. Some of the contiguous stations were not included in the analysis.

Tables 1 and 2 indicate characteristics about the radio stations in the study. This information was obtained from station contour maps and statements from management personnel on style and audience. Quotes are attributed to station managers.

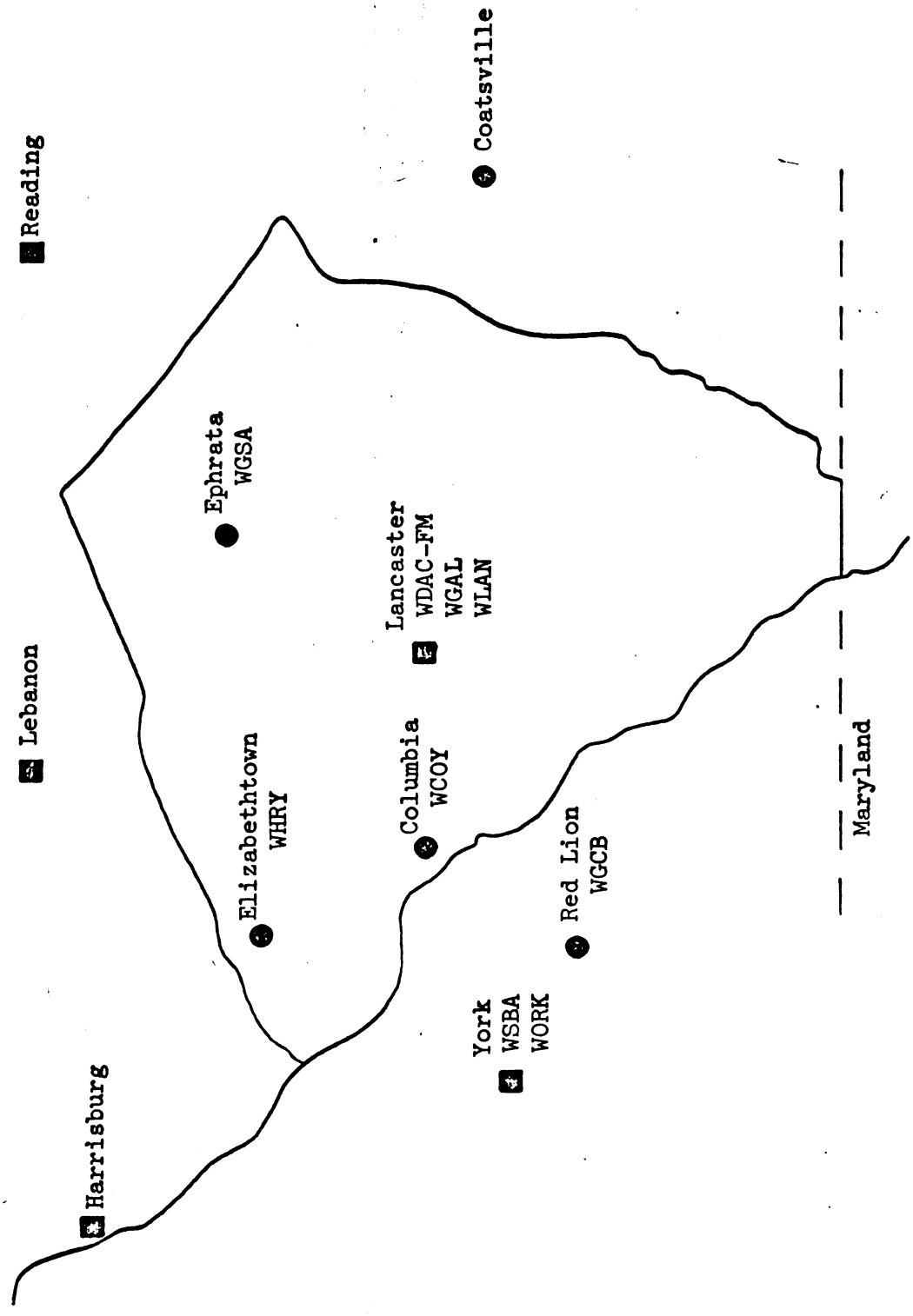

Figure 1. Lancaster County Map and Station Location.

Table 1. Station Characteristics in Lancaster County.

Call	Freq.	Power	Map[a]	Style[b]	Time of County Broadcasts	Time of Penn State Broadcasts	Time Audience Oriented
WDAC	94.5	15KW	Pri.	Religious "Christian Radio"	5-6:30 a.m. 12:55 p.m.	10:30 a.m. 12:20 p.m.	Farm 5-6:30 a.m. 12:15-1 p.m. Homemaker 9-11 a.m. Teens 5-6 p.m.
WGAL	1490	1KW D 250WN	Pri.	MOR "Bright to Stodgy"	12:15 p.m.	None	Good Music Homemaker 9-11:30 a.m.
WLAN	1390	5KW D 1KW N	Pri.	Top 40 "Young Americana"	5:40 a.m.	5:35 a.m.	"Not Wild from 8:30 a.m.-3:30 p.m."
WGSA	1310	5KW D	Pri.	MOR Pop-no rock	None	6-6:30 a.m.	Farm 5:30-6:35 a.m. Homemaker 8:30 a.m.-12 noon, 1-4 p.m.
WCOY	1580	500W D	Sec.	MOR Modern	None	None	Top 40 in afternoon
WHRY	1600	500W D	[c]	MOR	None	None	Light rock 3-5 p.m. Homemaker 12:15-3 p.m. Religious 9-10 a.m.

[a] Primary or secondary signal covers entire county.
[b] MOR-Middle of Road; Top 40-Contemporary Rock and Pop; MOR modern-contemporary Pop.
[c] Signal covers only NW corner of the county.

Table 2. Characteristics of Contiguous Stations.

Call	Freq.	Power	Map[a]	Style[b]	Time of County Broadcasts	Time of Penn State Broadcasts	Time Audience Oriented
WSBA	910	5KW D 1KW N	Pri.	Top 40	None	None	Standard pop 6 a.m.-3 p.m. Pop contemporary 3-6 p.m. 6-12 p.m. contemporary
WORK	1350	5KW D 1KW N	[c]	MOD MOR "Alive sound"	None	5-6:30 a.m.	Homemaker 9-11 a.m. Program for young adult and up
WGCB	1440	1KW D	Pri.	Religious	None	None	

[a]Primary or secondary signal covers entire county.
[b]Top 40-Pop and Rock; MOD MOR-modern pop (light rock) to middle of road.
[c]Signal covers only western two-thirds of the county.

CHAPTER III

REVIEW OF RELATED RESEARCH

Considerable research has been conducted that relates to this study. Reviewing the relationships and applicability revealed valuable information as well as some inconsistencies. The latter can be attributed to the time of the surveys, methods used and audience analyzed in the study comparisons. Relatively few studies combined all the elements that were sought here. For example: some dealt only with listening times; some with farm samples only; some with listening to Extension programs; and others to set location at time of listening.

The literature cited has been categorized into three main areas: the time(s) people listen to radio; where they listen; and who listens to Extension broadcasts.

Time of Radio Listening

In a 1946 study by Hanson[1] of 223 farm and 120 town families, farmers preferred the 9-10 p.m. hour for listening to radio, while town men preferred 6-10 p.m. Women preferred 9-10 a.m. Ninety per cent of the farm sample and 94 per cent of the town sample had radios.

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[1] Hanson, H. P., "Radio Listening Analysis," University of Minnesota, Agricultural Extension, University Farm, 1946.

Schmitz[2] found the best listening time for farmers to be from 12-12:30 p.m. For homemakers it was 8:30 to 9 a.m.

Johnston and Busche[3] reported listening habits of 294 farm families. A "high percentage of both men and women preferred the agricultural programs be given at 12 noon."

In summarizing recent Extension radio surveys, Gallup[4] found "meal hours and evening hours are the most popular times for listening to the extension program. Noon is probably the most preferred time of all."

From 328 interviews of farm and nonfarm homes, Jaccard[5] reports, "Farmers ... said the time of the agent's broadcast, 6:45 a.m., was too early in winter but satisfactory for other seasons."

Noon to 1 p.m. and 7 to 8 a.m. were the most preferrred time periods for listening in a Spaven and Wallerius study.[6]

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[2]Schmitz, H. J., "What Farm People Want From Radio," 14 p., Purdue University Agricultural Extension, Lafayette, Indiana, 1948.

[3]Johnston, T. R. and Busche, L. M., "Reading and Listening Habits of Farm Folks in Eleven Northeastern Indiana Counties," Purdue University Agriculture Extension, Extension Studies Circular 7, Lafayette, Indiana, 1942.

[4]Gallup, G., "Radio As A Source of Agricultural and Homemaking Information. A Summary of Recent Extension Radio Surveys," Federal Extension Service, Circular 453, Washington, D. C., 1948.

[5]Jaccard, C. R., "The County Extension Radio Program," 19 p., Kansas State College Agriculture Extension, Manhattan, 1954.

[6]Spaven, J. and Wallerius, M. J., "What Vermont Farm People Want From Radio," 30 p., Agriculture College Extension, Burlington, Vermont, 1951.

Bertrand and Hitt[7] found that peak listening to weekday radio occurred at 12 to 12:30 p.m. in rural Louisiana. Their study showed that almost any hour after 6 a.m. found over one-third of the farm wives with their radios turned on.

Habits of listening may differ in various regions of the country and may explain differences in studies. A study in Maine[8] showed that four-fifths of all families had their radios turned on from 7 to 8 p.m. The next best time to reach large numbers of families was 12 noon and the third best time 7 to 8 a.m.

Alford[9] reported "... of the 795 with both radio and television ... over 40 per cent frequently listened to radio between 7:30 and 8 a.m., and 50 per cent at 12:30 p.m. These were the peak periods for radio."

An audience survey published in Broadcasting-Telecasting[10] of percentage of people in television homes listening to radio averaged 23 per cent in the morning, 8 per cent in the afternoon, 10 per cent at night and 30 per cent all day as averages for all people. (The latter figure is inconsistent, but was reported as such.)

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[7] Bertrand, A. L. and Hitt, H. L., "Radio Habits in Rural Louisiana," Louisiana Agriculture Experiment Station Bulletin 440, University Station, Baton Rouge, 1949.

[8] Maine University, "WABI Radio Study," 15 p., College of Agriculture Extension Service, Orono, 1948.

[9] Alford, W. D., "Survey Report on Radio-Television Listening Habits in Eastern Massachusetts," 10 p., Massachusetts University Agriculture Extension, Amherst, 1953.

[10] "The Lesson of Videotown: More Time for Radio and TV," Broadcasting-Telecasting, 47:27-28, October 11, 1954.

From audience studies in three locations, Wahn reported the following listening habits: "... fifty-nine per cent of the farm women and 55 per cent of the farm men usually listented to radio before 9 a.m."[11]

"More than one-half of the farm homes were tuned to radio at 7 and 8 o'clock in the morning and nearly two-thirds listened at noon. There was similarity in the percentage of urban, village and farm homes listening at the various hours of the day."[12]

"... from one-fourth to one-third were listening to the radio at the various hours from 7 a.m. through the noon hour with the highest percentage listening at noon and 7 a.m."[13]

In another audience survey reported in a popular trade journal, it was projected that 60 to 83 per cent of the audience may be listening before 7 a.m., 63 to 77 per cent between 10 a.m. and 1 p.m., and 41 to 76 per cent between 4 and 7 p.m. The article indicated "... people were doing other things while listening."[14]

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[11] Wahn, F. L., "The Boston Trade and Distribution Area Radio and Television Audience," 70 p., University of Wichita, Wichita, Kansas, 1952.

[12] Wahn, F. L., "The 1954 Iowa Radio-Television Audience Survey," 98 p., Kansas State College, Manhattan, 1954.

[13] Wahn, F. L., "The Kansas Radio-Television Audience of 1954," 84 p., Kansas State College, Manhattan, 1954.

[14] "Radio: Constant Companion for The People of America," Broadcasting-Telecasting, 48:31-32, May 16, 1955.

Heasley[15] surveyed habits and found that 10 per cent of the respondents indicated 6 to 7 a.m., 15 per cent 7 to 8 a.m., 13 per cent 8 to 9 a.m., and 19 per cent 12 noon to 1 p.m. as the preferred times for listening to radio. Agricultural and home economics news listening preference was noon, followed by 7 to 9 a.m.

Brown and Hatch[16] found that only about 2 1/2 per cent (of respondents) listened to radio at 6 a.m. when the Extension program was on and just over 3 per cent listened at 9 a.m. when the home economics program was broadcast.

Studying 143 farmers, Evans[17] found 60 per cent of them tuned to radio at 6:30 to 7 a.m., 51 per cent between 7 and 7:30 a.m. and a low of 29 per cent between 11:30 and noon; 50 per cent between noon and 12:30 p.m., 20 per cent between 12:30 and 1 p.m. and 5 per cent from 7 to 7:30 p.m.

Crile[18] summarized research on listening times by saying "... noon still seems to be the best time for men (preferred for

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[15]Heasley, D. K., "Evaluation of Extension's Radio and Newspaper Programming in Columbia County, Pennsylvania," Extension Studies No. 28, The Pennsylvania State University, College of Agriculture, Extension Service, University Park, March 1965, 23 p.

[16]Brown, E. and Hatch, C., "The Extension Radio Audience in Butler County," Extension Studies No. 17, Agricultural and Home Economics Extension Service, The Pennsylvania State University, University Park, September 1962.

[17]Evans, J. K., et al., "Profile of Radio and Television Listening by East-Central Illinois Farmers," 20 p., Agricultural Communications Research Report No. 20, Extension Editorial Office, University of Illinois, Urbana, August 1964.

[18]Crile, L., "Some Findings from Radio Research," Extension Service Circular 503, USDA, November 1955, p. 2.

listening to farm and home radio programs), with early morning second. The hours after breakfast and noon are still about equally good for the homemakers."

These studies indicate people have listening habits, but these habits change over a period of time. Earlier studies show a tendency toward evening listening, but since they predate TV they are not consistent with today's activity. Subsequent studies have shown how these habits change. The more recent surveys indicate the noon hour commands the highest percentage of listening, with 7 to 8 a.m. the next most popular time.

Most of the studies are 10 years old or older and are included to emphasize the lack of current information. Changes in society and results of the few current studies support the need for this study.

Where People Listen

It was felt a knowledge of where people are or the activity in which they are engaged while listening would be important in scheduling radio programs.

Only a few studies could be found that indicated where people were when listening or where radio receivers were located. Of all homes in the Boston area, Wahn[19] reported 55 per cent had sets in the living room, 40 per cent in the kitchen, 37 per cent in bedrooms,

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[19] Loc. cit.

8 per cent in the dining room and 14 per cent had them in other rooms or moved them about.

In a Politz survey reported in Broadcasting-Telecasting,[20] "... one out of three home sets was kept in the living room, 31 per cent in the bedroom, 23 per cent in the kitchen and the rest in various places."

Who Listens to Extension Broadcasts?

Research related to the audience listening to Extension's radio programs shows various results. Crile[21] summarized some findings in saying:

> "Radio families in the Nation's small towns and the surrounding countryside are loyal listeners to their home-town radio stations. Many families have their radios tuned all day to the local radio station on which the county extension agents broadcast."

In her opinion:

> "A high proportion of both men and women of all ages and income groups listen to the radio programs of the county extension agents and also those of the State extension workers in the college station broadcasts. Many listen regularly."[22]

She also indicated the effectiveness of these broadcasts:

> "Radio is an effective means of teaching. A high proportion of the people take definite action as

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[20] "Politz Study Affirms Penetration of Radio," Broadcasting-Telecasting, 45:31-32, July 27, 1953.

[21] Op. cit.

[22] Ibid., p. 4.

> the result of these programs in such ways as attending extension meetings, ordering bulletins and changing old practices or adopting new ones."[23]

In a study in 1953 similar to one done in 1944, Matthews and Whitham[24] conducted personal interviews with 346 village, rural nonfarm and farm families.

Nearly two-fifths of the people listened regularly to radio farm programs. The farm program listening habits of the people had changed very little from 1944. More than half the people listened regularly or frequently. About one-fourth of the people were regular or frequent listeners of the Connecticut Farm Forum radio program that originated at the university.

Johnston and Busche[25] reported 22 per cent of the farmers and 26 per cent of the homemakers listening to the agricultural Extension program daily or every other day.

The county agent's program had been heard by 63 per cent of the farmers; the home demonstration agent's program by 63 per cent of the homemakers and some member of 57 per cent of the families had heard the 4-H program in a study by Hanson.[26]

In this study, the work of the county agent was known by 87 per cent of the farmers; 75 per cent of the women knew of the home

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[23] Ibid.

[24] Matthews, J. L. and Whitham, G. E., "Cooperative Agricultural Extension Work in Windham County, Connecticut," 33 p., Connecticut Agriculture College Extension, Storrs, 1953.

[25] Loc. cit.

[26] Loc. cit.

demonstration agent's work; and some member of 70 per cent of the families knew of 4-H.

For the town sample, 94 per cent had working radios. About half the men had heard the county agent; 79 per cent of the women heard the home demonstration agent and some member of 45 per cent of the families had heard the 4-H Club agent. Eleven per cent of the men and 24 per cent of the women listened regularly.

From 328 interviews of farm and nonfarm homes, Jaccard[27] reports "... 57 per cent said they listened to the radio broadcasts of the county agent, 53 per cent those of the home demonstration agent and 45 per cent those of the 4-H Club agent.

Spaven and Wallerius[28] found there were more occasional listeners than regular listeners among 742 homemakers and 493 farmers, but 74 per cent of all of them heard the farm-home programs regularly or occasionally.

In a 1954 study, Moe[29] interviewed 123 Broome County, New York farmers. Agents were presenting seven radio programs -- six weekly and one biweekly. Few inquiries and few requests were received as a result of these programs. Forty per cent of the farmers interviewed listened once a month to the biweekly program over a station with a large rural audience. About half of the farmers never

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[27] Loc. cit.

[28] Loc. cit.

[29] Moe, E. O., "Where does the farmer get his information?" Farm Research Reprint No. 241, New York (Cornell) Agricultural Experiment Station, Ithaca, 1954.

heard of the program. From 60 to 80 per cent of them had never heard of the other six programs.

Gallup[30] indicated, in general, the studies limited to radio programs alone show that Extension radio programs provide a medium for reaching a large number of persons with educational information on agriculture and homemaking. Nonfarm as well as farm people are served. According to these studies, practically all who listen to Extension programs find them helpful.

He stated that the surveys show large variations in percentages of people reached by Extension radio broadcasts -- from 21 per cent in one county to 94 per cent in another; and in percentage of people taking action -- from 5 per cent in one county to 56 in another.

The WABI audience survey in Maine[31] indicated 29 per cent of the families had listened to the Extension Service program; 38 per cent did not listen to any farm program.

For the Kansas audience, Wahn[32] reported 35 per cent of the women and 47 per cent of the men usually listened to farm news programs.

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[30] Loc. cit.

[31] Loc. cit.

[32] Loc. cit.

Brown[33] concluded in a review that studies indicated the largest part of Extension's audience is nonfarm as opposed to farm population.

Brown and Hatch conducted a coincidental study at the times Extension programs were broadcast. In one location 27 per cent of the contacts (66 farmers) listened every day, 27 per cent a few times a week, 4 per cent once a week, 15 per cent seldom and 27 per cent never. For the general population, 78 per cent had not heard it, 8 per cent seldom, 8 per cent often, and 6 per cent with no frequency mentioned.[34]

Sixty-seven per cent of the farmers had never heard the two programs originating from Penn State, 9 per cent listened seldom, 17 per cent occasionally and 8 per cent often.

In another location, 55 per cent of the farmers and 78 per cent of the general population sampled had never heard the broadcasts by the county personnel.

The researchers concluded "... a relatively low percentage of the families (total population) are tuned to Extension programs."[35]

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[33]Brown, E., "Research Findings -- Extension Radio and Television," Extension Studies No. 18, The Pennsylvania State University, College of Agriculture, University Park, October 1962.

[34]Brown, E. and Hatch, C., "Extension Radio Audience in Blair County," Extension Studies No. 23, The Pennsylvania State University, College of Agriculture, University Park, October 1963.

[35]Ibid., p. 10.

Heasley[36] found that 65 per cent of the radio handout respondents and 40 per cent of the telephone respondents had heard either the AGRI DIGEST or HOME & GARDEN radio programs produced by Penn State. The farmers in the sample had heard the tapes more often than nonfarmers. For the local Extension agents' programs, 91 per cent of the handout respondents and 60 per cent of the telephone respondents listened. He reported that a high percentage of respondents indicated they would listen to agricultural programs, and had a high interest in home economics and 4-H Club news. Older respondents had the most interest in receiving information over the radio.

A Politz study[37] indicated that 93.4 per cent of all adults in New York (City) listened to radio at least once during the week (Monday through Sunday) in 1966. The survey showed slightly more men than women listened but women listened longer. The 25-34 age group had the highest percentage of listening.

A study a year earlier on radio listening showed adults 50 to 64 years old fell into the group of highest listening. For women in this age category, 52.9 per cent were heavy listeners; among men, 42.6 per cent were heavy listeners.[38]

Mary L. McKenna, a researcher for a media group, stated some of the difficulty in getting accurate information on listening

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[36] Loc. cit.

[37] "In New York, almost everyone listens," Broadcasting, August 8, 1966, pp. 76-77.

[38] "Age profile of the audience?" Broadcasting, November 15, 1965, p. 91.

habits in saying, "... measuring the radio audience (is) admittedly a difficult task since radio comes to listeners in so many packages. Further, listening occurs in conjunction with other activities."[39]

Summary of Citations

These studies indicate there is a reliance by the public on radio as a medium for obtaining information. They fail to present an up-to-date relationship between the farm and general population for listening habits. There is little comparison between the farm and general population in relation to listening to Extension broadcasts, or the types of persons that listen to the programs and the benefit derived.

Many of these studies that do mention these items were conducted before much activity was begun by the Extension Service to serve more people. Consequently, little measure of the effectiveness of radio for these goals is available.

Studies by media groups do establish some profiles on listeners but they have not made the comparisons sought in this study. And there is disagreement among pollsters on validity of these studies. As in other fields of research, the search continues for more knowledge and a "better way."

The following chapter outlines the methodology of this study. Succeeding sections present results and implications they represent.

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[39]"Want ratings to be 60% higher?" Broadcasting, January 18, 1965, p. 70.

CHAPTER IV

METHODOLOGY

Sampling Technique

Two samples were used in this study -- one for farm and the other for the general population. The unit of study was the adult male or female of the household. The farm sample was obtained from random selection of names from the Agricultural Stabilization and Conservation Service list of farmers. This list represents all farmers who are recognized as actively participating in agriculture as a business or way of life. This was used in lieu of the county Extension mailing lists in an attempt to reduce bias. Extension lists would represent those people who tend to participate in Extension activities and would not represent the total farm population. Every forty-first name was chosen from this list of 6,304 farmers and yielded 146 names for use as the farm sample. This selection resulted in 105 completed interviews.

The general population sample was obtained from the telephone directory representing exchanges from across the county. Even though 86.9 per cent of the homes in the county have at least one telephone, almost 13 per cent of the homes were not represented in the sample. Therefore, the general sample represents total homes in the county with telephones.

The first name from the first and third column of each page of the phone directory was drawn for this sample. Where a

commercial or firm name appeared, the next name down the column representing an individual or residence was chosen. This selection produced 568 names, from which 425 interviews were completed.

The general sample was larger than the farm because it represents a larger proportion of the county population. Even though there is a near-equal distribution between rural-urban population, a majority of those in the rural classification are not farmers but merely live in rural areas.

There were other recognized limitations in this selection. Some people in the county, because of strong religious beliefs, do not have telephone or radios. This explains a lower than national average per cent of radios in homes for the county.

The telephone survey was selected to obtain data in the study because it best fit the manpower and budget available. It was considered an expedient method of collecting data in the shortest time and interviewees would be least inconvenienced. The telephone survey is considered by some researchers a reliable technique of obtaining information.

Survey Team

Twenty-three persons -- members of The Pennsylvania State University staff (including radio editors, county personnel and training officers), graduate students and local adult leaders were trained to conduct the interviews. The professional staff completed 381 interviews; volunteers completed 147.

The questionnaire had been pretested and revised before the survey was conducted. Interviewers were instructed to alternate calls between men and women to obtain the desired sex characteristics. This resulted in the following distribution: farm, 49 males and 56 females; general, 173 males and 252 females.

The survey was conducted over a three-day period, Tuesday, Wednesday and Thursday, in one week. Calling centers were established at key locations across the county from which the professional staff could work to conduct the interviews so all the sample could be contacted. Telephone numbers were affixed to the schedules before they were supplied to all interviewers.

The 14 local leaders called from their homes and completed 50 farm and 97 general sample interviews. The range was from 7 to 18 completions for this group. The members of the professional group completed 18 to 63 interviews each for a total of 55 farm and 326 general sample interviews.

Although records were not kept on the length of interviews, calls could be completed within 10 minutes. When a respondent was particularly interested in the survey study, an interview could last 15 minutes or longer. Several interviewers reported talking for 30 minutes with several respondents.

No validation of interviews was provided, but it was assumed results were reliable. The professional team of callers worked in groups of two or three at each calling location. The project leader made periodic checks at each location and discussions were held at the end of each day to assess progress and response.

Schedules were collected from volunteers the following morning after the interview period. There appeared to be good cooperation from the group as many of them said they "had enjoyed doing the survey and had learned a lot about people."

Interviewing Success

From the 714 names (146 farm, 568 general) selected for the two samples, 530 interviews were completed. Table 3 represents the success of interviewing.

Table 3. Interviewing Success.

	Sample		
	Farm	General	Total
Calls completed	105	425	530
Calls not completed[a]	13	85	98
No radio	20	23	43
Refused to cooperate	8	35	43
Total	146	568	714

[a]No answer, phone disconnected, head of household not at home, moved, illness, too old to comprehend.

Interviewers were instructed to make at least three calls at different times to each number in an attempt to reach the respondent.

With exception of four calls, all interviews were completed during the planned survey period. Three schedules were not marked upon completion so it was not known when they were completed and one was listed as being completed Friday. For the farm sample, 47

interviews were completed the first day, 52 the second and 6 the third. In the general sample, 108 were completed the first day, 202 the second and 116 the third. As mentioned, four calls are not in these figures.

Age of Respondents

The average age for the farm sample (men and women) was 47.3 years, with a range of 26 to 75. This compares with an average of 45.3 years for farmers in 1964, as listed in the Agricultural Census for the county.

The average age for the general sample was 46.7 years, with a range of 19 to 91. The median for the general population in the county in 1960 was 29.8 years, compared to 30.2 years for the state.

Provisions were not made to distinguish between FM or AM stations. Data were obtained only on the basis of "radio listening."

The questionnaire was designed to gather information on five major areas: individual listening habits; knowledge of Extension; listening to Extension broadcasts and recall of information; demographic data; and information on activity that might relate to an individual's need for some of the subjects included in Extension broadcasts. See appendix for the sampling instrument.

The first page of the questionnaire was established as part of the operational procedure in conducting the survey and served as the basis for coding information for tabulation.

Data Analysis

Data were codified and entered onto IBM cards to facilitate tabulation by using the computer. Sex and sample were separated and maintained as units throughout analysis. Chi-square was used for significance testing.

The sexes in each sample were first compared on all items involved in the study. For the farm sample (comparing males and females), differences in only three items were significant: knowledge of the Extension Service; recall of program subjects; and care of houseplants.

Differences in four areas of the general sample (when sexes were compared) were significant. They were: knowledge of the Extension Service; knowledge of county Extension personnel; listening to Extension broadcasts (whether or not they listened); and listening frequency.

Subsequent analysis compared farm males and general males and farm females and general females on all items involved in the study. This latter technique yielded most of the data included in the results.

The next chapter presents results of this study.

CHAPTER V

RESULTS

Three of the five assumptions were supported while the other two were rejected.

Assumption:

1. Men and women will have distinct listening habits and listen to a particular station. Supported.
2. There will be differences in these habits among farm and nonfarm audiences. Rejected.
3. Farm listeners will rely more frequently on Extension broadcasts for information than will the general audience. Supported.
4. There will be greater variation among men than women in listening to Extension broadcasts. Rejected.
5. The farm population will have a greater knowledge of Extension and its personnel than the general population. Supported.

Radios in The Sample

Ninety-four per cent of the homes in the study had radios. Each sample averaged 3.4 radio sets per home. The number of radios was comparable in each sample.

Eighty per cent of the farm sample and 56 per cent of the general sample had at least one radio in the kitchen. See Table 4 for comparative percentages between the two samples on location of radios.

Seventy-three per cent of the farm sample and 72 per cent of the general sample indicated at least one radio set was portable. The number of portables was comparable for each sample.

When Adults Listen

Figure 2 and Table 5 represent data revealed in the study in support of the assumption that adults will have distinct listening habits. There are many similarities, in that both samples follow much the same pattern in listening throughout the day. The farm sample represents a higher degree of listening except for the afternoon and late evening hours. Both samples have peak listening times at the morning and noon meals. At 7-8 a.m. 46.7 per cent of the farm and 31.6 per cent of the general audience are listening. At noon, 40 per cent of the farm and 27.5 per cent of the general audience listens. The farm audience has another peak in the early evening when 27.7 per cent are listening from 6-7 p.m.

The figures show that some of the people in the farm sample start listening about an hour earlier in the morning but they both peak at the same time, 7-8 a.m. Information that is broadcast before 6 a.m. has a relatively small audience, even among farm families.

Table 4. Location of Radios (Per Cent of Samples).

Sample	Kitchen	Living Room	Dining Room	Bed-room	Bath	Family Room	Base-ment	Car	Truck	Tractor	Port-able	Barn	Garage	Shop
	per cent													
Farm	80	43	8	41	3	5	2	62	9	1	23	23	3	4
General	56	44	12	59	1	6	9	69	3	0	27	1	1	3

Table 5. Per Cent of Audience Listening at Specified Hours During the Day. By Sex and Sample.

	Farm			General		
	Males (N=49)	Females (N=56)	Total (N=105)	Males (N=173)	Females (N=252)	Total (N=425)
-5 a.m.	6.2	1.8	3.8	1.8	0.4	0.5
5-6	16.3	10.8	13.3	8.1	4.4	5.5
6-7	34.7	39.3	35.3	24.9	17.1	19.1
7-8	44.9	55.4	46.7	33.0	33.8	31.6
8-9	22.5	41.1	28.6	16.8	32.6	24.0
9-10	14.3	41.1	25.7	17.4	33.4	24.3
10-11	12.3	41.1	26.7	16.8	31.8	23.1
11-12	14.3	39.3	24.8	16.8	26.6	19.8
12-1 p.m.	34.7	51.8	40.0	30.7	30.6	27.5
1-2	4.1	30.4	16.2	15.1	21.5	16.0
2-3	4.1	26.8	15.3	16.2	19.5	16.0
3-4	8.2	26.8	17.2	15.1	20.3	15.8
4-5	14.3	32.2	20.0	20.9	27.4	22.4
5-6	16.3	34.0	22.9	22.0	23.5	20.8
6-7	20.5	39.1	27.7	15.7	22.3	16.8
7-8	22.5	30.4	21.0	13.3	15.5	12.3
8-9	12.3	25.0	17.2	11.0	12.3	9.7
9-10	6.2	17.9	11.5	11.0	11.9	9.2
10-11	2.1	7.2	3.9	11.0	7.6	7.6
11-12	6.2	1.8	3.8	8.1	4.8	5.2
12+	0.0	0.0	0.0	1.8	0.8	1.2

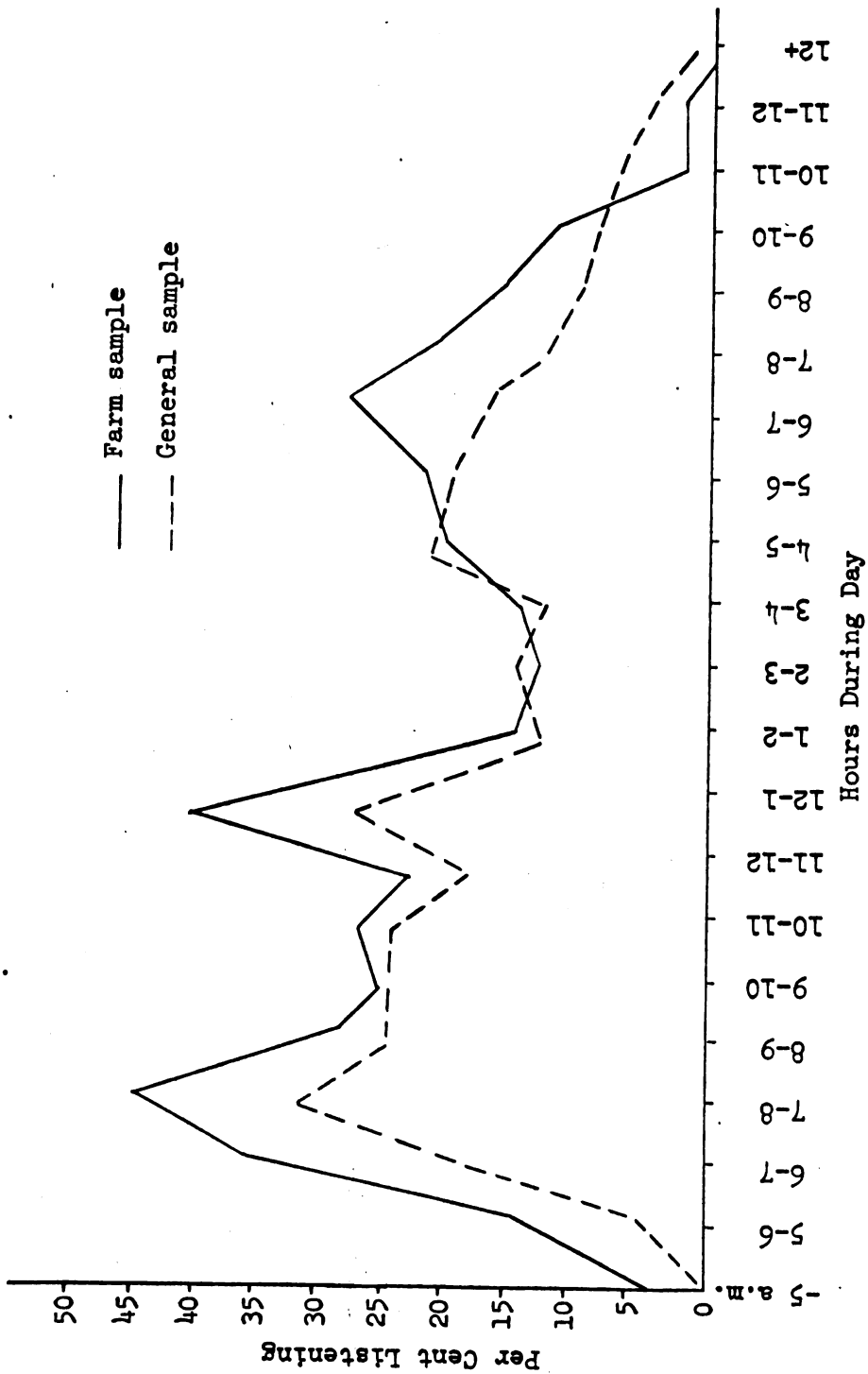

Figure 2. Listening Patterns by Sample.

Table 6 shows how many people are listening at various hours and what they are doing at these times. From 6-7 a.m. 19 per cent of the farm families are eating and/or in the kitchen. For the general population 7.5 per cent are eating and/or in the kitchen and 7.5 per cent are getting ready for and going to work. At 7-8 a.m. 25.7 per cent of the farm sample and 12 per cent of the general are eating and/or in the kitchen. At this time 10 per cent of the general sample are getting ready for or going to work.

Comparable percentages of women in both samples listen while doing housework at the various hours throughout the day, although slightly more of the farm women indicate doing this task later in the afternoon and early evening.

Data to support the premise that adults listen to a particular station were less definitive than listening times. Most respondents indicated listening to one or two local stations.

Table 7 represents the per cent of the total sample listening to the various radio stations mentioned in the survey.

These results indicate respondents are oriented to the local station as over 75 per cent of them listen to the five strongest and most popular stations in the county. About 3.6 per cent of the total sample was "cosmopolitan" oriented and listened to stations from the large metropolitan stations close to the county (Philadelphia, Baltimore and New York).

Table 6. Activity While Listening (Sample and Frequency by Hours).

	Barn, Outside		Eating		Kitchen		To/From Work		Ready for Work		House-work		Leisure		Work		Driving	
	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F
-5 a.m.	1	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5-6	3	9	4	2	2	2	4	0	7	1	2	0	0	0	1	0	0	0
6-7	4	10	23	9	9	11	17	1	16	1	7	5	4	0	1	0	0	0
7-8	2	6	34	15	18	12	20	2	21	1	28	11	6	1	2	1	3	0
8-9	2	2	14	0	19	6	8	3	2	0	41	15	6	2	6	1	4	1
9-10	2	2	1	0	14	7	0	0	1	0	64	15	6	1	8	1	7	1
10-11	1	2	0	0	7	5	1	1	0	0	63	17	6	1	10	1	10	1
11-12	1	1	2	2	9	5	0	0	0	0	51	16	5	0	9	1	7	1
12-1 p.m.	1	1	47	18	8	5	3	2	0	0	38	13	3	0	8	2	9	1
1-2	1	0	3	0	0	1	0	0	0	0	39	14	7	0	9	1	9	1
2-3	1	0	0	0	2	1	5	0	0	0	36	13	6	0	10	1	8	1
3-4	1	1	0	0	1	3	5	0	0	0	38	11	7	1	8	1	7	1
4-5	2	3	4	0	11	2	17	0	1	0	37	12	8	2	8	1	7	1
5-6	3	5	19	5	14	2	15	1	0	0	23	10	8	1	3	0	3	0
6-7	3	3	24	9	8	6	1	1	0	0	15	7	17	3	1	0	2	0
7-8	1	1	1	1	5	3	1	0	0	0	14	8	27	9	1	0	2	0
8-9	1	1	0	0	1	1	0	1	0	0	10	6	28	9	0	0	1	0
9-10	1	0	0	0	0	1	0	0	0	0	9	5	27	6	1	0	1	0
10-11	1	0	0	0	0	0	1	0	0	0	5	3	23	1	1	0	1	0
11-12	0	0	0	0	0	0	1	1	0	0	0	0	19	3	1	0	1	0
12+	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0

Table 7. Stations Listened to -- Per Cent of Total Sample.

Station	Per Cent
WDAC	9.0
WGAL	23.2
WGSA	14.5
WLAN	14.0
WSBA	14.9
Other county station	2.3
Other in state	8.3
Other state "cosmopolitan"	3.6
None mentioned	3.0
Don't know	7.2
Total	100

Differences in Listening Habits

The second assumption that there would be differences in listening habits between samples was rejected on the basis that these differences were only minor. Almost identical percentages of farm and general males listened while at work. The biggest difference occurred in driving to or from work, as only one farmer drove to work and listened to the radio. Twenty-five per cent of the general males listened while driving to or from work. The same amount (18 per cent) of both samples listened while relaxing. More farm males (42 per cent) indicated they listened while eating than did their general counterparts (29 per cent); more listened in the kitchen (13 vs. 6.5 per cent). Slightly more general males (9 per cent) listened while getting ready for work than did the farm males (7 per cent).

Females in both samples were comparable with only small variations in listening location or activity. The same per cent, 24,

in both samples indicated they listened while eating. Farm females listened more while in the kitchen (25 vs. 20 per cent). Thirty-four per cent of the farm females and 33 per cent general listened while doing housework. The figures are identical when general females listening at work are included. Ten per cent of the general female audience listened while relaxing, as did 7 per cent of the farm females. (Disparity between farm male and female percentages listening while eating resulted from different responses to the question. Women may have answered "housework" or "kitchen" rather than "eating." Analysis dealt with separate responses rather than any combination.)

When both samples are considered as a unit, 2.3 per cent listen in the barn or outside; 25.5 per cent listen while eating; 15.5 per cent listen in the kitchen; 9.8 per cent listen while driving to or from work; 6 per cent listen while getting ready for work; 19.2 per cent while doing housework; 12.2 per cent while relaxing; 2.5 per cent while at work; 1.5 per cent while driving (salesmen or for pleasure); and 5.6 per cent did not specify an activity while listening.

Education and Occupation

The general population is better educated than the farm. Only 6.5 per cent of the males and 5.7 per cent of the females in the farm sample had any college training, compared with 23.2 per cent and 15.1 per cent, respectively, in the general sample. Table 8 represents education of the two samples.

Table 8. Education.

	Under 6 Years	6-8 Years	Some High School	High School Graduate	Some College	College Graduate	Advance Degree	No Answer	Total
	per cent								
Farm									
Males (N=49)	0.00	43.48	23.91	26.09	4.35	2.17	0.00	6.12	100
Females (N=56)	1.89	35.85	30.19	26.42	3.77	1.89	0.00	5.36	100
General									
Males (N=173)	2.44	17.68	21.34	35.37	7.93	12.80	2.44	5.20	100
Females (N=252)	1.28	21.79	22.65	39.32	8.12	5.98	0.85	7.14	100

The standard occupational classes were assigned to respondents. For simplicity in analysis, professional, proprietor, clerical and sales occupations were combined to form "white collar" workers. A "blue collar" category was assigned to craftsmen, operatives, farmers and farm laborers, laborers other than farm, domestic service and protective service.

The occupation of the combined samples placed 23.8 per cent as white collar workers and 44.7 per cent as blue collar. The remaining 31.5 per cent consisted of retirees, students, those not gainfully employed or those where no precise classification of occupation was available.

Age of Respondents

The average age was 47.3 years for the farm and 46.7 for the general sample. For the total sample, 33 per cent were under 40 years old; 25 per cent in the 40's; 20 per cent in the 50's; and 22 per cent 60 or more. The farm sample has 3 per cent less in the youngest category; about the same in the 40's; about 7 per cent more in the 50's; and about 3 per cent less in the oldest age group. The range was 26 to 75 years for the farm sample and 19 to 91 years for the general sample.

Knowledge of Extension

Response to the question "Have you ever heard of the Agricultural Extension Service or the Cooperative Extension Service?" brought results that should interest Extension workers. A comparison

of samples shows 28.6 per cent of the farm sample and 58.8 per cent of the general sample did not know about it. These figures were significant at the .05 level. Table 9 presents data by sample and sex for this response.

Table 9. Have you heard of the Extension Service? (By Per Cent)

	Males		Females	
	Farm (N=49)	General (N=173)	Farm (N=56)	General (N=252)
No	18.4	53.2	37.5	62.7
Yes	81.6	46.8	62.5	37.3
Total	100	100	100	100

These figures upheld the assumption that farmers would have a better knowledge of Extension. Findings were significant on acquaintance with county Extension personnel.

Respondents were asked if they knew by name the county agent, home economist and 4-H agent. When samples were compared, 54.9 per cent of the males and 65.5 per cent of the females in the general sample knew none of them. These figures were significant at .01.

For the farm sample, 12.2 per cent of the males and 17.9 per cent of the females said they knew none of them by name. These figures were not significant.

A comparison of these figures by sex are presented in Table 10 for males and Table 11 for females.

Table 10. Male Knowledge of County Extension Workers. (By Per Cent)

Sample	None	County Agent	Home Economist	4-H Agent	County Agent & Home Economist	County Agent & 4-H Agent	All 3	Morrill & Other	All	Total
Farm (N=49)	12.2	40.8	0.0	0.0	12.2	8.2	24.5	2.0	0.0	22.1
General (N=173)	54.9	28.9	2.9	0.6	3.5	2.3	4.6	1.7	0.6	77.9
Total	45.5	31.5	2.3	0.5	5.4	3.6	9.0	1.8	0.5	100

Figures are significant at .001.

Table 11. Female Knowledge of County Extension Workers. (By Per Cent)

Sample	None	County Agent	Home Economist	4-H Agent	County Agent & Home Economist	County Agent & 4-H Agent	All 3	Morrill & Other	All	Total
Farm (N=56)	17.9	25.0	10.7	0.0	21.4	5.4	17.9	0.0	1.8	18.2
General (N=252)	65.5	31.5	3.6	0.8	9.9	1.6	5.2	0.8	0.4	81.8
Total	56.8	14.6	4.9	0.6	12.0	2.3	7.5	0.6	0.6	100

Figures are significant at .001.

A lower percentage of the male population is acquainted with the county home economist than the female population is acquainted with the county agent. A higher percentage of the male population knew county personnel than did females. This might be explained by his appearance at more civic clubs or his longer tenure in the county.

Morrill's name was used to help validate responses. Although he is identified with agriculture, he would not be identified as an Extension employee by those who truly knew the employees. Of those who indicated they knew him and those on the county staff would be suspect. Of the nine who indicated they knew him, two respondents, one farmer and a former Extension employee, identified him correctly as the congressman who authored the Land Grant Bill. The other seven responses were suspect, but were a very small per cent of the total sample. Answers to the question on knowledge of Extension personnel, were considered valid.

Listening to Extension Broadcasts

Only 5.7 per cent of the farm sample (four males and two females) listened to stations at 12:15 p.m. on the day of the interview that broadcast the county Extension program.

Few people in both samples were listening to radio between 5 and 6 a.m., another time when Extension programs were on the air. Eighteen of the farm sample were listening to the radio at that time but none of them listened to the Extension broadcast. Of the 6.3 per cent in the general sample listening at that hour, 2.3 per cent listened to the Extension program. Only two women out of the sample

could recall they had beard something related to agriculture and home economics in the broadcasts.

These results indicate there are not many people listening at this early hour when Extension information is broadcast. If it is designed to reach the farm audience at this time, it is almost totally ineffective. The program subject, method of presentation and other factors lead one to believe there was little audience interest in the program. This could help explain the low attention and poor recall factors.

Interviewees were asked, "Do you ever listen to the Extension program on radio?" Almost 43 per cent of the farm and 65 per cent of the general males never listen. Of those who do listen, the farmers listen more regularly, 22.4 per cent versus 2.9 per cent. There was less difference between occasional listening, as 34.7 per cent of the farm and 31.8 per cent of the general sample listened in this category. These figures are significant at the .001 level.

Over 48 per cent of the farm and almost 70 per cent of the general women never listen to the programs. The assumption that there would be less difference between women than men of the two samples was rejected. Fewer women in both samples listened to the programs and there was a greater difference in listening between women than men. Fourteen per cent of the farm females listened most days and 37.5 per cent listened occasionally. For the general sample women, these figures were 6 per cent and 24.2 per cent, respectively, and were significant at .01.

As predicted, the farm audience was more regular in listening to Extension programs and the assumption was supported. It was surprising to find that over 40 per cent of them never listen. This indicates the programs are not providing the type of information they can use; is not broadcast at a time they normally listen or on the station they tune to at this time; or is not presented in a manner to interest them. One would assume there is also a hard core in this group whom could never be reached by radio because they do not use radio for that purpose. They use other sources to obtain information they need.

It is interesting to note the comparable percentage of the general audience who listen occasionally. Apparently some broadcasts are of some value to these people.

It was expected that farm women would be more regular listeners to the programs because of their proximity to a radio while doing housework. Also, since they are partners in the farm enterprise and help in decision making and recordkeeping, it might be expected they would have an interest in many of the same topics as the men and rely on radio more for information. This was not found and the assumption was rejected.

This study did not attempt to determine the program topics listened to, the type of information listeners seek from radio or how well these objectives are being met by the Extension broadcasts.

Table 12 presents data on the last time respondents heard the Extension radio programs.

Table 12. Last Time Extension Program Was Heard.

Sample	Don't Know	Last Week	2 Weeks or More	Total
	- - - - - - - - - per cent - - - - - - - - -			
Males[a]				
Farm (N=49)	57.1	32.7	10.2	100
General (N=173)	82.1	4.6	13.3	100
Females[b]				
Farm (N=56)	57.1	25.0	17.8	100
General (N=252)	78.6	10.3	11.1	100

[a]Significant at .001.
[b]Significant at .01.

These results coincide with degree of listening to Extension programs and show the farm audience is more devoted to listening to the programs on a regular basis than the general audience.

Although there was a relatively small percentage of both samples that could recall topics on the Extension broadcasts, the farm sample, especially the males, exceeded others in amount of recall. About 33 per cent of the farm males and 11 per cent of the general males recalled topics. Fourteen per cent of the farm and 11 per cent of the general females recalled information. Table 13 presents information on recall.

Responses to this question were verified by checking them against the actual program content that had been presented. These figures indicate people listen to programs in which they are interested and the amount of recall will be proportional.

Table 13. Can You Remember Anything About the Program?

		Yes				
	No	Agri-cultural Topics	Homemaking & Home Grounds	4-H	Other	Total
	- - - - - - - - - - - - per cent - - - - - - - - - - - -					
Males[a]						
Farm (N=49)	67.3	20.3	2.0	2.0	8.2	100
General (N=173)	89.6	4.1	4.6	0.0	1.7	100
Females[b]						
Farm (N=56)	85.7	1.8	9.0	0.0	3.6	100
General (N=252)	88.9	4.0	4.8	0.4	2.0	100

[a]Male sample compared, significant at .001.
[b]Female sample compared, significant at .05.

Seeking Further Information

Respondents were asked, "Have you ever asked for any publications offered on the program?" It is not known how many publications or their variety are offered on the programs but agents frequently use them as the basis for broadcasts. The technique elicits relatively little response as only about 9 per cent of the farm and 2 per cent of the general males asked for publications offered on the program. Women responded with similarly low percentages -- about 7 per cent of the farm sample and almost 3 per cent of the general sample had requested them.

In response to "Have you ever asked anyone for more information about any of these programs?", 12 per cent of the farm males and 2.7 per cent of the general sample had sought information from another person. Eight per cent of these farmers asked county Extension personnel, as did 1.6 per cent of the general sample males.

Fifteen per cent of the farm women and 2 per cent from the general sample asked another person for more information. Almost 10 per cent of those farm women and all the general sample sought the information from the Extension staff. In both samples, no source was identified for the remainder who sought information. These figures are all significant at .01.

Extension generally considers radio as a medium which solicits further action, such as encouraging listeners to seek additional information. Agents are encouraged to use the medium to create interest and awareness and then suggest other sources for further knowledge. This way it can be a coordinated effort with other channels of communication for more effective education.

While no information was obtained in this study on radio messages and their effect on meeting attendance or other activities, it was thought the questions related to publications and asking others for information would give an indication of how well radio was performing its basic function to encourage further action. Results obtained indicate it is not too effective in this county.

Penn State Programs

Data were obtained on how many people listen to the two program series, AGRI-DIGEST and HOME & GARDEN, that originate at the state Extension office and are provided to stations.

These figures show the farm audience listens more than the general audience. Women listen more than men, maybe because they have more access to radio when these programs are aired. No

distinction was made between which program was heard -- AGRI-DIGEST or HOME & GARDEN. The title is descriptive of the subject matter or content of each program series.

Respondents were asked, "Do you ever listen to the AGRI-DIGEST or HOME & GARDEN programs?" Only 24.5 per cent of the farm males (8 per cent regularly) listen to these programs presented by specialists from the university. Information was not obtained on why they do not listen. Since there is more specialization in farming today it might be expected that farmers would be interested in what these specialists have to say. One has to suggest here that the programs are not aired at a convenient time or on a station listened to; they are of little value or benefit to the farmer; or he is not oriented toward radio for receiving the information he needs.

Eleven per cent of the general sample males listen to these programs, with less than one per cent listening with any degree of regularity. Figures for the male population are significant at .01.

The female population listens more frequently to these programs. Almost 38 per cent of the farm women and 22 per cent of the general women listen. Again, as with the men, the figures represent listening on an "occasional" rather than a "regular" basis. These figures were significant at .02.

The results indicate the farm sample has more interest in this program service and follow a pattern similar to the county broadcasts in listening frequency.

Extension Listeners Compared

Special analysis of the farm and general samples was made on the basis of listening to Extension radio broadcasts.

All respondents in both samples who indicated they listened to Extension programs were compared on frequency of listening, knowledge of Extension personnel, age, occupation, residence and the type of horticultural or farming activity that might describe their interest in the broadcasts.

Respondents were compared on the basis of regular or occasional listening in relation to these factors. None of the factors was significant for all four of the groups analyzed.

Age was a factor in listening frequency for only the general females. Six per cent of this group listened most days and 24.3 per cent listened occasionally. Regular listeners comprised the following age groups: 20 per cent under 40; 46.7 per cent in their 40's; and 6.6 per cent in both the 50's and 60+ groups. Occasional listeners were classed 39.1 per cent under 40; 32.8 per cent in the 40's; 16.4 per cent in the 50's; and 6.5 per cent 60 or older. These figures are significant at .02.

Occupation for males was significant at the .05 level in comparison to listening. One point six per cent of the white collar workers listened regularly and 98.4 per cent listened occasionally. For blue collar workers, 12.2 per cent listened regularly and 87.8 per cent occasionally.

Farm Males

The frequency of listening by farm males compared with recency of hearing the program was significant. Of the 11 who listened regularly, all of them had heard it in the last week. Of the 17 who listened occasionally, 41.2 per cent did not remember when they heard it; 29.4 per cent heard it in the last week; and 29.4 per cent heard it two or more weeks before. These figures were significant at .001.

Recall of program content was also significant based on frequency of listening. Seventy-three per cent of those who listened regularly recalled program topics, compared with almost 48 per cent for the occasional listeners. These figures are significant at .01.

Regular listening to county broadcasts related to regular listening to the Penn State programs. Of those who listened regularly to county broadcasts, 45.5 per cent listened to the Penn State programs, 27.3 per cent on a regular basis and 18.2 per cent occasionally. Of those who listened occasionally, 29.4 per cent listened to the state programs, 5.9 per cent on a regular and 23.5 per cent on an occasional basis. These figures are significant at .05.

Regular listeners hearing the AGRI-DIGEST or HOME & GARDEN programs also listened more recently. Twenty-seven per cent heard them the week of or the week prior to the interview. All 17.6 per cent of the occasional listeners who heard them had listened two or more weeks prior to the survey. These figures are significant at .01.

Farm Females

The only item of significance with farm females in relation to listening was recency of hearing the programs. Twenty-two point eight per cent who listen regularly, listened within the last week; 77.8 per cent could not recall when they had last heard it. Of the occasional listeners, 29 per cent listened within the last week; 47.6 per cent listened two weeks or more prior to the survey; and 23.8 per cent could not recall the last time they had listened. These figures were significant at .001.

General Females

Several comparisons made with general females on listening frequency produced results significant at .001. As with farm males and females, recency of hearing the Extension broadcast was significant. With regular listeners, 86.6 per cent listened within the last week and 6.7 per cent last heard it two or more weeks before. For occasional listeners, 34.3 per cent did not know the last time they had heard it; 21.3 per cent listened in the last week; and 44.4 per cent heard it two weeks or more before being interviewed.

There was also a relationship between listening frequency and listening to the Penn State programs for this group. Twenty per cent who listened most days to the county broadcasts listened most days to the taped programs and 46.7 per cent listened occasionally. For occasional listeners of county broadcasts, 60.6 per cent could not recall when they listened to the tapes; none listened regularly; and 39.4 per cent listened occasionally. These figures were significant at .001.

Frequency of listening in relation to having a vegetable garden produced results significant at .05 for general females. Forty per cent of those who listen regularly and 36.4 per cent of occasional listeners are gardeners. Of those who do not listen, 21.6 per cent have gardens.

These results indicate programs are of value to part of the total audience and those who rely on them regularly are avid followers. Regular listeners indicated they listened more recently than the occasional listeners and rely on programs more frequently to obtain useful information. If projections or studies were made it might be found these regular listeners would also be oriented toward other information media. It might be expected that farmers who listen to these programs would also participate in Extension activities.

Listener Characteristics by Station

Although radio stations may change their style and listening habits may change with changes in society, the following information is presented as one segment in time representing a particular situation. It may have relevancy to other locations and similar situations.

Tables 1 and 2 presented information on radio stations that were elements of this study. Five of these stations commanded the majority of listeners. Three Lancaster stations, WGAL, WLAN and WDAC; WGSA, Ephrata; and WSBA, York, accounted for 75.6 per cent of the listeners in the total sample.

Table 14 presents data on age, education and occupation as a profile of those adults who listen to these stations. Percentages

Table 14. Listener Characteristics by Station.

Station	Age				Education				Occupation	
	Under 40	40's	50's	60 Up	8 Years or Less	Some High School	High School Graduate	More Than 12 Years	White Collar	Blue Collar
	per cent									
WGAL (N=118)	31.4	25.4	19.5	22.0	19.5	23.7	39.9	17.8	24.6	41.5
WLAN (N=69)	39.1	24.6	13.0	21.7	23.2	21.7	37.7	17.4	24.6	44.9
WDAC (N=46)	34.8	19.6	13.0	32.6	45.7	28.3	21.7	4.3	17.4	63.0
WGSA (N=72)	27.8	20.8	20.8	30.6	38.9	13.9	38.9	8.3	26.4	48.6
WSBA (N=78)	46.2	25.6	14.1	14.1	24.4	30.8	32.1	12.8	12.8	60.3

Percentages are of station totals. All rows total 100 except occupation as retirees and others not gainfully employed or where specific job was not known and are not included.

are based on the total number of people listening to the particular station mentioned.

Using these 383 respondents as a separate unit of study we find the following information. For age, 35.4 per cent were under 40; 23.8 per cent in the 40's; 17.6 per cent in the 50's; and 23.3 per cent 60 or older.

Educational levels place 27.9 per cent with less than nine years; 23.5 per cent having some high school; 37.8 per cent as high school graduates; and 10.8 per cent with more than high school education.

Based on this station profile it is concluded that the younger members in the audience tune to stations following a contemporary or popular format (WLAN and WSBA). A high percentage of blue collar workers listen to these stations, either because of their popularity resulting from programming techniques or family influence.

The station with a more traditional format of old favorites and "easy listening" (WGAL) is selected by a somewhat older audience with more education.

The educational factor cannot be generalized because younger people have received proportionately more education.

WDAC has a strong religious format and attracts an older segment of the audience with less education. A larger proportion of blue collar workers listen to this station.

WGSA also attracts a slightly older audience with less education.

CHAPTER VI

SUMMARY AND IMPLICATIONS

Testing the five assumptions in this study resulted in three being supported and two being rejected.

Assumption:

1. Men and women have distinct listening habits and listen to a particular station.

Patterns were established that begin in the morning when adults awake and start the day's activities. Farm families listen while doing chores and getting ready for their daily routine. General population adults listen while preparing for work. The peak period of listening occurs when all families are eating breakfast.

Listening for males then drops to less than half its climax point as they drive to work and are involved in their breadwinning activities. The pattern for females remains relatively constant as they engage in their homemaking tasks and then the pattern assumes a gradual decline throughout the day.

Over 75 per cent of both samples listened to five radio stations that provided a strong signal in the county. Four of these were county stations and the other contiguous. Most of the listening by individuals was confined to one or two favorite stations.

2. There will be differences in these habits among farm and nonfarm audiences.

Farm families have a higher degree of listening than the general population. At the peak of listening, 55.4 per cent of the

females and 44.9 per cent of the males in the farm sample listen. The top for the general audience is 33 per cent of the females and 33.8 per cent of the males.

A similar pattern of listening throughout the day was established for both samples, which formed the basis for this assumption being rejected.

Other than farm families having more radios located in the kitchen and more listening occurring there, the samples were quite similar. Both had the same average of 3.4 radios per household and the number of sets was comparable.

3. Farm listeners relied more on Extension broadcasts for information.

Sixty-seven per cent of the males and 61 per cent of the females in the farm sample listened to the Extension broadcasts. For the general sample, 35 per cent of the males and 30 per cent of the females listened.

Differences in listening frequency for males in the two samples were significant. Twenty-two point four per cent of the farmers who listened were regular listeners compared with 2.9 per cent for general males. Occasional listening percentages were 34.7 and 31.8 for the respective samples.

4. Fewer women listened and there was more difference in their listening patterns, therefore this assumption was rejected.

Fourteen per cent of the farm females listened regularly compared to 6 per cent for general females. Occasional listening was

37.5 per cent for the farm and 24.2 per cent for the general females. These figures were significant.

Recency of hearing the county broadcasts was also a factor. Forty-two per cent of the farm males and females had heard the broadcasts recently compared to 18 per cent of the males and 21 per cent of the females in the general sample.

The radio programs produced at the university get less response than the county broadcasts. For males, 24.5 per cent of the farm (8 per cent regularly) and 11 per cent of the general (1 per cent regularly) listen. A higher percentage of females listen to these programs; 38 per cent of the farm and 22 per cent of the general sample. As with males, the majority were in the "occasional" listening classification. These figures were significant.

5. The farm population had a greater knowledge of Extension and its personnel than the general sample.

About 29 per cent of the farm and almost 49 per cent of the general sample, which are significant, indicated they had not heard of the Extension Service.

Comparing males against males and females against females in both samples on knowledge of county Extension workers gave significant results. Twelve point two per cent of the farm and 54.9 per cent of the general males and 17.9 per cent farm and 65.5 per cent of general females knew none of the personnel.

Demographic characteristics of age, education, occupation and residence were not a factor for the total sample in relation to

listening. Each of the four groups (farm males, females; general males, females) did reveal some pertinent characteristics when analyzed on the basis of listening to Extension broadcasts.

Age in relation to listening frequency was a factor only for general females. Six per cent of this group listened regularly and 20 per cent of them were under 40; 46.7 per cent were in their 40's; and 6.6 per cent were in both the 50's and 60+ age group. Occasional listeners totaled 24.3 per cent, with 39.1 per cent under 40; 32.8 per cent were in their 40's; 16.4 per cent in their 50's; and 6.5 per cent 60 or more. These figures were significant.

Occupation of males in relation to listening was significant. One point six per cent of the white collar and 12.2 per cent of the blue collar workers listened regularly; 98.4 white and 87.8 blue listened occasionally.

Degree of listening compared with recency of hearing the program, recall of program content, listening to Penn State programs and recency of listening were all significant. Listening and recency were also significant with farm females.

General females had several significant factors, including recency of listening, listening to the Penn State programs and having a vegetable garden.

Implications

A large portion of the audience does not know about Extension or listen to its radio broadcasts. The relatively small percentage of people who are listening at the time of Extension programs

might project to a sizeable audience, depending on extrapolation techniques used. Even so, to accomplish its goals, Extension needs to make a much stronger effort to reach more people effectively.

Listening patterns show many of Extension broadcasts are aired (except during the noon hour) at a time when few people are listening. Although programs do command a certain amount of attention with the audience, they should be improved to attract more regular listeners. The low audience levels found at these times make it worth investigating other formats and program techniques to improve broadcasts in an effort to increase audience. An improved radio product and contact with station management would likely result in more favorable broadcast times.

Extension workers could take better advantage of the opportunity and potential of radio in affecting their purpose of informal education. The large portion of the population listening at peak hours of the day suggest Extension programs should be designed to compete with other programming at these times, rather than being of a quality relegated to fill only public service time alloted by the station.

Advertisers buy time on the basis of reaching the most people for the least cost. Their messages are generally quality productions that reach the listener. Extension could adopt this technique and invest more effort in programming to reach more people through the medium. The return could be worth the investment.

The large percentage of the general population who are not acquainted with the county personnel and/or who do not listen to Extension broadcasts suggest several things:

1. County workers who have long tenure, tend to work with the same clientele and do not effectively extend their services outside this circle by adopting new techniques or properly utilizing the media to reach more people.
2. Extension has not been as effective as it may have been in creating an image of service to a "new and broader clientele" even though it may be helping some people by providing lawn and garden information. There is still much emphasis on production agriculture without relating it to the general public. Many areas of public affairs -- land use planning, water development, community government and other areas in which Extension is now working -- are not utilized by many Extension workers as suitable topics for radio broadcasts.
3. Radio broadcasts have not been designed for this "broader clientele" and are probably not presented in a manner to attract and interest more than a small percentage of the potential audience.

The impressive 28.6 per cent of the farm and 48.8 per cent of the general population who say they have not heard of the Cooperative Extension Service and 61.2 per cent of the general population who know none of the county personnel support these suggestions.

The base already established, with the percentage of the general population who at times are listening to current programs,

suggests an opportunity to become more effective with broadcasting to this group. It could become the basis for the kind of programming mentioned in 2 and 3.

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APPENDIX

Radio Listening Study of Adults in Lancaster County, Pennsylvania
The Pennsylvania State University
Project Leader: Norman Engel

(Mark X for each time called)

Caller's initials _____ Day called: Tues ___
Wed ___
Respondent: ___ male ___ female Thur ___
Call back at (time) _____

Name of household _____

Telephone Number _____

* * * * * * * * *

"Hello. This is (your name). I'm helping Penn State University with a radio survey. May I ask some questions about when you listen to the radio?"

1. At what times during the day are you listening to the radio? (To help aid response, you can ask if they listened before breakfast, during breakfast, while driving to work, etc.)
(Use column A -- check all times that apply)

   a. For each time, what station do you generally listen to? (Col. B)
   b. For each time, where are you when listening, that is, in the kitchen, car, etc.? (Col. C)
   c. At what times are you most likely to listen? (Circle the check(s))

Column A When Listen?	Time a.m.	Column B (Station) WGAL	WLAN	WGSA	WCOY	Other	Column C (Where are you, what are you doing at this time?)
___	before 5	___	___	___	___	___	_____
___	5-6	___	___	___	___	___	_____
___	6-7	___	___	___	___	___	_____
___	7-8	___	___	___	___	___	_____
___	8-9	___	___	___	___	___	_____
___	9-10	___	___	___	___	___	_____
___	10-11	___	___	___	___	___	_____
___	11-12	___	___	___	___	___	_____
___	12-1 p.m.	___	___	___	___	___	_____
___	1-2	___	___	___	___	___	_____
___	2-3	___	___	___	___	___	_____
___	3-4	___	___	___	___	___	_____
___	4-5	___	___	___	___	___	_____
___	5-6	___	___	___	___	___	_____
___	6-7	___	___	___	___	___	_____
___	7-8	___	___	___	___	___	_____
___	8-9	___	___	___	___	___	_____
___	9-10	___	___	___	___	___	_____
___	10-11	___	___	___	___	___	_____
___	11-12	___	___	___	___	___	_____
___	after 12	___	___	___	___	___	_____

2. How many radios do you have? (include all kinds) _____

a. Where are they located?

____ Kitchen	____ Family room	
____ Living room	____ Basement	____ Other (specify) _____
____ Dining room	____ Car	____ Barn
____ Bedroom	____ Truck	____ Garage
____ Bathroom	____ Tractor	____ Shop

b. How many of these are portable? _____

3. Have you heard of the Cooperative Extension Service or the Agricultural Extension Service?

____ No (go to question 4)
____ Yes a. What is it you've heard about it? _____

_____

4. Tell me if you have heard of or do you know the following people:

____ Max Smith	____ Win Merriam
____ Mrs. Doris Thomas	____ Justin Morrill

5. Were you listening to the radio yesterday/today (if after 1 p.m.) at 12:15?

____ No (go to part a)
____ Yes What station? ____ WGAL ____ WDAC ____ WLAN ____ Other (write in)_____

(If WGAL or WLAN) What did you listen to? _____

_____

a. Were you listening at five minutes to 1?

____ No
____ Yes What station? ____ WDAC ____ WLAN ____ WGAL ____ Other (write in)_____

(If WDAC) What did you listen to? _____

_____

b. Were you listening to the radio this morning between 5 and 6 a.m.?

____ No (go to 6)
____ Yes What station? _____
What did you listen to? _____

Did you listen to the extension broadcast?

____ No

6. Do you ever listen to the Extension program on radio?

____ No
____ Yes

a. How often? ____ most days
____ occasionally

b. When was the last time you heard it? ____ in the last week
____ in the last two or three weeks
____ more than three weeks ago
____ don't know

c. Can you remember anything about the program?

____ No
____ Yes If yes, what? _____

d. Have you ever asked for any of the publications offered on the program?

____ No
____ Yes What subject? _____

e. Have you ever asked anyone for more information about any programs?

____ No
____ Yes If yes, whom did you ask? _____

7. Do you ever listen to the Agri-Digest or Home and Garden radio programs?

____ No
____ Yes

a. How often? ____ most days
____ occasionally

b. When was the last time you heard it? ____ this week
____ last week
____ in the last two or three weeks
____ more than three weeks
____ don't know

c. What can you remember about the program? _____

d. Have you ever asked for any of the publications offered on the program?

____ No
____ Yes

e. Have you ever asked anyone for more information? ____ No
____ Yes What subject?
_____
_____

f. Who did you ask? _____

8. How many are in your family living at home, including adults? ____

a. How many children under 21 are living with you? ____

b. What are their ages? ____ ____ ____ ____ ____ ____ ____

c. How old are you? ____

d. What was the last grade of school you completed? _____

e. (ask women) Do you work outside the home? ____ No
____ Yes If yes, what do you do? _____

What does your husband do? _____

f. (ask men) What is your line of work? In other words, what do you do?

_____

What does your wife do? _____

9. Describe where you live. Is it in: ____ town of less than 10,000
____ city of more than 10,000
____ the suburbs
____ open country but you do not farm
____ farm (go to question 12)

10. Do you have: (Check if yes) a lawn ____
a flower garden ____
a vegetable garden ____
house plants ____

11. What is your biggest problem with your home grounds? _____

_____

12. Do you watch television from 12 to 12:30 (at noon)?

____ No
____ Yes

a. What station? ____ WGAL
____ WSBA
____ WHP
____ (other)

b. How often? ____ every day
____ twice a week
____ once a week
____ less than once a week

(for farm sample only)

13. How many acres do you farm? _____

14. What is your main farming enterprise? _____

a. How many milking cows do you have? _____

b. How many beef cattle do you feed? _____

c. What is the size of your poultry flock? _____

d. How many acres of tobacco do you grow? _____

e. How many acres of tomatoes? _____

f. Other major crops (fruit, etc.) _____

"Thank you very much for your time and cooperation."

Day _____ and time _____ successful call completed.

Interviewers comments: (was respondent cooperative; did they sound like they were acquainted with Extension; grumpy; etc.)
