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## ABSTRACT

A total of 699 Appalachian families with preschool children were surveyed to gather information on the availability and use of television, radio and telephone in their homes. The survey was designed to assess the practicality of using television as one of the components of the Marketable Preschool Education (MPE) Program, an extension of the Appalachia Educational Laboratory's Home-Oriented Preschool Education (HOPE) Program. Survey items about television included questions about availability, presence of color capability, size of set, reception of stations, number of non-functioning sets, and quality of reception, as well as viewing habits and preferences of children. Availability of telephone and radio were also surveyed. Results were presented in detailed data tables. Since results indicated that a large percentage of families owned a television set with good reception quality or had access to one, the practicality of the use of television as one of the components of the MPE program was established. The implications of other data for overall program planning were discussed briefly. (MS)

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A Television Survey of Appalachian Parents  
of Preschool Children

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Research and Evaluation Division  
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## Introduction

The Marketable Preschool Education Program (MPEP) is a three-component preschool program designed by AEL. It is intended to provide a cost effective intervention program to families with three-, four-, and five-year-old children in the Appalachian Region. MPEP is an extension of AEL's HOPE program. The HOPE model utilizes a paraprofessional home visitor, daily instructional television broadcasts for preschoolers, and group sessions for children and their parents. The following report is concerned with the results of a survey to provide information on the MPEP target audience in regard to the television ownership characteristics and viewing habits of the families of preschool children in the Appalachian Region.

This survey is one of four outlined in the Plan for Marketable Preschool Education Program 1974 Field Studies.<sup>1</sup> It was designed to answer questions posed by the National Institute of Education in regard to the practicality of using television as one of the components of the MPE Program. Specifically, NIE requested information on television set availability, presence of color capability, size of set, UHF capability, cable capability, reception of stations, number of non-functioning sets, and quality of reception. In addition, data were collected on other areas such as viewing habits of children in the family and availability of a telephone in the home.

In essence, this report attempts to provide background information necessary for implementation of the television component of the Marketable Preschool Education Program. The sample on which this information was collected consisted of approximately seven hundred families with preschool

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<sup>1</sup>Joe E. Shively and Brainard W. Hines. Plan for Marketable Preschool Education Program 1974 Field Studies. Charleston, W. Va.: Appalachia Educational Laboratory, Inc., June, 1974.

children in home-based programs. The data collected from this sample will be used to answer those questions posed above and to provide a description of the target population, which has been defined by AEL as Appalachian families with preschool children living in areas other than cities of 50,000 or more.<sup>2</sup>

Finally, this report contains a summary of data compiled by the A. C. Nielsen Company on the counties in which the survey was conducted. These data were collected under contract to AEL and cover percentage of multiple set households, color set ownership, stations received, and viewing hours in the survey households. These data will be used to further validate the results of AEL's survey and to provide additional information requested by NIE.

## Methodology

### Sampling Techniques

In order to locate possible sites within the region, a survey was made of existing programs utilizing regular home visits. Chief state school officers or their representatives and other knowledgeable persons were contacted to obtain a list of the home-based preschool programs in their area.

From these lists and from previous contacts with programs which utilize the HOPE process, a number of sites was tentatively selected for use in data collection within the total Appalachian Region. The logistical constraints of time and available resources made it necessary to utilize parents whose children were already enrolled in home-oriented preschool programs or

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<sup>2</sup>Charles L. Bertram and Joe E. Shively. Plan for the Marketable Pre-school Education Program Demographic Study. Charleston, W. Va.: Appalachia Educational Laboratory, Inc., May, 1974.

families who were being visited regularly by a paraprofessional. No other method of sample selection would have allowed both an accessible population and the necessary staff to conduct the surveys within the scope of work time frame. As will be seen, the sites varied in nature of preschool programs as well as sample characteristics including number of available families.

Based on the requirements of the field studies plan, an initial sample of 951 families living in the states of Alabama, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, was identified.

The sample selected for the studies generally met three broad requirements which included most of the criteria listed in the field studies plan.

1. First, the sample was typical of the target population as defined by AEL, i.e., families with preschool children living in areas other than cities of 50,000 or more.
2. Second, the sample was readily accessible and did not involve major logistical problems in data collection.
3. Third, the sample was large enough for accuracy in extrapolation and was drawn from each of the seven states chosen.

Table 1 indicates the location, size, and type of program for each of the sites which were selected for inclusion in the field surveys.

In two of the sites (DILENOWISCO and Clinch-Powell), the number of families available exceeded the number needed for sampling purposes. For this reason, a random selection of two hundred families was made in each of these two sites.

In order to determine the degree of correspondence between the sample and the MPE target audience on variables where data were already available,

Table 1  
Description of Sites

Type of Program	State	Site	Counties	Total Available	Original Sample	Revised Sample
HOPE Model	Alabama	TARCOG	Madison, Limestone, Jackson, DeKalb, Marshall	82	82	48
Head Start	Kentucky	State Head Start	Letcher, Pike, Knott	122	122	91
HOPE Model	Ohio	Project Appalachia HOPE	Gallia	143	143	116
Head Start	Pennsylvania	Armstrong Co. Com. Act. Agency	Armstrong	55	36	23
Head Start	Pennsylvania	Washington-Greene CAP	Washington, Greene	100	50	30
HOPE Model	Tennessee	Clinch-Powell Ed. Coop.	Campbell, Claiborne, Hancock, Union	600	200	176
Special Ed.	Virginia	DILENOWISCO Ed. Coop.	Lee, Wise, Scott, Norton (ind. city)	250	197	108
HOPE Model	West Virginia	Pendleton Co. ECE Demonstration	Pendleton	65	65	58
Head Start	West Virginia	Raleigh County Schools	Raleigh	56	56	49
					951	699



a preliminary comparison of data concerning the total adult population in the counties in which field study sites were located was conducted with similar data for the total Appalachian Region. The preliminary comparison was made possible by the assumption that the parents of preschool children in the field study sites varied from the total adult population in the respective counties in a manner similar to that in which the preschool parents of the Appalachian Region varied from the total adults of the Region. The variables which were chosen were the income level and television ownership of the total population of the Appalachian Region. This comparison revealed that the counties in which the sites were located as a whole had a somewhat lower level of income (\$5,746) than the figure for the overall region (\$6,873). In addition, these counties had a slightly lower percentage of families with television sets (90%) than did the region (92%).

If the field studies sample selected from each site was representative of the county from which it was chosen, then the sites slightly underestimated the socioeconomic level of the general population of the Appalachian Region. Data obtained from the Census Bureau provided evidence of the relationship between the survey sample of preschool families and the specific MPEP target population. Since the survey sample distribution and the U. S. Census Bureau population distribution were dissimilar, a matrix sampling technique was used to obtain a survey sample which was representative of the regional population. There were 699 families in the revised survey sample.

#### Data Collection Techniques

Evaluation staff at AEL trained the supervisory staff of the nine sites, who in turn trained the staff who administered the survey, since it was not practical for AEL to train all of the paraprofessionals to administer the instruments used in the field surveys and the competency study.

The supervisory staff were brought to AEL during early March of 1974, and were acquainted with the purposes and structure of each study. They were trained in small groups in the administration of each instrument, and were aided in the selection of parents who were to receive each of the surveys.

After returning to their sites, the supervisors were responsible for both training and coordinating activities of the paraprofessionals. A total of fifty home visitors was trained in all of the sites, allowing for approximately twenty families to be surveyed by each home visitor.

The surveys were carried out during the period of March 15 to March 29, with most home visitors gathering data after regular working hours. This schedule helped to prevent any interference with normal program operation within the sites.

During the time the survey data were being collected, AEL staff visited with each site or contacted them by telephone to ascertain that schedules were being met and that proper data collection procedures were being followed. Following the data collection, each of the supervisory staff was "debriefed" about problems or unusual experiences which may have occurred while completing the surveys.

#### Limitation of the Study

A possible limitation exists with respect to the television survey. The geographic and topographical features of the local sites, insofar as these affect quality of television reception, may have differed from other non-urban areas of the region. In fact, quality of reception can differ depending on the side of a mountain on which a family's home is located.

Description of Instrumentation

The instrument used to gather data on television ownership and viewing characteristics of the sample is a 62-part questionnaire designed by AEL. A copy of this instrument may be found in Appendix A of this report. Generally, the questionnaire covers such areas as presence of television in the home, color reception capability, quality of reception, viewing habits of children in the family, presence of a telephone in the home, and other related areas.

The instrument was assembled by AEL staff and discussed with the National Institute of Education (NIE) monitor in Charleston. Suggested revisions were incorporated into a final draft which was then used in training the field study site coordinators. Each item of the instrument was discussed with the coordinators so that common agreement could be reached concerning the meaning of each question. Constraints of time did not permit a trial run of the instrument for validation purposes.

Part of the questionnaire was answered directly by the home visitor who viewed the television set while in operation, and part was based on the responses of the parent to questions asked by the home visitor. On the average, the instrument took about 25 minutes to administer in each home where it was given.

Due to the straightforward and objective nature of the questions asked, data on reliability of this instrument were not gathered. Where subjective judgments were made by the parent on the quality of television reception, a check was made with more objective ratings based on three photographs of television reception of varying quality. The three photographs depicting excellent, fair, and poor reception (Appendix B) were used by the home visitor to judge the quality of reception on each television channel. Although

parents were informed that they could refuse to answer any part of the survey, there was no instance of such refusal.

#### Data Analysis Techniques

Since this study was designed as a survey, the most appropriate data analysis technique was descriptive, i.e., a single tabulation of responses to each of the questions and a calculation of percentages of each response category. For this survey, no inferential statistical analyses were performed. The data which will be reported in the results section below take the form of tables indicating the percentage of respondents who answered each question in a particular way for each state involved in the survey and the total for all states. Additionally, correlations between items will be presented where appropriate.

#### Results

The responses to the television questionnaire are presented in the following section. Each of the tables in the section deals with a general subject area covered on the questionnaire, and reports percentage of the total responses for each state as well as for the total of all states. Data on the availability of television within each state and for the total region are presented in Table 2, and data on reception characteristics within the region are included in Table 3. The viewing habits of the families within the region are dealt with in Table 6, and additional figures for those questions considered important by the AEL research department are presented in Table 7. The data supplied by the Nielsen Company are presented in Appendix C.

Availability of Television

As mentioned in the introductory section, the availability of television within each state surveyed and a composite for the total region are given in Table 2. As can be seen from that table, an average of over 95% of the families surveyed had at least one television set, and of those, approximately 46% had at least one color television set. The average percentage of families owning a television set ranged from a low of 91% in Pennsylvania and Virginia to a high of 100% in the Kentucky site. Virginia also showed the lowest percentage of families owning color television sets with a figure of 29.6% while Ohio showed the highest percentage of ownership of color television sets with 60.3% of the families owning at least one color television. Overall, these figures indicate that a very high percentage of the families surveyed do own a television set, and that a surprisingly high percentage of these families own a color television. It is interesting to note that the 95.7% of ownership of at least one set for the total sample is somewhat greater than the earlier figure of 93.3% obtained by AEL<sup>3</sup> and approximates the national ownership percentage of 96.6% reported by A. C. Nielsen.<sup>4</sup> A recent analysis for AEL by the U. S. Bureau of the Census indicates that the percent television ownership by the total MPE population is 96.7%.

Of those families who owned television, almost two-thirds had sets in the 20"-25" range, with 14% reporting one or more sets 12" or less and 3% owning sets 26" or more in diagonal measurement. (Percentage figures in Table 2 for this variable do not total 100 because of multiple set ownership in the sample.)

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<sup>3</sup>Ermel Stepp, Jr. Demographic and Marketing Data for the Marketable Pre-school Education Program. Technical Report No. 26. Charleston, W. Va.: Appalachia Educational Laboratory, Inc., May, 1973.

<sup>4</sup>A. C. Nielsen Company; quoted in TV Basics. New York: Television Bureau of Advertising, July, 1974.



Table 2  
Availability of Television by States and Total Region

	Ala.	Ky.	Ohio	Pa.	Tenn.	Va.	W.Va.	Total.
% Owning At Least One Set	95.8%	100.0%	98.3%	92.5%	94.3%	92.6%	96.3%	95.7% (96.7%)*
% Who Own One or More Sets of Given Sizes (Percents will not total 100)	8.3%	11.0%	23.3%	15.1%	9.7%	13.9%	13.1%	13.6%
	35.4%	40.7%	32.8%	45.3%	38.6%	43.5%	37.4%	38.8%
	64.6%	70.3%	63.8%	75.5%	68.2%	53.7%	57.0%	64.1%
	4.2%	0.0%	3.4%	0.0%	5.7%	1.9%	3.7%	3.1%
% Owning Color TV	39.6%	45.1%	60.3%	45.3%	48.3%	29.6%	46.7%	45.9% (57%)**
% on Cable	16.7%	85.7%	15.5%	41.5%	14.2%	32.4%	39.3%	32.6%
% of Sample With Non-Functional TV	0.0%	1.1%	0.0%	0.0%	2.3%	0.0%	0.0%	0.2%
% of Sets With UHF Capability	75.0%	4.4%	73.3%	30.2%	42.6%	24.1%	12.1%	36.5% (48.8%)*
% Who Can Watch Neighbor's TV	50.0%	--	50.0%	60.0%	80.0%	0.0%	50.0%	43.3%

\*U.S. Bureau of the Census

\*\*A.C. Nielsen Company survey for total county population of all counties served by sites

Table 2 also indicates the percentage of families surveyed who had at least one set attached to a cable television system. These figures showed considerable variance across the sites in the seven states, due in part to the different natures of the target population in each of the programs. Overall, 32.6% of the families had at least one television set connected to the cable. Individual sites ranged from a low of approximately 14% in Tennessee to a high of approximately 86% in Kentucky. The figure for Kentucky is probably atypical of the region, in that the sites in Kentucky coincide almost exactly with an area of relatively high saturation of cable use. Figures from 1972 show that only 9.6% of all U. S. TV households had cable connections,<sup>5</sup> although since non-urban areas are often "fringe reception areas", there may be a greater need there for cable facilities, as is suggested by the somewhat higher figure found in this sample.

According to Table 2, only about 0.7% of all those families surveyed had a television set which was not functioning at the time of the interview. Tennessee had the highest percentage of sets which were not functioning with 2.3%, while five states had no incidences of sets reported which were not functioning at the time of the interview. Overall, most families had no difficulty with non-functional television sets at the time of the survey.

The question on the television survey which dealt with the UHF capability of the sets owned by the sample shows a great deal of variance in mean responses across the seven states. This may well be due to a misunderstanding of the question by either the examiners or the families within the

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<sup>5</sup>Television Digest, January 1, 1972, quoted in TV Basics. New York; Television Bureau of Advertising, 1972.

survey sites. The question asked simply "Does this television set have UHF capability?" It seems likely that either the parents or the paraprofessionals misunderstood the content of this item in some cases and interpreted it as meaning "Does your television set currently receive any UHF channels?" Since most television sets sold within the past several years do have UHF capability, it seems likely that the actual average percentage figure for the region is somewhat higher than that presented in Table 2.

Of those families who did not own at least one television set, approximately 43% were able to use the television of the neighbor. Again, this figure showed considerable variance from site to site in each of the states, with Tennessee showing 80% able to use a neighbor's television set and Virginia showing no one being able to use a neighbor's television set. This may well be due to the different types of geographical locations of the various samples. Overall, approximately 97% of the families who were surveyed either have a television set or have access to one in a neighbor's home.

Table 3 indicates the reception characteristics of the sample for each state and the total region. These questions were asked only of families who did not have at least one set connected to a commercial cable system. Those questions which dealt with the reception characteristics asked for a judged overall reception quality from the parent and a rated reception quality by the home visitor as she observed the television set functioning. In this case, the home visitor matched the quality of reception on the screen with a template on the questionnaire which showed three photographs of actual television screens with different qualities of reception. The correlation coefficient between the judged and rated reception quality was quite high, with an  $r$  (triserial) of .77 for the total sample.



Table 3

Reception Characteristics Within the Sample by States and Total Region

	Ala.	Ky.	Ohio	Pa.	Tenn.	Va.	W.Va.	Total
% With "Poor" Overall Reception*	7.9% <sup>1</sup>	8.3% <sup>2</sup>	1.0%	7.1%	1.4%	4.5%	6.6%	3.6%
	3.0% <sup>2</sup>	9.1%	1.1%	10.7%	0.0%	4.6%	8.2%	3.4%
% With "Excellent" Overall Reception*	39.5% <sup>1</sup>	8.3%	63.5%	46.4%	50.0%	34.8%	31.1%	45.8%
	45.9% <sup>2</sup>	18.2%	52.6%	32.1%	57.4%	32.3%	32.8%	45.7%
% Receiving Three or Fewer Channels	18.8%	37.4%	75.0%	18.9%	56.3%	52.8%	47.7%	49.6%
	66.7%	61.5%	17.2%	24.5% <sup>2</sup>	38.1%	27.8%	40.2%	37.3%
% Receiving Seven or More Channels	14.6%	1.1%	7.8%	56.6%	5.7%	19.4%	12.1%	13.0%

\*Of those not on cable

<sup>1</sup>Judged by parent

<sup>2</sup>Rated by home visitor

As alluded to previously, interpretation of these data is made with the recognition that geographical and topographical factors influence reception and were not accounted for in the study design.

For the total sample, an average of 3.6% of the parents responded they had poor overall reception, and an average of 3.4% of the television screens was judged by the home visitors to have poor reception quality. The greatest number of families with poor reception quality occurred in Kentucky, and the lowest number of those with poor reception occurred in Ohio.

Of the families in the sample, 45.8% said that overall they judged that they had excellent reception, and 45.7% of the television sets viewed by the home visitors were judged to have excellent reception. The highest percentage of excellent reception occurred in Ohio and Tennessee, with the lowest percentage of excellent reception in Kentucky. Again, these differences may well be due to the difference in terrain between these states, with Ohio having the flattest terrain and Kentucky having the most mountainous.

In general, then, approximately 96% of all the families who own televisions sets and who are not on the cable have excellent or good reception from their antenna system. It is probably unwise, however, to infer from these data that the quality of reception is the same for the non-urban Appalachian Region, although the sample sites proved to be quite similar to the region on other population parameters (e.g., education). The representativeness on selected demographic parameters does not guarantee similarity of terrain which may affect TV signal reception at individual field study sites.

It should be noted that the highest percentage of families utilizing commercial cable systems occurred in Kentucky, the site with the poorest

reception quality using standard television antenna systems. Thus, poor reception seems to lead to the installation of cable where it is available.

The data concerning quality of reception were also analyzed according to the affiliation of the stations received by the sample. As indicated in Table 4, there were 318 incidences of families receiving ABC stations, 408 receiving NBC stations, 397 receiving CBS stations, and 227 incidences of receiving PBS affiliated stations. In general, there was little difference in the quality of reception among the networks. NBC had the largest percentage of excellent ratings (50.5%) and ABC had the lowest percentage (41.8%).

Table 3 also indicates the percentage of families receiving three or fewer channels, four to six channels, and seven or more channels from their regular antenna system. For the total sample, approximately 50% of the families received three or fewer channels and 37% received four to six channels. Only about 13% of the families overall were able to receive seven or more channels on their standard television antenna system.

These figures are further clarified by the information received from the A. C. Nielsen Company. As Table 5 reveals, most counties had at least four stations available through regular and UHF broadcast stations. Generally, the counties in which the sites were located had representation from all three commercial networks and public broadcasting stations.

#### Viewing Characteristics of Sample

The percentage figures for each response category on those questions dealing with the viewing habits of the field study sample are presented in Table 6. Percentage figures are given for each state and for the total of all states.

On the question dealing with the hours per day which a child watches television, it was reported that most children watch from two to three hours

Table 4  
 Quality of Television Reception According  
 to Network Affiliations

Network	Rating*			Total
	Excellent	Fair	Poor	
ABC				
#	133	164	21	318
%	41.8	51.6	6.6	100.0
NBC				
#	206	184	18	408
%	50.5	45.1	4.4	100.0
CBS				
#	192	180	25	397
%	48.4	45.3	6.3	100.0
PBS				
#	93	111	23	227
%	41.0	48.9	10.1	100.0
Total				
#	624	639	87	1,350
%	46.2	47.3	6.5	100.0

\*The entries are the total number of times the families reported receiving a station affiliated with each network, and totals are therefore greater than the number in the sample.

Table 5.

## Number of Channels Received - Nielsen Company Sample

State/County	# Stations Available	February-March, 1974 (Call Letters)
1. DeKalb, Ala. Jackson, Ala. Marshall, Ala.	22	WAGA, WSB, WXIA, WTCG, WAPI, WBRC, WNGE, WDEF, WLAC, WCBI, WBIQ, WCIQ, WREC, WRCB, WTVV, WTVC, WHNT, WHIQ, WHMA, WMSL, WBMG, WAAV
2. Limestone, Ala. Madison, Ala.	15	WAPI, WBRC, WSM, WNGE, WDEF, WLAC, WCBI, WBIQ, WRCB, WTVV, WHNT, WHIQ, WMSL, WBMG, WAAV
3. Letcher, Ky. Knott, Ky. Pike, Ky. Carter, Ky. Gallia, Ohio	15	WLOS, WBIR, WKYT, WSAZ, WJHL, WCHS, WHIS, WHTN, WCYB, WKYH, WKPT, WKPI, WLWC, WTVN, WMUL
* 4. Lee, Va. Scott, Va. Wise, Va.	14	WTVK, WATE, WBIR, WBTB, WSAZ, WJHL, WFBC, WLOS, WDBJ, WCYB, WSJK, WKPT, WSVN, WCHS
5. Pendleton, W. Va. Raleigh, W. Va.	20	WTTG, WTVR, WSAZ, WBBT, WSAZ, WTVN, WSLS, WJHL, WTRF, WCHS, WOAY, WHIS, WDBJ, WHTN, WBOY, WCYB, WDTV, WSWP, WBRB, WKYT
* 6. Campbell, Tenn. Claiborne, Tenn. Hancock, Tenn. Union, Tenn.	10	WJHL, WATE, WLOS, WBIR, WCYB, WSJK, WTVK, WLEX, WKPT, WSB
** 7. Armstrong, Pa.	10	KDKA, WJAC, WTBJ, WTRF, WSTV, WQED, WIIC, WTAE, WPSX, WPGH
8. Washington, Pa. Greene, Pa.	10	KDKA, WJAC, WTRF, WSTV, WQED, WBOY, WIIC, WTAE, WWVU, WPGH

\*Includes November, 1973

\*\*Includes November, 1973, and May, 1973

Table 6

Viewing Habits of Families in Field Study Sample

Hours/Day Child Watches TV	Ala.		Ky.		Ohio		Pa.		Tenn.		Va.		W.Va.		Total	
	C*	NC**	C	NC	C	NC	C	NC	C	NC	C	NC	C	NC	C	NC
0-1	6%		8%		8%		8%		7%		25%		16%		11%	
2-3	33%		58%		35%		34%		26%		38%		42%		37%	
4-5	42%		24%		36%		38%		39%		26%		32%		34%	
6-7	19%		10%		16%		15%		22%		5%		6%		13%	
8-9	0%		0%		4%		6%		7%		6%		5%		5%	
Time of Day Child Watches TV																
Early morning (8-10 am)	67%		4%		39%		17%		47%		31%		36%		35%	
Late morning (10-12 am)	6%		1%		9%		8%		7%		7%		5%		6%	
Early afternoon (12-2 pm)	0%		0%		2%		2%		3%		4%		0%		2%	
Late afternoon (2-5 pm)	21%		44%		15%		19%		18%		12%		15%		20%	
Early evening (5-7 pm)	0%		41%		27%		42%		10%		23%		32%		24%	
Late evening (7-later)	2%		10%		7%		9%		9%		11%		10%		9%	
Not indicated	4%		0%		3%		4%		5%		11%		2%		4%	
Time of Day When Child Has Control of TV																
Early morning (8-10 am)	91%	9%	55%	45%	75%	25%	58%	42%	89%	11%	59%	41%	65%	35%	68%	32%
Late morning (10-12 am)	48%	52%	30%	70%	37%	63%	21%	79%	52%	48%	27%	73%	25%	75%	34%	66%
Early afternoon (12-2 pm)	30%	70%	26%	74%	27%	73%	17%	83%	26%	74%	9%	91%	14%	86%	20%	80%
Late afternoon (2-5 pm)	59%	41%	70%	30%	51%	49%	52%	48%	50%	50%	23%	77%	34%	66%	45%	55%
Early evening (5-7 pm)	33%	67%	58%	42%	45%	55%	52%	48%	41%	59%	43%	57%	47%	53%	43%	57%
Late evening (7-later)	7%	93%	17%	83%	18%	82%	17%	83%	20%	80%	14%	86%	16%	84%	18%	82%

\*Control \*\* No Control

a day, with approximately 5% of the children watching eight to nine hours per day, and 11% of the children watching one hour or less per day. There was considerable variance in the percentages of families who reported that their children watched zero to one hour per day across sites, with Alabama reporting only 6% of the children watching one hour or less, while in Virginia 25% of the families reported that their children watched one hour or less per day.

The greatest percentage of children watched television in the early morning from 8:00 to 10:00 a.m., and the smallest percentage of children watched in the early afternoon from noon to 2:00 p.m. The period from 5:00 to 7:00 p.m. showed the second highest percentage of children watching. Again, there was considerable variance across sites for each of these categories. This may have been caused by the different times of day when the children's favorite programs were being presented.

Surprisingly, some of the time periods in which the child had most control of the television set were those in which the least viewing took place. For example, although 34% of the parents reported that the children had control of their television sets in the late morning (10:00 - noon), only 6% of the children watched during this time period, most likely because few children's television programs are available during that time slot. Similarly, 43% of the parents reported that their children had control over the television in the early evening and only 24% of the parents responded that their children watched television most frequently during that time. Overall, children had least control over the television sets during the early afternoon (noon - 2:00 p.m.). This may well be due to the mothers' habits of watching soap operas and other programming during

this time. Generally, children had most control over the television sets during the early morning hours of the day. As in other areas, there is considerable variance across states in the responses of parents to this area of the questionnaire, and little relationship was found between the time when children's television programs are available and the time when the children were reported to have control of the television sets.

Table 7 is a summary of the results of miscellaneous questions asked by the AEL research department. Although these questions were not specifically requested by NIE, they were considered important by the AEL staff since they extend previous studies completed by the staff.

The first question dealt with the children's favorite television programs, as judged by the parents. Overall, parents felt that the children liked Captain Kangaroo best, followed by Sesame Street, and other programming. This is of some interest when compared with the results of an earlier study (TR No. 21)<sup>6</sup> which placed Captain Kangaroo below Sesame Street in ranked popularity with children and parents.

Overall, 95% of the families reported a radio in the home, and 78% of these had an FM radio in the home. Parents in each of the states agreed on their choice of favorite radio programming, which was pop and country music.

The final questions asked on the survey dealt with the presence of telephones in the home. Surprisingly, only 70.5% of the parents reported that they had a telephone in their home, with state figures ranging from 52% of the families reporting ownership of a telephone in the Alabama site

<sup>6</sup>Charles Bertram and Randolph MacDonald: A Comparison of Parents' Attitudes Toward AEL's "Around the Bend" and Other Children's Television Programs. Technical Report No. 21. Charleston, W. Va.: Appalachia Educational Laboratory, Inc., December, 1971.



Table 7

## Miscellaneous Information From Television Survey

	Ala.	Ky.	Ohio	Pa.	Tenn.	Va.	W. Va.	Total
Children's Favorite TV Program (1st, 2nd, 3rd choice)	1. Captain Kangaroo 2. Sesame Street 3. Misterogers	1. Captain Kangaroo 2. Other 3. Sesame Street	1. Other 2. Captain Kangaroo 3. Sesame Street	1. Sesame Street 2. Captain Kangaroo 3. Other	1. Captain Kangaroo 2. Sesame Street 3. Other	1. Sesame Street 2. Romper Room 3. Captain Kangaroo	1. Captain Kangaroo 2. Other 3. Sesame Street	1. Captain Kangaroo 2. Sesame Street 3. Other
Percent of Families With Radio	85.4%	95.6%	98.3%	98.1%	97.2%	89.8%	96.3%	95.1%
Percent of Families With FM Radio	62.5%	85.7%	83.6%	83.0%	80.7%	74.1%	72.9%	78.5%
Favorite Type of Radio Program	Pop & Country Music	Pop & Country Music	Pop & Country Music	Pop & Country Music	Pop & Country Music	Pop & Country Music	Pop & Country Music	Pop & Country Music
Telephone in Home	52.1%	61.5%	81.0%	77.4%	76.1%	60.2%	72.9%	70.5% (77.6%)*
Telephone Available in Neighbor's Home	80.8%	81.8%	90.9%	91.7%	97.5%	90.2%	92.6%	89.6%

\*U.S. Bureau of the Census

to 81% possessing a telephone in Ohio. Approximately 25% more of the families own a television set than own a telephone, which is an indication of the importance of television in Appalachian family life. Overall, of those who did not have a telephone, 90% were able to use a telephone in a neighbor's house. Thus, only about 2% of the families are totally without telephones or without the use of a telephone in the neighbor's home. Site coordinators and other persons familiar with Appalachian families have suggested at least three reasons why more families possess television sets than telephone service. First, TV represents a link with the world outside the mountains which is not easily achieved through travel or reading. Secondly, although a TV set represents a large initial investment, less financial outlay is required to maintain the reception than with telephone service. Finally, although the rural houses have been supplied with electricity, placement of additional telephone lines over the rugged, sparsely settled terrain is very costly.

#### Summary and Conclusions

As was mentioned earlier in this report, eight specific areas of information were included in AEL's scope of work for the Marketable Pre-school Education Program in 1974. The data were collected by means of a survey instrument from approximately seven hundred parents located throughout the seven states of the AEL service region. Each of these parents had at least one child of preschool age enrolled in a home-based program, and their responses were considered to be typical of those parents in AEL's target population. Data in each of the eight areas are verbally summarized below and graphically summarized in Figure 1.

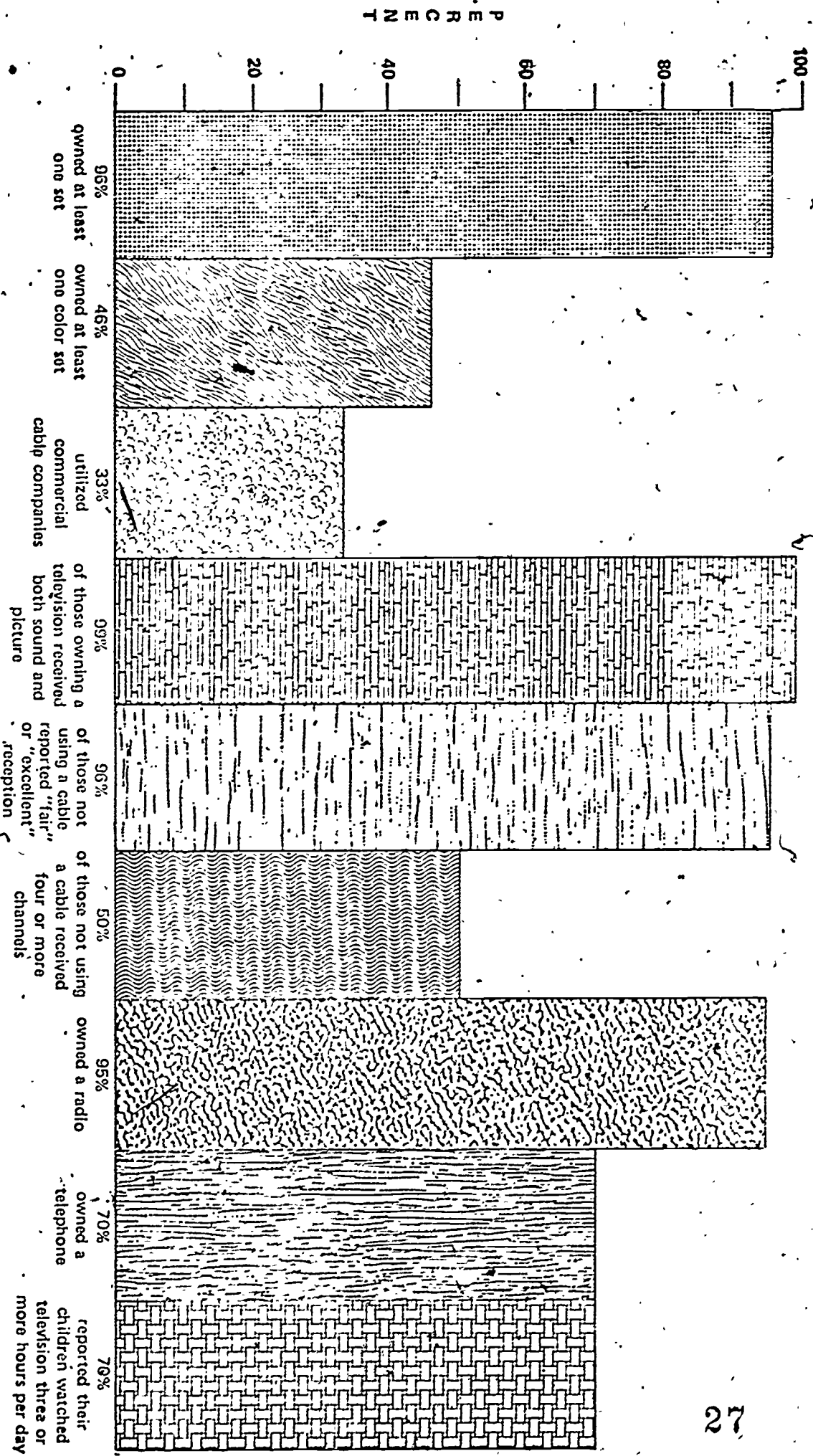


Figure 1  
 Selected Variables from Television Survey  
 (Regional, n = 699)

1. Television set availability. Ninety-six percent of the families surveyed owned at least one television set and of the remaining 4%, slightly less than one-half were able to use television in a neighbor's home.
2. Presence of color sets in the home. Of those families throughout the region who reported at least one television set, approximately 46% owned one or more color television sets.
3. Screen size of television. Most families owned television sets in the 20" to 25" diagonal measurement range, but approximately 3% owned television sets of 26" or greater measurement, and 14% owned televisions of 12" or less diagonal measurement.
4. UHF capability of television sets. The extremely wide variance of responses across states on this question raised some doubts as to the validity of the responses in some areas. Although approximately 36% of the parents overall reported that their sets had UHF capability, it seems likely that the actual figure was much higher (U. S. Census Bureau data indicate 49%), and that parents were interpreting the question to relate to the actual reception of UHF channels in some cases, or perhaps even to their own tendency to use or not use UHF in other instances.
5. Cable capability. Approximately 33% of the parents had one or more television sets connected to a commercial cable system.

6. Reception of stations. Of those families which did not have their television attached to a community cable system, approximately 37% received four to six channels and approximately 13% received ~~seven~~ to nine channels.
7. Quality of reception. For the total sample, only 3.6% of the parents said that their television reception was of poor quality, and approximately 3.4% matched their reception with a photograph of poor reception. Additionally, approximately 45.8% of the parents felt that their television reception was excellent and approximately 50.6% felt that it was fair. Equivalent percentages also matched the reception on their television set with either a very clear or slightly distorted photograph of television reception.
8. Working condition of television sets. Only 1% of the families own televisions which were not in working order. The other 99% reported that their television sets had both sound and picture present.

Additionally, AEL asked other questions dealing with areas of interest to the Marketable Preschool Education Program. These data are summarized below.

1. Average viewing time of children in the sample. Approximately 30% of the families reported that their children watched two hours or less a day, while approximately 52% of the families reported that their children watched television three to five hours a day. The remaining 18% of the families reported that their children watched more than five hours per day.

2. Time of day when child watched television. The greatest percentage of families reported that children watched television in the early morning from 8:00 to 10:00 a.m. This percentage dropped dramatically after 10:00 a.m. and remained low until the late afternoon and early evening when there were increases in the percentages reporting most frequent viewing. After 7:00 p.m., the percentage of children watching television most frequently dropped off sharply again.
3. Time of day when the child had control of the television set. The greatest percent of children were reported to have control of the television set in the early morning from 8:00 to 10:00 a.m., followed by late afternoon and early evening. Early afternoon and late evening showed the least control of children over the television set, due perhaps to parents' viewing habits.
4. Children's favorite television program. Parents ranked Captain Kangaroo as their children's favorite preschool television program, followed by Sesame Street, and then other programs such as cartoons, etc.
5. Radio ownership characteristics. Ninety-five percent of the families reported that they owned a radio, 78.5% of those reporting that they owned at least one FM radio. The total sample selected pop and country music as their favorite type of radio programming.

6. Telephone availability. Of the parents surveyed, 70.5% reported that they had a telephone in their home, and of those remaining who did not have a telephone, approximately 90% reported they were able to use one in a neighbor's home.

The primary intent of this survey has been to establish the practicality of the use of television as one of the components of AEL's MPE Program on a region-wide basis. The data which have been presented in this report supports AEL's conviction concerning the practicality of this method of presentation. The high percentage of families which own television sets, as well as the high percentage of those who could use a neighbor's television set if they did not possess one of their own, agrees well with previous figures obtained from television industry sources and published U. S. Census Bureau data. The relatively small percentage of families who had their sets connected to a commercial cable television company argues in favor of broadcast through regular commercial stations. The small number of television sets with poor reception quality or with operational difficulties indicates that the majority of families who own television sets would be able to receive an AEL broadcast with good fidelity. Although this survey did not find any major difficulties in the use of television as an educational medium in the region, it did show that approximately one-third of the families did not have a telephone in the home, suggesting that program contacts would have to be made in person rather than by telephone.

Additionally, it is hoped that the other data gathered from this survey will be of use to program staff in planning the logistics of implementing the MPE Program. The data gathered on time of day the

child watched television most frequently and the time of day when the child had control of the television have particular implications for program broadcast planning.



Appendix A

AEL 1974 Television Survey Instrument

Site \_\_\_\_\_

ID # \_\_\_\_\_ (1-9)

County \_\_\_\_\_

Home Visitor \_\_\_\_\_

## TV Survey

1. Ask the parent "How many working television sets do you have in your home?"
- No. of Sets  
\_\_\_\_\_ (10)
- If none, ask "Can your child watch television at a neighbor's house?" If no, go to "6E".
- Yes      No  
1            2      (11)
2. "How many of your sets are color and how many are black and white?"
- No. of Color  
\_\_\_\_\_ (12)
- No. of B & W  
\_\_\_\_\_ (13)
3. "How many are connected to the cable?"
- No. on Cable  
\_\_\_\_\_ (14)
4. "How many of each screen size do you have?"  
(Diagonal measurement - if the parent does not know, estimate the screen size.)
- 12" and Less  
\_\_\_\_\_ (15)
- 13"-19"  
\_\_\_\_\_ (16)
- 20"-25"  
\_\_\_\_\_ (17)
- 26" and Greater.  
\_\_\_\_\_ (18)
5. Have the parent turn on a television set and adjust it if necessary, then answer the following.
- A. Are sound and picture present?
- Yes      No  
1            2      (19)
- B. If both are not present, which is missing?
- Sound      Picture  
Missing      Missing  
1              2      (20)
- C. If sound and picture are not both present, try other channels. If sound and picture both are not present for at least one channel, place a "1" in the space provided and stop here.
- \_\_\_\_\_ (21)

D. How many channels have both sound and picture present? No. of Channels  
\_\_\_\_\_ (22)

If the set is on the cable, skip to "6".

E. What is the overall picture quality? (23)

<u>Excellent</u>	<u>Fair</u>	<u>Poor</u>
1	2	3

F. Which of the three pictures most closely resembles the overall reception quality? (24)

Picture 1	Picture 2	Picture 3
_____	_____	_____

G. How many of these sets can receive UHF channels? No. of UHF  
\_\_\_\_\_ (25)

H. If the set is not connected to a cable, fill in the following table, starting with the network column.

Channel No.	Network ID*	Call Letters	Picture Quality**
(26)	(27)		(28)
(29)	(30)		(31)
(32)	(33)		(34)
(35)	(36)		(37)
(38)	(39)		(40)
(41)	(42)		(43)

\*1 if ABC, 2 if NBC, 3 if CBS, 4 if PBS  
\*\*1, 2, or 3 from pictures

6. Turn off the set and ask the parent the following:

A. How many hours a day on the average does your child watch television? Hours Watching  
\_\_\_\_\_ (44)

B. When does your child watch television most often? (Circle one)

Early morning (8-10 a.m.)	1	
Late morning (10 a.m. - 12 noon)	2	
Early afternoon (12 noon - 2 p.m.)	3	(45)
Late afternoon (2-5 p.m.)	4	
Early evening (5-7 p.m.)	5	
Late evening (7 p.m. - later)	6	

C. What time of day does your child have control over what he watches?

- Early morning (8-10 a.m.)  
 Late morning (10 a.m. - 12 noon)  
 Early afternoon (12 noon - 2 p.m.)  
 Late afternoon (2-5 p.m.)  
 Early evening (5-7 p.m.)  
 Late evening (7 p.m. - later)

<u>Control</u>	<u>No Control</u>	
1	2	
_____	_____	(46)
_____	_____	(47)
_____	_____	(48)
_____	_____	(49)
_____	_____	(50)
_____	_____	(51)

D. What are your child's three favorite television programs for preschoolers? (Place a "1" beside the favorite; "2" beside the next most popular; "3" beside the program liked least of the three.)

_____	Captain Kangaroo	(52)
_____	Misterogers Neighborhood	(53)
_____	Sesame Street	(54)
_____	Around the Bend	(55)
_____	Romper Room	(56)
_____	Other (specify)	(57)

E. How many radios do you have in your home?

No. of Radios	
_____	(58)

How many of these are FM radios?

_____	FM	(59)
-------	----	------

F. What is your favorite type of radio program? (Circle one)

<u>1</u>	Talk Show	
<u>2</u>	Pop Music	
<u>3</u>	Gospel	(60)
<u>4</u>	Religious	

G. Do you have a telephone in your home?

Telephone		
<u>Yes</u>	<u>No</u>	
1	2	(61)

H. If no, ask "Is one available in a neighbor's home?"

Neighbor's Phone		
<u>Yes</u>	<u>No</u>	
1	2	(62)

Appendix B

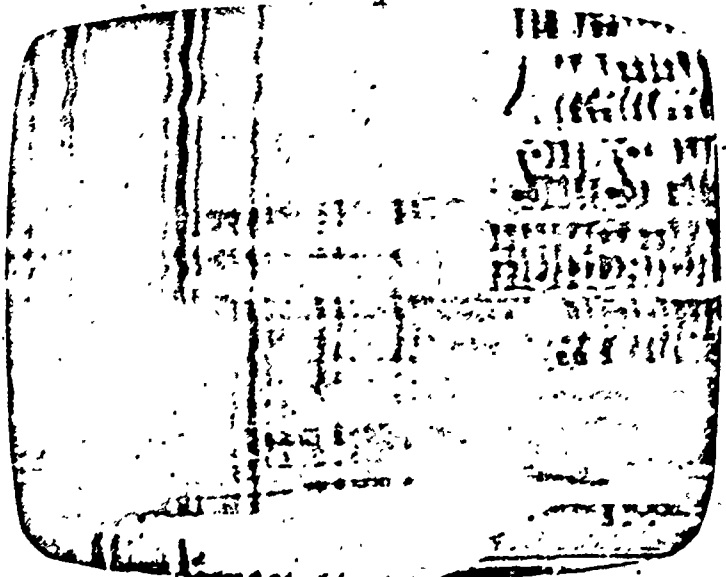
Quality of TV Reception Rating Templates



1



2



3

Appendix C

TV Household Analysis

This appendix, "Appalachia Educational Laboratory, Inc., May '73, November '73, February-March '74 TV Household Analysis," is copyrighted 1972 by A. C. Nielsen Company and is not available for ERIC reproduction at this time.

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