ED 161 410 IR 006 187

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TITLE An Evaluation of Ascertainment Data Collection Methods Appropriate to Rural Areas. Final Report.
INSTITUTION Ohio Univ., Athens. Broadcast Research Center.
SPONS AGENCY Corporation for Public Broadcasting, Washington, D.C.
PUB DATE Jan 77
NOTE 64p.; For related documents, see IR 006 184-190

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS *Community Surveys; Cost Effectiveness; *Data Collection; *Needs Assessment; Programing (Broadcast); Public Opinion; *Public Television; Questionnaires; *Research Methodology; *Rural Areas; Sampling; Statistical Analysis

ABSTRACT

Five data collection techniques and two sampling methods were examined in terms of costs, rates of return, quality of the data collected, and degree of representativeness in assessing needs and interests of public television viewers in rural areas. Data collection techniques were (1) mail only, (2) mail incentive, (3) telephone only, (4) mail and telephone, and (5) intercept or street interviews. Sampling was from telephone directories for the mail and telephone surveys, and by location for the intercept interviews. Results indicated that mail survey procedures were least efficient in terms of time and money, but the small quantity of data returned seemed to be of high quality when open-ended items are used. The intercept interview was found to be of highest efficiency in terms of time, money, and rate of return. Telephone surveys were found to be of high efficiency; however, controls over male/female ratio need to be exercised, and rates of telephone penetration and unlisted numbers must be considered. (CMV)

AN EVALUATION

OF

ASCERTAINMENT DATA COLLECTION METHODS

APPROPRIATE TO RURAL AREAS

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Final Report
January, 1977

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INTRODUCTION

As of March, 1976, the Federal Communications Commission extended to all non-commercial television stations the requirement that had previously held only for commercial stations that: "Broadcast licensees, both commercial and non-commercial, must ascertain the needs and interests of their community and must program to meet those needs" (Federal Register, 3/76, p. 12424). The Commission further determined that as part of this ascertainment process, "members of the general public would be interviewed through a roughly random sampling of the community" (FR p. 12424).

The purpose of this project was to test methods, of the "roughly random" type, of collecting ascertainment data from the general public. We were further directed to test such methods as would be logistically and economically feasible for respondents living in geographically widespread but relatively sparsely populated areas. These collection methods were tested for their relative costs, relative rates of return, the relative quality of the data collected and the degree of representativeness.

Statement of the Problem

Public television stations serving predominately rural regions face a number of problems in the ascertainment process. To begin with, there is the problem of defining the community to be ascertained. We are directed by the primer to the "community of license". That community may well be a small town among many such towns each operating in quasi-independence within the larger region of service. To place primary emphasis on one small town would only result in a denigration of service directed toward the larger, and logically more important, regional concerns. Shifting more emphasis to regional

concerns while maintaining specific interest in the city of license strikes a better balance.

Defining the community this way, however, raises formidable obstacles to the collection of data. Assuming a service radius of even 50 miles presents a data collection territory of almost 8,000 square miles. Adding another 25 miles will more than double that territory to over 17,000 square miles. Given rural population characteristics of widespread dispersal and only small areas of concentration, the simple selection of respondent households for random or quota sampling becomes exceedingly complex.

Finally, rural areas composed of many small towns present no primary focus for the identification of regional problems. Regional problems occur in the interaction (or lack of it) of these many quasi-independent communities. Each community presents only its own point of view yet all are important.[1] Consequently, a thorough review of the problems of this "community" places a heavy burden on regional public stations. In the next several sections, we will review the collection and sampling procedures available to solve these problems and consider the selection of each.

A Review of Collection Procedures

There are three fundamental data collections procedures identified by the mode of contact: 1) face to face; 2) telephone; and 3) mail.

Face-to-Face Contact

Face-to-face interviews require some personal contact between the interviewing agency and the respondent. If one is randomly sampling respondent households in the area, then, it is necessary to send interviewers in the field with either a list of household addresses or directions for

[1]Even the smaller communities as larger ones generally pose more problems for the smaller than the reverse.

selecting households based on geographic location (a more thorough discussion of sampling procedures is presented below). Contact can readily be maintained for 15 minutes. If appointments are made, contact time can be greatly extended.

If quota sampling is acceptable (see below) then, the intercept interview can be used. The intercept interview is generally conducted in some central location (such as a shopping mall) where potential respondents gather for some other purpose. Individuals are intercepted as they pass designated points and given the opportunity to respond. Contact time is generally limited to 5-10 minutes.

If neither random nor quota sampling is necessary, but an in-depth review by particular individuals is, then, the focus group interview may be used. The focus group interview makes use of a small number of selected respondents who agree to discuss a subject area over an extended period. Focus group interviews are generally conducted by "neutral facilitators" and usually require professional direction. The technique is in common use in product and program innovation. Contact time may be extensive.

Telephone Contact

Telephone contact can be initialized either from a list of randomly selected numbers from published telephone or city directories or, when circumstances warrant, from randomly generated numbers within exchanges (again see sampling procedures below). Telephone contacts seem to work best when directed by scheduled interviews (written questionnaires) of three to five minute duration. Our experience indicates a feeling of more guarded response using telephone techniques as compared with face-to-face interviews. The interviewer has less control of the situation.

Mail Contact

At first glance, mail questionnaires would appear highly useful in the ascertainment process. They can be relatively inexpensive, of any length and even include extended presentation of items; they permit the respondent convenience in answering and time for in-depth responses. Unfortunately, the facts show the mail questionnaire to be perhaps the least useful. Mail questionnaires generally have the lowest completion rate of the three contact procedures. Successful questionnaires are short, highly designed in a slick format, with inducements for the respondent and special controls in mailing.

Mail questionnaires in rural areas have the additional problem of wide variations in the quality of available mailing address lists. City directories are available only in the larger communities and telephone directories do not generally provide complete rural addresses. Delivery, then, is dependent on the individual carrier's interpretation.

A Review of Sampling Procedures

The purpose of any sampling procedure is to represent, in some degree, a larger population. (Even the sampler which still hangs in many a country home was a representation of the more extensive sewing skills of the maker). Populations are represented by samples to the extent that the relevant characteristics of the population appear in the sample in proper proportion. No sample can be declared representative without complete knowledge of the population. (In which case, sampling would be un-necessary).

We will briefly review four sampling methods: random, proportional, quota and "typical".

Random Samples

To begin with, only a random sample can (it is not guaranteed) represent a population. A random sample is one in which every member of the population has an equal chance of being selected. This simply means that every member must have unlimited availability for the sample. For human populations, this requirements is typically met only with highly specialized and circumscribed populations. Most general population samples are biased because our listings of the population are incomplete. For example, if a telephone directory was used as a list of the population of a city, all those individuals without phones, with unlisted numbers, having incorrect entries, or coming into the city after the printing deadline of the directory would not be represented at all. The sample, then, would have definite biases.

Proportional Samples

Proportional sampling is a technique used to reduce the logistical requirements of a random sample. Without going into an extensive explanation, in proportionate sampling each member of the population has a known chance of being selected. The "known chance" comes from information held to be true about the population. That information must again be error free, an unlikely characteristic given a large population--error rates on census information range from 10-15 per cent and up.

Quota Samples

Quota sampling is a non-random technique where available members of a population are selected until the sample characteristics approximate what is "known" about certain population characteristics. For example, available males and females might be interviewed until the final sample has 49 per cent males and 51 per cent females which approximates the male/female ratio in the population. While we might attach more credibility to such a sample than to one 2/3 female and 1/3 male, this sampling technique in no way

presents an unbiased sample.

Typical Samples

Typical samples are developed within circumstances which are notably less than ideal. They are unabashedly biased although some attempt is usually made to show the relationship between sample characteristics and population characteristics. Such samples, of course, cannot represent the population, but when the questions of interest are simple (such as voting) or relatively obvious then they can provide adequate information. Samples are developed through geographic sampling, from available lists or by random digit dialing. A discussion of each follows.

Geographic Sampling. In urban areas, geographical sampling is usually accomplished by the random selection of blocks within neighborhoods. Directions for the selection of individual houses are then provided to interviewers (for example, every 7th house starting with the 3rd house on the right). A less controlled sampling procedure makes use of a grid which is overlaid a map of the city. Cells of the grid are selected and directions for block and house selection given. Both of these procedures have difficulty with areas with a mixture of residences and business establishments and with multiple household dwellings. Given some independence, interviewers can effect a reasonable solution, however.

In rural areas, geographical sampling is usually keyed to identifiable communities and the roads that service them. All named communities can form the population and a sample drawn from them. Interviewers can be directed to select households within the community and from along the roads feeding into the community within a given radius.

Geographical sampling is a good way to provide respondents for personal interviews. These techniques, generally, make a larger proportion

of the population available for response as they avoid the obvious inadequacies of incomplete lists. They do require a good knowledge of the area and place a great deal of sampling responsibility on the interviewer.

Sampling from lists. When addresses are needed for mailing or individuals to be identified for telephoning, then sampling must be accomplished from available lists.

Mailing addresses can come from at least four possibilities (though not necessarily all): telephone directories, city directories, commercial mailing lists and some plat maps.

The telephone directory is the most common source of mailing addresses and (not surprisingly) telephone numbers by listed individual. Telephone directories are limited by rate of telephone penetration in an area and by the rate of unlisted numbers. Both of these rates interact with cultural groups--most upper middle class have phones but as many as 30 per cent may be unlisted; most lower class with phones are listed but many may not have phones. Rate of telephone availability is listed in census reports[2]; rate of unlisted phones can be obtained from the phone company[3].

It is not a requirement of listing that an address be provided or that the address provided be a mailing address. In rural areas, postal regulations permit the carrier to determine the mailing address. The carriers address system may correspond to the plat system and/or to local names for county and township roads or it may not. In this study, more than 1/3 of the addresses listed in the telephone directory were inadequate for mailing purposes. City directories usually provide more useful

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[2]Unfortunately, a single phone can be recorded for several households such as a hall phone in a dormitory or apartment building.

[3]Usually with some difficulty.

mailing addresses and do include those without telephones. Entry int director does require completion of a survey form by a household mem field representative of the commercial directory firm. The main fail such directories is that they are city directories and give limited a to the population outside the city limits. Small towns rarely have c directories as such directories are not commercially viable.

Commercial mailing lists are also available in larger communit They are the usual source of mailings addressed to "occupant". They provide only addresses and not names and rarely give phone numbers.

Plat maps available from the county show the individual city a division lots and rural plots of land and farms. The method used to tify the lots may correspond to mailing addresses, but more often the not. A lot identification does not necessarily signify a dwelling an dwellings are marked; they are not necessarily occupied.

In summary, the telephone directory is probably the most usefu list of individual household addresses and phone numbers. In areas, where the rate of telephone penetration falls below 80 per cent or th of unlisted numbers is greater than 20 per cent or a significant prop of the population share telephones (e.g., a college town) then, this should be augmented by other lists or other collection methods.

Random digit dealing. One technique for dealing with unlisted bers is the creation of phone numbers by adding four random numbers t three digit exchange number (e.g., 555----). This process gives all p sible combination an equal chance of being selected. It produces a l however, which is unedited for business phones, unused or disconnecte numbers, service numbers and so forth. Duplicate numbers will also a Usually, the four random digits are generated by computer programs de

for that purpose. But they can also be done "by hand" from tables of random numbers or from a higher order hand calculator which has a random number generator built in.

Selection of Collection and Sampling Methods for this Project

Face-to-Face Methods

The personal interview was rejected for use in this project. Previous experience with the personal interview approach indicated that in widely dispersed population with even low salaried student help, each interview cost approximately four dollars to collect. This amount paid only interviewer time and travel. This cost was deemed too high to be practical.

The intercept interview was adopted for use in this project. This procedure was found to be easy to set up and provided a fast return. Given sufficient foot traffic, better interviewers readily completed 12-15 interviews in an hour. With less proficient interviewers, the completion rate was less than 6 per hour. The difference seemed to be in the interviewer's proficiency with the questionnaire and approach technique.

The focus group was not considered appropriate to this subject as we were directed toward a general population survey.

Telephone Methods

Two methods using telephone contact were utilized in this project. The first was a single telephone contact (telephone only) during which the interview was completed. If requested by the respondent, the call could be replaced at a later time or day. Three attempts were made to reach "no answer" or "busy" numbers. The second telephone approach began with a mailing containing a cover letter and a copy of the ascertainment questionnaire (hereafter designated mail-telephone). The cover letter described the survey and gave the respondent the option of returning the enclosed

questionnaire or simply waiting for us to call them to record their answers. The telephone interview portion followed exactly the methods used above. In both cases, the telephone directory was used for sample lists.

Mailings

Three types of mailings were tested in this project. The first was a blind mail-out with no follow-up (mail-only);[4] the second, a blind mail-out with a token (10¢) monetary incentive included and no follow-up (mail incentive); and the third, a mail-out in response to a respondent request. Mailing lists for the two blind mail-outs were generated from telephone directories. In the third mail-out procedure, two weeks of intensive spot advertising on both radio and television generated (as of this writing) 13 requests. This procedure was deemed impractical and was dropped from further analysis.

[4]The second telephone approach can be considered a blind mail-out (no previous announcement) with a telephone follow-up. Questionnaires returned by mail were analyzed separately. They are identified as mail TFU (telephone follow-up).

PROCEDURES

This section presents the processes used in developing the questionnaire, the sampling techniques used and the collection procedures.

Questionnaires

The basis of the questionnaire forms was taken directly from the CPB Ascertation Handbook. The questionnaire described there divides roughly into three parts: The first is an open-ended question asking for identification of problems in the area; the second is a series of items, each listing a problem and requiring a forced-choice, "yes-no" response; the third is a series of respondent descriptor items. The collection procedures used here required this questionnaire to be produced in three formats; 1) mail, 2) telephone and 3) interview. A copy of each format is included in Appendix A.

The second part of the questionnaire--the forced choice items--was developed according to the recommendation of the Handbook. A master problems list, supplied by the Handbook, was circulated to station staff members. They were asked to rank in order of importance the top twenty problems from the list and to add to that list of 20 any other problem felt to be significant. These lists were reconciled in discussion with the staff members and a set of 22 problems was established. A cover letter was developed for each of the mail formats used. These contained a short introduction to the problem and a request for cooperation. Copies of the letters are in Appendix B.

We chose to modify the "race" question of the Handbook to the more general questions: Do you consider yourself a member of a minority group? If yes, which one? Previous experience had indicated that this wording was less irritating.

Sampling Methods

Two sampling methods were used; 1) location sampling and 2) sampling

from telephone directories.

Location sampling. The intercept interviews required the selection of locations where respondents would be contacted. In order to avoid "membership biasing" it was determined to use only those locations open to the general public such as commercial establishments and public buildings. Assuming all else was equal, a logical approach would be to identify population centers, select specific locales within those centers and sample in accord with the proportion of the population served by that center. All things, however, were not equal. Most population centers identified had no suitable location for intercept interviews. That is there were no commercial establishments or public buildings to which the general public would be regularly drawn. It was found that in the four counties surveyed, two counties had but one town each which provided sufficient services to provide adequate concentrations of available individuals to make the intercept interviews feasible. Of the other two counties, one had two such centers; the other three. The selection of intercept locations, then, was not random at all but was sytematically directed to those locations which presented the greatest draw for the county population. Our arguments was, clearly, that we were more likely to get a broad mix of respondents in general commercial service areas, restricted in number though they were, than in a random selection of specialized areas such as small feed stores[1], gasoline stations and the like.

Sampling from telephone lists. The only comprehensive listing of residents which could be used consistently across the four counties was contained in telephone directories. Mailing lists and city directories were unavailable for all areas. Random digit dialing which might have been

[1]One does get a special view of community problems waiting in a feed store through a day for the eight respondents scheduled for the area, however.

used for the telphone-only collection was not used because of logistical and cost considerations. Logistics were complicated because of the large number of exchanges in use in the four counties, each of which would have to be sampled proportionately, and toll charges to unuseable numbers (such as business) would have been substantial.

The use of telephone directories has classic limitations which we have reviewed. In our case, telephones were available to an average of 85 per cent of the four county population. Unlisted numbers were estimated at less than 15 per cent.

Because rural areas are often served by small independent telephone companies, special care had to be exercised to be sure that all telephone directories in use in our survey area were identified. There is no single source which identifies directories by county. In order to identify the directories, the following procedures were used: First, we developed a comprehensive list of place names for each county as telephone directories are keyed to place names. Locally drawn county maps and official state maps are the best source. Some commercial maps or atlases would also be useful, but small unincorporated areas might be missing.

The place name list was then checked against the International Telephone Directory Price List published yearly by the AT & T Long Lines Department. The price list, available at your local phone company's office, contains all the directories for each state identified by place name. Directories for several localities are often in a single binding with the largest locality as its name. Further, directory listings for small localities may occur in more than one larger directory. Sorting all of this melange out is a tedious process which must include inspection of office or library copies of the various directories. Once the desired directories are

determined, they are ordered through the local telephone company from a central distribution point. It is not usually possible to buy telephone directories directly from the local phone companies. Cost for the directories averaged about $1.50 per directory plus another dollar for postage. Once all the directories were in hand (which took about six weeks after the order) we compared the exchanges (first three digits of the number) they contained against exchange maps of the area to insure that all locations were covered. Exchange maps are drawn by state and show the area covered by each exchange number used in the state. The exchange map may or may not have county boundaries marked. Exchange maps are available from the state chapters of the Independent Telephone Association (a trade organization which includes the Bell Companies) and from the state Public Utilities Commission[3].

In order to select the specific telephone numbers or mailing addresses needed, an estimate of the total number of usable entries was first made. This estimate was the number of entries remaining once business listings, duplicate exchanges and/or out of area exchanges were deleted. It was made by randomly selecting a page and counting the relative ratio of usable entries. This proportion was then applied to the entire directory. The estimated total was divided by the sample size to obtain a sequence number (k). The sequence number directed the selection of every kth usable entry. The starting point in the directory was determined by randomly selecting a page number and an entry on that page.[4]

The sample size for each directory was determined by taking the proportion of the county population covered by the directory and multiplying it

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[3]The State ITA is located in the state capitol. You may also write: U. S. ITA, Suite 1201, 1801 K Street, N. W., Washington, D. C., 20006.

by the total sample size for that county and treatment. Thus, if a directory covered 20 per cent of the county population and a total sample of 50 was desired for that county and collection treatment, 10 entries were drawn from that directory.

These procedures were repeated until all sample size requirements were met. Each county collection treatment combination required 50 fully usable entries (phone number and mailing address) or 200 entries each for the mail-only, mail-incentive, telephone-only and mail-telephone treatments.

Collection Procedures

This section deals with the procedures used to collect data through mail contact, telephone contact, and intercept interview.

Mail contact. Mail questionnaire forms were posted first class through metered mail with a hand-stamped return address. The return address was Broadcast Research Center, Ohio University, Athens, Ohio. Each mailing included a cover letter, a questionnaire booklet and a printed postage-paid business reply envelope. The mail incentive cover letter offered respondents a dime for their efforts. The dime was taped to the letter in a space left in the body of text. All mailings were timed to arrive at the beginning of the week.

Telephone contact. All telephone sampling was done by number rather than by name. Consequently, the answering individual was interviewed. Children answering when identified, were asked to call one of their parents. Three attempts were made to complete each call. No replacements were made for numbers out of service. Telephone calls were placed from 2:00 P.M. until

[4] For example, if the estimated total was 1,000 and the sample size was 23, the sequence number would be 43. The sampler would take every 43rd usable entry (ignoring businesses, etc.) after a random start.

8:00 P.M. throughout the week until all calls and call-backs had been made. Call-backs were scheduled for a time and day different from the original call. Each call averaged approximately seven minutes. All long distance calls were dialed by a switchboard operator to simplify billing and to provide most efficient use of the lines.

The telphone interviewers were trained in a two-hour session during which the purpose of the survey was explained and basic telephone interviewing techniques discussed. Interviewers completed training exercises using the survey form in an actual telephone interview.

Intercept interviews. In each of the population centers selected, interviewers were assigned specific locations. They were instructed to intercept each individual who passed their location while the interviewer was not engaged with another respondent. These procedures were intended to reduce interviewer selection bias. Interviewers were supervised and the few deviations from the procedures brought to their attention.

In the intercept, the interviewer stepped across the line of travel of the individual saying to the effect: "Pardon me, I represent one of the television stations that serve this area. We are conducting a survey of community problems. We'd like to give you the opportunity to have your opinions heard." Without waiting for comment, the first question was asked. Interviewers were told to answer all questions to the best of their knowledge and to offer assurances of confidentiality if requested.[5]

Intercept interviewers were trained in an approximately two hour session during which the purpose of the survey was explained, basic interviewing techniques demonstrated and each interviewer role-played an interview.

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[5]All responses were, of course, confidential. Our experience has been that introducing the issue of confidentiality if not respondent raised increases the refusal rate.

Follow-up instruction and suggestions occurred after supervision.

RESULTS

The results from this study of the various collection methods were analyzed over four variables. 1) Rate of return, 2) cost per unit returned, 3) quality of data returned, and 4) representativeness of returned sample. These analyses follow in order.

Rate of Return

Return rate was determined by the number of completed or partially completed questionnaires received. Return rate was a function of the number of individuals contacted or listed minus the number of individuals refusing to respond and the number of entries giving wrong addresses or phone numbers and the number of no replies. Table 1 presents the rate of return for each of the six collection treatments[6]. Analysis of Table 1 clearly demonstrates the superiority of the telephone and intercept methods over the blind mailings. The straight mail procedure generated a 20 per cent return of the original sample. The intercept interview technique was successful in eight out of 10 individuals contacted. The two telephone procedures returned an average of 68 per cent of the initial sample.

When one accounts for the listing errors and the telephone no answers in the rate of return per contact, the telephone methods return 86 per cent of the contacted sample; the intercept interviews 80 per cent and the mail an average of 25 per cent.

Cost per Unit Returned

Costs for each treatment were calculated with variable costs only. Fixed costs such as space, utilities and so on were not included. In addition, the work load of the Director of the project was considered donated to correspond with the likely event of a station staff member assuming the

[6]Respondent requested questionnaires are not included in this analysis.

ascertainment responsibility along with his/her other duties. The costs used here, then, do not represent the total costs of collecting these data but rather approximate the "out of pocket" costs a station would incur. Table 2 presents the supplies and tasks required for each data collection procedure and the estimated cost attributable to them. In looking at Table 2, it is important to note that there is a direct relationship between total costs and rate of return. The methods with lower total costs also have lower rates of return. The intercept interview then, which has the highest cost also has the highest rate of return. Further, as rate of return increases costs while also increasing do not increase as fast. Consequently the methods with higher rates of return are more efficient. The intercept interview then is the most efficient method with a cost per unit returned of $3.98. The mail only method is least efficient with a cost/unit returned of $7.45. Mail methods averaged a cost of $6.96 for every usable questionnaire returned; telephone methods averaged $5.15 per returned questionnaire.

Quality of Data Returned

The questionnaire form as presented in the CPB Handbook has two primary elements. 1) The open-ended question designed to generate free-response identification of problem areas, and 2) the forced choice items using designated problem areas. The quality of data returned for both of these elements by the given collection methods can be tested by the number of replies which provide no information (no answer, don't know, blank) and by the number of problem areas identified. The linkage of the first to quality is clear. If a collection method results in a large number of blank, no answer etc. "replies", it has less utility and produces a lower "quality" data set. The number-of-problems identified connection with quality may be less clear. The reasoning begins with the assumption that all communities have some

noteworthy problems. Consequently, it would be more reasonable to expect "good quality" responses to include the identification of more problem areas than "poor quality" data. Note that this definition of quality has nothing to do with the specific issues identified. Both the open-ended and forced choice sections were analyzed for their relative rates of no information responses and of problems identified. These analyses follow by section below.

Analyses of Open-Ended Item

Analysis of the collection methods for the open-ended item (What do you think are the most important problems now facing this community?) revolved around two questions. 1) Are there significant differences between treatment groups over the proportion respondents who indicate they know of problems in their area? 2) Are there significant differences between treatment groups over the proportion of respondents who indicate more than one problem for their area? These questions were answered by testing the proportion of no responses and the proportion of multiple responses for each of the mail, intercept and telephone treatments. Table 3 presents the per cent of no responses, single responses and multiple responses for each of the treatment groups. Inspection of Table 3 indicates that the intercept treatment generates the lowest per cent of no response and the telephone treatments the highest. It also indicates that the mail treatments generate the highest per cent of multiple responses and the intercept treatment the lowest.

Test for Combination

In order to simplify the analysis of collection treatments, the common treatments were tested to see if they varied significantly one from another on the variables of interest. Lacking significant differences[7], the

[7]No significant differences being a confounded result, of course, gives no guarantee that substantial differences between the methods do not exist.

treatments were combined. In the combination, questionnaires returned by mail in the mail-telephone method were treated as a third item collection treatment. The three mail treatments, then, were tested[8] for contraindications for their combination. No significant differences were found over the two variables of interest, no response and multiple response.

Similarly the two telephone treatments were tested prior to combination. Again, no significant differences were found. The Z-values for the test of two proportions for both no responses and multiple response both approached significance ($|Z|=1.87$ and 1.71, respectively), however. Examination of Table 3 shows the telephone only treatment to generate more no responses and fewer multiple responses. These findings suggested that the initial mail contact in the mail telephone treatment gave subjects the opportunity to identify and formulate problem areas. Further inspection of the table indicates that the combination of the mail and the telephone returns in the mail-telephone treatment will heighten this treatment's advantage over the telephone-only method. A test of this supposition is reported later in this section.

Test of mail, intercept and telephone treatments. The three methods of data collection were tested[9] over the proportion of no responses and multiple responses. Table 4 reports the findings of that test.

Table 4 indicates that no treatment demonstrated superiority over both variables. The telephone treatment, however, did rate the lowest on the two variables. The intercept treatment generated a significantly lower proportion of no response than either the mail or telephone treatments but the mail-treatment generated significantly higher multiple responses

[8] Walker and Lev (1953) p.78. Two ended.

[9] Walker and Lev (1953) p.78. Two ended.

than both intercept or telephone.

Comparison of telephone returns. In order to test the finding that the mail element in the mail-telephone method increased the number of problems identified and decreased the occurrences of no responses, the telephone-only group was tested against the combined mail-telephone group. Table 5 presents the per cent of no response and of multiple responses plus the absolute value of the Z-test for proportions and its probability for the two collection groups.

Table 5 shows that the mail-telephone procedure generated significantly fewer no response and a significantly higher proportion of multiple responses. This result coupled with the finding of no significant differences on these variables with the telephone respondent sub-group highlights the effect of the preceeding mailing. It would appear that the mail-telephone method provides respondents with a better opportunity to respond on open-ended items than the telephone-only method.

Analysis of Forced-Choice Items

The forced choice items were analyzed in much the same way as the open-ended item. The governing questions were the proportion of respondents linking a problem with the community and the proportion providing low information replies (blank, don't know). In order to arrive at those answers, we first tested for combining treatments.

Test for combining mail treatments. Following our procedures used in the previous analysis, the three mail treatments and the two telephone treatments were tested for contradictions to combination. For both tests, X^2 was run over the three response modes (yes, no, don't know) for the treatment groups for each item. Table 6 presents the X^2 values of the item tests for the mail treatment comparisons. (For text of the items, see Appendix A.)

Table 6 shows that only two of X^2 values were significant indicati most of the differences were in, at least, chance range. The mail were combined with little reservation.

Test for combining telephone treatments. The telephone tre were tested over each of the 22 forced choice items. Table 7 prov X^2's and probability values for each of those tests. Inspection o indicates that eight of the 22 X^2 tests were significant. Examina the cell frequencies indicated that in six of those eight cases, t phone-only group had a higher proportion "yes" responses (linking to community) and a lower proportion of "don't know" responses. A were our two variables of interest, the two telephone treatments w combined. Further exploration of the telephone-only, mail-telepho ferences is reported in a later section.

Test of mail, intercept and telephone treatments. The comb mail treatments, the intercept interview and the telephone-only tr were analyzed over the three response modes across each of the for items. The purpose of this analysis was to determine whether the data collection systematically affected the number of problem link the number of low information responses. Chi square was run over treatments by the three response modes for each of the 22 problem When a table was significant, the relative rates of yes and don't sponses was examined to determine if a pattern of superiority for ment existed across the items for either of both of the variables terest. Table 8 presents the items, the per cent of each response treatment, the chi square value for the table, the probability val the chi square and indicators of the treatment with the highest pro yes and lowest proportion of don't know response.

tween the collection methods and the responses to the problem items. Further examination of the table indicates that the collection effect is dependent on the content of the item. This effect is of sufficient strength that a problem area can be important under one collection treatment and unimportant under another. For example, better than 60 per cent of the mail survey respondents consider crime a problem, but 60 per cent of the individuals from the same area surveyed by telephone do not. Welfare is a problem for more than half of the mail and telephone respondents and not a problem for more than half of the intercept interview respondents.

Inspection of the yes and don't know indicators becomes less valuable given these circumstances. Nevertheless, it does appear that the mail treatment generates a higher proportion of don't know responses than either telephone or intercept. This result may be an indication of the interviewers ability to interprete or re-state items for the respondents. It also appears that the telephone treatment generates fewer yes responses than either the intercept or the mail. A ready explanation for this effect did not occur from these data. The comparison of the telephone-only and mail-telephone treatments, however, did provide some additional insight. The result of that comparison is reported below.

Comparison of telephone-only and mail-telephone treatments. Following the procedure outlines in the section directly above, the telephone-only treatment was compared with the mail-telephone treatment. Table 9 presents the items, the response percentages, X^2 values and indicators of higher yes and lower don't know responses. In evaluating the data of Table 9, it is important to remember that the difference between the two treatments was that the mail-telephone households received a copy of the questionnaire 10 days

by mail (N=37) were not telephoned. The 90 households not returning the questionnaire were contacted by phone, but the individual responding had not necessarily been the addressee of the questionnaire. The data in Table 9 show the same substantial interaction between collection method and responses. The reader's attention is particularly directed to items on inflation, traffic, unemployment and welfare where the treatment groups show definitive reversals.

In looking at the relative rates of don't know responses, the telephone-only treatment shows lower percentages in 14 of 17 significant chi squares. The relative rates of yes responses show no clear treatment pattern with mail-telephone being higher in 9 and the telephone-only higher in 8.

As more than two-thirds of the mail-telephone sample was contacted by phone, the interviewer's ability to re-state items does not appear to be an entirely supportable explanation of the main source of the treatment differences. The don't know responses were of sufficient magnitude as to suggest some interaction with cognitive processes. It is possible that the longer time to consider the implications of the problem item raises alternate explanations and, consequently, less willingness to select a simple yes-no answer. This explanation would appear to be in concert with the earlier finding that mail-telephone respondents generated more multiple responses in the open-ended items. The longer thought processes useful in the open-end item appear to weaken the definitiveness of the forced-choice responses. (A lack of definitiveness may be wholly appropriate to reality, of course.)

Representativeness of returned sample. Each of the three major types of collection methods (mail, intercept, telephone) were analyzed to determine

the degree of representativeness of the total sample returned by the given method. Representativeness of the sample was checked over three demographic variables, sex, age and race of the respondent. To make this comparison, the characteristics of the four county population were equally weighted as our sampling plan called for equal samples from each county. The combined county sample then should distribute the relative characteristics of each county in equal measure. Chi square was then used to compare the frequencies of each value obtained from the sample with the expected values derived from the combined county population proportions. Table 10 presents these X^2 values for each demographic variable. Table 11 presents the expected and obtained percentages (X^2's were, of course, calculated over frequencies) for each demographic variable over each treatment group. In examining these tables, it is necessary to raise a caution. The race variable based on the 1970 census figures appears to be an inadequate representation of current racial mix in at least one county. That county contains a major university the students of which are counted as residents. Since 1969-70 that university has actively recruited foreign students of all races. With the overall population average of non-white being so small, the influx of even a hundred non-white students into one of the collection points can have a major effect on the sampling process.

Examination of tables 10 and 11 indicates that the mail sample was within limits on race, over-represented the 50-69 age group and under-represented the 18-29 group and over-represented males. The intercept interview sample had a higher proportion of non-whites than predicted from the census information, over-represented the 18-29 age group and under-represented the 70+ group, but was within the proper porportions on male/female. The telephone sample over-represented non-whites, was within limits on all age

groups is rarely a problem in general public surveys. The suspicion is very strong that the model is faulty. The age results falls neatly into our stereotypes of individuals in each age group. More young people are on the streets and more older adults are listed in the telephone directory. This listing bias is undoubtedly a factor in the higher male ratios in the mail collection. Telephone listings for a household have traditionally been in the name of the male head. Mail questionnaires would be so addressed. The female bias of the telephone sample seems to relate to cultural patterns of telephone answering. Our interviewers were instructed to interview the person answering the phone. More than 70 per cent of the time that person was a female. In discussion with rural families, answering the telephone was more likely to be identified as a female role than a male one.[10]

The deviations found here do not appear to be insurmountable. Relatively simple controls of address labels, selection of telephone respondents and quota sampling in intercept interviews should be adequate, but important, controls. The potential success of these controls does appear greater for telephone and intercept methods.

SUMMARY AND CONCLUSIONS

Summary

This study examined five data collection techniques and two sampling methods. The five collection techniques were 1) mail-only--a blind mail-out with no follow-up; 2) mail-incentive--a blind mail-out with a token (10¢) incentive and no follow-up; 3) telephone-only—a telephone interview completed

[10] In rural areas availability of male head of household is much less dependent on "after 5 P.M." time schedule. Area working schedules are an important factor, however.

on first contact; 4) mail-telephone--a telephone interview preceded by a mailing of a cover letter and a copy of the questionnaire which could be returned by mail to cancel the call; and 5) the intercept interview--interviews conducted "on-the-street" or in shopping centers. The two sampling methods were sampling from telephone directories for the mail and telephone collection treatments and location sampling for the intercept interviews. The data returned by these techniques and methods were examined for rate of return, relative costs, quality of the data vis a vis ascertainment requirements and representiveness of the returned sample.

Conclusions

From the finding reported in this study, the following conclusions appear warranted:

1) Mail collection procedures appear to be the least efficient in terms of time and money but the small quantity of data returned appears to be of high quality when open-ended items are used. The very low rate of return and increasing postal expenses do not recommend their use, however.

2) The intercept interview was found to be of highest efficiency in terms of time, money, and rate of return. Controls need to be instituted to avoid over-representation of youth and under-representation of senior adults. Data from the interviews were of good quality except that they lacked depth generating fewer multiple responses. Availability of suitable locations and weather conditions are clearly limiting factors. Nevertheless the intercept interview was found to be a useful method.

3) Telephone collection methods were found to be of good efficiency. Controls over male/female ratio need to be exercised, and rates of telephone penetration and unlisted numbers considered. Pre-mailing a questionnaire to telephone respondents appears to improve the quality of open-ended responses,

but to lessen the definitiveness of force-choice items. As the value of open-ended items appears higher in the ascertainment process, pre-mailing should be considered. In general, telephone collection techniques are logistically simple, return good quality data and with easily effected controls have good representiveness. Such methods have our recommendations.

TABLE 1

	Mail Only	Mail Incentive	Intercept	Telephone Only	Mail Telephone
Number initially sampled or contacted	200	200	499	224	200
Number of usable questionnaires	40	53	399	164	127
Number of refusals	-	-	100	27	20
Number of incorrect entries	24	12	-	19	23
Number of no replies/no answers	136	125	-	14	20
Per cent return	20	26	80	73	63
Rate of return per contact	23	28	80	86	86

Table 1--Return characteristics for five collection methods.

Tasks/Supplies	Costs				
	Mail Only	Mail Incentive	Intercept	Telephone Only	Mail Telephone
Drawing sample[1]	65	65	-	65	65
Design and printing questionnaires[2]	58	58	52	52	64
Postage and mailing[3]	95	95	-	-	95
Toll calls[4]	-	-	-	210	162
Interviewers[5]	-	-	500	116	76
Travel[6]	-	-	245	-	-
Data tabulation[7]	80	105	793	326	253
Approx. "out of pocket" costs	298	343[8]	1590	769	715
Number of usable questionnaires	40	53	399	164	127
Cost per unit returned	7.45	6.47	3.98	4.68	5.62

[1]includes cost of telephone books, maps and 10 hours clerical @ $4.50/hr.

[2]includes 40 hours clerical layout @ $4.50/hr.; 1½¢ per page or by mimeo for intercept and phone

[3]includes 8 hours clerical @ $4.50/hr.

[4]an average of $1.10/toll call

[5]pay rate $3.00/hr.

[6]1300 miles plus meals

[7]approximately $2.00 per completed questionnaire; hand tabs only.

[8]includes $20.00 for the 10¢ incentive

Table 2--Costs and cost per unit returned for the five data collection methods.

Table 3

	No Response	Single Response	Multiple Response
Mail only	28	20	52
Mail incentive	24	27	49
Mail TFU*	28	25	47
Intercept	18	49	33
Telephone only	46	37	17
Mail telephone**	34	40	26

*Identifies those mail/telephone questionnaires returned by mail

**Identifies those mail/telephone questionnaires returned by phone

Table 3—Per cent of no response, single response, and multiple response for each treatment group.

TABLE 4

	Mail vs. Intercept		Mail vs. Telephone		Intercept vs. Telephone	
Prop. no response	27	18	27	40	18	40
/Z/	2.22		2.52		6.21	
sign. .05	yes		yes		yes	
Prop. multiple response	49	17	49	25	17	26
/Z/	17.78		9.58		5.77	
sign. .05	yes		yes		yes	

Table 4--Test of differences in proportion for no response and multiple response over mail, intercept and telephone collection methods.

TABLE 5

	Telephone	Mail Telephone	/Z/	Sign. .05
Per cent no response	46	32	2.42	yes
Per cent multiple response	17	33	3.17	yes

Table 5--Percent of no response and multiple response for telephone-only and mail-telephone treatments and results of tests of proportions.

TABLE 6

Item	X^2	Sign. .05	Item	X^2	Sign. .05
1	3.30	-	12	5.61	-
2	4.32	-	13	3.58	-
3	0.95	-	14	1.58	-
4	3.15	-	15	11.92	yes
5	3.38	-	16	3.12	-
6	3.65	-	17	6.06	-
7	6.02	-	18	4.25	-
8	2.63	-	19	0.70	-
9	1.95	-	20	3.27	-
10	2.96	-	21	2.65	-
11	10.96	yes	22	3.76	-

Table 6--X^2 for comparison of three mail treatment groups over each forced-choice item

TABLE 7

Item	X^2	Sign. .05	Item	X^2	Sign. .05
1	5.09	-	12	9.97	yes
2	0.98	-	13	11.77	yes
3	6.40	yes	14	4.91	-
4	8.54	yes	15	2.93	-
5	3.74	-	16	3.24	-
6	7.90	yes	17	3.22	-
7	1.16	-	18	8.06	yes
8	2.11	-	19	9.76	yes
9	5.99	-	20	4.69	-
10	11.29	yes	21	4.85	-
11	3.86	-	22	3.83	-

Table 7--X^2 values for comparison of two telephone treatments over each forced-choice item.

TABLE 8

Item	Treatment	Per Cent Yes	Per Cent No	Per Cent Dk	X^2	Sign. .05	Treatment with Highest Yes	Treatment with Lowest DK
consumer issues	mail	28	43	29				
	intercept	35	61	4	65.59	yes	T	I
	telephone	41	48	11				
crime	mail	62	28	10				
	intercept	36	49	15	42.76	yes	M	T
	telephone	32	61	7				
law enforcement	mail	40	48	12				
	intercept	25	50	25	49.88	yes	M	T
	telephone	21	73	6				
energy	mail	47	34	19				
	intercept	42	46	12	14.06	yes	M	T
	telephone	39	53	8				
pollution	mail	42	36	22				
	intercept	57	34	9	61.74	yes	I	T
	telephone	32	63	5				
local government	mail	37	44	19				
	intercept	55	41	4	80.18	yes	I	I
	telephone	22	71	7				
housing	mail	31	54	15				
	intercept	68	19	13	107.34	yes	I	T
	telephone	32	58	10				
inflation	mail	88	5	7				
	intercept	44	24	32	100.77	yes	M	M
	telephone	68	25	7				
labor relations	mail	23	54	23				
	intercept	34	37	29	23.50	yes	I	T
	telephone	30	54	16				
legal services	mail	14	61	25				
	intercept	15	69	16	5.17	no		
	telephone	13	68	19				
available leisure activities	mail	38	51	11				
	intercept	37	53	10	4.36	no		
	telephone	29	62	9				

Item	Treatment	Per Cent Yes	No	Dk	X^2	Sign. .05	Treatment with Highest Yes	Lowest DK
mass media	mail	22	58	20				
	intercept	38	58	4	40.24	yes	I	I
	telephone	23	65	12				
medical care	mail	34	57	9				
	intercept	37	57	6	3.01	no		
	telephone	38	58	4				
schools	mail	31	57	12				
	intercept	30	61	9	4.92	no		
	telephone	29	56	15				
senior citizens	mail	21	62	17				
	intercept	41	57	2	64.66	yes	I	I
	telephone	17	67	16				
taxes	mail	60	33	7				
	intercept	28	57	15	42.50	yes	M	M
	telephone	43	44	13				
public transportation	mail	55	37	8				
	intercept	49	41	10	3.99	no		
	telephone	43	47	10				
traffic	mail	50	44	6				
	intercept	72	24	5	77.27	yes	I	I
	telephone	34	61	5				
unemployment	mail	64	20	16				
	intercept	24	54	22	113.99	yes	M	T
	telephone	64	29	7				
welfare	mail	65	14	21				
	intercept	14	64	22	143.45	yes	M	M
	telephone	41	34	25				
regional planning	mail	32	42	26				
	intercept	45	53	2	95.08	yes	I	I
	telephone	21	52	27				
university students	mail	17	70	13				
	intercept	30	63	7	28.18	yes	I	I
	telephone	12	74	14				

Table 8—Test of mail, intercept and telephone methods over forced-choice items.

Item	Treatment	Per Cent Yes	No	Dk	X^2	Sign. .05	Treatment with Highest Yes	Lowest DK
consumer issues	TO	41	48	11	5.41	no		
	MT	28	56	16				
crime	TO	32	61	7	9.53	yes	M	T
	MT	34	48	18				
law enforcement	TO	21	73	6	16.56	yes	T	T
	MT	13	66	21				
energy	TO	39	53	8	11.06	yes	M	T
	MT	47	36	17				
pollution	TO	32	63	5	18.38	yes	M	T
	MT	39	43	18				
local government	TO	22	71	7	17.49	yes	M	T
	MT	40	46	14				
housing	TO	32	58	10	35.64	yes	M	T
	MT	57	23	20				
inflation	TO	68	25	7	42.29	yes	T	T
	MT	38	26	36				
labor relations	TO	30	54	16	14.80	yes	T	T
	MT	15	52	33				
legal services	TO	13	68	19	1.43	no		
	MT	9	69	22				
available leisure activities	TO	29	62	9	7.64	yes	T	T
	MT	25	54	21				
mass media	TO	23	65	12	17.13	yes	M	M
	MT	46	48	6				
medical care	TO	38	58	4	5.18	no		
	MT	32	57	11				
schools	TO	29	56	15	0.04	no		
	MT	29	55	16				
senior citizens	TO	17	67	16	11.66	yes	M	M
	MT	35	52	13				
taxes	TO	43	44	13	20.11	yes	T	T
	MT	18	61	21				

continued

Item	Treatment	Per Cent Yes	No	Dk	X^2	Sign. .05	Treatment with Highest Yes	Lowest DK
public transportation	TO	43	47	10	11.24	yes	T	T
	MT	24	62	14				
traffic	TO	34	61	5	54.82	yes	M	T
	MT	71	18	11				
unemployment	TO	64	29	7	58.24	yes	T	T
	MT	19	54	26				
welfare	TO	41	34	25	53.12	yes	T	T
	MT	5	68	27				
regional planning	TO	21	52	27	9.50	yes	M	M
	MT	33	54	13				
university students	TO	12	74	14	3.95	no		
	MT	12	65	23				

Table 9--Test of telephone-only (TO) and mail-telephone (MT) treatments across forced-choice items.

TABLE 10

	Mail	Intercept	Telephone	df
Race	1.08	120.55*	52.60*	1
Age	18.62*	26.48*	5.41	3
Sex	18.44*	0.18	62.80*	1

*Significant beyond the .05 level.

Table 10--Chi square values for comparison of collection treatments by race, age, and sex of respondent.

TABLE 11

Treatment	Mail N=120		Intercept N=392		Telephone N=230	
Race	White	Non-white	White	Non-white	White	Non-white
Obtained per cent	96.6	3.4	90.3	9.7	91.3	8.7
Expected per cent	98	2	98	2	98	2

Treatment	Mail N=125				Intercept N=366				Telephone N=226			
Age	18-29	30-49	50-69	70+	18-29	30-49	50-69	70+	18-29	30-49	50-69	70+
Obtained per cent	18.4	30.4	41.6	9.6	42.9	27.0	24.0	6.0	27.9	31.8	31.8	8.4
Expected per cent	31.5	31.2	26.1	11.2	31.5	31.2	26.1	11.2	31.5	31.2	26.1	11.2

Treatment	Mail N=125		Intercept N=385		Telephone N=249	
Sex	Male	Female	Male	Female	Male	Female
Obtained per cent	68.0	32.0	49.8	50.2	23.7	76.3
Expected per cent	48.8	51.2	48.8	51.2	48.8	51.2

Table 11--Obtained and expected percentages for each treatment over the variables of race, age and sex of the respondent.

APPENDIX A

PROBLEMS IN YOUR COMMUNITY: A SURVEY

For most of us, our communities might be good right now, but could always be made a little better. The following questions were designed to tell us what you feel are problems so we can start thinking about solutions. There are no right or wrong answers to these questions; we're only interested in what you feel.

First of all...

1) How long have you lived in this area?

/please check one/

1 year or less.... ☐	11 to 15 years.... ☐
2 to 5 years..... ☐	16 to 20 years.... ☐
6 to 10 years..... ☐	20 years or more.. ☐

2) Overall, how satisfied are you with living in this community?

/Please check one/

a) very satisfied.... ☐	c) not very satisfied.. ☐
b) somewhat satisfied ☐	d) not satisfied at all ☐

3) In the space below, please write what you think are the most important problems now facing this community.

We've listed some potential problem areas below. Please indicate by a check mark in the appropriate box whether you feel these areas are a problem, are not a problem, or you are not sure.

	Problem	Not a Problem	Not Sure
4) consumer issues			
5) crime			
6) law enforcement			
7) energy			
8) pollution			
9) local government			
10) housing			
11) inflation			
12) labor relations			
13) legal services			
14) availability of leisure activities			

	Problem	Not a Problem	Not Sure
15) mass media availability, quality or content			
16) medical care			
17) schools (other than the university)			
18) senior citizens			
19) taxes			
20) public transportation			
21) traffic			
22) unemployment			
23) welfare			
24) regional planning (such as zoning)			
25) university students			

Now, just a few more questions to help us analyze our results.

35) How many people live in your household including yourself?

(Please write number)

[ ]

36) What are the ages of any children under 18 years old presently living in your household?

(Please list age of each child)

[ ][ ][ ][ ][ ][ ][ ][ ]

37) Please circle the highest grade you completed or are now attending.

grade school	voc./high school	college/tech school
1 2 3 4 5 6 7 8	9 10 11 12	1 2 3 4 5 6

38) In what year were you born?

/Please write year/

[ ]

39) Do you consider yourself a member of a minority group?

/Please check one/

yes [ ] If yes, which one

/Please write name of group/

[ ]

no [ ]

40) What is your sex?

/Please check one/

male [ ] female [ ]

(PLEASE TURN PAGE)

That's it. Many thanks for your help and cooperation. Would you please return the completed questionnaire to us in the self-addressed, postage paid, return envelope we have enclosed?

If you have any further comments, you may write them below....

PLEASE RETURN TO:

BROADCAST RESEARCH CENTER

R-TV 213

OHIO UNIVERSITY

ATHENS, OHIO 45701

ASCERTAINMENT QUESTIONNAIRE
INTERCEPT/TELEPHONE

Interviewer's Name_____ Col. No.

Location of Interview_____ Today's Date____/____/____
(Place & County) Mo. Day

Questionnaire Number_____ 1-3

HELLO, MY NAME IS_____. I'M REPRESENTING A LOCAL TELEVISION STATION HERE IN_____. WE'RE TRYING TO FIND OUT WHAT PEOPLE WHO LIVE HERE THINK ARE THE MAJOR NEEDS AND PROBLEMS OF THE COMMUNITY.

Do you live here in_____county?

☐ Yes

☐ No

(If "No" TERMINATE INTERVIEW, say:
"THANK YOU VERY MUCH, WE'RE REALLY JUST INTERESTED IN RESIDENTS OF_____.")

(If "YES", ask:)

How long have you lived in this area?

check one

1 ☐ 1 year or less 4

2 ☐ 2-5 years

3 ☐ 6-10 years

4 ☐ 11-15 years

5 ☐ 16-20 years

6 ☐ 20 years or more

Overall, how satisfied are you with living in this community? Would you say:

Read and check one

1 ☐ very satisfied
2 ☐ somewhat satisfie
3 ☐ not very satisfie
4 ☐ not satisfied at

What do you think are the most important problems now facing this community?
(Probe: ANY OTHERS?)

(List verbatim responses, one per line)

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

NOW, I'D LIKE TO REVIEW SOME POTENTIAL PROBLEM AREAS AND ASK IF CONSIDER THEM TO BE PROBLEMS IN YOUR COMMUNITY.

Are there consumer problems in your area?

1 ☐ yes
2 ☐ no
9 ☐ dk/na

Is there a crime problem?

1 ☐ yes
2 ☐ no
9 ☐ dk/na

Col. No.

Is there a law enforcement problem?

1 ☐ yes 14
2 ☐ no
9 ☐ dk/na

Is there an energy problem?

1 ☐ yes 15
2 ☐ no
9 ☐ dk/na

Is there a problem with pollution in your area?

1 ☐ yes 16
2 ☐ no
9 ☐ dk/na

Is there a problem with local government?

1 ☐ yes 17
2 ☐ no
9 ☐ dk/na

Are there housing problems?

1 ☐ yes 18
2 ☐ no
9 ☐ dk/na

Is there an inflation problem?

1 ☐ yes 19
2 ☐ no
9 ☐ dk/na

1 ☐ yes 20

2 ☐ no

8 ☐ dk/na

Is there a problem with legal services?

1 ☐ yes 21

2 ☐ no

8 ☐ dk/na

Is the availability of leisure activities a problem?

1 ☐ yes 22

2 ☐ no

8 ☐ dk/na

Are there problems with mass media in its availability, quality or content?

1 ☐ yes 23

2 ☐ no

8 ☐ dk/na

Is there a problem with medical care in your area?

1 ☐ yes 24

2 ☐ no

8 ☐ dk/na

Is there a problem with the schools (other than the University)?

1 ☐ yes 25

2 ☐ no

8 ☐ dk/na

1 ☐ yes 26

2 ☐ no

9 ☐ dk/na

Is there a problem with taxes?

1 ☐ yes 27

2 ☐ no

9 ☐ dk/na

Are there problems with public transportation in the area?

1 ☐ yes 28

2 ☐ no

9 ☐ dk/na

Are there traffic problems?

1 ☐ yes 29

2 ☐ no

9 ☐ dk/na

Is there a problem with unemployment?

1 ☐ yes 30

2 ☐ no

9 ☐ dk/na

Is there a problem with welfare?

1 ☐ yes 31

2 ☐ no

9 ☐ dk/na

TURN OVER FOR PAGE 6

Is there a problem with regional planning such as zoning?

1 ☐ yes 32

2 ☐ no

9 ☐ dk/na

Is there a problem with university students?

1 ☐ yes 33

2 ☐ no

9 ☐ dk/na

How many people live in your household including yourself? 60

Check One

1	☐	1	5	☐	5
2	☐	2	6	☐	6
3	☐	3	7	☐	7
4	☐	4	8	☐	8 or more

What are the ages of your children (if you have any)?

(Record age of each child) _____ 61-65

_____

What is the last grade in school you completed?

Check or

66

1 ☐ less than high school (1-8)

2 ☐ high school (9-12)

3 ☐ some college/tech school

4 ☐ college degree

9 ☐ refused/doesn't know/na

In what year were you born? _____ 67

Do you consider yourself a member of a minority group?

Check one

68

1 ☐ yes

2 ☐ no

9 ☐ dk/na

If "NO" or "Doesn't know" skip to question

(If "Yes" ask:)

Which one? _____ 69

Record Group Named

We'll be mailing out questionnaires like this to people listed in the phone book. Since we've talked with you already, we'd like to have your phone number to make sure we don't call you.

( ) -

Area Code Number

70

Interviewer should record sex of respondent. 1 ☐ male 2 ☐ female

☐ In Athens County; continue to question 44

☐ Otherwise terminate, say:

THANK YOU VERY MUCH FOR YOUR HELP.

APPENDIX B

Dear Friend;

Your television stations serve you by providing programs which can help solve community problems or fill community needs. You can help us by identifying those community problems and needs that we should work on. The enclosed questionnaire will give you the opportunity to let your opinions be heard.

Ten days after the mailing date of this letter, we would like to call your household to get your opinions of the problems and needs of your community. If you would rather answer by mail, please complete the questionnaire, put it in the pre-paid [illegible]e and drop it in any mailbox.

Whether we call you or you write to us, we appreciate your thoughts and ideas. Your effort will make our efforts to serve you more successful.

Sincerely,

James A. Anderson
Director
Broadcast Research Center

BRC Broadcast Research Center Ohio University Athens, Ohio 45701 614-594-4574

Dear Friend,

Your television stations serve you by providing programs which can help solve community problems or fill community needs. You can help us by identifying those community problems and needs that we should work on. The enclosed questionnaire will give you the opportunity to let your opinions be heard. Please complete it, put it in the pre-paid envelope and drop it in any mailbox. Your effort will make our efforts to serve you more successful. Thanks for your help.

Sincerely,

James A. Anderson

James A. Anderson
Director
Broadcast Research Center

Dear Friend,

We'd like to give you a for telling us how to spend our dollars. Radio and television cations are licensed by the federal government to serve you, our listening public. As part of that service, we're looking to identify community problems which our programming might help to solve. We'd like to ask you to help by completing the enclosed questionnaire. It takes but a few minutes and gives you the chance to have your opinions heard.

Once you have completed the questionnaire, just slip it in the pre-paid envelope and drop in any mail box. You've earned your dime and our thanks.

Sincerely,

James A. Anderson
Director
Broadcast Research Center

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