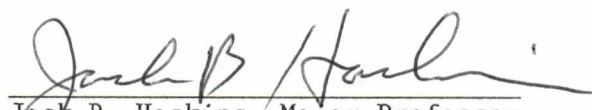
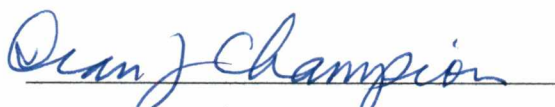


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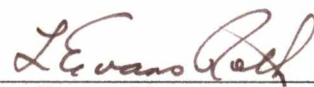
I am submitting herewith a thesis written by Bruce M. Cadotte entitled "Development of a Standardized Method for Campus Opinion Surveys: Handbook of Procedures and a Pilot Study." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communications.


Jack B. Haskins, Major Professor

We have read this thesis
and recommend its acceptance:




Accepted for the Council:


Vice Chancellor
Graduate Studies and Research

DEVELOPMENT OF A STANDARDIZED METHOD FOR CAMPUS
OPINION SURVEYS: HANDBOOK OF PROCEDURES
AND A PILOT STUDY

A Thesis

Presented for the degree of

Master of Science

with a Major in Communications

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Bruce M. Cadotte

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Without the tireless help of the author's wife, Mary Alice Cadotte, proofreading and typing this thesis would yet be unfinished. The author is deeply indebted to her for those efforts and many qualities that receive recognition far too rarely.

Although Mrs. Cadotte contributed immeasurably to the production of this thesis and shares credit for its positive values, the responsibility for all flaws lies solely with the author.

The author also heartily expresses gratitude to Dr. Jack B. Haskins of the College of Communications. The opportunities provided to the author as a research assistant permitted his participation in the project described in the following pages, and the guidance of Dr. Haskins in carrying out this research was both welcome and indispensable.

Dr. Haskins, advisor for this thesis, is the representative of the College of Communications on the University committee for the protection of human subjects. Although the research for this thesis took place before the University established its current policy regarding research on human subjects, the research described herein posed no threat to human subjects.

ABSTRACT

The proposed development of regular campus-wide opinion surveys at The University of Tennessee-Knoxville required a statement of standardized procedures, which is presented in this paper. The procedures are adaptable to other institutions. A preliminary assessment of the overall man-hour requirements and the efficiency of student assistants is also presented.

Students in two communications research courses assisted with survey tasks as part of course requirements. Their reports of time spent on various assignments were compiled with other cost data in a preliminary assessment of overall survey costs or cost equivalents. Interviewer efficiency, measured in interviews per hour of work, were computed for project interviewers to test two hypotheses, namely, that graduate students would be more efficient than undergraduates and that no significant difference would be found between male and female interviewers. Both hypotheses were supported. Paid interviewers were more productive than students, as expected, but no statistical test of that difference was feasible.

The pilot survey produced 374 respondents from an initial sample of 501 (74.6 percent) with an average questionnaire administration time of 15.3 minutes using 21 students for local telephone interviewing, two professional interviewers, and one interviewer supervisor. In 1974 dollars, the total cost equivalent of the survey was nearly \$3,736 (about \$10 per completed interview), of which students provided \$765 (over 20 percent); the savings under 1981 conditions would be \$1,224 out of a total estimated cost of \$5,978.

The author concluded that student assistants were a significant asset to a high-quality campus opinion survey, that a larger complement of graduate students could improve efficiency, and that further research and study was necessary to secure an important increase in efficiency in an inflationary economy. The development of the survey also suggests that telephone interviewing is the appropriate data-gathering method from the standpoint of cost, scheduling ease, response rate, flexibility, pretesting, and other logistical factors.

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CHAPTER I

PURPOSE AND SIGNIFICANCE

This research has a primary and a secondary purpose. The primary purpose is to present a standardized handbook of procedures for a University of Tennessee-Knoxville Campus Opinion Survey (COS), which was a function of the Communications Research Center (CRC), though now dormant, under the directorship of Jack B. Haskins. The secondary purpose is to evaluate through one case the use of student personnel in conducting the COS in terms of (a) potential monetary savings and (b) overall performance of the students involved; an estimate of the number of man-hours needed to conduct the COS is also presented. With respect to the first objective, the attempt is made to present the required information clearly, concisely, and explicitly so that relatively untrained persons may carry out portions of the COS with accuracy, reliability, and confidence.

The COS itself is intended to be a tool with which faculty, administration, student organizations, mass media, service organizations, and other groups having contact with students at the University of Tennessee-Knoxville (UTK) may evaluate their performance against the criterion of campus-wide student opinion. By extension, the COS procedures should be generally applicable to many colleges and universities. In addition, the COS like other opinion polls will provide valuable insights to student thinking on social and political issues, both with respect to specific current issues and, perhaps, with respect to major issues over time. The COS may also be used to test the waters for new proposals, such as activities, facilities, or organizations on campus.

It may be used to measure the knowledge students have about administrative procedures. It, or similar techniques, may be used to focus on areas of perceived concern (parking, intramural athletics, relevance of certain curricula, etc.) to gauge student feeling about them. In an era of predicted declining enrollment, it is increasingly important to set institutional priorities on the soundest possible basis. Surely the opinions of students at any institution of higher education must be known if decision makers are to have the full economic, political, and social perspective.

Generality is an important feature of the COS. Not only does the survey cover a wide range of subject matter, but also it reveals the opinions of a representative sample of the entire student body. Lack of assessment of the entire student body's opinions is where many estimates of student opinion fail.

Upon his appointment as Chancellor of UTK, Dr. Jack E. Reese said that the University would benefit by seeking out "the opinions of faculty and students," partly to "anticipate and react to problems before they occur" (Anon., 1973). To serve those ends the administration has expressed interest in and support of the services performed by the CRC (Reese, 1973). Reese said, notably, "I have several times thought it would be useful to poll students to see how well (or poorly) they know how to cope with the bureaucratic structure of the University." The results of a pilot COS showed that it was a workable method of uncovering student opinion.

A fairly detailed description of procedures is needed to help graduate assistants and other people carry out the COS using the same basic methods as their predecessors. Results from successive COSs

could therefore be comparable. Such a description--a handbook--should reduce the amount of time needed for direction and supervision of the COS on the part of the College of Communications Research Director and/or his subordinates. To the extent that the handbook is methodologically rigorous, it can help ensure that subsequent surveys will also be rigorous. Future COS directors may find it valuable to have a preliminary estimate of COS manpower requirements, especially with respect to the savings possible by using student personnel for the various steps. It will also be prudent to have some warning of the potential hazards of using students--inefficiency, for example, to the extent that it exists.

Frequently, student attitude studies either investigate the attitudes of convenient groups of students, focus on narrow subject areas, or concentrate on developing a methodology (e.g., Aleamoni and Spencer, 1973; Banks, 1970; Edgerly and Gaither, 1971; Fiore and Sedlacek, 1972; and Gerst and Moos, 1972). Trow (in Glock, 1967) provides other examples.

As valuable as such efforts have been, they give little help to research neophytes who are to play a critical role in a regular campus-wide poll of student opinions on a variety of subjects. The methods reported are often too slow, too expensive, or too shaky for continual use as a decision-making tool. The COS can be carried out at least annually and can cover many concrete topics peculiar to Knoxville.

Moreover, studies done on student opinion at other universities not only vary with respect to methodology but also reflect opinions not necessarily shared by University of Tennessee students, and therefore are useless as a decision-making aid at this institution. The

procedures presented here will help correct this lack of information by providing a reliable system for the assessment of student opinions at UTK. In addition, the procedures will provide a means whereby other organizations, whether at this University or at other institutions, can survey the opinions of their own students to the extent (a) that they are willing to make the necessary modifications to fit their own situations, or (b) that their situations are the same as that at The University of Tennessee.

The inflationary climate of the 1970s and 1980s provides a further compelling need to standardize potentially ongoing research projects and carry them out as cheaply as possible while sacrificing as little rigor as possible. It is believed that the format of the COS has already benefited some survey efforts (Scroggins and Haskins, 1975); the more often the benefits can be reaped, the better.

A final and powerful reason for the present work is to furnish a readily-usable teaching tool for survey research. Heavy involvement of students is possible in a perfectly acceptable poll of student opinion.

CHAPTER II

STATEMENT OF THE PROBLEMS

The problems to be addressed are concrete and quite practical. They are not theoretically revealing but demand useful solutions.

Two Problems

Educational administrators, mass media personnel, service organizations, business interests, and other groups whose operations affect students at the University of Tennessee need an objective, systematic, consistent, and reliable method for assessing student opinion and for comparing student opinions from time to time. The students can benefit as well--perhaps more--from additional input to the administration of the University and to other people that provide products and services. A reliable means of measuring student opinion on a continual basis would be a good thing on both sides.

This thesis may help solve that problem by furnishing a standard method whereby the COS can "serve as a communication channel from the mass to the decision-makers" (Davison, 1972, p. 315), and whereby the other objectives of the COS (Haskins and Cadotte, 1973) can be fulfilled.

Another problem is that the COS requires a sizeable number of workers for the efficient completion of various survey procedures; future directors of the COS must have some way to judge the amount of work that can be done economically with student interviewers, coders, and others within the time limitations of the COS and how much must be done by paid personnel. Given that students will do their jobs well

(determined in part by successful completion of interviews under the watchful eye of a verification step), student labor can represent a substantial saving over hired labor. The amount of interviewing or other tasks, however, must not take too much of the students' time.

Definitions

Definitions for terms used in this thesis are in part taken from an adaptation of terms defined by English and English (1958). These terms are as follows:

attitude--an enduring, learned predisposition to behave in a consistent way toward a given class of objects.

image--a composite of a person's concepts, judgments, preferences, and attitudes toward some comprehensive object such as a Nation or toward a cause such as pacifism.

information--knowledge of facts gained through investigation, observation, study, or instruction.

methodology--the procedures actually used in a particular research.

objective (adj.)--not dependent upon the judgment or accuracy of the individual observer; free from personal and emotional bias.

opinion--a belief that one holds to be without emotional commitment or desire, and to be open to revaluation since the evidence is not affirmed to be convincing.

systematic--having the orderly character of a system; occurring regularly and in predictable fashion.

(Collins, 1972, p. 59)

In addition, the following terms will be used in the manner indicated:

1. Average interviewer efficiency: the arithmetic mean of the individual interviewer efficiency scores.
2. Interviewer efficiency: the number of interviews completed by each interviewer per reported interviewing man-hour (i.e., per

hour spent on the COS by each interviewer exclusive of time spent in training, briefing, and debriefing sessions).

3. Man-hour: one hour spent by one person on the COS. The total number of man-hours required by the COS, for example, will equal the sum of the hours put in on the COS by all of the individual workers.
4. Off-campus resident: any person whose local address while attending the University is not one of the University's residence halls, fraternity or sorority houses, or other buildings on the main UTK campus.
5. Student: any full or part time current enrollee in either the day or evening school on the UTK campus.
6. Student assistant: any student enrolled in communications research courses or other appropriate courses who may be used without pay in carrying out the COS as partial fulfillment of course requirements.
7. Project director: the person (usually a graduate research assistant) having the assignment of day-to-day supervision of COS activities.
8. Principal investigator: the person with the overall responsibility for the COS, including accountability to the administration.

Technical or other infrequently used terms will be defined as needed.

Assumptions

It is assumed that decision makers needing the COS will be able to verbalize significant issues and questions to be explored. No set of procedures, naturally, can cover all problems of questionnaire construction nor give complete criteria for selecting questionnaire items.

It is further assumed that methodologically rigorous opinion research can supply meaningful information, that opinions are important, and that groups involved with the University (as mentioned above) will continue to appreciate the importance of student opinion when they make decisions. Still further, it is assumed that decisions are sounder if they are based in part upon a collective appraisal of student opinion than if they are not.

It must also be implicitly assumed that the student assistants who participated in this developmental trial of the COS are more or less typical of student assistants who might help with similar projects. It would be useful to test this assumption as an hypothesis and generally to study the performance of student assistants in great detail. It is hoped, lacking such an exhaustive test, that the observations made in the following sections will help focus the eyes of future researchers on possible criteria for acceptable student performance.

Limitations

The University of Tennessee may have certain unique practices or problems. Therefore the handbook of procedures may be limited in its direct application to UTK and to institutions whose characteristics of enrollment, recordkeeping, residence facilities, telephone penetration,

data processing services, and resources of time, money, and personnel are very much like the University's. Still, it is hoped that many groups can make use of the handbook, with adaptations, for their own purposes.

The handbook of procedures will not set forth a detailed discussion of survey research nor will justification of the steps taken be made in the handbook itself--with some minor exceptions--because one of primary aims of the document is brief and simple instruction.

Hypotheses

The writing of the COS procedures involved no testing of explicit hypotheses. At least one, however, is implicit, namely, that the handbook will fulfill its stated purposes--that a succession of relatively untrained persons can comprehend and follow the handbook's directions and do good surveys. This hypothesis can only be tested by experience. To increase the chances of success, however, the handbook should meet the following minimum criteria (others are possible):

1. Be clear and concise.
2. Be comprehensive, giving the necessary steps for the COS.
3. Permit quick, easy reference to important information for the user and provide a means of making checks on progress (e.g., checklists).
4. Contain as few flaws of logic and procedure as possible.

Many hypotheses may be framed concerning the performance of student assistants but only two were singled out for testing. Because graduate students were presumed to be more conscientious in performing

their assignments than undergraduates, it was decided to make a test of the following hypothesis:

- H1. Interviewer efficiency will be significantly greater for graduate than for undergraduate student assistants.

To investigate the possibility of sex differences between interviewers in relation to efficiency, it was hypothesized as follows:

- H2. There will be no significant difference between males and females with respect to interviewer efficiency.

CHAPTER III

REVIEW OF THE LITERATURE

A vast number of surveys and other studies are performed on student populations every year, quite apart from the abundant work done on sample survey techniques. The literature was searched for notable examples of surveys of students in addition to the principles and techniques of survey methodology.

Survey research is a familiar tool in the university community for work in the various social sciences (e.g., Maykovich, 1971), in "ensuring the free flow of ideas" (Davison, 1972, p. 322), and in making policy decisions. The helpfulness of survey research depends, among other things, on the data being current, representative, and valid.

Defining the Population

The dangers of thinking loosely about the specific population to be studied are described succinctly by Babbie (1973), Backstrom and Hursh (1963), and Hyman (1955), among others. Student populations are not hard to define. It is possible, for a campus opinion survey, to specify all students enrolled in the institution at the beginning of an academic year, for example, or some definite subpopulation. Subpopulations are often of interest, such as commuter students (Scroggins and Haskins, 1975), graduate students (Hereford, 1975), residence hall dwellers (McCullough and Stoner, 1977), or undergraduate residence hall dwellers (Keller, 1979). The list of possibilities is nearly endless. A primary caveat is to define the population rigorously at the outset and report the definition accurately.

Sample Selection

Good technique throughout the research process is indispensable, but is sometimes compromised (even if for practical and compelling reasons) in obtaining a sample of respondents representative of the population being studied. Some published literature describing surveys of students mentions sample selection in passing, saying at the most that students were selected for interviewing "at random" or according to a "stratified random" procedure (e.g., Chipman and Parker, 1972; Goldsen et al., 1960; Rose, 1957; and Rudestam and Morrison, 1971). Fortunately, others are more specific, such as Nogee and Levin (1958), who imply that a simple random procedure with stratification was used in their study of the political opinions of students at Boston University eligible to vote for the first time in the 1956 presidential election. They selected 374 students (one-seventh of the student body) from rosters that were first stratified by religion and school. To illustrate further, Abeles et al. (1954) used the interval (systematic selection) method, selecting every seventh member of the student bodies at 10 universities to study student attitudes and possible response biases.

The literature is rich with additional examples, but it can be mentioned that samples have been drawn by using respondents from college classes meeting at a particular time (McDowell et al., 1970); from classes in a particular subject (Nunn, 1973); by using all members of classes in a particular subject (Larson et al., 1964; Vincent and Barton, 1973); and by using "accidental" or haphazard methods (Berger and Sullivan, 1970; Watts and Whittaker, 1966; and Willick and Ashley, 1971) whereby respondents are taken wherever or whenever they happen

to be found. Many other "sampling" methods are also commonly employed (volunteers, paid subjects, etc.). All of these nonscientific samples--no matter how useful for their particular purposes--fail to resemble the student population as a whole on various characteristics.

A widely used method of opinion survey sampling when a complete listing of the population is available is the equal-interval--or systematic selection--method, whereby every k^{th} name is selected from, usually, an alphabetized list. It is quick, inexpensive, and readily applicable to university student populations, where an essentially complete record of enrollees is kept. Moreover, samples of consistently high quality (when compared with known population characteristics) are obtained. Most investigators of college students apparently welcome the advice of Stephan and McCarthy (1958): "A systematic selection from the directory will prove quite adequate for most purposes" (p. 373). Moser (1958) called the method "the most practical approximation to random sampling" (p. 77).

The interval sample has been well-studied, presumably to legitimize its use. Work by Sweetland (1972) involved computer simulations to demonstrate that the interval method provides samples of remarkable representativeness on measured characteristics--samples with consistently smaller variances around population values than purely random samples. Sweetland said that, in the case of a sampling unit of one person, when the measured attribute is distributed randomly in the population, the interval method is preferred. Whether the method is "preferred" depends heavily on practical considerations such as time and money. Contrary to Sweetland's suggestion (p. 15), alphabetizing a list of names would not necessarily distribute relevant characteristics randomly through

the population, but the selection method from such a list must, to be usable, include those characteristics in the sample in the same proportion to which they are present in the population within the bounds of permissible error. In Sweetland's study the sampling methods used (interval, random with replacement, and random without replacement) were all close in accuracy when N was 200 or more.

In another context--a biological survey of land areas--Osborne (1942) found that the interval (systematic) method produced samples with smaller variances around true population values than purely random methods. Milne (1959) compared a variation of the systematic method of sampling land areas to random and stratified random sampling. Using 50 different known populations, Milne concluded that the method tested "gives at least as good a mean as, if not rather a better mean than, random sampling" (p. 283). Certain problems, Milne reminded investigators, are presented by (1) cyclical fluctuations, (2) consistent changes from one end of the list or sampling pattern to the other, and (3) marked strip effects in area samples. Such problems, Milne said, are usually detectable and avoidable.

Kish (1965, chapter 4) discusses the interval (systematic) selection method--specifically with respect to lists of names--and finds it an acceptable alternative to simple random sampling when appropriate precautions are taken. The principal precaution is to consider the population list as being circular, choosing a random start between 1 and N . The sample, of course, is always to be compared with known population characteristics.

The status of interval sampling has been summed up by Babbie (1973, p. 93), as follows:

By now, debates over the relative merits of simple random sampling and systematic sampling have been resolved largely in favor of the simpler method: systematic sampling. Empirically, the results are virtually identical.

Babbie also warns researchers about the possibility that periodic or cyclical phenomena may foul a sample drawn by the interval method.

Sample Recovery

Steps to help ensure representativeness must be taken after as well as before sample selection. This ordinarily means maximizing the response rate, or in other words obtaining data as complete as possible from as much of the drawn sample as possible, if the drawn sample is of acceptable quality. The risks of nonresponse may be illustrated by Rudestam and Morrison (1971), who obtained only a 46.7 percent response rate to their mail questionnaire investigating student attitudes with respect to the closing of the University of Miami at Ohio (questionnaires were mailed to the students' homes). Females accounted for 53 percent of the responses and males 47 percent, the reverse of the true population figures. Class representation in the returned questionnaires was somewhat distorted, also. In some cases, such "distortions" may be important and high response rates should tend to reduce them.

Much of the literature on nonresponse, refusals, unavailability, and inaccessibility focuses on face-to-face interviewing because of the expense involved in unproductive trips to secure personal interviews. Deming (1953) advised that every successive callback yields a gain in the amount of information per dollar, and that a moderate sample size with many callbacks was the "best" practice. Dunkelberg and Day (1973) found that the yield of completed interviews "declines rapidly" after

the third attempt to reach the respondent but that most categories of respondent characteristics converged on population values after two or three callbacks. Some categories, however, did not converge as quickly as others. Several investigators have tried to pin down the "optimum" number of callbacks or find acceptable alternatives to making repeated callbacks, notably Politz and Simmons (1949) and Birnbaum and Sirken (1950a, 1950b).

It was not the purpose of the literature review to uncover general principles of difference between early respondents, late respondents, and nonrespondents, but merely to ascertain that differences have been found and that efforts to maximize the response rate are worthwhile. A few examples further illustrate the need. Hilgard and Payne (1944) found that hard-to-reach respondents were more likely to be employed than easy-to-reach ones; households with young children were easier to reach than with older children; and those living alone were hardest of all to reach. Ognibene (1970) found significant differences in income, occupation, gregariousness, education, and reading habits between respondents and nonrespondents to a mail questionnaire (other data-gathering methods were used to obtain the "nonrespondent" information). Ognibene's respondents were different from "nonrespondents" on all leadership functions measured. Abeles et al. (1954) studied an interval sample of students at 10 universities and found differences in characteristics between immediate respondents and those followed up; the differences were in age, scholarship, and fraternity membership. It is generally agreed that sample characteristics may differ between successive "waves" of response-gathering and therefore, where time and cost can

be minimized as in a telephone survey, as many callbacks as possible are needed to make nonresponse bias as close to zero as possible.

Refusals constitute a source of nonresponse over which the investigator has little control, but the number of firm refusals will probably be small (Blankenship, 1977; Dalenius, 1961; Stephan and McCarthy, 1958).

There is no shortage of work on the differential effectiveness of data-gathering methods with respect to contacting and following up respondents and, in general, on the importance of maximizing the response rate (Brunner and Carroll, 1967-68; Cartwright and Tucker, 1967; Dohrenwend, 1971; Lundberg and Larsen, 1949; Slocum et al., 1956; Sudman, 1966; and Uhl et al., 1970, among others). On the other hand Holtzman (1956), measuring the attitudes of students toward non-segregation, reported no systematic difference between early respondents and those who required intensive followup. This result is unusual.

Nonresponse of another kind--to specific items on a questionnaire--was investigated by Ferber (1966). A questionnaire was mailed to 40,000 subscribers of the Consumers' Union and 14,600 usable questionnaires were returned. Item nonresponse was "widespread," and varied with the type of question and with the socioeconomic characteristics of the respondent. It increased, for example, when a question required "some thought." No relationship was found between frequency of item nonresponse and the position of the question on the instrument. Item nonresponse was virtually nonexistent in the COS pilot study (Haskins and Cadotte, 1973).

Data-Gathering Methods

Survey researchers must face the question of which data-gathering method to use. Typically, the choices are mail questionnaire, face-to-face interview, telephone interview, or some combination.

Sometimes more potentially embarrassing responses are elicited by mail than by the other methods, with few other differences among them (Hochstim, 1967; Wiseman, 1972); but in situations where the relative performance of data-gathering methods was tested in circumstances comparable to those of a general campus opinion survey, differences between the methods (in data obtained) were insignificant (Janofsky, 1971; Kegeles et al., 1969). The speed, convenience, general efficacy, versatility, and economy of telephone interviewing has been mentioned frequently in the literature (Blankenship, 1977; Judd, 1966; Kildegaard, 1966a, 1966b; Luck and Wales, 1952; Parten, 1950; Payne, 1956; Roll and Cantril, 1972; Schmiedeskamp, 1962; Suchman and McCandless, 1940; and Sudman, 1966).

This is not to say, of course, that telephone interviews can be used with disregard for the findings that have emerged concerning the relative efficacy of telephone interviewing. Larsen (1952), for example, tested the validity of telephone reports of behavior against actual behavior pursuant to a dispersal of propaganda leaflets. He hypothesized that telephone interviewing was better than other methods when factual information was wanted, rather than opinions. Respondents' claims about the behavior in question were identical in the personal interview and telephone interview groups, but significantly fewer telephone respondents' claims of action were verified (80 percent versus

16 percent, a difference significant at the .01 level). There were other differences, telephone interviewing being the poorer on all measures; but whether the treatment groups were equivalent was not made clear in the article. Oakes (1954) found respondents in a personal interview volunteered more information on open-end questions than in telephone interviews.

Northrop and Deniston (1967) compared mail questionnaires with telephone interviews, measuring response rate, cost, and response content. Response was significantly higher in the telephoned group, 93.4 percent versus 81.4 percent (the average telephone respondent required 2.1 calls to make initial contact and the average interview length was 15 minutes). The relatively high response rates were attributed to the subject matter--the health of children. Only 16 of 122 items showed significant differences between the two methods, but the authors felt this result could not be evaluated with any assurance. Telephoning yielded more "don't knows" than the mail questionnaire by a "small margin."

Generally speaking, telephone interviews give results like those of face-to-face interviewing for purposes of the COS. A literature review and verification study by Lucas and Adams (1977), moreover, found that "the telephone survey does as well as the personal survey for most purposes and has greater potential for quality and flexibility at lower cost" (p. vi). Their paper recognized but somewhat discounted the problem of eliciting sensitive information on the telephone; some investigators have expressed concern in the area but little current factual evidence. Lucas and Adams posed the problems of fast pacing and complex questions as perhaps being more significant. Blankenship

(1977) cited numerous advantages of telephone interviewing, including the ability to cover embarrassing, controversial, or immediate topics; the ability to get high completion rates; and with the right facilities an enviable amount of control over the interaction with respondents. Unfortunately, most survey research projects on campus cannot afford the central telephoning and monitoring that can make a telephone survey "professional" in Blankenship's view.

Unless a procedure such as "random digit dialing" is used in surveys of the general public (see Blankenship, 1977; Cooper, 1964; Eastlack and Assael, 1966), telephone number sampling techniques often suffer from a large proportion of unpublished numbers; a lack of telephone penetration is also a potential drawback (Brunner and Brunner, 1971; Kildegaard, 1966a; Parten, 1950; Roslow and Roslow, 1972; and Schmiedeskamp, 1962). These problems do not directly apply to samples of students, which are generally drawn from enrollment lists, not lists of telephone subscribers. Lucas and Adams (1977), it should be mentioned, believed that on the basis of recent research, telephone penetration was so high in most parts of the country that exclusion of households without telephones was no longer a liability for telephone survey sampling.

Interviewer Performance

The personal modes of data-gathering--face-to-face and telephone interviews--are subject to biasing effects on the part of interviewers and poor interviewer performance as well as to the other flaws of survey research. The research on interview situations is plentiful. In brief, systematic differences in results have been found related to several

interview variables: age and/or sex of the interviewer (Benney et al., 1956; Erbslöh and Timaeus, 1972; and Erlich and Riesman, 1961); the amount of education of both the respondent and the interviewer and the perceived social distance between them (Dohrenwend, 1970; Phillips and Clancy, 1972); socioeconomic status differences between respondent and interviewer (Katz, 1942); racial differences between respondent and interviewer (Athey et al., 1960; Veltman, 1972); reinforcement and other biasing actions by the interviewer (Matarazzo and Wiens, 1972; Siegman, 1973); the amount of experience of the interviewer (Cantril, 1947; Sheatsley, 1951; Schyberger, 1967); and whether the respondent sees the interviewer or the survey itself as a means of obtaining an end (Atkin and Chaffee, 1972; Krause, 1965). Shapiro (1970) showed that some interviewers will be more forceful in eliciting responses to free-answer questions than others. Systematic error has been found among interviewers in recording open-end responses (Collins, 1970), that is, interviewers' own "verbal idiosyncracies" will be discovered in recorded answers, and the length of the answers may vary systematically as well. One of the several good reviews of the literature of interviewer bias, providing additional references, can be found in Boyd and Westfall (1965).

All surveys assume that interviewer problems can be handled with some success. Cantril (1947) suggested that reduction of net error could be pursued by selecting interviewers who balance each other with respect to their biases on the question under investigation. Similarly, Stock and Hochstim (1951) recommended selecting interviewers as a representative sample of the population being studied; they also urged careful training in uniform methods, care in question design, and the

largest possible number of interviewers. This last reasonable notion was emphasized by Hansen and Marks (1958), who said that the effect of interviewer variance on sample survey results varies inversely as the number of interviewers and directly with the size of the interviewer's assignment (see also Moser, 1958, p. 193). Given minimal control over the possible number of interviewers, uniform training of the interviewers and randomization of respondents assigned to interviewers must be counted on to take care of most problems--together with careful examination of the data.

Interviewers vary in their ability and reliability, if not always to an appreciable degree (see Durbin and Stuart, 1954). Inexperience may depress the completion rate (Durbin and Stuart, 1951) or otherwise adversely affect overall performance, for example, through deviations from the questionnaire (Schyberger, 1967); and there is always the possibility of "cheating." Roll and Cantril (1972) believed the very great majority of interviewers carried out their duties conscientiously; still, verification of interviewer performance is an essential step of the survey research process (Backstrom and Hursh, 1963, pp. 149-151; Crespi, 1945-46). Verification by postal card as suggested by Backstrom and Hursh as a last resort was found ineffective by Hauck (1969). Eastlack and Assael (1966) present some measures of interviewer performance which can be kept in mind by survey researchers: number of refusals, number of callbacks which fail to locate the designated respondent; number of interviews partially complete; number of completed interviews; number of interviews completed per hour; number of times in a given time period that questionnaires have to be returned for editing; and subjective interviewer ratings by supervisors.

Investigators may find it desirable to use open-end questions extensively. Guest (1954) suggested, in such a case, that interviewer performance might improve if interviewers were trained partly by coding answers to open-end questions, which might make them aware of problems of coding answers. He carried out an experiment to test the hypothesis. Although the difference between groups was in the predicted direction and significant at the .05 level, there were some confounding variables and results were generally held to be marginal.

Survey research inescapably intrudes on the natural environment, an influence which researchers should never forget. This point was well made by Webb et al. (1966).

Questionnaire Development

The data-gathering instrument itself is of central importance because it controls the kinds of data elicited from respondents. The literature on the form and content of questionnaires and schedules is vast and salient aspects for campus surveys can only be briefly reviewed here. The following is a list of "cautions" for questionnaire construction derived from a variety of sources (Babbie, 1973; Blankenship, 1940, 1977; Cantril, 1947; Doob, 1966; Gallup, 1947; Ghiselli, 1939; Green, 1954; Guest, 1962; Hyman, 1955; Kassarian and Nakanishi, 1967; Litwak, 1956; Lundberg, 1942; Maccoby and Maccoby, 1954; Menefee, 1936; Metzner and Mann, 1953; Noelle-Neumann, 1970; Oppenheim, 1966; Parten, 1950; Payne, 1951, 1965; Roslow and Blankenship, 1939; Schuman, 1966; and Speak, 1967):

1. The introduction and opening questions must help create rapport and set the respondent at ease--care must be taken to see that they are not challenging, threatening, or embarrassing.

2. Survey questions should, usually, define the subject being investigated clearly, explicitly, and concretely.
3. Questions in a context anchor the respondent's associations and therefore his replies.
4. Grouping questions by topic area yields results similar to questions not so grouped.
5. Questions should be asked in terms of the respondent's (probable) immediate or recent experience.
6. Different question sequences should be tested, because results may vary with question order.
7. "Face-saving" phrases and words should be introduced indicating, for example, that other people hold socially "unacceptable" opinions.
8. Offer complete (exhaustive) and balanced alternatives unless there are overriding considerations in the purpose of the survey or unless a severe response inhibitor (such as a social taboo) is to be overcome.
9. Vague or obscure questions, questions with technical or unfamiliar words, questions with excessively many or lengthy alternatives, questions getting only stereotyped answers, questions dealing with only a small portion of the population, and questions carrying names or words with prestigious impact should generally be avoided.
10. Problems arising from question wording, sequence, and so forth should be detected by adequate pretesting and, in cases of doubt, "controlled" by split-ballot techniques.

11. In addition to the use of split ballots, data obtained from surveys should be compared with data elicited in other surveys of a similar nature; internal consistency checks should also be employed when possible.
12. Questionnaire monotony can have a negative influence on results.

Noelle-Neumann (1970) also points out that methods of randomizing or averaging question-sequence effects may conceal an important fact, namely, the instability of opinion on a given subject. Many other guidelines have been and could no doubt be formulated; any list such as the one above must be suggestive only. Apart from the complexity of questionnaire construction itself, one must always keep in mind the objectives of a given piece of research. The fundamental rule is to make sure that the instrument is adequately pretested.

Careful attention to pretest results may enable users of the research to detect any response set biases or bias resulting from questionnaire length, format, or other considerations (as discussed, for example, in Allen, 1966; Berger and Sullivan, 1970; Cataldo et al., 1970; Clancy and Wachsler, 1971; Langenwalter, 1967; and Ziller and Long, 1965).

Selection of items for a survey questionnaire can be carried out in several ways, some of which have been mentioned earlier. Common sense commands the researcher to consult frequently with the sponsors of the study, if any, about the objectives of the study. Common sense further suggests the use of standard questions when feasible.

Gordon (1972) and Stewart (1970) culled topical material (relevant to the population) from public communications--newspapers, magazines,

and speeches. In Gordon's study the items were submitted to a panel of judges drawn from the population under study; five of the seven judges had to agree for a given item to be included. Stewart also used a panel of judges but used it for scaling purposes. Edgerly and Gaither (1971) telephoned a sample of students to get statements of behavior with respect to five areas being investigated; the statements were then grouped and refined to a 108-item checklist. A similar technique, using hypothetical examples of behavior, was used by Rosander (1937).

Other Considerations

Suelzle et al. (1980) found performing survey research to be good for students, but the instructor must relinquish some control over the quality of the product. Consequently, the instructor as investigator should maintain accountability standards and take note of deviations from optimum procedure.

In another paper on the same groups of surveys discussed by Suelzle and her colleagues, Singleton et al. (1980) evaluated the costs and benefits of using students for manpower in survey research on campus. A number of political as well as methodological issues were identified. The surveys in question used students as principal staff for the surveys, not just as people assigned to specific tasks. In other words, the students had a lot to do with designing and running the surveys, in which questionnaires were mailed to other students. The student staffs ranged from 9 to 21 persons. The quality of the students' work ranged from very good to barely tolerable, which is one of the drawbacks of student help that must be watched and avoided. "In general," Singleton said, "the surveys met the criterion of

generating 'real,' that is usable and good quality, data" (p. 32).

The students benefited from learning survey research, teamwork, and other facets of performing professional, real-life tasks.

CHAPTER IV

RESEARCH METHOD

In order to provide the material needed for the creation of the survey procedures handbook, a record was kept of the steps used in the COS carried out during the winter quarter, 1974; those procedures were to serve as a model for the handbook along with any useful supplementary information derived from the COS pilot study (Haskins and Cadotte, 1973). Various guides, principles, and rules were discovered in reviewing the literature and were applied where appropriate to the COS.

Subjects for the student assistants' performance study (particularly in interviewing) were students used in the winter quarter 1974 COS. The student assistants consisted of students in two research courses in the College of Communications (Communications 5120 and Journalism 4990). Student participation in the survey was part of course requirements. Two paid interviewers and an interviewer supervisor were also hired to carry out interviewing assignments that the students could not. The assistance of a secretary from the College of Communications was obtained. The project director (the author) supervised many aspects of the COS and in addition was involved in sample-drawing, coding, arranging interviewing assignments, preparation of the data for machine processing, and performing other tasks.

The COS was to be a broad opinion survey carried out with a drawn-sample of 501 respondents. Respondents were selected by taking every 48th name from the official enrollment list of UTK day and evening students for the winter quarter of 1974. A random start was used (the

list contained 24,137 names). The drawn-sample size was selected because it offered the allowable sampling error (2.2 percent where $p=50$ percent).

The principal data-gathering mode was the telephone interview. Telephone interviews, with face-to-face follow-up interviews if necessary, were chosen principally because student interviewer/interviewee schedules seemed most amenable to this approach, along with the speed and quality benefits shown in the literature.

Each interviewer was assigned specific respondents, and the identification (questionnaire) numbers of these respondents were recorded on 5 x 8 index cards--one card for each student interviewer. A record was thus kept of all complete and incomplete questionnaire numbers; from this record, together with reported time spent, interviewer efficiency and average interviewer efficiency could be calculated. It was determined that average interviewer efficiency for undergraduate students was to be compared with that of graduates (i.e., interviewers from Journalism 4990 were compared with interviewers from Communications 5120) using a one-tailed t-test; male interviewers were compared with females on the same measure using a two-tailed t-test. In both cases the .05 probability level was used to establish the region of rejection.

All student assistants were briefed on interviewing procedures and the purpose of the survey at the same briefing sessions and all were given the same instructions. Paid interviewers were instructed separately but their instructions were not intended to be different from those given to the students. All students, whether assigned to interviewing or not, practiced interviewing to familiarize themselves with the procedures. Any differences which emerged between graduates

and undergraduates was thought not to be due to differences in training. In addition, each interviewer received respondent assignments in the same fashion, that is, approximately equal numbers of respondents, from each of fifth-portions of the sample obtained by splitting the questionnaires (which were ordered according to the order of respondent selection) into equal piles, were assigned to each interviewer. This procedure did not completely randomize the respondents but it should have served to minimize the systematic differences between interviewers' assignments. The exceptions to this practice were respondents who lived outside the local call area around the UTK campus; two interviewers specialized in contacting these respondents and their times were not used in the comparisons. Paid interviewers were used when the students could not continue with the interviewing and therefore the paid persons were probably assigned the harder-to-reach respondents. Consequently their "efficiency" was not strictly comparable to that of the student assistants and no formal comparison was contemplated. The number of paid interviewers was too small to be of comparative use in any case.

Relevant differences between interviewing groups could not be attributed to class level or sex alone because of the possibility of other confounding variables. The small size of the groups did not make it possible to control, for example, for class level while testing for sex differences, nor in fact was it possible to hold any particular characteristic constant while testing for differences between the groups and still retain sufficient numbers in any one group to approach statistical stability. To the extent they exist, however, it was felt that differences might be instructive and might generate useful speculations for future research.

CHAPTER V

EVALUATION OF STUDENT ASSISTANTS' PERFORMANCE

For orientation purposes, it is appropriate to present some of the overall methodological results of the 1974 COS.

Of the 501 numbers of the drawn sample, 374 were actually interviewed (74.7 percent). This was close to the 80 percent expected.

Although some researchers (such as Dillman, 1978) now look for general population response rates above 80 percent, rates in several similar surveys of student populations have been roughly 75 percent (e.g., Keller, 1979; Scroggins and Haskins, 1975). Tyebjee's (1979) review of telephone survey methods cited studies that reported completion rates between 45 and 95 percent, with completion rates above 75 percent being uncommon. For the personnel and time available, a completion rate of 80 percent is regarded as optimum with 75 percent being quite good. A review of 182 privately-conducted surveys by Wiseman and McDonald (1979) showed a median noncontact rate of 23.5 percent when four or more attempts were made. Student interviewers were involved in field work for about 10 days, with most students interviewing for about one week. At the end of 10 days all interviewing was being done by paid interviewers. It was possible to reach 79.1 percent of the respondents with five or fewer diallings; the remainder either required more diallings or a personal interview.

The UTK student population is readily accessible by telephone. Of the 501 drawn-sample members, only 50 (10 percent) had no listed telephone number; over a third of the 50 were eventually reached by consulting telephone information sources or by face-to-face interviewing. The

average time required to complete an interview once the respondent was reached was 15.3 minutes.

The sampling frame of the COS had some flaws. The list includes all students who enrolled in UTK day or evening school for the winter quarter; clearly some students may have withdrawn prior to interviewing. The nonresponse rate may consequently have been slightly inflated, but as the opinions of enrolled students were the basic concern the drop-outs were judged not to be a biasing problem.

Critical demographic variables in the recovered sample matched population parameters very closely (Haskins and Cadotte, 1974). The proportions of males and females in the sample (59.1 and 40.9 percent, respectively) were virtually indistinguishable from the population values (59.01 and 40.99 percent, respectively). In the population, 25.32 percent were freshmen, 18.00 percent sophomores, 16.22 percent juniors, 19.49 percent seniors, and 20.97 percent graduate and professional; the corresponding percentages in the recovered sample were 22.7, 20.3, 17.4, 20.9, and 18.7, respectively. This sample distribution did not differ significantly from population values.

Time and Value Estimations

Time records for the paid staff (two interviewers and one interviewer supervisor) were kept on forms provided by the University and were based on self-reports by the interviewers. Time records for the students were obtained in the following ways:

1. Undergraduates, at the end of the quarter, were asked in class to estimate the total time they spent on the COS exclusive of

training and briefing sessions. Most students had been assigned only one task (e.g., interviewing).

2. Graduates involved in interviewing were queried by mail the following quarter about the amount of time they spent interviewing.
3. Students involved in sample-drawing or editing/coding had their time recorded directly by the project director; students doing interview verification turned in their time reports when completing their assignments.

An estimate of the secretarial time needed to prepare materials was obtained from the secretary assigned to the Research Department. The author's (project director's) time was recorded daily.

The time estimates presented were in most cases obtained in quarter- or half-hour increments. Where more precise figures are presented, the statistical tests involved were also performed with rounded numbers as a check on the stability of the results.

Fair market value for the student assistants' time was based on the actual hourly wage allowed to the paid interviewers, which was \$2.50 per hour. Supervisory time was evaluated by establishing the actual cost of the time of the paid interviewer supervisor and by allocating \$5.00 per hour to the project director's time. These values are somewhat arbitrary, but the man-hour calculations are the important ones. Labor costs hinge on many other factors and the dollar values assigned in this study are not meant to be definitive relationships for all time in all applications. It may be useful to remember that, at the time the study was performed, graduate assistantships in

the College of Communications (for research assistants) paid a stipend very close to the \$2.50 per hour allowed to the paid interviewers.

When the project director's time was spent on a specific task such as sample-drawing or coding, his time was charged to that activity and not to "supervision," although some supervision was taking place at almost all times.

Obtaining time estimates from the students failed in the case of one interviewer. The mean time spent on interviewing by the remaining interviewers (7.91 hours) was assigned to that person and the calculations were carried on from there.

Total Time Investment

Of principal concern was the total time investment needed to carry out the COS (or similar surveys). It was not possible in all cases to keep an exact record of the amount of time spent by each person in each activity, especially if that person was assigned to more than one activity. When a student had a multiple assignment, close estimates were made as to the amount of time spent on each activity.

Table 1 presents the total amount of time spent on each COS activity in both man-hours and in equivalent 1974 dollar amounts. The following hourly rates were the basis for the cost estimates: principal investigator, \$17.50 per hour; project director, \$5.00 per hour; interviewer supervisor, \$3.50 per hour; and paid interviewers, \$2.50 per hour. Of the number of hours shown in Table 1 the interviewer supervisor logged 43 man-hours and the paid interviewers accounted for 52.5 man-hours. Any subsequent study must contend, of course, with rapidly inflating personnel costs and will feel the desperate need for high

efficiency. For example, the estimated comparable typical hourly rates in 1981 would be \$40 for the principal investigator, \$12 for the project director, \$8 for the interviewer supervisor, and \$4 for paid interviewers. The total number of hours also includes briefing and training sessions for everyone involved, which amounted to three hours per person with the exception of the secretary. The value total in Table 1 under 1981 conditions is estimated to be about \$5,978.

To the figures shown in Table 1 must be added the cost of materials (a little over 11 reams of paper, index cards, staples, paper clips, ink, copying charges, IBM cards, etc.)--approximately \$67.30 in 1974. Data processing costs are additional, and in the current survey included about an hour's consultation with a UTK Computing Center programmer, keypunching two data cards per questionnaire (a total of almost 47,500 data keystrokes), and about 6.5 minutes of computer time, not including debugging by the project director. Programming costs can be reduced if future surveys are done regularly because experience will provide additional familiarity with the program that is needed for the COS.

Using students is a real asset to campus survey research as Table 2 shows. The table summarizes the value of the time spent on the COS by the student assistants only; it includes none of the time spent by the project director or the paid personnel.

Thus the COS under study, carried out in the Winter Quarter of 1974, with a drawn-sample of 501 students and a questionnaire which required a mean of 15.3 minutes each to complete by telephone, received fully 41.8 percent of its personnel resources (measured in man-hours) from unpaid students. At a cost equivalent of \$2.50 per man-hour, this amounted to just over one-fifth of the investment in labor.

TABLE 1
MAN-HOURS AND COST EQUIVALENTS
OF COS ACTIVITIES

Activity	Man-Hours	Cost Equivalent
Questionnaire Development		
Discussions with Sponsors	6.00	\$ 105.00
Writing and Revision	38.00	665.00
Pretesting	8.00	28.00
Briefing and Training	111.00	298.50
Sample Selection	18.00	60.00
Questionnaire Form Preparation	20.00*	77.00
Assigning Respondents to Interviewers	2.00	10.00
Interviewing	242.50	616.25
Editing/Coding	34.85	124.00
Interview Verification	1.00	2.50
Data Preparation and Programming	37.00	185.00
Supervision, Recordkeeping, Partial Report, and Miscellaneous	127.00	629.50
Tabulation (Manual)	40.00	200.00
Evaluation and Report Writing	40.00	700.00
Final Typing and Other Secretarial	10.00	40.00
Total	735.35	\$3,735.75

*Includes 8 secretarial hours at \$4.00 per hour.

TABLE 2
TIME SPENT ONLY BY STUDENT ASSISTANTS ON
COS ACTIVITIES

Activity	Man-Hours	Est. Cost
Briefing and Training	87.0	\$217.50
Sample Selection	12.0	30.00
Questionnaire Preparation	6.0	15.00
Interviewing	180.0	450.00
Editing/Coding	20.1	50.25
Interview Verification	1.0	2.50
Total	306.1	\$765.25

Interviewer Efficiency

Table 3 shows the interviewer efficiency "scores" and the average interviewer efficiency for both graduates and undergraduates. Two graduate students, the ones specializing in long-distance interviews, were not included. One graduate interviewer who was included did not submit a time estimate; as mentioned, that person was assigned the mean interviewer efficiency for both class groups together, or 1.77 interviews per hour. This resulted in a total interviewing time investment of 7.91 hours by that person. The mean number of interviews per hour for undergraduates was 1.45, while graduates averaged 1.82 interviews per hour, a difference significant at the .05 level. Hypothesis H1 was supported.

The two sexes did not show a significant difference, as can be seen in Table 4. Males and females were apparently equal with respect to the number of interviews they could complete per hour of interviewing. No data are available on the quality of the interviews obtained from the various groups, but the verification step turned up no apparent differences. Hypothesis H2 was supported.

With these same data it can be readily calculated that the total number of interviewing hours for these interviewers was 156.7 and the overall number of interviews per hour (i.e., unweighted by individual performance) was 1.68. Each student interviewer spent close to 7.5 hours on the job, on the average.

Long-distance interviewing was less productive than local telephoning--one interviewer interviewed 8 persons in about 7.3 hours, attaining only 1.1 interviews per hour; the other interviewer reached 21 persons in 16 hours, or 1.3 interviews per hour.

TABLE 3
INTERVIEWER EFFICIENCY, UNDERGRADUATES VS. GRADUATES

Undergraduate				Graduate			
Interviews	Hours	Interviews/ Hr. (X_1)		Interviews	Hours	Interviews/ Hr. (X_2)	
1.	20	10	2.00	1.	18	8.5	2.12
2.	17	10	1.70	2.	17	10	1.70
3.	15	9	1.67	3.	17	5	3.40
4.	16	10	1.60	4.	15	3.75	4.00
5.	14	8	1.75	5.	15	4.5	3.33
6.	13	10	1.30	6.	14	7.91	1.77
7.	11	7	1.57	7.	14	7	2.00
8.	11	6	1.83	8.	0	7	0.00
9.	10	8	1.25	Mean			2.29*
10.	10	6	1.67				
11.	7	7	1.00				
12.	6	6	1.00				
13.	3	6	0.50				
Mean			1.45*				

* $t = -1.818$, $df = 19$, $p < .05$ (one-tailed)

TABLE 4
INTERVIEWER EFFICIENCY, MALES VS. FEMALES

Males				Females			
Interviews	Hours	Interviews/ Hr. (X_1)		Interviews	Hours	Interviews/ Hr. (X_2)	
1.	20	10	2.00	1.	18	8.5	2.12
2.	17	10	1.70	2.	16	10	1.60
3.	17	10	1.70	3.	15	9	1.67
4.	17	5	3.40	4.	14	8	1.75
5.	15	4.5	3.33	5.	14	7.91	1.77
6.	15	3.75	4.00	6.	14	7	2.00
7.	13	10	1.30	7.	10	8	1.25
8.	11	7	1.57	8.	0	7	0.00
9.	11	6	1.83	Mean			1.52*
10.	10	6	1.67				
11.	7	7	1.00				
12.	6	6	1.00				
13.	3	6	0.50				
Mean			1.92*				

* $t = -1.076$; $df = 19$; N.S.

Discussion

The figures in Table 1, of course, could be made more precise with a higher level of control over student schedules and detailed record-keeping. They are firm enough, however, to be useful guides for future researchers.

The eight hours of pretesting does not represent the optimum effort. In fact, the eight-hour figure is probably subject to more error than the others because it was based upon the best approximation of pretesting time for the final version of the questionnaire only. Regardless of the possible error in the present study, however, it is good to follow the general principle that as much pretesting be done as is feasible, remembering that even in this study more pretesting was done than was presented.

Diligence of graduate students is one explanation for their performance in interviewing. Others are possible. For example, the respondents assigned to them may have been unusually cooperative or easy to reach by telephone (this unlikely possibility was not tested). Nine of the thirteen undergraduates were male while graduates in this comparison were evenly divided between male and female; performance of the sexes within class level was not tested. The backgrounds, professional experience, interests, intelligence, socioeconomic status, and any or all of the other factors impinging upon the students may have been different for graduates and undergraduates, and none of them was compared in this study against possible measures of "conscientiousness" or "diligence." The very fact that the two groups of interviewers were taking two different courses may have had some differentiating effect upon their performance as interviewers. Nevertheless, the results

reported here lend strength to the suggestion that graduates may be somewhat more responsible as interviewers than undergraduates (whatever the reasons behind the difference may be) and this hypothesis should be tested further.

Student assistants completed 263 interviews; paid personnel completed 111. If we assume all of these interviews were conducted in the 62.5 hours recorded as interviewing time for paid personnel, this gives a total of 1.78 interviews per hour, comparing favorably with the performance of the students. As has been observed, however, the paid interviewers were telephoning those persons not readily reached by the students and who therefore were harder to reach generally than the respondents contacted by the students. Consequently, the good productivity of the paid staff under these conditions is noteworthy.

On the whole, student assistants perform creditably and are a great asset to campus opinion surveys. The skills they are called upon to use, of course, should not be so difficult to acquire that they cannot learn them in brief classroom training sessions.

Time constraints narrowly limited student participation in this study. Student assistants could well have taken on more of the load if the time available for interviewing and coding (in particular) was longer. Unfortunately, the roster of student enrollment was not available until several weeks of the quarter elapsed, leaving little time for field work.

Some of the timekeeping problems encountered stemmed from the fact that no adequate work area was available for COS-related activities. The space that was available lacked chairs, desks, telephones, office machinery, and filing facilities. COS procedures could not reasonably

be carried out from this location, especially because of the lack of telephones. No hardship was worked on the interviewers but timekeeping was inefficient. It was not judged appropriate to insist on daily timesheets. Student assistants were believed to have furnished reports as accurate as it was possible for them to do, and they are due thanks for their cooperation.

Timekeeping problems notwithstanding, the estimated cost equivalent for interviewing 374 persons in this study (most by telephone) was \$1.65 per completed interview; for the COS overall the cost equivalent was around \$10.00 per completed interview. Use of student help brought those numbers down to \$0.44 and \$7.94, respectively. Actual added costs to the University, of course, were still lower.

CHAPTER VI

DETAILED PROCEDURES FOR THE CAMPUS OPINION SURVEY

This chapter may be read as a short handbook intended to give step-by-step instructions for carrying out the University of Tennessee-Knoxville Campus Opinion Survey, a general survey of opinions of students enrolled at the University of Tennessee-Knoxville campus. It is based on the first two such surveys, taken in 1973 and 1974, and is intended for use principally by graduate students who will be supervising portions of the survey.

It is not possible to allow for every contingency; therefore the author hopes that users of this handbook chapter will be--or become--aware of survey research procedure in general and be able to exercise discretion when the inevitable occasion arises.

Knowledge of the rationale behind survey research practices, however, will have to be obtained elsewhere, because the handbook does not deal with them. It has a utilitarian purpose: to facilitate carrying out the survey and to help make the procedures relatively uniform from year to year while different people become involved in different aspects of them.

If future survey assistants look into the voluminous literature on survey research and the problems and issues involved, they will find the COS to be a rewarding, challenging, and enlightening job. They will also appreciate the need for diligence and care at every step. This handbook should help assure that essential steps are taken and, with luck, help make the assistant's job a little easier.

Use of this Handbook

If the COS is to be done in the winter quarter as recommended here, procedures should be reviewed thoroughly in the fall quarter, with any questions or problems straightened out in discussion with the principal investigator (PI) well in advance of any work on the survey itself.

Thoughts on problems or issues to be included in the questionnaire should also be communicated to the PI at this time, so that there will be sufficient time for these issues to be considered as possible items for the COS questionnaire and, if included, plugged into the questionnaire pretesting procedure.

When the work on the COS begins, each chapter and step should be thoroughly reviewed before work starts on that step. Likewise, the summary checklists included in this handbook should be reviewed and each item should be checked off as it is completed or accounted for. If some item on the checklists is omitted or changed, note the change and the reasons for it (this may help in writing the final report and it may also help those who will be doing subsequent COSs).

The starting and finishing dates of each step should also be written on the checklist, again to make the final report easier to write and to help keep the survey on schedule. This point needs emphasis, because when the results of the survey are read the dates of actual interviewing are especially important. Some event may occur before, during, or after interviewing which may affect the interpretation of the results, if not the results themselves.

When the survey has been completed, improvements to the handbook or the survey procedures may be evident (to make things easier, clearer,

or more rigorous). Suggestions must not be suppressed. Discuss them with the PI. Any and all comments will be deeply appreciated.

Throughout this handbook it will be assumed that the COS will take place during the winter quarter, at least as far as the field work is concerned. Nothing is sacred about the winter quarter, but it is the recommended time for the COS. By the winter quarter, the student population has (somewhat) stabilized for the academic year in terms of enrollments, attrition, and graduation. Sufficient time can be taken in the fall quarter to plan for a winter quarter COS. And, on the other end, the spring quarter provides time for thorough analysis after data-gathering. It is also possible that new faculty or staff have had time to settle in and become a part of the normal campus environment or, similarly, new offices or organizations have had time to make an impression on students. For these reasons and perhaps more, the winter quarter has decided advantages. References to various stretches of time in this handbook will therefore be keyed to the winter quarter.

General Preparation

A look at the essential steps in the entire COS process will help keep the subsequent descriptions in focus. The first step, therefore, is to review the following checklist of survey steps.

1. Designate the principal investigator (PI) and project director (PD).
2. Review the literature.
3. Discuss survey objectives among PI, PD, and project sponsors.
4. Review current events, topics, organizations.

5. Prepare preliminary survey design, timetable, personnel needs, cost estimate. Include definition of population, data-gathering method, sample size, etc.
6. Discuss procedures, topic priorities.
7. Arrangement by PI for contracts, computer center services, clerical help, other logistics.
8. Detailed meeting (PI, PD, sponsors) on proposed questions.
9. First draft of questionnaire.
10. Review draft.
11. Pretest first draft, modify.
12. Prepare second draft, discuss draft with computer center.
13. Pretest second draft, train interviewers if necessary.
14. Write final draft, include cover sheets, control sheets, verification questionnaires.
15. Reproduce materials.
16. Get population list.
17. Draw sample, make master list.
18. Assign interviewers, give final instructions.
19. Begin field work.
20. Watch progress, check in questionnaires, reassign interviewers as needed.
21. Edit questionnaires.
22. Verification.
23. Code structured questions.
24. Optional hand tabulation of certain questions if necessary; preliminary report.
25. Prepare data analysis plan, discuss with computer center.

26. Obtain computer program.
27. Key punch data cards.
28. Deliver data to computer.
29. Obtain printout.
30. Devise codes for open-end questions and code them.
31. Write report.
32. Determine number of copies needed of report.
33. Reproduce and bind report.

This skeleton outline will shortly take on substance. It is important at this stage, however, to be aware of the major steps and the fact that each step and substep has time and dates associated with it. The earlier those dates are planned the smoother the COS will run.

The first step is to look over this handbook carefully to become familiar with the basic tasks that will have to be done. Do this early in the fall quarter.

Review Literature

Take time to review some literature on opinion polling, particularly Backstrom, C. H. and Hursh, G. D. Survey Research, Evanston, Northwestern University Press, 1963; Blankenship, A. B. Professional Telephone Surveys, New York, McGraw-Hill, 1977; and Erdos, P., Professional Mail Surveys, New York, McGraw-Hill, 1973. The College of Communications should have several bibliographies on the subject on file, such as those compiled by Dr. Jack B. Haskins.

Other Preparatory Review

The PI is responsible for all phases of the survey. The user of this handbook will usually be the PD, who will be a graduate assistant

assigned to supervise many portions of the survey and oversee the day-to-day operation of the survey project.

The issues, problems, and organizations to be evaluated in the COS must be chosen. Much of this will be handled by the PI and he will likely discuss current information needs with potential "sponsors" or contributors to the COS, or with other interested campus organizations. But others may be assigned some responsibilities in selecting topics for the COS, and the problem deserves thought. Be sure that impressions of significant campus issues are communicated to the PI.

Look over copies of previous COS questionnaires and reports. The questions used should furnish good clues to questions that should be asked in the current COS.

It is important to get as much "input" as possible at this stage to make sure nothing is overlooked. Read the Daily Beacon and other campus publications that might print information of current importance. Assess items in the local, state, and national news that might profitably be investigated in a campus opinion survey. Political issues are not to be ignored. Browse through the UTK faculty and staff telephone directory to see if there are any campus organizations whose performance, image, or management might be included in the COS items.

Fall is a good time to make contacts with various offices and staffs that will furnish help during the COS, particularly the student data analysis office. Ask the people there when they will have the "enrollment summary" available for Knoxville Day and Evening, and get copies when available to become familiar with the way these data are presented. Take a look at the Knoxville Day and Evening "student directory" in printout form, which is probably the way it will be used

in the COS, rather than in the bound, printed version distributed to University departments. The printed version may not be prepared in time for the COS and it also may not have numbered pages, which would make the sample selection procedure difficult.

Begin reading SPSS: Statistical Package for the Social Sciences and recent revisions and supplements (if any). A copy should be available in either the Communications Library or in one of the offices in the College of Communications, in addition to one of the University Libraries. Familiarity with this document will be helpful in later stages of the survey, and there may not be time to review it carefully then.

Materials Needed

Office supplies and similar material should be on hand before work on the survey starts. By about the middle of the fall quarter check with the Communications Research Center secretary to make sure the following supplies will be available:

1. Mimeograph paper, white, 11 reams (5,500 sheets).
2. Mimeograph paper, yellow, 2 reams (1,000 sheets).
3. Letterheads, Communications Research Center or College of Communications, 100.
4. Mimeograph stencils, at least 20.
5. Staples, one box.
6. Paper clips, one box.
7. Index cards, 5" x 8", 100.
8. Pencils, rubber bands, etc., as needed.
9. A couple of legal pads.

Those are the essentials to begin with. More sophisticated materials, especially for interviewers, may be desirable and will probably be added as time goes on, such as special organizing clipboards or notebooks, personalized time/mileage record sheets, and the like. But the COS, using students for interviewers and assistants, can be done quite nicely without elaborate paraphernalia.

Now is the time to go over the inventory and make sure there is enough of everything. For rough estimates, count on supplying 25 interviewers.

Detailed Survey Plan

One important final item of general preparation: establish a survey timetable. Review previous COS reports and note the amount of time allocated to the various tasks. Unless significant changes are made in the survey, the following rough schedule may be followed after the planning and advance work conducted in the fall.

1. January--devoted to survey planning, questionnaire design and questionnaire pretesting.
2. First two weeks of February--materials preparation and assembling, including two days for drawing the sample (near the end of the period).
3. First available day of third week (sooner if possible)--first interviewer briefing, trial questionnaires distributed.
4. Next day--assemble interviewer kits.
5. Next day--question/problem period with interviewers, final briefing, kits handed out, field work begins.

6. Approximately two weeks later (or 10 working days)--student interviewing completed, professional interviewing under way, start verification.
7. One week later (approximately end of first week in March)--interviewing ends, coding begins (some coding can be dovetailed with prior tasks).
8. End of fourth week in March--coding completed, ready for data processing.

Review the general checklist on page 45, modifying as specific conditions may require, and set specific deadlines for all of the necessary tasks and then optional ones.

In summary, the PD must ensure that the following steps are taken for general preparation.

1. Read COS procedures.
2. Read Backstrom and Hursh, Survey Research (see text).
3. Read SPSS (see text).
4. Read past COS Questionnaires and COS Final Reports.
5. Using past COSs as a guide, consider topics that might be included in COS items.
6. Review UTK faculty and staff telephone directory for names of organizations that might have been overlooked in the above steps.
7. Make contacts with the people in the student data analysis office.
8. Examine "enrollment summary" and the "student directory" printout for Knoxville Day and Evening, fall quarter.

9. Make sure sufficient amounts of essential office supplies are on hand.
10. Establish schedule for survey.

Questionnaire Development

The PD may be asked to participate heavily in questionnaire development, or may not. As mentioned in the last section, the PI will probably assume the greatest amount of responsibility for selection of the questionnaire items, but it is wise to be prepared. The PI will keep the necessary people informed about his meetings with the organizations that may be interested in supporting the project and about what they want to know--and this is a good time to find out how much of the next COS will overlap the previous ones. Some questions of continuing interest may be repeated to discover long-term trends in opinion on "timeless" topics.

During discussions about COS questions, and while contemplating different ideas, keep the following limitation in mind: about 100 short-answer, structured questions, together with a few "open-end" or free-answer questions (such as question 3, COS #2) will make up a questionnaire that typically takes about 15 minutes or more to complete on the telephone. Longer interviews needn't be shunned, but student interviewers may be demoralized if they are assigned 25 interviews and the first couple take an hour or so to finish. The other side of this coin is equally important: in meetings with the students later, don't be bashful about asking them to do interviews 100 or so questions long--it can be done, they will realize, without much pain and it will certainly give them an appreciation for the amount of work required in scientific opinion research. And that, after all, is one reason for doing the survey.

This stage of the survey may pose a significant problem. Opinion questions concerning University policy (or any other topic, for that matter) might generate more than casual interest from local media or other parties. The questions to be asked should not be revealed capriciously. The research environment should not be contaminated by calling public attention to the content of the survey. Rumors do get out occasionally. Some rather mistaken (or rather accurate) reports about the survey question content might get spread around. It is part of the PD's job to help quell any speculation that might occur. It is the responsibility of a serious survey researcher to protect the integrity of the survey--methodologically and ethically--and thereby help keep survey research an important tool in decision-making and social science.

During development of the survey instrument, questions carried over from previous years should be repeated verbatim, and the format of the question page itself should resemble previous questionnaires as closely as possible. The questionnaire used in the development of the COS, found in Appendix A, is a convenient guide for questionnaire preparation. Many of the questions can be standard "stems" to be used in future surveys, with changes in specific items to be made as necessary. Questions 1, 4, 6, and 7 are particularly likely candidates for this kind of treatment. The others may be adapted, too, but the volatility of "current" issues may severely limit the number of specific items that may be carried from year to year.

An organization or service used as a question subject for the first time can be handled by adding its name to the list of subjects under a larger question. For instance:

In your opinion, in general--are you satisfied or dissatisfied with the job being done by...

- (a)...the Student Government System?
- (e)...The Rape Crisis Center?
- (aa)...The Daily Beacon Newspaper?
- (ee)...(New Organization)?

All organizations, persons, or offices considered should be looked at to see if they are part of larger organizations already included or if they are different names for organizations already included, or if any other duplication or vagueness seems to exist.

In all cases, first drafts of the questionnaire should at least carry the official full name of the organization in question or, if it is a person, the name he (or she) uses, preceded by his (or her) title. Official names and titles may become unmanageably long or cumbersome and they may be shortened to their more common forms. Field-testing the questionnaire (see below) should uncover vagueness or misunderstandings about titles, but don't count on fixing all problems later. Strive for conciseness, clarity, precision, and accuracy from the beginning. For example, there is a temptation to put things like "the student newspaper" in such questions. The researcher knows what this means; so does the interviewer and so does the respondent. Unfortunately all three can be thinking of entirely different newspapers. Moreover, people reading the final report have to guess at the meaning blindly.

Similarly, if the title of (say) a publication is given in the COS questions, the nature of the publication also appears: "...the Daily Beacon Newspaper?" New students, for example, might need the extra shove to remember what the Daily Beacon is; or some students might need their attention focused on the Daily Beacon as a newspaper and not as a lab for budding journalists.

In a series of questions about organizations, consider which should come first: one about a large organization and then one about a smaller, included organization; or vice versa. This assumes, of course, that there is any interest in the "umbrella" organization at all. Never ask a question if the answer is useless. There are good reasons for asking the question either way, but an object lesson occurred in an earlier survey. Interviewers reported problems when these questions were asked during a COS:

In your opinion, in general--are you satisfied or dissatisfied with the job being done by...

(u)...the Intercollegiate Athletic Program?

(w)...the Women's Intercollegiate Athletic Program?

Interviewers occasionally had to deal with respondents who wanted to revise their answers to (u) after they were allowed to vent their spleen about their primary concern in the subsequent question, (w). It must be decided in advance whether the immediate response to the overall organization is desired or the response elicited after the respondent has had the chance to think over his opinion about the various parts of the organization. Either way, interviewers must be aware of potential problems and must be instructed not to change initial responses at the respondent's whim. If duplication confuses the respondents, respondents should be allowed to explain their answers, and then be told, "Taking everything you've said into account, are you satisfied or . . . ?" It almost goes without saying that interviewers must handle such situations uniformly.

The above includes a few rather narrow examples of some problems that might come up in forming the questionnaire. Fortunately the structured questions in the COS don't have to be written anew for each topic

that might be included; the standard style can be used successfully. Also, a lot if not all of this work might be done by others. But several good references are available and they should be read by the PD as early in the fall quarter as possible. For example:

Blankenship, A. B. Professional Telephone Surveys. New York, McGraw-Hill, 1977.

Dillman, D. A. Mail and Telephone Surveys: The Total Design Method. New York, John Wiley and Sons, 1978.

Oppenheim, A. Questionnaire Design and Attitude Measurement. New York, Basic Books, 1966.

Payne, S. The Art of Asking Questions. Princeton, N. J., Princeton University Press, 1951.

Payne's book will be especially valuable (after reading Backstrom and Hursh's Survey Research).

Free-response or open-end questions may be used in the questionnaire discriminately. There should be some rationale about the way the data obtained from them is to be used and analyzed. They may be used primarily as "warm-up" for subsequent structured questions, but this doesn't imply a casual attitude toward open-end questions. Not only might the replies be useful to other investigators, but also the respondents will react badly, on the whole, to poorly-worded questions. Furthermore, bad questions will lead to answers that are extremely difficult to classify and interpret. Open-end questions should be as carefully thought out and as carefully asked as all of the other questions. Previous COS questionnaires can be used as guides. (It might be interesting to see how the number of people volunteering opinions on open-ended questions compares to the numbers of opinions elicited by structured questions.)

The references mentioned contain hints on the kinds of questions that come early in an interview and the kinds that should come later. Generally, as is done in the COS, a short series of more or less innocuous "warm-up" questions--non-threatening, as it were--get the respondent involved in the interview and willing to answer questions before the more substantive issues are broached. Open-end questions may allow the respondent to mention topics on his mind that were not included in the structured questions. Then, at the end of the questionnaire, the demographic data are obtained, including the school or college of the respondent, grade level, age, marital status, race, and so forth (see the COS #2 questionnaire).

The physical format of the questionnaire is closely tied to the requirements of machine-processing the data. Any material changes in the format of the questionnaire may require changes in the coding scheme, keypunching instructions, and so forth, which is another reason to follow the format of previous questionnaires as closely as possible. This is not to say that changes are to be avoided--they just should be made with attention to details. Perhaps a proposed questionnaire item can be phrased in a way that will fit the established format well; if so, so much the better. If not, then substantial changes may be justified.

Question-writing and questionnaire design are two fields in which much additional research is needed. There are many suggestions and warnings in the literature and many issues that are far from settled. Every step should be taken with a questioning mind. If time and space permit, some favorite hypotheses might be tested. But for the time being don't tamper unnecessarily with material that has worked successfully in the field.

In summary, the PD must ensure that the following steps are taken in question writing.

1. Read available literature, especially Survey Research, The Art of Asking Questions, and Questionnaire Design and Attitude Measurement (see text) by the end of the fall quarter.
2. Review previous COS questionnaires for question content, the order of topics, and the form of the questions.
3. Make a list of possible topics for the questionnaire at the end of the fall quarter or the beginning of the winter quarter.
4. Discuss your list and questions used before with the PI for possible additions, deletions, or amendments to previous surveys.
5. From literature reviews and/or study develop a list of possible methodological hypotheses. Discuss them, and the ways to test them, with the PI.
6. Observe the format of previous questionnaires.
7. Focus on significant topics.
8. Concentrate on topics that will continue to be significant at least through the end of the spring quarter.
9. Review, for example, (a) institutions; (b) offices, university and political; (c) people; (d) media; (e) announced university policies; (f) social questions and issues arising during the term.
10. Remember that the questions must fit a structured (short-answer) questionnaire.
11. Keep the questionnaire to about 100 questions, ending with questions on personal characteristics.

Pretests and Final Preparation of the Questionnaire

Once written, the questionnaire must be revised and rewritten until it is in final form. This is a crucial step, involving repeated editing and rewriting until the instrument does what it is supposed to do.

Starting from the first draft of the questionnaire, which should be completed by the first days of the winter quarter, the following steps must be taken.

First, review the questionnaire carefully for obvious flaws. Things to look for include illogical question order, such as an abrupt or confusing change of topics (sticking to established formats will help avoid this); omitted words or lines; jargon or technical terms; vague terms; ambiguous terms and unintentional puns; and general clarity and conciseness. See if the questionnaire reads easily and naturally--try it out on a friend to see what problems there are in using it. Most of all, look over all questions and try to eliminate loading or bias. Having read the books mentioned previously will help here, but they can't cover all possibilities. You will have to examine all questions and subquestions carefully to make sure they don't contain either unnecessary evaluative assertions or emotionally-charged words or phrases that detract from the sense of the questions you really want to ask.

Second, review the physical layout of the questionnaire to make sure all of the parts are there. The questions must all be properly numbered and lettered. The interviewer instructions must be clear and in the proper place (as nearly as can be determined at this stage). The pages should not be overly crowded, but some crowding may be unavoidable. Ideally, questions should be complete on the page and should not run from one page to the next.

For the time being, ignore the data-card column numbers that will be needed on the final questionnaire to help process the data. The first draft will likely be changed a few times before the various blanks needed for EDP have to be included.

Third, a paid interviewer supervisor, if hired to assist with portions of the survey, should be briefed on the schedule and objectives of the survey and should be given a copy of the draft questionnaire to review. He or she should be asked to suggest changes in questionnaire design or question wording.

Fourth, all suggestions for changes should be discussed with the PI and another version typed up if changes are made.

Fifth, the interviewer supervisor should try out the questionnaire on about 10 people chosen haphazardly from the student phone directory (and deleting those names from the actual survey sample if chosen).

Changes are indicated when the questions have to be explained to the respondent, or if the respondent seems to perceive a meaning different from the intended one. If the respondent seems to be making thoughtless answers or vague and seemingly undirected ones, look at the questions again to make sure they are explicit enough or that the tempo of the interview is natural and comfortable. A lengthy series of short answers can lose the respondent's attention if he isn't reminded what he's doing from time to time (see bottom of page 5, COS #2 questionnaire, for example). A question should be recast if it causes an inappropriate response, such as laughter. Other inadequacies in the questionnaire should generally become obvious during this field testing.

The interviewer supervisor should return for a briefing on any problems that arose during the interviewing. The form should then be retyped.

Sixth, sometimes it happens that an item is added to the questionnaire or is changed while other work on the questionnaire is in progress. Every time a change or addition is made, the pretesting steps outlined above must be repeated except for the briefings on the objectives of the survey. It is not enough to pick some respondent and ask only the questions that have been added or changed. The question must be asked in the context of the entire questionnaire.

Seventh, when the new form is retyped, the fifth step must be repeated. In the later pretesting steps, check with the PI on the advisability of using some students as respondents. This helps fit the questionnaire to the intended population but it also runs the risk of contaminating the survey sample. If students are used for pretest respondents, their names may be picked from the fall quarter student directory. The names must be recorded in case any of the same students are drawn in the final sample; survey interviewers must be told that they may run into people who were interviewed in the pretest (if this is true). Because the questionnaire may have changed a little, the interview should be repeated, and all interviewers involved should be given a standard explanation for the repetition to tell the respondent. The PI will help develop this explanation.

Eighth, while these interviewing steps are taking place, begin preparing interviewers' materials and even sample selection if the records are available. A time and date for briefing the student assistants and the paid interviewers needs to be set; ask the professional interviewers what suggestions they might have for instructing the students.

Ninth, when all revisions are finished, the final questionnaire must be given to the secretary for typing and mimeographing--about 800 copies for an initial sample of 500. Spaces for seven numbers, and the corresponding IBM card-column numbers in parentheses must be placed in the upper right corner as in COS questionnaire #2. You'll need three blanks for the CRC project number, three for the questionnaire (respondent) number, and one for the card number (see Appendix A).

Beside each blank or series of blanks on the entire form--usually, but not always, there will be one blank for each response--should be the IBM card-column numbers corresponding to those blanks. The blanks and the column numbers should be put at the far right of the page in a column marked "For Office Use Only." If a response requires two or more digits (including "0" if some numbers in the question series are less than 10 and some greater), a card-column indicator is required for each digit.

There are only 67 card-columns available for data, so at least two data processing cards are needed for every questionnaire. At the beginning of the second card, that is, after the 67th response or other datum, space is again needed for the project number, questionnaire number, and card number. The card number this time, of course, will be 2. The project and card numbers can be typed directly on the stencils. This step must be repeated for additional cards, if needed--that is, if the number of columns required exceeds 134 or any other multiple of 67.

When card-column number 67 is reached, the keypunch operator must be given instructions to change cards. The words "End Card 1" in a box are sufficient (see COS #2 questionnaire, page 4). A similar instruction applies to additional cards.

The cover sheet is necessary to provide records on each interview-- records of actions taken on each respondent. Every questionnaire must have one. Unless special circumstances require a change, it will be sufficient to copy the cover sheet used before. The cover sheet, if a new stencil is typed, should be drafted and proofed as carefully as the questionnaire. The cover sheet should be a different color from the questionnaire sheets and perhaps a different color from the previous survey.

This will be about the right time to obtain, review, and run off sufficient copies of general interviewer instruction sheets for student interviewers. Exactly the same instructions should be usable as in the past, but review it anyway to make sure. Instructions can vary in any way that seems advisable, but it is essential that interviewers be told to follow instructions explicitly, ask the questions exactly as they are written, copy down answers to open-ended questions verbatim, and take their jobs seriously. Also, the instructions should include a "trouble number" at which the PD or interviewer supervisor can be called day or night. There should be little need for a detailed set of instructions for the questionnaire itself if the form has been properly prepared.

About 40 or 50 copies of the general interviewer instructions should be sufficient for the student assistants and the paid interviewers as well. Material for assistants will be discussed in further detail later.

In summary, the PD must ensure that the following steps are taken in pretests and final preparation of the questionnaire.

1. Review the questionnaire for obvious flaws of logic, clarity, bias, and tempo. Make sure the form is complete.

2. Try the questionnaire out on a friend. Note recommended changes. Keep a record of the person's name and answers; he or she might turn up in the sample if a student.
3. Brief the paid interviewer supervisor, and review the questionnaire. Note recommended changes.
4. Discuss possible changes with the principal investigator.
5. Have the semi-final questionnaire typed up, and about 20 copies made.
6. The paid interviewer supervisor should try the revised questionnaire on a haphazard sample of 10 people drawn from the student phone book and make note of any difficulties (keeping a record of names for deletion from the sample if chosen).
7. Pretest any last-minute additions (if any) to the questionnaire also--and in the context of the full questionnaire.
8. In late pretesting, as described in "Interviewer Organization and Training," use a few students as respondents, but always record the names of the students interviewed.
9. Write a standard explanation to use with real survey respondents in case they happened to be interviewed during pretests.
10. Type up the final questionnaire form and run 800 copies, following the proper format for electronic data processing.
11. Proof and reproduce the questionnaire cover sheet, using a different color of paper from the questionnaire itself. Use the existing format, with new material identifying the number and date of the survey.

12. Look ahead in this handbook to see what steps can be carried out at this stage, such as setting briefing dates for student assistants and perhaps sample selection.
13. Review and duplicate instructions for interviewers.

Interviewer Organization and Training

A necessity for any survey is enough help that is well enough trained and motivated to do a thorough and reliable job. Most of the COS interviewing will be done by student interviewers. They are generally drawn from communications research courses and participate as a part of their course requirements.

Obtain a list of the students who will be helping with the COS from the PI. Make out an index card with the name of each student assistant and a space for his or her job assignment on it. A 3" x 5" card may be adequate but one of the larger sizes may be easier to use. Job assignments will be determined during and after an initial meeting with the students. Separate the cards for graduate students from undergraduates.

Typically two research classes being taught in the winter quarter will furnish the student assistants. Arrange for a joint meeting of the two classes (with the help of the PI) for the initial meeting with the students. The date and time of the meeting must be announced in each class--and posted on appropriate bulletin boards if possible--well in advance of the joint meeting. The paid interviewer supervisor must be able to attend. The following paragraphs describe the procedure to follow at this meeting.

The PI should generally introduce the topic, describe the need for the research project, and define the role that participation will play in determining the students' final grades for the courses.

The PD will then go over the basic steps to be taken in the survey. If it seems appropriate to help the students achieve a better understanding of survey research, considerable time may be devoted to justifications for each step. The PD must then describe the materials that each student will receive, including the written interviewer instructions referred to earlier. Primarily this entails a description of the questionnaire cover sheet and the questionnaire itself; other materials include the standard statement for respondents who may have been caught in the pretest. Most students do not do personal interviews and therefore do not need a letter of identification and introduction. Such a letter will be needed, however, for interviewers doing personal followup.

A brief form used for verification interviews, if available at this time, should be exhibited and explained. The form can be found in the materials used for COS #2. Students have been found to be reliable at their tasks, but it will not hurt for them to know that a verification step is included. Most other materials needed are simply readily available items of office stationery, such as ruled legal pads.

To summarize the items that need to be described and explained, the following should be exhibited: (1) the questionnaire cover sheet; (2) the questionnaire; (3) the standard explanatory paragraph; (4) the verification form; (5) a letter of introduction for followup interviewers; and (6) written interviewer instructions.

After discussing each step in the survey, it is appropriate to ask for volunteers for the various jobs. The number of students available

will determine, to a large extent, the numbers that can be used for each task, and occasionally two persons will be recruited for a job that can be done easily by just one. Verification is a good example of a job that is not too demanding for one person. The names of the volunteers for each job should be marked on a piece of paper, preferably a copy of the class roll, for later transcription to index cards. When the names are placed on the index cards, allow space for the date the job was started by the individual, the date the task was completed, and the total amount of time in hours that the individual spent on the project.

Tell all participants to keep track of the time they spend on the project and report this time as they complete their assignments.

Once the explanations and questions are out of the way, everyone in the two classes (except two) should be told that he or she will do some practice interviewing, just for the experience. Four copies of the questionnaire should be distributed to each student, and the meeting should be turned over to the interviewer supervisor who will go over the form item by item. Questions are sure to arise about the meaning of the questions and about what to do if this or that answer is given. These questions must be answered clearly and distinctly to assure the uniform treatment of respondents' replies. Write down the questions and the answers that arise from the meeting for future reference. Any serious problems that have so far been undetected will need to be fixed and it is therefore highly desirable that the PI be present throughout the joint meeting of the classes.

All students should then take three copies of the questionnaire home for practice. One technique for selecting respondents for this kind of practice is to have the students select the three names below

theirs in the previous quarter's student directory, making sure that they copy down all of the information requested on the questionnaire cover sheet. If the practice respondents happen to crop up in the ultimate sample, the first answers they gave to the questionnaire items will be used.

The two persons excused from this exercise will be those needed to help draw the sample, a procedure which should begin immediately after the joint meeting.

Finally, a second joint meeting should be set for the second (or perhaps third) class day following the first joint meeting. Student interviewers must be instructed to return their practice questionnaires together with their comments about problems encountered during practice interviews to the next joint meeting. If they expect a schedule conflict, they should be instructed to report to the communications research office within three days (at the most) to discuss the practice sessions and receive assignments. The students should generally be instructed to check in at the communications research office from time to time to keep in touch with the PD. Occasional communications can be carried out through the students' regular class meetings.

In summary, the PD must ensure that the following steps are taken in interviewer organization and training.

1. Obtain the necessary materials to keep track of the assignments and progress of each student or paid assistant. Include class rolls, index cards.
2. Describe the survey procedure and materials at a joint meeting of all students, the PI, the paid interviewer supervisor, and perhaps others involved.

3. Require practice interviews in and out of class.
4. Thoroughly review the questionnaire, the cover sheet, and other standard language with the student assistants.
5. Describe the verification procedure to the student interviewers.
6. Assign students to jobs at this time: most for telephone interviewing, two (if feasible) for personal follow-up, two long distance specialists, one or two for verification, two for sample selection, and two for editing and coding (who may be the same as the two for verification).
7. Present the survey schedule to the students; they must know the deadlines.
8. Instruct all participants to keep track of the time they spend on this project and report this time to the PD.
9. Each apparent problem in the administration of the questionnaire should have a uniform solution or explanation known to each interviewer.
10. Complete all practice interviewing and "practice debriefing" within three days.

Selecting the Sample

From a sample selection standpoint, concentrating on student opinion is an enviable position. Relatively complete information is known about each individual in the universe--and compiled in the official student directory--and one may proceed with confidence. Never, however, allow any carelessness.

Between the activities described so far, administrative offices should be contacted and arrangements made for COS use of the computer printout of Knoxville Day and Evening Students for the current quarter. It is unlikely that the published directory will be available in time to draw the sample and, anyhow, there are advantages to using the original information resource. A place with a table and at least three chairs is needed to draw the sample, and the help of two student assistants. Then the following steps may be taken.

First, define the population precisely. The definition most likely will be stated as "all UTK day and evening students registered for credit courses as of the last date for winter quarter registration for the current academic year." There must be an explicit decision to include or exclude students who live outside Knox County. It is difficult to make a case for excluding such students except convenience. Although there are significant numbers of students who live far from UTK and are uninterested in the campus's day-to-day affairs, there are perhaps more significant numbers who live outside the county but who also commute to school daily and are intimately involved in campus affairs.

Second, set the sample size. Barring unforeseen circumstances, the drawn-sample size will be 500. If out-of-county students are for some reason to be excluded, the approximate proportion of such students to the total enrollment in Knoxville day and evening school should be obtained and the drawn-sample size inflated by the same proportion. If the approximate proportion is not available, simply raise the drawn-sample size to 600 instead of 500 and proceed as described below. When the list of respondents is drawn the names of people who live outside of Knox County must be deleted to achieve the exclusion.

Third, the "skip interval" and random starting place on the list of students must be determined and the system of selecting names established.

1. Determine the total number of students enrolled. If the quarter is just underway, this figure won't be available, but it can be found by using the full number of pages of printout of student names. Go to the last full page of printout and read off the page number at the top. Multiply this number by the total number of students on the page. Then add this number to the number of students on the remaining page.
2. Divide the total number of students by 500 or by the larger number needed if out-of-county students are excluded. Let us assume that all registered Knoxville day and evening students are a part of the universe. This will give the "skip interval," or the number of persons that must be counted from one selected respondent to reach the next. Assume for the time being that this interval is 45.
3. Find a table of random numbers.
4. Using the last three digits of your home phone number, enter the table of random numbers in the following way:
 - a. Using the first digit, determine the page of the table to be entered. If this digit is larger than the total number of pages in the table, divide it by two and round (if necessary) to the nearest even whole number. Round to the nearest odd number next year.
 - b. The next two digits can be used to locate the row and column, respectively.

5. The first three-digit number found in the table at the right location will give the page number of the printout to be used to start selecting the sample. If the first three digits found are greater than the number of pages in the printout, use the three digits directly under the first three. And so on. Assume the three digits selected are 143.
6. Immediately to the right of the three digits used to select the page start, take the next two digits as the sample start. If this number is greater than the total number of students on a page of printout, take the two digits immediately below the first two digits selected. Assume that there are 52 students on a page, and assume further that the digits selected are 02.
7. Read the rest of this chapter to learn the information needed on each selected respondent. Then, using the assumed examples, go to page 143 of the printout and take the second student on the page as the first member of the drawn sample. Count down 45 students--according to the example--and accept the 45th name as the second member of the drawn sample. Continue this process, using the random numbers actually selected by the procedure and not, of course, the numbers used in this example (unless the procedure somehow yields just those numbers). Upon reaching the end of the printout, simply continue the count to the first page and proceed as before. Do not stop selecting names until the starting page is reached. This procedure should yield approximately 500 names--more if out-of-county names are to be deleted--and one or two more or less will not matter.

Fourth, at least one and perhaps two student assistants will be needed for the actual sample selection. A list must be made of each designated respondent's full name, marital status, sex, address and phone number, including also a special mark--such as an asterisk--if the phone number is known to be long distance. Sample selection is time-consuming and somewhat tedious; it is therefore helpful if the chores are shared. One student assistant can count the names and pick out the students and then read out the information to the other assistant who will write the information down. A pad of legal-size paper should be provided for this purpose, with the potential respondent's number marked in the left-hand margin every three lines. The numbers are assigned consecutively from 001 on (be sure to include all three digits of the respondent number). The address and phone number are most convenient on the right side of the page, or the note "no phone" if no number is given.

Because the student assistants cannot be expected to put their full time into the project, the PD will have to assist in the sample selection and it is, in any case, a good idea to keep a close watch on what is going on. It is very easy to miscount, or to start skipping the wrong number of people, or to make other mistakes that can seriously affect the quality of the sample. Take care. Anyway, the morale of the student assistants could suffer if the PD doesn't roll up his or her sleeves right along with the helpers.

Fifth, it is worth noting separately that all student names that occur at the proper interval are to be included in the sample, even if there is no information listed besides the name. This happens a surprisingly large number of times.

Sixth, use the student assistants to put the name, address, respondent number, and telephone number of record on each of the assembled questionnaire forms. Note: the respondent number must be entered in three places--one on the cover sheet, one in the upper right corner of the first page of the questionnaire, and one on the page that begins the second data card for each respondent (which should be clearly indicated on the questionnaire form). If the questionnaire is lengthy there may be more than two data cards for each respondent; if so, then the respondent number must be entered for each.

Seventh, respondents with known long-distance telephone numbers should be set aside for special treatment.

The sample is now drawn. The next step is to go into the field.

In summary, the PD must ensure that the following steps are taken in selecting the sample.

1. Make explicit arrangements to use the computerized list of Knoxville day and evening students and arrange a place to use it with a table and at least three chairs.
2. Ascertain the sample size. It generally will be 500, adequate for most purposes except perhaps those which might influence decisions on major capital investments or organizational changes or, more commonly, those which require reliable data about subsamples.
3. Determine the total number of students and divide by the sample size (500) to arrive at the skip interval.
4. Using the last three digits of a convenient number, such as a home phone number, enter a table of random numbers using the three digits to determine the page, row, and column,

respectively, to be entered. If any of the three digits is too large, divide by two and round off.

5. The first three-digit number encountered in the table should determine the printout page number to use in starting to draw the sample.
6. The next two random digits encountered will give the number of the student on the selected page who is the first member of the drawn sample.
7. Using the established skip interval, draw the sample, recording each person's name, marital status, sex, address, and phone number.
8. Make a special indication if the phone number is known to be long distance.
9. Number each member of the sample consecutively starting with 001.
10. Put the name, address, and phone number of each potential respondent on questionnaire forms, entering the unique respondent number in all of the required places throughout the form.
11. Set aside the known long-distance questionnaires for special treatment.

Final Interviewer Organization and Field Work

Once the names, phone numbers, and other necessary information are entered on the questionnaire forms, shuffle the forms thoroughly. This is a cumbersome step, but it will reduce the potential effect of interviewer bias in alphabetic portions of the population and it will reduce the impact of bias that might otherwise result if an interviewer

drops out of the project. If time is short, divide the questionnaire forms into five piles of 100 forms each, and assemble the interviewers' packets by taking one from each pile until the requisite number are put in each packet. The requisite number is determined by dividing the number of interviews to be completed by the number of student interviewers available. Follow the same procedure for long-distance questionnaires.

It is desirable to have no fewer than 15 general interviewers and two long-distance interviewers. If there are, say, 60 long-distance interviews to be done, the 15 general interviewers will have about 25 questionnaires in their packets. This number can and ultimately will be reduced by the paid interviewer supervisor and paid interviewers; nevertheless, assign all of the forms to students at first and reassign them to paid interviewers when and as necessary.

Some reassignments among student interviewers are inevitable owing to absentees and dropouts.

Taking all of this into account, the following are suggested manpower requirements during field work.

1. Two interviewers to split up long-distance telephoning, preferably graduate students who have access to a University WATS line after working hours. Graduate assistants can be particularly valuable in this task. Long-distance interviews are more likely to be successful at night or on weekends than during the usual working day. The Communications Research Center can furnish authorization for using the WATS line. Diligent effort after hours will produce results with the

long-distance respondents, but start immediately or risk a low response rate.

2. Two persons (see page 82) will be needed for personal followup of respondents whose phone numbers cannot be obtained. Note: instruct all general interviewers to try University Information and Knoxville Information--remembering to ask for new listings--for all respondents whose phone numbers are not given on their questionnaires. Only if the phone number cannot be obtained with a reasonable and conscientious effort should the questionnaires be turned in for personal followup. All of the steps taken by the interviewers must be duly entered on the call record sheet provided with the questionnaire.
3. At least 15 and as many others as possible should be used as interviewers.

Enter all student assistants' names on index cards, together with their phone numbers and spaces for the date their task was started, finished, and the total time spent. For interviewers, the questionnaire number of each respondent assigned to each interviewer should also be put on the card. Every time there is a change in the status of a questionnaire, the change should be reflected on the appropriate card. For example, cross off the number of each questionnaire checked in (during the final stages of interviewing) and enter the date that the questionnaire was turned in. This will permit double-checking the status of field work and will help in assessing the performance of interviewers. If one student interviewer drops the course or becomes ill, their questionnaires can then be assigned to other interviewers and the questionnaire numbers duly marked on the index cards. It may

be difficult to keep up with the progress of the paid interviewers in the same fashion, but try it anyhow.

It will probably happen that certain interviewers will be assigned more of the "incompletable" forms than others, or will inadvertently receive some long-distance respondents that must be turned over to the long-distance interviewers; these people have a lightened case load and can take up the slack of people who drop out of the interviewing.

Verify that the interviewer packets have all necessary materials. In addition to the questionnaire forms, interviewers also need a statement of general instructions including a trouble number to call in emergencies. Two letters of authorization identifying students as interviewers for the Communications Research Center must be available for the student assistants who will soon be doing personal followup. A sample of a previous letter of authorization can be found in the Appendices.

A final meeting is now necessary--as previously scheduled--in which the interviewers have the chance to describe their experience with their practice interviews. Their questions on procedure, question wording, and other items are answered at this meeting or, if not completely answered, at least noted. Establish a uniform practice for all interviewers in any problem areas that have been identified.

During the meeting, distribute the interviewers' packets. Each interviewer must check the respondents he or she has been assigned to see if there are any immediate problems and to make sure they know what to do if there are blanks in any of the forms assigned. Make each interviewer responsible for examining the questionnaire forms for missing pages. Replacements must be provided for defective questionnaire forms.

If a form is replaced, carefully duplicate the respondent information and I.D. number in all of the proper spaces on the new form. Time permitting, it is best to do this under close personal supervision.

A question sure to be asked is, "What are we supposed to do if there's no phone number?" Naturally, if an interviewer cannot find the phone number after a reasonable effort, the questionnaire form must be turned over to the PD who will then reassign it for personal followup.

Another common question involves handling respondents who refuse to be interviewed. Interviewers should be told to be as persuasive as possible, citing the importance of the survey and the chance it gives to the student to influence the University decision-making process; interviewers should also say that the interview will only take a few moments and should then immediately launch into the first questions. At no time should be respondent be given any clear opportunity to refuse; it is important to follow the tone of the introductory remarks on the questionnaire forms. Stubborn refusals are to be turned over to the interviewer supervisor or the PD. Typically, there are few outright refusals.

After this final briefing, the basic field interviewing may begin.

In summary, the PD must ensure that the following steps are taken in final interviewer organization and initial field work.

1. Shuffle all prepared questionnaire forms.
2. Using 5" x 8" index cards, write student and paid assistants' names on each card to make a record of their assignments, the date begun, the date completed, the hours spent, and the questionnaire numbers (if any) each has been assigned. Note: any change in assignment or questionnaire number must appear on the card.

3. Prepare and distribute interviewer materials--questionnaires, general instructions, trouble number, an authorization letter for interviewers involved in personal followup, standard language for use with respondents who may have been caught in the pretest.
4. Make running notes on each assignment card of progress (questionnaires checked in and similar information).
5. Meet with the students and other field workers for a final briefing.
6. Establish a uniform practice for all interviewers in any problem areas identified in pretesting.
7. Examine all questionnaire forms for defects, such as missing pages, or illegible type, and issue replacements.
8. Point out the procedure for missing phone numbers and refusals.
9. Ask all interviewers for their final questions before going into the field.

Checking in, Followup, and Verification

Followup and verification are two distinct operations, but they occur around the same time in the survey and both are done simultaneously with the basic interviewing. Checking in will start to occur fairly soon and will go on continually for some time.

When interviewers bring in the questionnaires they have completed or have decided they could not complete, have them sit down with you and, as these sessions usually come in spurts between classes, ask those who must leave to return with their forms when they do have a couple of minutes. Some judgment may be used in accepting forms from

people who cannot wait while they are checked. A little time taken now will prevent lost data.

Go through the forms presented by the interviewer to make sure the cover sheet is filled out completely and that the questionnaire number (the I.D. number) is entered in all of the appropriate places.

Leaf through each questionnaire to verify that (a) all structured questions have an "X" entered somewhere, (b) all open-ended questions have an answer, (c) all demographic data are entered, and (d) generally that the form is complete. If there are any illegible marks or ambiguities, ask the interviewer what happened. Particularly watch for the presence of two answers to the same question, i.e., a misplaced answer by the interviewer. If not corrected immediately this can cause trouble. There's no guarantee that the interviewer will remember what the correct answer was, but memory is more reliable at this point than later on.

For incomplete forms, ask the interviewer why the form was not completed and make sure the call record sheet reflects this information. Save these questionnaires for reassignment to other interviewers for followup or, if necessary, call them incompletable and record this decision in the proper place on the call record sheet.

In all cases, the interviewer's name and the time of the interview must be on the form. Always ask the interviewers if they remember any problems with their assignment.

Keep a constant check on the progress of field work regarding the completion rate and return rate for the questionnaires. Also get an estimate of the amount of time the interviews are taking when about 140 completed interviews have been checked in, making a mental note of any

interviewers who seem to be taking an exceptionally long or short time for their interviews. This information may be helpful in evaluating the student assistants later and also in taking any corrective action that seems indicated.

As questionnaires come in, divide them into complete, incomplete, and incompletable questionnaires. It may also be desirable to separate them by date of completion (first week, second week) or by number of calls required for completion (1-2, 3-4, 5 or more, or any other classification that seems reasonable for existing purposes). Within each stack or file, sort the questionnaires by I.D. number. This will make subsequent reference easy.

When it appears that a substantial number of the questionnaires are coming in, some of the incomplete ones may be reassigned for personal followup. The incompletes, typically, are cases in which only an address is given and no phone number and the initial interviewer was unable to find a phone number. Two reliable persons are needed to try to contact these respondents. Assuming paid interviewers can be used to contact people with outlying addresses, a car is not a requirement for students, but easy access to the campus area at night is.

Many respondents live in residence halls; some of those halls have rules prohibiting visits from members of the opposite sex. All residence hall residents should have a phone, but it is possible that the first interviewer simply failed to persevere enough to discover this phone number; thus it is possible that follow-up interviewers may not have to make personal visits in all cases. Ordinarily, however, a followup effort means a personal visit. If it is necessary to conduct a face-to-face interview with a member of the opposite sex in a hall where

such an interview would be forbidden in the living area, some way of contacting the student--perhaps through a roommate or suitemate or residence hall staff--to arrange an interview in common areas of the hall can usually be devised. To reduce this problem, naturally, the two followup interviewers should be of different sexes and the residence hall in question taken into account in making the assignment. Consult the residence hall management for the limits on visitation at night.

Instruct the followup interviewers to make every reasonable effort to get in touch with the designated respondent and to keep you informed of their efforts. Exceptional effort can be rewarded through course grades. Some of the incomplete questionnaires returned can be assigned to paid interviewers, as well as some of the questionnaires that student assistant followup interviewers return as incompletable. The decision must be based on the number of such questionnaires and the amount of time available for completing the survey.

When perhaps half of the questionnaires are returned it is appropriate to start the verification step. One person is all that is necessary, but another can be used if it seems expedient. Verification assistants can also be used in subsequent tasks, because the time required for verification is small.

Verification interviewers should be provided with a form similar to the one used in COS #2. The respondent can be asked to verify certain of the demographic questions, to estimate the amount of time the interview took, and whether he or she enjoyed the experience. Imitate the previous COS verification questions exactly if at all possible.

The stack of completed questionnaires is used to select names for the verification step. Pick a random number between 01 and 10, using a

random number table. Say the number happens to be 06. Select the sixth questionnaire in the stack and select every 10th one thereafter to the bottom of the stack. The selection need not be as rigorous as sample selection (though if time permits it should be), because one of the primary purposes of verification is to motivate interviewers to conscientious performance.

Put the name, address, phone number, and I.D. number of the chosen respondents on the verification forms. Do not record the name of the original interviewer. Then give the forms to the verification interviewer(s), after marking down the questionnaire numbers on the index cards corresponding to each of the verification interviewers. If the verifiers turn up any apparent cheating, the matter can be taken up with the instructor of the student interviewer's course.

Maintain a file when completed verification forms can be maintained, and check off the verified I.D. numbers (as the forms come in) on the verification interviewers' records.

As additional questionnaires are checked in, they should be kept separate from the first ones and the verification steps can be taken for them as needed.

Stubborn refusals, incomplete forms for outlying addresses, and other problem interviews should be turned over to the paid interviewer supervisor for handling. That person should be familiar with the record-keeping procedures so that project records will always reflect the status of each designated respondent. If the project starts falling behind schedule during interviewing, ordinary interviews may also be assigned to the paid staff, but that step is to be resisted.

When about half of the anticipated completed questionnaires are checked in, i.e., about 200 ($500 \times 0.8 \times 0.5$), and the verification process is underway, editing and coding may begin.

In summary, the PD must ensure that the following steps are taken in checking in, followup, and verification.

1. Each questionnaire and cover sheet must be complete, with all questions answered and answered only once.
2. Each interviewer is to be questioned about apparent mistakes and ambiguities.
3. The call record sheet must describe reasons for incomplete questionnaires.
4. Each interviewer is to be asked about problems encountered.
5. Note extraordinarily long or short interview times.
6. Separate incoming questionnaires into complete, incomplete, and incompletable categories. Sort each stack by I.D. number.
7. Record the progress of each interviewer's assigned questionnaires on his or her index card record.
8. Reassign incomplete questionnaires to followup interviewers, either paid or student depending on the location of the respondent. Note the reassignment.
9. Doublecheck that student followup interviewers have an authorization letter and a telephone number to call in case of difficulties.
10. Reassign stubborn refusals or problem interviews to paid interviewers. Note this reassignment.
11. Note the quality of the effort expended by student followup interviewers on their records.

12. Duplicate 30 verification forms using the previous COS format.
13. Select respondents for verification by choosing every 10th completed questionnaire from a random start. Put the name, phone number, address, and I.D. number (only) on the separate verification form.
14. File completed verification forms as they are turned in, checking the I.D. numbers off on the verification interviewers' records.
15. Maintain a running tally of each participant's time on the project. When each interviewer checks in all of his or her forms, verify an estimate of the total time spent.

Editing and Coding

The purpose of the coding step is to make the questionnaire forms usable for keypunching. The keypunch operator will not read, examine, or make any judgments about the forms. He or she will simply record what appears on the forms. It is therefore essential that the forms be correct, legible, and properly marked.

Two or three student assistants will be needed for coding; more will reduce the time necessary but may not give the participants sufficient time on the project to be comparable to other students.

Coding is a relatively simple and mechanical procedure. The following are the essential steps that must be taken.

1. Establish procedures with the PI for handling certain coding problems such as missing values and multiple answers to questions (see number 4 below).

2. The number of diallings necessary for each interview should be entered on the call record sheet if that total is not already marked. The call record sheet may then be detached for later use. This job may be assigned to a student coder.
3. All response categories for the structured questions are to be marked consecutively from left to right on a blank master questionnaire form. Sample answers, with the appropriate value marked for that answer--including a sample I.D. number--should be furnished on the master form and a copy of the sample given to all coders. This sample form serves as the coding manual.
4. A meeting must be held with each of the coders, preferably at the same time if schedules permit. At that meeting they will go over the sample form, learn the policy for coding missing data, two or more answers for the same question, and other typical problems.
5. Coders next take each questionnaire form, ascertain that each form is complete (including and I.D. number on each page of the form) and readable, and that each form assigned to them has the proper number of pages. If a page is missing, then "missing value" designations will have to be given to all of the questions on that page.
6. The main coding job then begins: each coder goes carefully through each form and enters the proper number corresponding to the respondent's answers in the right-hand margin.

7. All demographic information is similarly coded, but sample information should be prepared on the coding manual so that there is no confusion about the proper code.
8. Upon completing each questionnaire, coders then review the form to make sure every question has a coded answer, including "missing value" if necessary. Otherwise the PD will have to locate the data card later and correct it.
9. It is probable that the PD will personally categorize and code any open-ended questions. The nature of any analysis to be performed on open-end questions is worked out in advance with the PI and procedures determined, it is hoped, in advance of the survey.
10. Completely coded questionnaires are sent to the University computer center for keypunching. The PI makes arrangements for job numbers, assignment of a programmer, and other administrative necessities.

Missing values and multiple answers, it must be emphasized, need consistent and careful handling. A simple number code is used for the former (such as 9). It is difficult to generalize about the latter. If there are two checks in one row and none in another, it is possible to split the difference between the two, if logical, or assign a neutral value, or take whatever step the PI may wish. Whatever procedure is followed, there should be a count of the nature and frequency of such occurrences for possible mention in the final report.

If there are columns available for additional data once the primary coding is done, it may be desirable to code the number of callbacks required for each respondent (according to some classification scheme)

for analysis; other analyses may also be desirable. If some data entries are needed beyond those available on the preprinted questionnaire forms, the appropriate codes may simply be entered in the proper place in the right-hand margin of the last page of the form. A line is entered and the data column number, which is one number greater than the last number used on the form, is put in parentheses below the line. The value to be analyzed is written above the line. The only stipulations for doing this are that there is a clear and explicit record of exactly what this entry represents and that the last column number used on the preprinted questionnaire form does not exceed 66. In no case may a data column number larger than 67 be used.

Comments on Data Processing and Reporting

It is not necessary to be well-versed in data processing or computer operations to see the COS through to completion. Such knowledge would, of course, make things easier. Expertise in these fields obviates the need to read the rest of this handbook, except for the comments on reporting.

The principal prerequisite to working with the computer center on data analysis for the COS is a working familiarity with the SPSS: Statistical Package for the Social Sciences (Nie et al., 1975). It is expected that SPSS will be used for analysis of the COS data.

The PI must give the instructions to the computing center on the nature and extent of the analysis to be performed on the data.

When the questionnaires have been keypunched, the product will be a data deck of 800 or so cards (2 for each completed interview). During discussions to follow with the programmer, the suggestion should be

made that a printout be requested of the numbers punched on each of the cards. The suggestion should be accepted, and the printout examined carefully for gaps and irregularities. If any are discovered, which is almost inevitable, the questionnaire involved can be found by locating the I.D. number in the series of numbers (probably beginning, for example, with the fourth number of the first card's series of entries). The data card can then be retrieved as well as the original questionnaire. If the questionnaires were kept in numerical order, there is no problem. If they were not, the search will be a time-consuming and tedious task.

Keypunching errors can be corrected by punching a new card with the correct data. The PD can do it personally with no prior experience, but some practice will no doubt be necessary. Students have access to keypunching machines in the business school.

A similar job to the printout will produce a duplicate deck of cards. A duplicate deck is highly recommended. Once the first deck is corrected a spare should be obtained as soon as possible.

The control-card program obtained from the computing center, which will result from discussions with the programmer about the COS, must be examined carefully for obvious logical flaws and format errors. Even the uninitiated can make sense out of these programs with a little thought and attention. Difficulties or questions should be pointed out to the programmer.

Thereafter, machine analysis of the data follows a fairly routine course of events. SPSS codebook statistics on COS data will result in a bulky printout; a safe place is needed for storing the printout and working on it.

Reporting the data in a comprehensible fashion is the final task of the project. The PD's principal contribution is likely to be a report of the methodology of the survey. Careful records kept to this point will make this task straightforward and relatively simple, as earlier COSs may be used as formats for the presentation of the results. Unfortunately, there may be a considerable amount of manual work needed in presenting the data from crosstabulations of the responses by demographic categories. Again, preceding surveys will serve as an adequate guide to the general format needed in the presentation of these data. Alternatively, the PI in such surveys may have specific instructions in report writing and the best course to follow is simply to consult with the PI before undertaking any writing and tabulating chores.

There are abundant references on report writing and scientific style. No further mention is necessary here, except to refer the reader again to Backstrom and Hursh (1963), Blankenship (1977), and Dillman (1978).

CHAPTER VII

CONCLUSIONS AND COMMENTS

Conclusions

The principal conclusion drawn from this study was that the use of student assistants is economical and justified for performing the COS, resulting in a significant benefit to the overall cost of performing a high-quality opinion survey on a regular basis.

Of 735 total man-hours needed for the 1974 COS, 306 were furnished by students, representing a savings of \$765 in 1974 and roughly \$1,224 in 1981 dollars. What is even more noteworthy, perhaps, than this significant value is the larger proportion of time that must be devoted to non-interviewing tasks (493 man-hours). Priorities for cost-reduction might be focused to the other aspects of the survey. Briefing and training, overall supervision, hand tabulation, and certain other areas are promising, but campus surveys face limitations on their routines that professional survey operations do not necessarily face. Inflation demands attention to cost reduction, however. This study suggests, for example, that use of the same questions from year to year will save time and therefore money. The use of the handbook itself should save several missteps and help future COS assistants to economize.

Although student assistants may be less efficient, on the average, than paid staff, the quality of student work can be quite acceptable. Also, it is reasonable to infer that students in communications research courses during the period of the survey learned more about the practicalities of research than they otherwise might have without their participation in the project. That inference was not tested, however.

Although undergraduate student assistants performed well, the data indicate that graduate students are likely to perform better and suggest that future surveys of the same kind use a higher proportion of graduate students if at all feasible.

The data also strongly suggest that fullest use of students as an economic resource can be achieved only by incorporating sufficient time for their involvement in the survey schedule. They do not appear as productive as paid staff, and far less control is possible over a student's schedule than that of a paid staff member. There must therefore be some managerial tradeoffs.

This study provided no basis for preferring females over males for telephone interviewing chores, even though such a preference is often mentioned in the literature. In this study, however, the sex variable was not tested while controlling for class level.

Although the mechanics of the survey were not themselves an object of study, it is clear that telephone interviewing is an effective and efficient data-gathering method for the COS. The 15 minutes needed for the average interview is well within generally accepted norms for telephone interviewing, many topics were covered in that time, and a high response rate was achieved within a relatively short period. Significantly, use of the telephone interview method allows fairly precise planning for the survey while still yielding the high response rate. An unexpected lag in gathering data can be corrected by using additional interviewers. The relatively short time required for the field work, of course, reduces the likelihood that worldly events will bias responses in later days of interviewing when compared with the earlier days. It goes almost without saying that face-to-face interviewing would have been more expensive and/or wasteful of interviewers' time.

A clear implication of this study was the need for more sophisticated (but inexpensive) controls for keeping records such as time-sheets, even while recognizing the limits on using student help. Improvements in this area will not only help provide continual quality assurance but also could point the way to methodological improvements.

Comments on the Application of COS Methodology

There is little doubt that the help of student assistants made the UTK campus opinion surveys easier to organize and fund. Actual overhead was quite low, yet the product met generally accepted criteria of excellence. Sample selection was scientific, the response rate was high, and the content of the survey was consistent with the objectives of the University administration (which was especially interested in the project) and the principal investigator. Furthermore, the feasibility of a useful, regular research tool on campus was clearly demonstrated.

The use of students to gather data on other students may carry some risks (see Singleton et al. 1980). In this case, students were motivated by the need to achieve an acceptable grade in their respective courses. It was impossible, however, to insist on burdensome schedules for performing certain tasks. It was impossible to compensate students with the equivalent of "overtime" for extra effort. Course dropouts as well as the routine absenteeism were expected. There was always the danger that some items proposed for the questionnaire might be difficult for some students to ask other students. Fortunately, none of these potential pitfalls was seen as a real problem in the UTK surveys. No student assistants reported any significant problems with the assignment

that do not occur in other class assignments. Other perhaps more serious drawbacks may arise from the lack of experience on the part of student assistants. A rather uncomplicated interview format, combined with the use of student assistants only in certain phases of the data collection and preparation phases, would work to minimize the effect of inexperience. At the same time, those factors had the countervailing effect (it would seem) of reducing the benefits of an educational experience. Student assistants, for example, had very little input to questionnaire items or questionnaire design, and none in the development of project objectives.

Notwithstanding the risks, the students were judged to perform their tasks reliably and well. Any reasonably comparable institution could make equal or better use of them, provided adequate space, telephones, office supplies, and the varied paraphernalia needed by interviewers (and other assistants) is supplied.

If the responsible university officials so decide, greater use of the COS can be made as a teaching tool. Some accommodation would have to be made in the University's backing of the project and the use of the product, as Singleton and her colleagues recognized.

The method used in the COS appears to be adaptable to many colleges and universities. Apart from the commitment of the institution to do such surveys--perhaps on a regular basis--all that is needed is a timely enrollment record including students' telephone numbers and a high penetration of telephones in the student population. A small staff of professional interviewers can be hired temporarily to contact the designated respondents who are difficult to reach.

Two obvious but important requirements for similar surveys are the services of a graduate research assistant as project director to manage many parts of the survey and the availability of computer services for data processing. The data analysis is uncomplicated but may be voluminous. In the UTK surveys the data from crosstabulations were available by computer but the report pages presenting them were prepared manually, which is a very slow and tiresome process without additional help. It may therefore be desirable for an institution to commit additional resources to automatic data processing for printing out that phase of the report.

Crosstabulations are helpful in making sense of the survey results, but it may be sufficient for an institution's purposes simply to analyze the gross response percentages. A drawn-sample size of 500 is unlikely to yield reliable data on all population subsets. Consequently, an institution could easily elect to reduce the numbers of crosstabulations markedly, even if it doesn't wish to eliminate them altogether. Sex, class level, race (if appropriate), age groups and number of diallings required might be explored as worthwhile demographic variables for crosstabulation, but even school or college breakdowns can result in numbers of respondents that are too small for analysis.

All in all, the method used in the UTK surveys is economical and of potential value to nearly any university or college, once the central question of the desired data-gathering method is answered. Telephone surveys were found to be quick, cheap, and productive using student help with paid staff followup. Furthermore, the survey could well be used to carry out some research needed by other departments of the university or college, with the proper coordination.

Although the existing method is quite acceptable and useful, any number of changes are possible in the development and execution of the COS that might enhance its value to the administration, to students who participate, and to the public. It is recognized that inflation and budgetary restrictions may impose hard limits on the activities that are feasible, but COS-like projects may help improve the efficiency of the institution in the long run.

Assessment of students' opinions and attitudes campus-wide should be part of long range administration plans. More well-informed decisions would be thereby possible and coordination with other campus needs would be improved to accomplish the greatest good for the whole institution. Furthermore, questionnaire development would be assured of the necessary input at the policy-making level on a regular basis and surveys could examine the "right" topics. Presumably, campus-wide coordination of certain research projects could also be maintained at the optimum level.

Sooner or later, a continual survey effort would have to deal with the question of whether student leaders should be involved in developing survey topics. The suggestion should not be dismissed out of hand. There are several drawbacks to that approach, however, that must be considered. For example, problems of priority-setting are likely to arise that could be difficult to resolve and furthermore could run the risk of contaminating the research environment.

The more the COS is regarded as a tool in measuring achievement of administration objectives, the more its flexibility as a teaching tool is reduced. The use of communications research students in questionnaire development, for example, might lead to a survey instrument that

yields little for the administration's investment in the project (refer to Singleton et al. 1980). An option of making the COS a heavier item of curriculum than a simple mandatory class participation project should nevertheless be kept open for appropriate occasions.

A related possibility is additional involvement of students in the back end of the survey cycle. Many undergraduates and some graduate students need exposure to the basics of survey data analysis, which suggests that participation in data analysis (perhaps in the preparation and interpretation of crosstabulation portions of the report) might have some educational benefit.

Methodologically, the COS can be fine-tuned to fit circumstances. Several improvements are clearly desirable, such as closer supervision of interviewers, additional internal analysis to detect possible data gathering and recording problems, greater detail in record-keeping and improved systems for record-keeping, and a variety of other control measures. Sample sizes exceeding 500 would also appear to be feasible, with the proportion of added cost probably being fairly low; larger samples would permit more information to be gleaned from demographic crosstabulations. The fundamental methodology, however, is sound and economical. Other institutions may have more or less flexibility for long-distance telephoning, after-hours office use, or other logistical details than is available at UTK, but such problems can be adjusted for rather easily.

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APPENDICES

APPENDIX A

COS QUESTIONNAIRE AND VERIFICATION FORMS, 1974

Communications Research Center
Campus Opinion Survey--Winter, 1974

CALL RECORD SHEET

Respondent's name _____ Id. # _____

Phone no. _____ Address _____

DIAL NUMBER AND CHECK ONE BOX BELOW:

- ☐ "Line out of service" (CALL INFORMATION 411 FOR NEW NUMBER)
-If no number listed, check here ☐ and TRY PERSONAL INTERVIEW
-New number _____: ☐ CONTINUE CALLING
- ☐ "Number has been changed to _____" ☐ CONTINUE CALLING
- ☐ Line busy (CHECK BELOW AS OFTEN AS NECESSARY, ☐ CONTINUE CALLING)

- ☐ No answer (CHECK BELOW AS OFTEN AS NECESSARY, ☐ CONTINUE CALLING)

- ☐ VOICE CONTACT: SAY "Hello, may I speak to _____ (respondent) ?"
-IF NOT PRESENT: find out when and where available ☐ CONTINUE CALLING
-IF PERMANENTLY UNAVAILABLE OR NOT IN SCHOOL: check here _____ and
file ☐ INCOMPLETE

WHEN RESPONDENT ANSWERS, CHECK HERE ☐ AND SAY:

"Hello, I'm an interviewer from the Communications Research Center here at UT-Knoxville. We're conducting an opinion survey on what people think about the university. Your answers will help us locate and solve some of UT's problems. Are you enrolled as a student at UT-Knoxville this quarter? (CHECK ONE BELOW)

____ Yes (TURN TO NEXT PAGE IMMEDIATELY AND CONTINUE INTERVIEW)

____ No (SAY: "I'm sorry, we're only interviewing students this time. Good-bye.") File ☐ INCOMPLETE

TELEPHONE INTERVIEWER: BEFORE RETURNING QUESTIONNAIRE TO SUPERVISOR, INDICATE DISPOSITION OF QUESTIONNAIRE BELOW:

Total Number of Dials _____

____ Interview completed by telephone

____ Try personal interview (Respondent not reachable by phone for following reason _____)

____ Incomplete (Impossible to complete either by phone or personal interview because (check one below):

____ Not in school this quarter

____ Refused to be interviewed

____ No current phone or address

____ Other (specify _____)

SUPERVISOR: FINAL DISPOSITION OF QUESTIONNAIRE _____

Communications Research Center--UT-Knoxville
CAMPUS OPINION SURVEY #2: Winter, 1974

(Page 1)

C.R.C. Project no.

Questionnaire no.

Time Began _____ am or pm?

Card no.

For office
use only

0 0 2 (1,2,3)

____ (4,5,6)

1 (7)

(1) In the lives of each of us, there are usually some things we're satisfied with and some we're dissatisfied with.

(check one)

On the whole, would you say that you are satisfied or dissatisfied with.....

	SAT	DIS-	No	OTHER	
	sat	sat	OPIN.		
(a) Your life in general?					__ (8)
(b) Your housing situation?					__ (9)
(c) Your standard of living?					__ (10)
(d) The way your future looks?					__ (11)
(e) The education you're getting?					__ (12)
(f) The way this nation is being governed?					__ (13)
(g) The way Tennessee is being governed?					__ (14)
(h) The way Knoxville is being governed?					__ (15)
(i) The way the statewide University system is being governed?					__ (16)
(j) The way the UT-Knoxville campus is being governed?					__ (17)

FOR OFFICE CODING (K) TOTAL NO. "SATISFIED"

__ (18,19)

(2) Taking everything into account, how happy would you say you are--VERY happy, FAIRLY happy, or NOT happy?

(Check one) Very happy ☐ 1 Fairly happy ☐ 2 Not happy ☐ 3

Don't know ☐ 4 Other ☐ 5

__ (20)

(3) There are always some problems on any university campus that are felt by students to need action and solution. What do you think is the most important problem facing students at UT-Knoxville these days? (RECORD FIRST PROBLEM MENTIONED, VERBATIM)

Probe if needed: "Could you tell me a little more about that?"

__ (21,22)

(Page 2)

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(4) A number of things have been mentioned lately as possible problems for students here at UT-Knoxville. As I name some of these specific things, please tell me if you consider it a major problem. By a major problem, I mean anything that either has a serious effect on some students or adversely affects a large number of students.

In your opinion, at this university is there a <u>major</u> problem, a <u>minor</u> problem, or no problem with.....	(check one)					
	MAJOR prob.	MINOR prob.	NO prob.	NO OPIN.	OTHER	
(a) Students' lack of money to finance their college education?						__ (23)
(b) Too many salesmen on campus?						__ (24)
(c) Rape and other attacks on women?						__ (25)
(d) Excessive religious activity?						__ (26)
(e) Excessive use of alcohol by students?						__ (27)
(f) Excessive use of drugs by students?						__ (28)
(g) Excessive sexual promiscuity?						__ (29)
(h) Venereal disease?						__ (30)
(i) Pornographic films and books?						__ (31)
(j) Illegitimate pregnancies						__ (32)
* <u> </u> *(FOR OFFICE CODING (K) TOTAL NO. "MAJOR PROBLEMS" <u> </u>						__ (33,34)

(Page 3)

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use only

(5) Several new ideas and proposals have been presented to the university administration lately. As I mention each one, please tell me if you favor or oppose the ideas.

(check one)

Would you favor, or oppose, an action by the university administration to.....

	Favor	Neut- ral	Opp- ose	Don't know	Other	
(a)...build a high-rise student parking garage on the main campus?						__ (35)
(b)...close off part of Volunteer Blvd. for a campus pedestrian mall?						__ (36)
(c)...establish a Public Interest Research Group to protect student?						__ (37)
(d)...reinstate a final examination week at the end of each quarter?						__ (38)
(e)...allow students to erase from the record the grades for any one quarter?						__ (39)
(f)...permit more out-of-state students to enroll here than the present 15%?						__ (40)
(g)...build a large parking lot on the Ag. campus, along with fast cheap shuttle bus service all over the campuses?						__ (41)
(h)...bring more distinguished speakers from elsewhere to speak on campus?						__ (42)
(i)...establish a Black Cultural Center on campus?						__ (43)
(j)...establish an information office for listing off-campus residences?						__ (44)
(k)...allow the drinking of alcoholic beverages in campus housing?						__ (45)
(l)...give official recognition to the Gay Liberation Movement?						__ (46)
(m)...install artificial turf on the intramural athletic fields?						__ (47)
(n)...allow unlimited guest visiting privileges in student dormitories?						__ (48)
(FOR OFFICE CODING: (0) TOTAL NO. "FAVOR" ANSWERS)						__ (49,50)

(Page 4)

For office
use only

(6) Students sometimes say they're not too clear on university procedures for getting certain things done. As I name several kinds of things, please tell me if you yourself feel that you know the correct procedure. This is not a test—just tell me if you think you know the procedure.

	(check one)				
	Yes	Not sure	No	Other	
Do you feel that you know.....					
(a)...how to drop and add a course?					__ (51)
(b)...the deadline for dropping a course without penalty?					__ (52)
(c)...how to appeal a grade you think unfair?					__ (53)
(d)...where to get advice on personal problems?					__ (54)
(e)...how to get guest athletic tickets?					__ (55)
(f)...where to go for financial help?					__ (56)
(g)...where to go for part-time jobs?					__ (57)
(h)...where to get advice on planning courses and curriculum?					__ (58)
(i)...where to get counseling on post-college jobs and careers?					__ (59)
(j)...where to get information on overseas study, travel, and job opportunities?					__ (60)
(k)...how to withdraw from the university with the least possible financial loss?					__ (61)
(l)...where to report stolen athletic tickets?					__ (62)
(m)...time limit to appeal a parking ticket?					__ (63)
(n)...how to arrange for late payment of registration fees?					__ (64)
(o)...how to replace lost or stolen ID card and activities card?					__ (65)
(FOR OFFICE CODING (0) TOTAL NO. "YES" ANSWERS)					__ (66,67)

END CARD 1

(Page 5)

BEGIN CARD 2

C.R.C. Project no. 0 0 2 (1,2,3)

Questionnaire no. (4,5,6)

Card no. 2 (7)

(7) Here on the university's Knoxville campus are many people and organizations with different jobs to do. We want to find whether you're satisfied or dissatisfied with the job some are doing. If you're not familiar with any that I name, just say so.

	(check one)				
	Satis- fied	Dis- sat.	No Opin.	Other	
*In your opinion, in general—are you satisfied or dissatisfied with the job being done by.....					
(a)...the Student Government system?					(8)
(b)...the campus Security Police?					(9)
(c)...the campus Parking Authority?					(10)
(d)...the Student Affairs Office?					(11)
(e)...the Rape Crisis Center?					(12)
(f)...the Student Health Service?					(13)
(g)...the Student Counseling Center?					(14)
(h)...the Free University?					(15)
(i)...the Campus Entertainment Board?					(16)
*(j)...the Director and Staff of the Residence Halls office?					(17)
(k)...the Student Judicial System?					(18)
(l)...the Computer Registration system?					(19)
(m)...The Family Planning Service?					(20)
(n)...the Abortion Referral Service?					(21)
(o)...International House					(22)
(p)...the UT-system Pres. Edward Boling?					(23)
(q)...the Chancellor Jack Reese?					(24)
(r)...the head of student affairs, Howard Aldmon?					(25)
(s)...the ombudsman Charles Cleland?					(26)
*(t)...the university libraries?					(27)
(u)...the Intercollegiate Athletic Department					(28)
(v)...the Intramural Sports Office					(29)
(w)...the Women's Intercollegiate Athletic program?					(30)
(x)...the campus film programs?					(31)
(y)...the University Food Service?					(32)
(z)...the Greek-letter fraternities and sororities?					(33)
(aa)...the Daily Beacon newspaper?					(34)
(bb)...the University Bookstore?					(35)

(* - Repeat Basic Question at Asterisk)

(FOR OFFICE CODING (CC): TOTAL NO. "SATISFIED")

(36,37)

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We're almost through now.

(8) I'd like to find out how satisfied you are with various other things around the UT-Knoxville campus.

	(check one)				
	Satis- fied	Dis- sat.	Don't know	Other	
In general, are you satisfied or dissatisfied with.....					
(a)...the parking facilities on campus?					__ (38)
(b)...the treatment of women students?					__ (39)
(c)...the treatment of black students?					__ (40)
(d)...the treatment of foreign students?					__ (41)
(e)...the adequacy of information on university procedures and policies?					__ (42)
(f)...the availability of faculty and staff people when you need them?					__ (43)
(g)...the opportunity for you to take part in student government?					__ (44)
(h)...the opportunity for you to take part in government of the UT-Knoxville campus?					__ (45)
(i)...the opportunity for you to take part in government of the statewide UT system?					__ (46)
(j)...the quality of student campus housing?					__ (47)
(k)...the quality of housing in the Fort Sanders area?					__ (48)
(FOR OFFICE CODING (L) TOTAL NO. "SATISFIED")					__ (49,50)

(Page 7)

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Now, just a few background questions and we're through.

PERSONAL CHARACTERISTICS

(P1) What is your present academic class level as a student?
(Check one number)FRESHMAN ☐ 1 SOPHOMORE ☐ 2 JUNIOR ☐ 3 SENIOR ☐ 4MASTER'S ☐ 5 DOCTORAL ☐ 6 OTHER ☐ 7 (Specify _____) (51)(P2) What is your major, or intended major subject
at UT? _____ (52)(P3) In what college or school of the university is your major
subject located? (Check one number below)

AGRICULTURE	01	ENGINEERING	06	LIBERAL ARTS	11
ARCHITECTURE	02	EVENING COLLEGE	07	LIBRARY SCIENCE	12
BUSINESS AD	03	HEALTH-PHYSED-REC	08	PLANNING	13
COMMUNICATIONS	04	HOME ECONOMICS	09	OTHER	14
EDUCATION	05	LAW	10	(Specify _____)	

(53,54)

(P4) How many credit-hours are you enrolled for this quarter? _____

(Check one) ZERO TO EIGHT HRS ☐ 1
NINE OR MORE HRS ☐ 2 (55)

(P5) What is your age? (Check one)

Under 18	☐ 1
18-21	☐ 2
22-25	☐ 3
26-29	☐ 4
30 & over	☐ 5

(56)

(P6) Are you married or single?

(Check one) Married ☐ 1
Single ☐ 2 (57)

(P7) How do you generally get to campus--by car or walk or what?

(Check one) CAR ☐ 1 WALK ☐ 2 BICYCLE ☐ 3 BUS ☐ 4 OTHER ☐ 5 (58)

(P8) (SEX OF RESPONDENT)

(Check one) Male ☐ 1
Female ☐ 2 (59)

(P9) This final question is optional. What is your race?

(Check one) White ☐ 1 Black ☐ 2 Other ☐ 3 (Specify _____) (60)

IMMEDIATELY AFTER INTERVIEW, FILL IN BELOW:

Time interview completed _____

Time interview began (from 1st page) _____

Total time spent in interview _____ minutes

INTERVIEWER: Fill in bottom of "Call Record Sheet" THEN CHECK BACK
OVER COMPLETE QUESTIONNAIRE TO CORRECT FOR COMPLETE
AND LEGIBLE RESULTS. THEN SIGN BELOW.

Date _____

Interviewer's Signature _____

INTERVIEW VERIFICATION FORM

Respondent's Name _____ I.D. # _____

Phone: _____ Address: _____

FILL IN CLASS-LEVEL AND COLLEGE INFORMATION FROM P1 and P3 ON QUESTIONNAIRE _____

HELLO. May I speak to _____ (Respondent's name) _____?

- (1) This is (NAME) with the UT College of Communications calling.
 Were you interviewed recently on your opinions about various
 problems, people, and organizations on the UT-Knoxville campus?
 (CIRCLE ONE:) YES NO DK

- (2) I just want to check one item of information that wasn't
 clear on the interviewing form. Are you a _____-level
 (P1-Class)
 student in the _____ college/school at the
 (P3)
 University of Tennessee-Knoxville this quarter?
 (CIRCLE ONE:) YES NO DK

(ENTER INFORMATION VOLUNTEERED IN RESPONSE TO (2) _____)

I'd like to get a brief reaction to the interview itself.
 Did you find it to be a pleasant experience or an unpleasant
 experience?

Pleasant ___ Unpleasant ___ Other _____

Do you have any other comments or questions about the survey?
 (DO NOT RECORD ANSWER)

Many thanks for your cooperation. You've been very helpful. Goodbye.

TO BE FILLED OUT BY CHECKER

It appears that the interview WAS WAS NOT conducted. (CIRCLE ONE)

The information checked in (2) above appears to be CORRECT INCORRECT
 (CIRCLE ONE).

CHECKER'S NAME _____

APPENDIX B

SUMMARY OF COS RESULTS, 1974

PART I. SUMMARYHighlights of the Survey

This opinion survey, of a representative sample of UT-Knoxville students, delved into their views on the major campus problems, their reaction to new ideas and proposals, their knowledge of various procedures, and their satisfaction with life, government, and UT-Knoxville people and organizations.

Some of the principal findings were these:

(1) PROBLEMS: Far and away the greatest problem around campus is "rape and other attacks on women." Other major problems are venereal disease, getting money for education and excessive drug use. (Question 3 and 4 Tables)

(2) NEW IDEAS: Students are extremely favorable toward such things as bringing more distinguished speakers to campus, an information office for off-campus housing, the Public Interest Research Group (PIRG), a Black Cultural Center, allowing alcohol consumption on campus, and an all-campus parking lot on the Ag Campus. However, they are strongly opposed to a reinstatement of final exam week, and to artificial turf on the intramural athletic fields. (Question 5 Table)

(3) KNOWLEDGE OF PROCEDURES: Students are well aware of procedures for such things as "drop and add," deadline for dropping courses, curriculum and course advising, and replacement of ID cards. But on a number of other procedures there is considerable ignorance--reporting stolen athletic tickets, information on overseas study/travel/jobs, parking ticket appeals, guest athletic tickets, and appealing unfair grades. (Question 6 Table)

(4) SATISFACTIONS AND DISSATISFACTIONS: UT-Knoxville students are, on the whole, well satisfied with their life situation and with campus conditions and organizations. Extremely high satisfaction was noted on "life in general"

2

(including their standard of living, the future, their housing, and their education), and on specific campus services such as the libraries, computer registration, film programs, university bookstore, the Daily Beacon, intramural sports, and several other items.

The few extremely strong dissatisfactions included campus parking facilities, the quality of the Fort Sanders area, and the way the nation is being governed.

Satisfaction with "the way the UT-Knoxville campus is governed" is higher than for four other governed units (the UT system, the city of Knoxville, the state of Tennessee, and the nation).

Among four administrators, students were most satisfied with the job being done by Chancellor Jack Reese.

Unfamiliarity--as indicated by a majority of students saying "no opinion"--was extremely prevalent for Student Counseling Center, Family Planning Service, Abortion Referral Service, International House, Vice Chancellor Howard Aldmon and Ombudsman Charles Cleland. (Question 1, 7, 8 Tables)

(5) CHANGES IN SATISFACTION, 1973 TO 1974. In the case of 13 of the "satisfaction" items, similar questions were asked in both the 1973 and 1974 Campus Opinion Surveys. Overall, the 13 UT-Knoxville organizations and administrators ranked about the same in both years (rank correlation between the two years, +.98). Slight improvements in rank were registered for the Daily Beacon and Student Health Service, slight decreases for the job being done by the UT-system and UT-Knoxville.

For more details on these and other findings of this comprehensive survey of student opinion, consult the remainder of this report.

"Question 1-8 Tables" which follow show gross results for each question.

3

"Tables 1-89" in the succeeding section give detailed cross-tabulations of each question by sex, class level, age, college, credit hours, marital status, and mode of transportation.

APPENDIX C

EXAMPLES OF STUDENT ASSISTANTS' INSTRUCTIONS

SOME COMMENTS FOR INTERVIEWERS

FOREWORD

Interviewing is one phase of the complex procedure of communications/opinion research. As one of the first steps--the collection of information--interviewing sets the quality for all the rest. GOOD RESEARCH STARTS WITH GOOD INTERVIEWING. The following instructions and explanations should help you better understand this project. Naturally, we cannot cover all of the problems that may arise, so if at any time you do not find the answer here or in any of the materials given to you, call the interviewing supervisor, or call Bruce Cadotte at 974-5155 or 974-6536.

PURPOSE OF THE SURVEY

This survey will provide experience for students of communication research, but it will also provide significant information on students' attitudes and opinions about the University of Tennessee's Knoxville Campus and about some of the problems associated with the campus as well as some of the groups and organizations on campus. This in turn will help point out specific problems that can benefit from future research and will provide a basis for comparison of students' opinions over time.

YOUR JOB

In your initial contact with the interviewee--whether over the telephone or face-to-face--get right down to business and ask for the interview. Don't say something like, "Do you have any time now for an interview," for that gives the respondent the option to avoid the interview. Instead, follow the wording on the questionnaire. If the respondent seems reluctant to permit an interview, say something like, "Since you can help us out in the UT Campus Opinion Survey, I would like to ask you some questions. Should it be now or shall we make an appointment for another time?" This exudes confidence, gives the interviewee some idea of the project, and almost forces him to make the choice between now and another time. Remember that most people have opinions and like to express them. If you project this, your attitude will show and be contagious with that minority of people who feel you are prying or imposing. Be persuasive with that individual and explain you are offering him a chance to express himself (or herself)--to "vote" on the problems of the future and help local organizations adjust their products to his or her wants. Stress that if the respondent doesn't give his likes and dislikes, other people's opinions will weigh more heavily in future decisions at the University. Sometimes it is difficult to make the initial contact with the person. We would like some idea of how difficult this is and therefore the appropriate blanks have been provided on the first page of the questionnaire. Keep a careful record of the number of calls necessary. This will help in the future, too.

THE ACTUAL INTERVIEW

Quite likely you will be calling the respondent, but if you are not, make sure the respondent is in comfortable surroundings before the interview begins. If there are distractions or persons eavesdropping, steer the respondent to a private place with something like, "Let's go into (another room) so we will not disturb your friend" or "Each interview is supposed to be confidential."

The way you conduct each interview is important. You must be both IMPARTIAL and HONEST. If you are not careful, you can sway the respondent one way or another. Just as the questionnaire is worded as impartially as possible, so must your handling of it be impartial. Therefore you must follow the questionnaire WORD FOR WORD. If the respondent does not understand a question, have him an-

-2-

swer it to the best of his ability. Please do not interpret it for him. Part of your job is to find out how many people are not familiar with certain items or have no opinion. Also be absolutely matter-of-fact. Do not voice your own opinions or even imply them by changing your speaking tone. If the respondent looks to you for clues, remind him this is not a test, there are no right or wrong answers but only his own opinions.

Don't waste the respondent's time or your own by letting the interview wander from the point. Discourage irrelevant conversation. Be pleasant and agreeable, but remember why you're calling or visiting--TO GET AN INTERVIEW.

The brief introduction at the start of the questionnaire should help you move right into the actual interview. Occasionally a respondent will want to see what you write down or read the questionnaire himself. Refuse tactfully (without hiding the questionnaire) with something like, "I'm sorry, but you're not supposed to read the questions--that's my job," or "The interview will go faster if you let me read the questions. We all do our interviews that way."

Interviewing instructions are for the most part (WRITTEN WITH CAPITAL LETTERS WITHIN PARENTHESES). If you change the procedure, for whatever reason, your method will no longer be consistent with that of the rest of the interviewers. This discrepancy can affect the survey's reliability. A very important point to remember throughout the interview is to write as legibly as possible. Other people will code your questionnaires and you may have to be contacted to explain some responses if your writing is not clear. Use an "X" in all answer boxes instead of a check mark and erase completely all stray marks or errors.

And when you complete the interview, DO NOT FORGET to THANK THE RESPONDENT as well as to complete the last five blanks, ending with the date and your signature.

BE BRIEF, BUT THOROUGH

COMMUNICATIONS RESEARCH CENTER
CAMPUS OPINION SURVEY -- WINTER, 1974

Some important things to remember and practice when you are conducting your PRETEST: and CONTINUE THE SAME PROCEDURE WHEN YOU ARE INTERVIEWING THE SELECTED RESPONDENT.

1. THIS IS A STRUCTURED QUESTIONNAIRE: The precise wording and order of questions are pre-set, and require the Interviewer to follow the exact wording and order of the questionnaire.
2. FAMILIARIZE yourself with the interview.
3. ASK QUESTIONS AS THEY ARE WRITTEN, NEVER PROMPT RESPONDENT AS YOUR OPINION, IF RESPONDENT ASKS QUESTIONS: REPEAT THE QUESTION AGAIN OR SAY, IT IS IMPORTANT THAT WE HAVE YOUR OPINION ON THIS SURVEY AND NOT MINE.
4. NEVER RUSH RESPONDENT, TALK CLEAR AND SLOWLY, IF RESPONDENT DOESN'T UNDERSTAND THE QUESTION ASKED, REPEAT AS PRECISELY WRITTEN and give them time to think about the question asked before they give you an answer.
5. ALWAYS USE A PENCIL IN INTERVIEWING UNLESS OTHERWISE INSTRUCTED.
6. IT NEVER FAILS IN THE COURSE OF INTERVIEWING THAT THE RESPONDENT WILL ASK MORE QUESTIONS ABOUT THE SURVEY, WHY, WHAT, & HOW COME, go back to your introductory statement and quote the same thing.

On questions all that the interviewer wants is a multiple choice, the respondent will elaborate more on the question and give more of their opinion, just listen and when they are finished talking, if they haven't given you the multiple choice answer, ask the question again. ALWAYS REMEMBER YOU ARE IN CONTROL OF THE INTERVIEW AT ALL TIMES, and never agree or disagree with the respondent, the best answer is, IT IS IMPORTANT WE HAVE YOUR OPINION ON THIS QUESTION.

7. Use approach techniques and create an easy, comfortable atmosphere for the interview.
8. Record Respondent's answers accurately on the questionnaire form.
9. Leave the Respondent with a friendly feeling toward the interview, thus helping to insure a receptive Respondent for the next interviewer.

(The material on this and the following four pages was prepared by Patsy Hodge, paid interviewer supervisor.)

Page 1

COMMUNICATIONS RESEARCH CENTER

INSTRUCTIONS FOR CONDUCTING CAMPUS OPINION SURVEY--WINTER, 1974

CALL RECORD SHEET - This is a very important sheet, as you have the selected respondent's name, ID. No., Phone No. and Address. This is the only person that you conduct the survey with, and every attempt is to be made to contact that respondent, and when you have the selected respondent on the telephone, you proceed with the survey.

As you look at the CALL RECORD SHEET - you will dial the number listed for the respondent, and check in the first block, that indicates the first attempt in reaching the respondent, if the line is out of service, dial information and find out if the respondent has a new number and record the new number in the space NEW NUMBER _____, continue calling, if operator has no new number for the respondent check in the space NO NUMBER LISTED AND FILE INCOMPLETE.

Continue calling as often as necessary if the line is busy and check each of the blocks as you make an attempt a voice contact. When you have a voice contact, "HELLO, MAY I SPEACK TO JOHN BROWN, if the RESPONDENT John Brown is not present, find out when and where available, if the RESPONDENT MAY BE CONTACTED at a later time, continue calling, if RESPONDENT John Brown is unavailable or not in school: check the space on the CALL RECORD SHEET and file incomplete.

WHEN YOU FINALLY MAKE CONTACT WITH THE RESPONDENT, check in the next block and Say "Hello, I'm an interviewer from the Communications Research Center here at the UT-Knoxville. We're conducting and opañion survey on what people think about the university. Your answers will help us locate and solve some of UT's problems. Are you enrolled as a student at UT-Knoxville this quarter? (CHECK ONE BELOW YES (IF RESPONDENT IS ENROLLED THIS QUARTER TURN TO NEXT PAGE AND CONTINUE INTERVIEW) IF RESPONDENT SAYS NO, they are not enrolled as a student this quarter (CHECK IN THE NO and (Say: "I'm sorry, we're only interviewing students this time. Thank you - Good-Bye) (FILE INCOMPLETE)

TIME INTERVIEW BEGAN _____

Page 2

QUESTION NO. (1) In the lives of each of us, there are usually some things we are satisfied with and some we are dissatisfied with:

On the whole, would you say that you are satisfied or dissatisfied with:

	Sat.	Dis- Sat.	No Opin.	Other
(a) Your life in general?	☒			
(b) your housing situation?	☒			
(c) Your standard of living?	☒			
(d) The future facing you?	☒			
(e) The education you are getting?	☒			
(f) The way this nation is being governed?		☒		

UNDER QUESTION (1) YOU HAVE questions (a) through (f) ASK THE QUESTION JUST LIKE IT IS WRITTEN AND GIVE THEM A SECOND TO ANSWER SATISFIED OR DISSATISFIED. DO NOT QUOTE THE NO OPINION OR OTHER MULTIPLE CHOICE UNLESS THEY WILL NOT GIVE YOU THE OTHER CHOICE. MARK a check mark under the correct column. Proceed with the next question.

QUESTION NO. (2) Taking everything into account, how happy would you say you are--VERY HAPPY, FAIRLY HAPPY, OR NOT NOT HAPPY? Check one of the blocks, do not ask DON'T KNOW, OR OTHER, unless you can't get an answer from the other three choices.

QUESTION NO. (3) There are always some problems on any university campus that are felt by students to need action and solution. What do you think is the most important problem facing students at UT-Knoxville these days? (RECORD FIRST PROBLEM MENTIONED, VERBATIM)

On this question, you write down word by word just like the respondent repeats the problem. IF YOU THINK IT NECESSARY YOU MAY TELL THE RESPONDENT THAT YOU ARE TO WRITE what they say verbatim so they will repeat the words slower.

PROBE QUESTION? Why do you say that.

IF THIS QUESTION IS ASKED: You also write verbatim what the respondent Says:

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QUESTION NO. (4) A number of things have been mentioned lately as possible problems for students here at UT-Knoxville. As I name some of these specific things, please tell me if you consider it a major problem. By a major problem, I mean anything that either has a serious effect on some students or adversely affects a large number of students.

IN YOUR OPINION, DOES THIS UNIVERSITY
have a major problem, a minor problem,
or no problem with:

(CHECK ONE)
MAJOR MINOR NO NO OTHER
PROB. PROB. PROB. OPIN.

UNDER QUESTION NO. (4) You have questions from (a) through (j) to ask the respondent if in THEIR OPINION is it a MAJOR PROBLEM, MINOR PROBLEM or NO PROBLEM. MARK a check mark under the correct column. DO NOT QUOTE NO OPINION OR OTHER MULTIPLE CHOICE UNLESS YOU CAN NOT GET AN ANSWER FROM THE OTHER THREE CHOICES. Proceed with the next question.

QUESTION NO. (5) Several new ideas and proposals have been presented to the university administration lately. As I mention each one, please tell me if you favor or oppose the idea.

Would you favor, or oppose, an action
by the university administration to:

(CHECK ONE)
Fav- Neut- Opp- Don't Other
or ral ose Know

Under QUESTION NO. (5) You have questions from (a) through (n) to ask the respondent if in THEIR OPINION they FAVOR or OPPOSE. MARK A check mark under the correct column, do not quote NEUTRAL - DON'T KNOW - OTHER Multiple choice unless you can not get an answer from the other two choices. Proceed with the next question.

QUESTION NO. (6) Students sometimes say they are not too clear on university procedures for getting certain things done. As I name certain kinds of things, please tell me if you yourself feel that you know the correct procedure. This is not a test--just tell me if you think you know the procedure.

Do you feel that you know?

(CHECK ONE)
Yes Not No Other
Sure

For QUESTION NO. (6) Use same procedure as the preceding question.

QUESTION NO. (7) Here on the University's Knoxville campus are many people and organizations with different jobs to do. We want to find out how good a job you think they're doing--below average, average, or above-average. If you're not familiar with any that I name, just so so.

For QUESTION NO. (7) Use same procedure as the preceding questions, except you may want to remind Respondent a couple times more what the question was: Also if they are not familiar with any that you name, you would check under the Don't Know.

Page 4

QUESTION NO. (8) I would like to find out how satisfied you are with various things around the UT-Knoxville Campus.

In general, are you satisfied or dissatisfied with?

Question No. (8) Use same procedure as the preceding question.

NOW, JUST A FEW BACKGROUND QUESTIONS AND WE ARE THROUGH:

PERSONAL CHARACTERISTICS

(P1) WHAT IS YOUR PRESENT ACADEMIC CLASS LEVEL AS A STUDENT?
(Circle one number)

FRESHMAN-1 SOPHOMORE-2 JUNIOR-3 SENIOR-4
MASTER'S-5 DOCTORAL -6 OTHER -7 (Specify _____)

(P2) WHAT IS YOUR MAJOR, OR INTENDED MAJOR SUBJECT AT UT? _____

(P3) IN WHAT COLLEGE OR SCHOOL OF THE UNIVERSITY IS YOUR MAJOR SUBJECT LOCATED? (Circle one number below)

AGRICULTURE -01	ENGINEERING - <u>06</u>	LIBERAL ARTS -11
ARCHITECTURE -02	EVENING COLL -07	LIBRARY SCIENCE-12
BUSINESS AD -03	HEALTH-PHYSED-REC-08	PLANNING -13
COMMUNICATIONS-04	HOME ECONOMICS -09	OTHER -14
EDUCATION -05	LAW -10	(SPECIFY _____)

(P4) HOW MANY CREDIT-HOURS ARE YOU ENROLLED FOR THIS QUARTER?

(Check one) ZERO TO EIGHT HRS 1
NINE OR MORE HRS 2

(P5) WHAT IS YOUR AGE? (Check one) Under 18 1
18-25 2
26-29 3
30 & over 4

(P6) ARE YOU MARRIED OR SINGLE? (Check one) Married--1
Single 2

(P7) SEX OF RESPONDENT (Check one) Male 1
Female 2

That's all. Thanks very much for helping us.

IMMEDIATELY AFTER INTERVIEW, FILL IN BELOW:

Time Interview completed _____
Time Interview began (from 1st page) _____
Total time spent in interview _____

INTERVIEWER: CHECK BACK OVER COMPLETE QUESTIONNAIRE TO CORRECT FOR COMPLETE AND LEGIBLE RESULTS. THEN SIGN BELOW

Interviewer's Signature

CODING INSTRUCTIONS

1. Check I. D. Number on the call record sheet.
2. Enter the I.D. Number on two places in the questionnaire: at the top of pages 1 and 5 in the blanks indicated by "Questionnaire Number."
3. Code all of the structured questions in the manner indicated on the example form: use "1" for the column to the extreme left. The position of the response in each blank is entered in the blank in the column headed "For Office Use Only."
4. In the major questions-- 1, 4, 5, 6, 7, and 8-- total up the number of responses in the "1" (far left) column and place this number in the box below the question.
5. Then enter the number in the box (obtained in step 4) in the blanks to the right in the column marked "For Office Use Only." IF THE TOTAL NUMBER IS LESS THAN 10, ENTER "0" IN THE FIRST OF THE TWO BLANKS.
- * 6. FOR ALL QUESTIONS: IF NO RESPONSE IS INDICATED ON THE QUESTIONNAIRE-- THAT IS, IF THERE IS NO CHECK MARK AT ALL FOR THE QUESTION ON THE QUESTIONNAIRE FORM, ENTER "9" IN THE APPROPRIATE BLANK. See pages 3 and 7 for examples of "no response" coding. If the blank in question is a TWO-DIGIT blank, as in question P3, ENTER "9 9".
7. Do not attempt to code question #3 unless specific instructions are given.
- * 8. ITEM P2 ON PAGE 7: If any major at all is entered in the blank provided, enter a "1" in the blank in the column headed "For Office Use Only." SEE EXAMPLE. If there is no major entered on the blank, code the item with a "9" (SEE NUMBER 6 ABOVE).
9. When you come to the end of the form, check to see whether there is a handwritten entry at the bottom of the last page in the "For Office Use Only" column. You should see one of the following:

1 (61) ; 2 (61) ; 3 (61)

If one of the above is not on the form, bring it to my attention (Bruce Cadotte).

10. Bring any irregularities or illegible entries to my attention (Bruce Cadotte).

APPENDIX D

EXAMPLE OF LETTER OF INTRODUCTION

College of Communications

THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TENNESSEE 37916

Graduate Studies and Research
(615) 974-5155

February 15, 1974

TO WHOM IT MAY CONCERN:

This certifies that _____ is an interviewer for The University of Tennessee College of Communications, Department of Graduate Studies and Research. We hope you will cooperate with us by providing an interview in our survey of opinions about the University community.

The information given by you will be treated with strictest confidence and will be seen only by the Research Staff that prepares the statistical report.

With sincere appreciation,

Bruce M. Cadotte
Project Director

VITA

Mr. Cadotte was born on November 20, 1945, in Baltimore, Maryland. He received virtually all of his elementary and secondary education in Norfolk, Virginia, and was graduated from the University of Virginia in Charlottesville, Virginia, in June 1967.

Appointed Director of Public Relations and Information in 1968 for the Tennessee Tuberculosis and Respiratory Disease Association, headquartered in Nashville, Tennessee, Mr. Cadotte was responsible for publicity and many public education assignments for that charitable organization.

He resigned from the Association in August 1972 to attend the College of Communications of The University of Tennessee, where he had been offered and had accepted a research assistantship. Mr. Cadotte assisted Dr. Jack B. Haskins in the Department of Graduate Studies and Research from September 1972 through the summer of 1974 while pursuing the Master of Science Degree in Communications with a major in journalism.

In August 1974, Mr. Cadotte accepted an offer of employment as an editor with the Tennessee Valley Authority's (TVA) Office of Power in Chattanooga, Tennessee. As part of the Power Reports and Information Staff, he carried out a wide range of information functions including reports to the financial community and the Federal Power Commission (now the Federal Energy Regulatory Commission), preparation of annual reports for the power system and for the combined operations of the distributors of TVA power, preparation of press releases on various aspects of the agency's power operations and construction program,

speech writing and scripting audiovisual presentations, communication with employees, and making arrangements for foreign and domestic visitors to the Office of Power. In addition, he prepared considerable amounts of official correspondence for the Office's top management.

He returned to Knoxville in June 1980, to accept the position of Manager of Information Services for the Office of Management Services with TVA, and the following February became manager of the agency's News Desk, which is part of the TVA Information Office. The News Desk is the principal link between the agency and regional and national news media.

He currently lives in west Knox County with his wife, Mary Alice.