ABSTRACT
        This guidebook explains how to conduct a telephone
survey that will gather the information necessary for new program
needs assessment in the Wisconsin Vocational, Technical, and Adult
Education system. The guidebook is based on pilot assessments
conducted by Fox Valley Technical College. The guidebook contains
five sections: (1) introduction--why do the survey by telephone; (2)
getting ready for the telephone survey--list of employers,
determining how many to interview, and alerting employers before the
survey; (3) sections in the sample questionnaire; (4) telephone
interviewing--basic procedures, selecting interviewers, training and
supervising interviewers, and facilities for interviewing; and (5)
results of two pilot tests--list of employers, response rate, the
mail option method, interviewing time, and costs. Four appendices
contain samples of an introductory letter, questionnaire, cover
letter for mail option, and call record form. (NLA)

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Program Needs Assessment

The Telephone Survey Alternative

Fox Valley Technical College

June 1991

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PROGRAM NEEDS ASSESSMENT:

THE TELEPHONE SURVEY ALTERNATIVE

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Acknowledgements

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Introduction

Technical colleges in Wisconsin must survey local business and industry as part of their efforts to establish new occupational programs. Traditionally, this survey has been conducted by mail. However, another option for surveying businesses exists--the telephone survey. This guidebook presents the "nuts and bolts" of how to conduct a telephone survey that will gather the information necessary for new program needs assessment in the Vocational, Technical and Adult Education (VTAE) system. The guidebook offers suggestions to technical colleges who may want to conduct surveys by telephone. It does not intend to mandate a telephone methodology. The procedures and sample questionnaire in this guidebook are based on the experience of Fox Valley Technical College in doing two pilot needs assessments by telephone and from the experience of several other technical schools who, during the Fall of 1990, kindly shared information about their practices in telephone survey research with us.

Why Do the Survey By Telephone?

Telephone surveys offer several advantages over the mail survey. Among these advantages are:

o   **Telephone interviewing is faster.** Speed is probably the major advantage. A typical telephone survey can be completed in two weeks or less, while many mail surveys may drag on for months.

o   **Telephone interviewing yields a higher response rate.** While many VTAE program assessments by mail will obtain response rates in the 40-50% range, a telephone survey will get response rates in the range of 70-80% of employers called. It is rare for a local business to refuse an interviewer calling from the technical college. It is much easier to ignore a mailed survey.

o   **Telephone interviewing is more friendly.** Some businesspeople would actually prefer to be surveyed by telephone rather than by an impersonal, written survey form. Many like the two-way exchange. If caught at an inconvenient time, they can simply ask the interviewer to call again at a better time.

o   **Telephone interviewing engages the appropriate respondent.** With a mail survey, you're never sure who is completing the survey, even when you specify who should respond. With a telephone survey, the respondent can be asked if he/she is the person who hires and supervises the occupation being researched. If not, the interviewer can ask to speak to that person.

o   **Telephone interviewing allows probing and clarifying questions.** With a mail survey, there is no chance for the respondent to ask what you are really looking for in a question. There is no chance for the interviewer to ask the respondent to

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clarify his/her answer. The telephone survey minimizes misunderstandings that even the most carefully-worded mail survey questions sometimes cannot avoid.

o   **Telephone interviewing eliminates skipped items.** Respondents in a mail survey will frequently skip open-ended items or items that they do not know how to answer. On the telephone, the interviewer can eliminate skipped items almost altogether.

o   **A telephone survey eliminates typesetting the questionnaire.** Most well-conducted mail surveys use an attractively laid out and typeset (or desktop published) questionnaire since this is known to enhance the response rate. With a telephone survey, the respondent never sees the questionnaire, so the time and expense of typesetting is eliminated. A telephone questionnaire can be formatted for fast, easy data entry and interviewer use without concern about the print quality.

o   **Telephone interviewing allows better survey pool management.** Inevitably, the list of potential employers will contain some that are inappropriate for the survey, for example, those employers out of business, one-person firms with no employees, those who do not intend to hire the occupation being researched, and those who are in business with another employer on the list. Instead of spending time re-mailing surveys to inappropriate businesses, the interviewer can determine whether the business should be removed from the pool in the first call. A mail survey will likely count inappropriate employers as non-respondents since they frequently do not return their surveys. This decreases the response rate and the credibility of the mail survey.

Of course, there are some drawbacks to telephone surveys. The respondent has no opportunity to look up data or consult with others in the company about certain answers. Another drawback is that the method requires trained interviewers. Perhaps the biggest perceived drawback of a telephone survey is the cost. However, we have found that the cost is not much more than a mail survey, if it is conducted "in-house." (See section on costs.)

Northcentral Technical College has found that telephone surveying can be very effective, timely, and cost-efficient. The College prefers to use it when there's not much time to conduct a survey. Results have been very good.

In sum, the telephone survey is a viable option for VTAE districts conducting research on labor market demand for new programs. The mail survey is still a viable option, one which many technical colleges are comfortable with and will continue to successfully use. However, colleges who want to use an alternative method will find the procedures and sample questionnaire in this guidebook useful.

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List of Employers

Compiling a list of employers to be surveyed is no different for a telephone survey than for a mail survey. However, it is not so critical that inappropriate employers be kept off the telephone list because of the ability in a telephone survey to screen out inappropriate respondents from the survey pool. When constructing a list for a telephone survey, if there is any chance that the employer would be an appropriate respondent, add that employer to the list. The telephone method will screen that employer out if they are inappropriate.

For example, if you are using a list of professional association members such as dentists, attorneys, etc., it may not be possible to know which individuals are actually part of a single firm. Or it may not be possible to determine which firms are actually branches of a larger firm, where the hiring is done. These duplicate cases will usually become apparent with the first telephone call to such employers, enabling the telephone interviewer to remove duplicate employing units from the survey pool. Of course, with any survey it is desirable to start out with as "clean" a list as possible.

A "Position Paper" on the methodology for occupational program needs analysis was published by Doug Heit of the Chippewa Valley Technical College a few years ago which identified several sources for compiling a list of potential employers for the needs assessment. Sources from which potential employers may be drawn are:

o   DILHR unemployment compensation printouts;
o   Licensing bureaus;
o   Membership lists of professional associations;
o   Membership lists of occupational associations;
o   Internal business/industry contact systems;
o   Wisconsin Classified Directory of Manufacturers;
o   Telephone directories; and
o   Suggestions from advisory members & instructors.

In addition, a mainframe computer tape, the ES202 tape, may be purchased from DILHR. Employers are indexed by SIC code, by zip code, and by county. From the tape you can print out a list of mailing labels for a given industry (defined by SIC code) for a given geographical area (defined by zip code or county).

Determining How Many Employers to Interview

It is best to begin a telephone survey with the target number you expect to complete. In a market research firm, this number might be determined by a) what you could afford to complete, or b) how many would yield a certain margin of error as shown in a table of

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sample sizes required for various populations at the 95 percent confidence level. However, VTAE system personnel generally expect to see a response rate, i.e., the percent of the survey pool with whom you completed a questionnaire. Therefore, the following method for determining how many to interview is suggested with VTAE personnel in mind.

Basically, we suggest continuing the interviewing until you reach at least 70 percent of your survey pool. So, if you had a pool of 100 employers, you would want to interview 70 of them. If, as the survey progressed, you find that 20 of the employers are inappropriate for the survey, you would decrease the number of completed interviews to 70 percent of 80, or 56. While these are higher standards than the 40-50 percent response rate the State Board expects for a mail survey, and will cost more than if you stopped interviewing at 50 percent, our experience has shown that 70 percent of the pool can be interviewed without unreasonable additional time or cost.

The key to interviewing a reasonable number of employers is to begin with a manageable number in the survey pool. If you have 500 potential employers, randomly select 100 and let that serve as the survey pool. Do not attempt to telephone 70 percent of 500. It isn't necessary, it's too costly and it's a waste of time and energy. If the original pool is less than 100, there is probably no need to pick a random sample, unless your interviewing resources will not allow you to complete 70 interviews in a timely and cost-effective manner. In that case, select a smaller random sample and strive for a 70 percent response rate (e.g., a randomly-selected pool of 50 with 35 completed interviews).

Alerting Employers Before the Survey

Should employers be notified before the telephone survey that an interviewer may be calling them? We used an introductory letter to alert employers about the impending telephone survey and found that it did make a difference in the interview completion rate. In one pilot survey described in this guidebook, we mailed an introductory letter to one-half of our survey pool, while the other half received no introductory letter. At the end

Blackhawk Technical College reports success doing telephone interviews when they sent an introductory letter, and then called the employer to get the information. They have found most people very willing to respond, given the time to do so.

of the survey, we evaluated the response rates for the two groups and found that 85 percent of the group who got the letter responded, compared to 76 percent of the group who received no letter. The response rate of the group who received no advance notification was still very high, suggesting that the letter is not necessary to achieve a high response rate. But since the introductory letter led to a significantly better response among the group that received it, our telephone survey practices now include written employer notification.

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Furthermore, there are other reasons to notify employers. For one thing, it lends a professional, friendly approach to the survey. Employers are expecting the call and will be better prepared for the interview. The introductory letter is good public relations, and enhances the survey's importance in the respondent's mind. In our pilot needs assessment, several respondents actually called the Research Office in order to complete the interview before going on vacation or to be sure they wouldn't miss out on the survey. Some employers who are interested in the new

Survey Completion Rates
With Introductory Letter & Without

Percent Completed Interview

Received Letter — No Letter
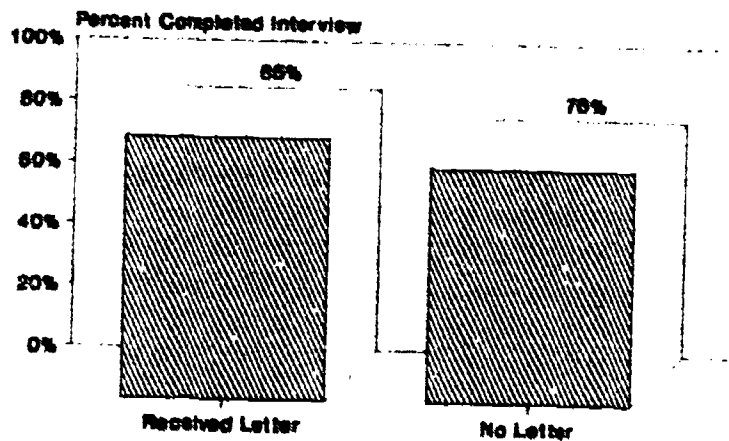
Source: Dental Hygienist Needs Assessment, FVTC, 1991

program may take that level of initiative, which saved having to call them back or catching them at an inconvenient time. Finally, the calls are more enjoyable for the interviewers who, in our pilot study, felt they had a warmer reception from respondents who had received the introductory letter. A postcard could also be used with a shortened version of the letter. See Appendix A for a sample introductory letter.

However, what if the person conducting the survey sees the introductory letter as too mucn work, lacks the time to send it, and/or meets some other major barrier to sending out a letter or postcard? It is good to know that the telephone survey can still be conducted successfully without the letter. It's a matter of choice and style. Employers can also be notified through announcements at professional meetings or notices in newsletters read by the group being surveyed.

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The Questionnaire

Sections In the Sample Questionnaire

The sample questionnaire appearing in Appendix B contains all of the questions that need to be asked in order to complete Section 7 of VE-CU-5, the Statistical Report of the Program Investigation, that technical colleges must submit to the State Board. In addition, several (starred) questions have been included because we have found them useful in assessing employer reaction to the proposed program. However, they are not absolutely necessary to the survey.

The sample questionnaire has the following sections:

o **Screening Section.** The questionnaire contains a screening section in which the interviewer attempts to engage the appropriate respondent within the company and verify with that respondent that he/she is indeed the appropriate party for the survey. The screening section also requests participation in the survey and allows the interviewer to reschedule respondents for a more convenient time if necessary. If the company does not employ the occupation being researched and has no plans to do so, the company is eliminated from the survey by Question 2a.

o **Questions About Employer Needs.** The employer's current situation and future needs for the occupation are dealt with in Questions 1-9. They begin the interview by answering questions that they, for the most part, know the answers to. The wage question, which some employers are hesitant about answering, is asked well into the interview after they are "warmed up" and have established some rapport with the interviewer.

o **Reaction to the Program.** Midway through the interview, the interviewer reads a short "concept statement" describing the program the college is proposing to develop. The program description fits better here than in the beginning of the survey. The beginning of the interview can immediately engage respondents in answering some

> *Northeast Wisconsin Technical College has found that well-constructed, simple questions which elicit simple answers are more successful. They believe that open-ended questions are valuable, but take more time and are subject to the interviewer's interpretation.*

questions, rather than asking them to listen to a program description . Thus, the interviewing moves logically from what currently exists to the more hypothetical questions about whether the employer would hire graduates, etc.

o **Demographics.** Few demographics are collected in the telephone survey since only limited breakdowns are required. The survey includes employer size, which

we have found useful but is not required. Interviewers also code whether the company is located within or out of the district, if the survey includes both, and they ask for the name and position title of the respondent. In the hundreds of telephone interviews we have done, no one has ever refused to give this information.

Flow of
the Questionnaire

Employer
Demographics

Reaction to
Proposed Program

End

Present & Future
Need for Occupation

Screening
Questions

Beginning of Interview

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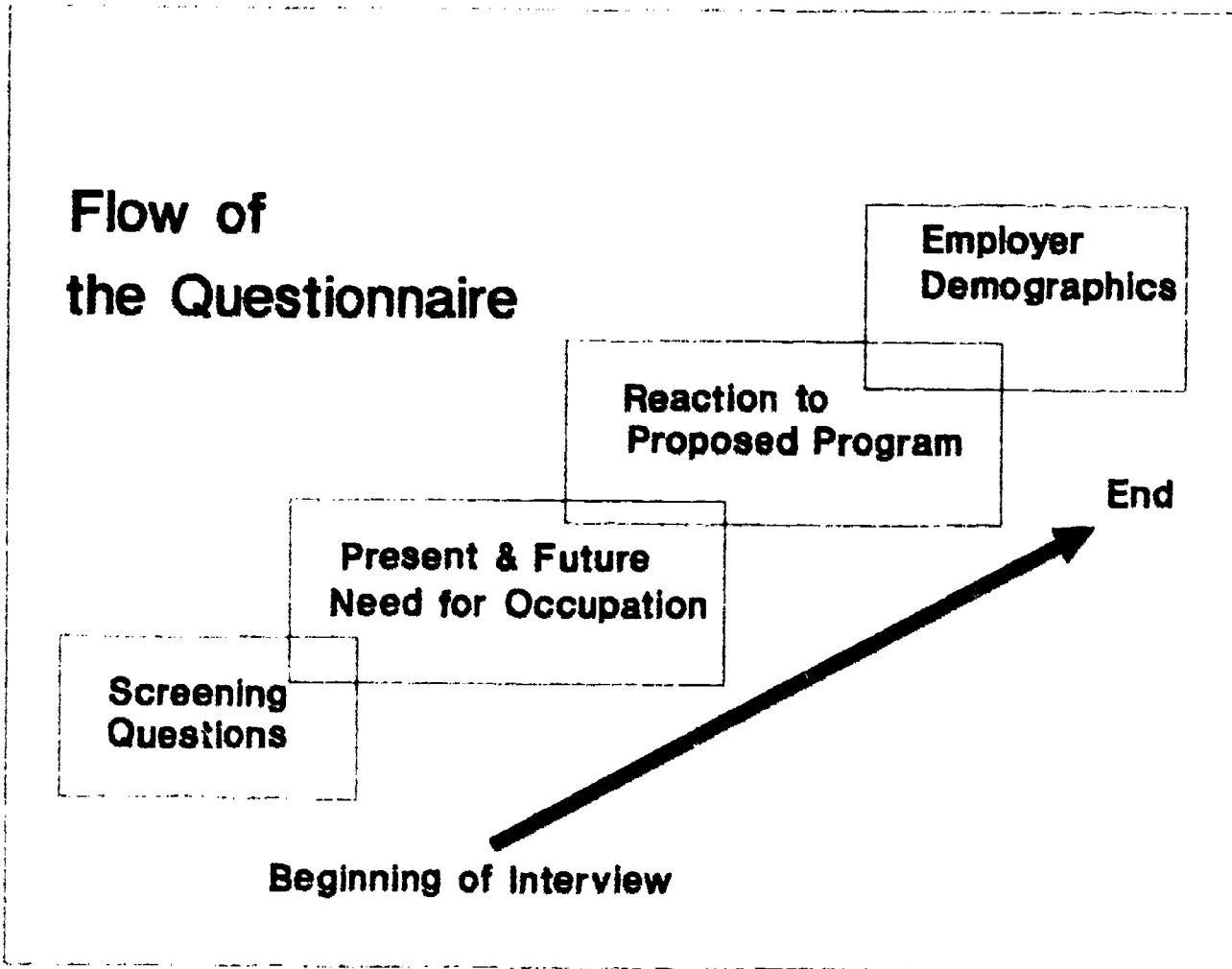
Telephone interviewing

Basic Procedures

The procedure that worked best in the pilot tests conducted at Fox Valley Technical College could be described as a basic telephone survey with a mail out option. Interviewers made an attempt to complete the survey by telephone and, in fact, the majority of surveys were completed by telephone. However, if it became clear that a) the respondent was hardly ever available, b) the respondent preferred to complete the survey by mail, or c) the respondent's secretary suggested mailing the survey, the survey was mailed to the respondent with a cover letter. (See Appendix C for a sample letter that could be used to accompany the survey if mailed.) We have found it easier to adapt a telephone survey for mail than to adapt a mail survey for telephone interviewing. And nearly all of the respondents who requested mailed surveys returned them.

Madison Area Technical College predicts that the telephone/mail option will become increasingly popular. They are finding, more and more, that there is just no substitute for person-to-person contact with the businesses and industries they serve.

Training and supervising interviewers is key to conducting a successful telephone survey. A training session, usually conducted by the research person in charge of the needs assessment, should offer interviewers an explanation of the purpose of the survey, a complete review of the questionnaire, a set of call record-keeping procedures, and a chance to practice the interview. Training takes only a few hours, yet will prevent problems and increase interviewers' comfort with procedures. Training is a wise investment that will considerably enhance the quality of interviewing.

After interviewer training is completed, the first step in the telephone interviewing is to start at the top of the list and call the first employer. If the appropriate respondent is not available, the interviewer should note by the name when to call back. In no case should interviewers leave their number for a respondent to call back. The interviewer may be on another call when the respondent calls back; the respondent may never call back; or the respondent may not be pleased to return a call that turns out to be a telephone survey. In short, *asking the respondent to return your call is considered a poor market research practice.* However, if the respondent is available, the interview can usually be completed immediately. If the company is inappropriate for the survey or out of business, the interviewer would remove the company from the survey pool.

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Calling Procedure for Telephone Survey
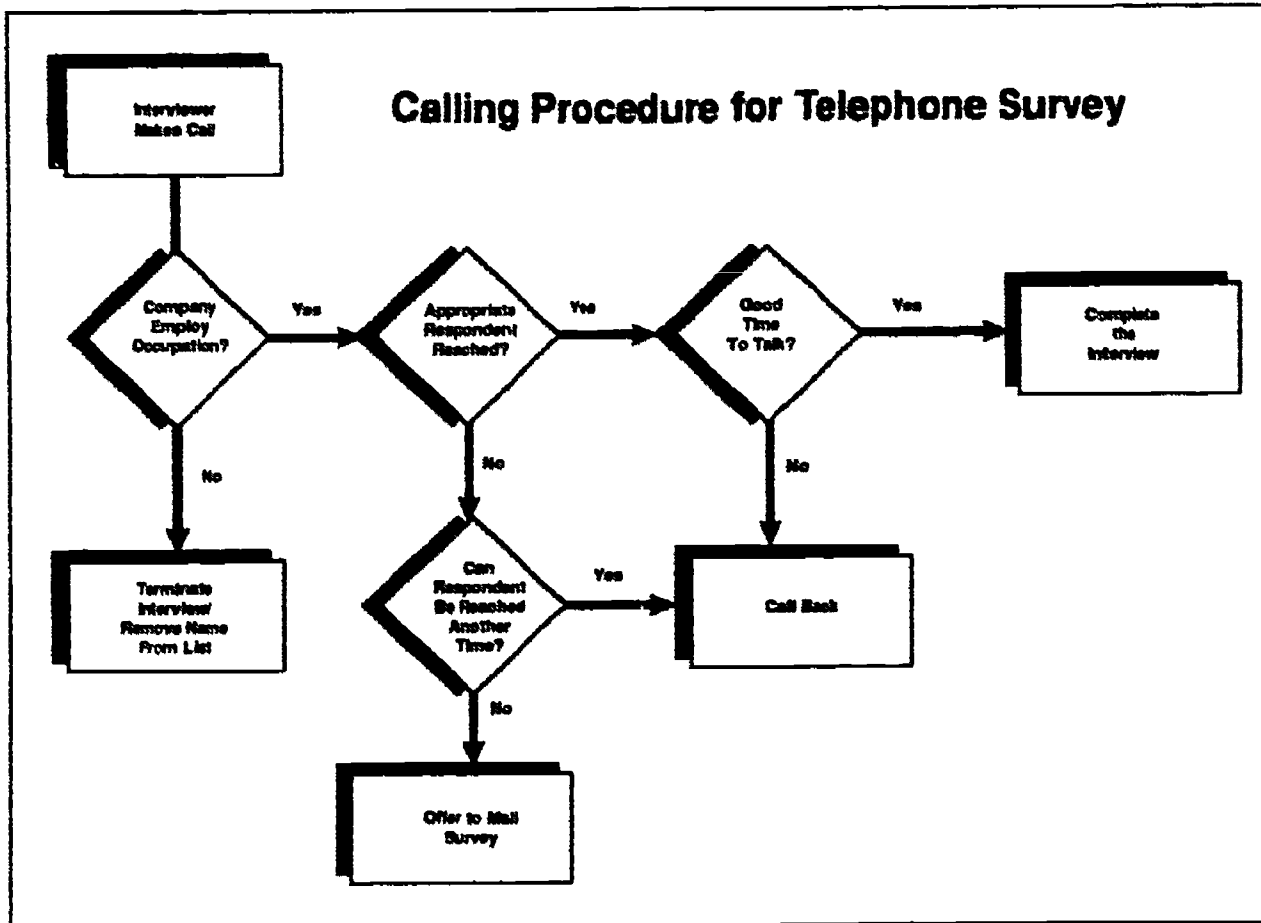
Interviewers note the results of each call, whether it ended in a completed interview or not, on a Call Record Form. See Appendix D for a sample Call Record Form on which the interviewers can keep track of the results of company contacts. We use a set of codes to show the outcome of each call. (See box on this page.) It is important that a written record of each contact be kept because interviewers cannot be expected to remember the outcome of each call. The call record will remind them where to begin interviewing each day, show who needs to be called back at what time, and reveal who has not been contacted at all. Good records enable interviewers to exchange portions of the list without fear that they will call a respondent who completed the interview. At the end of the survey, the Call Record Form will provide information needed for calculating the response rate.

**Codes That Can Be Used
To Record Outcomes of Calls**

C	-	Completed interview
Rem	-	Remove from pool
Ref	-	Refused interview
CB	-	Call back
Mail	-	Mail out survey

Interviewers contact employers every day until all nonresponding employers have been contacted at least three times. It may be necessary to contact them more than three times in order to complete the target number of interviews. Interviewers will usually know when they have exhausted a list of employers.

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Selecting Interviewers

Telephone interviewers can come from several sources. In the pilot test at Fox Valley Technical College, Marketing program students (or recent graduates) served as telephone interviewers. However, a Fall 1990 survey of VTAE districts revealed several other groups of people who have done telephone interviewing: temporary help service employees, secretarial staff, community area coordinators, research staff, instructors, advisory committee members, and outside market research or telemarketing firms. Each group has advantages and disadvantages:

o **Temporary help service employees.** These people are usually readily available and with minimal training can do the interviewing. If they don't work out, you can request someone else immediately. However, they can cost almost double what you would pay student employees.

o **Marketing students.** Student employees from Marketing or other VTAE programs have been the best source of telephone interviewers at Fox Valley Technical College. They can be recruited directly from classes or they can be student interns "borrowed" from other offices. Interviewing is a valuable work experience for them. They are very cost effective. They will need training and supervision on the needs assessment project.

o **Secretarial staff.** A team of 2-4 secretaries could be trained to do the interviewing if they could be freed up from their other work for a few days. Some technical colleges have used secretaries.

o **Research staff.** The research staff at some technical colleges do the interviewing. This works well in small surveys in which 25 or fewer interviews must be completed and the respondents are easily reached. However, many research staff would be unable to free themselves up to do the interviewing for large scale surveys.

o **Area coordinators.** Area coordinators or community representatives can function as interviewers. Their contacts with business training directors may be helpful in securing a better response. Some area coordinators are not full-time employees and would have time for interviewing tasks. If they are based in outlying regions of the district, it may be difficult to provide proper training and supervision for the survey.

o **Instructors.** Some technical colleges have conducted surveys with instructors as interviewers. Instructors would know about the proposed new program and would be able to answer questions about it. A call from an instructor is usually good public relations. If they have the time and interest in interviewing, they could be an excellent resource.

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o **Advisory committee members.** Advisory committee members may be interested in conducting the interviews. Some technical colleges have used them. The key is a small scale survey in which each person gets a manageable number of interviews to complete. Advisory members may help the response rate by calling their business colleagues. However, using advisory members as interviewers could cast doubts on the "objectiv.ty" of the survey, particularly if they are highly invested in wanting the survey to demonstrate a great need for the occupation be'ng researched. It would be difficult to supervise the interviewing.

o **Market research or telemarketing firms.** Interviewing can be contracted to outside consulting firms who do market research or telemarketing. This arrangement has the advantages of providing trained interviewers, survey supervision, professionalism and speed. However, costs can run from $14 to $35 a completed interview, which is substantially more than the cost of doing a survey "in-house."

Training & Supervising Interviewers

If interviewers understand the purpose of the survey, purpose of each item, type of respondents they are attempting to reach, record-keeping procedures and have a chance to practice the interview, they will do a better job than if they had no training. The following training and supervision procedures were used at Fox Valley Technical College in the pilot needs assessment where the interviewers were Marketing students. Three interviewers received the training in a group at a single two-hour session. Actual interviewing began the next day.

Step 1--Explain the purpose of the survey. Explain what the college is trying to determine and why this information is needed. Knowing something about the proposed program and what (briefly) a technical college does to start a new one helps to establish the importance of the survey with interviewers.

Step 2--Review the questionnaire. Read the opening script and explain the intent of each item on the survey. Read each item with appropriate voice inflection the way you expect them to ask the questions of respondents. Explain what type of answer you are looking for from respondents and how to record their answers. For open-ended items, interviewers should write down what the respondent says word for word as best they can. Emphasize the importance of good handwriting and using a pencil so corrections can be made easily.

Step 3--Arrange practice sessions. Model the way an interview should be conducted using one of the interviewers as a "respondent," or even a real respondent. Have the interviewers practice the interview on each other, on the trainer, on in-house respondents or on advisory members who have agreed to serve as test cases. Follow the practice interviews by resolving any questions interviewers may have about the questionnaire

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items. Discuss various situations that may arise in interviewing.

Step 4—Explain call record-keeping procedures. Explain how to take a few minutes following each completed interview to go over the responses to make sure all items are completed. Open-ended items, especially, can sometimes be made more legible or accurate in the minutes immediately following the interview. Explain the codes used to indicate the outcome of each call on the Call Record Form (See Appendix D) and the importance of keeping accurate calling records.

Step 5—Review the first few completed interviews with the interviewers. After Step 4 above, interviewers should be ready to begin making calls to actual respondents. Review the first few completed interview forms with each interviewer to make sure all responses have been properly recorded and that there are no misunderstandings. Identify problems before a large number of interviews are done, not after. Interviewers will be able to make adjustments if they know what you want. Ask them how respondents are reacting to the questions. Get their input and revise procedures or items accordingly.

Step 6—Maintain daily contact with interviewers. Questions that no one has imagined will invariably arise so it is best to maintain daily contact with interviewers. Well-trained interviewers will bring problems to your attention. In our pilot survey, it became apparent that it made no sense to ask dentists how important certification was in their hiring of dental hygienists since certification is a requirement for the practice of dental hygiene. We were able to adjust this item before going further. Other problems can arise with lists of employers, missing phone numbers, duplicate firms, etc. Once the survey is underway, minimal monitoring is usually all that's needed.

Facilities for Interviewing

The calling can be done from any reasonably private place with a phone. We recommend using secretarial stations only as a last resort. Places that technical colleges have used include:

o   Staff offices
o   Conference rooms
o   Conference rooms with speaker phones
o   Telephone labs (rows of telephones in carrels in a classroom)

We have not found it necessary to provide telephone operator headsets. Our interviewers have on occasion used speaker phones so that their hands are free for recording

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responses. If telephone interviewing progresses to computer-assisted interviewing, good-quality headsets would be needed.

If interviewing is being done by advisory members, community representatives, or area representatives, they may complete the interviews from their workstations or home. This arrangement is less desirable since the person responsible for the survey cannot observe the interviews or answer questions.

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Results of Two Pilot Tests

In February 1991, we first tried out the procedures and questionnaire described in this guidebook in a needs assessment at Fox Valley Technical College. This particular assessment was assessing the need for dental hygienists so our interviewers called dental offices in the district to determine employment potential. The needs assessment was not strictly required by the VTAE System, but the survey was done because our own staff wanted the information. Nevertheless, we conducted the survey as if results would ultimately be used in a VTAE Program Proposal, Sections 7-8.

In May 1991, we conducted a second pilot test in a needs assessment for a Materials Planning and Control Technician program. This needs assessment was required by the VTAE System, and results were used in the VTAE Program Proposal, Sections 7-8.

Our List of Employers

For the Dental Hygienist Survey, we used a mail list from the Wisconsin Dental Association, which was not a very "clean" list. It contained, for example, retired dentists, dentists in group practices, dentists for whom we could find no telephone listings, and dentists whose practices had been taken over by other dentists. This list would have been more suited to surveying individual dentists rather than dental "employing units," who would be hiring our graduates. Nevertheless, in the first telephone contact, our interviewers were able to identify inappropriate names and remove them from the survey pool. The telephone methodology worked well to control the survey pool.

One task that would not have been needed if a mail survey had been done was looking up telephone numbers. The mail list did not come with phone numbers. A secretary spent several hours looking up phone numbers of 215 dentists in our district. Number look-up was completed before interviewing began.

For the Materials Planning and Control Technician Survey, we compiled a list of respondents from names suggested by the ad hoc advisory committee. Each of 12 members submitted ten names and phone numbers of appropriate respondents. After duplicate suggestions were removed, we had a final survey pool of 81 respondents. This method of generating an employer list yielded accurate names and phone numbers with only three inappropriate companies that interviewers needed to remove from the survey pool after an initial call.

Response Rate

We ended the Dental Hygienist Survey with 81 percent of dental offices completing interviews. As noted earlier, the response rate of dental offices receiving the introductory letter was slightly higher (85 percent), compared to offices not receiving the letter.

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Overall, a response rate of 81 percent compares very favorably to what we could have expected in a mail survey. There is reason to believe that even a mail survey of this particular group of employers would have been high, since they were extremely interested in seeing a dental hygienist program started. Since we did not survey half by mail and half by phone, we have no way to know how much (if at all) better a response rate was achieved with the telephone method.

Fewer than five dentists in this survey refused to be interviewed. The 19 percent who did not complete the interview were dentists who could not be reached after at least four calls to their office. There is no need to pursue respondents to the point of becoming a nuisance.

A response rate of 72 percent was achieved in the Materials Planning and Control Technician Survey. Two employers refused to be interviewed. At least three calls were made to nonrespondents.

The Mail Option Method

Mailing the questionnaire to employers who requested it from interviewers worked well in both surveys. About one-third of the dentists requested that the survey be mailed. We mailed the dentist the questionnaire and cover letter in Appendix C. Only 32% of the mail outs were not sent back. This suggests that once employers requested the survey be sent, they committed to completing it. Our particular group of employers, i.e., dentists who are frequently involved in dental procedures at the time they receive the call, may have requested the mail option more often than other employers who work near their phone.

How the Mail Option Worked With Employers in Telephone Survey

Completed By Telephone 70%

Requested mail out 30%

Did not return 32%

Returned survey 68%
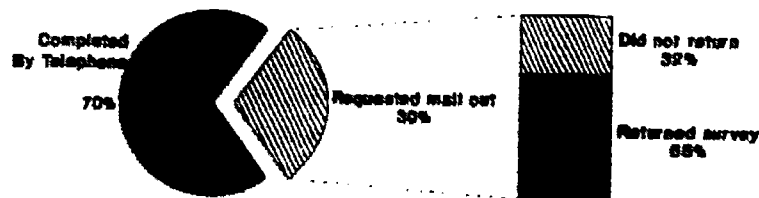
Source: Dental Hygienist Needs Assessment, FVTC, 1991

Twenty-two percent of respondents in the Materials Planning and Control Technician Survey requested or agreed to a mailout. These respondents, often Materials Managers who work near a phone, were readily accessible to interviewers and somewhat less likely

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than dentists to request the mail option. This group was also less likely than the dentists to return the mailed survey. Only 3 of 17 mailed to returned their questionnaires. Nevertheless, these additional 3 questionnaires increased the overall response rate from 68 to 70 percent.

The questionnaires returned by mail had some skipped items, which is typical of a mailed survey. Otherwise, the telephone-formatted questionnaire worked fine with employers who preferred to send their response by mail.

Interviewing Time

> *At Fox Valley Technical College, student interviewers liked calling when the employer had received an introductory letter. They also liked offering to mail the survey, which they suggested not as an easy out, but as a last resort, usually on the second call to an employer. It prevented them from having to be "pushy."*

In the Dental Hygienist Survey, interviewing continued for nine working days, with a total of 63 staff hours telephoning. Three interviewers called each employer up to three times. Call backs were made at times suggested by the dental offices.

A total of 101 questionnaires (including mail outs) were completed in this amount of time. (101 is 81 percent of our final, adjusted survey pool of 125.) Looked at another way, interviewers completed 1.6 surveys an hour. The interviews took approximately 10 minutes each to complete.

In the Materials Planning and Control Technician Survey, interviewing took 45 staff hours over ten working days. Two interviewers called. A total of 58 questionnaires (including mailouts) were completed in this amount of time. Or, interviewers completed 1.3 surveys an hour, slightly less than the rate in the Dental Hygienist Survey.

Costs

How expensive was it to conduct these telephone surveys with the mail option method? Our estimates reveal the cost per completed questionnaire in the Dental Hygienist Survey to be $3.12. This is based on student interviewers being paid $5 an hour with a total of 63 hours of interviewing time. Our total cost to obtain 101 completed surveys was $315.00. (Undoubtedly, the mail out option helped keep costs this low. Without mail out to about one-third of the respondents, costs would have been approximately $4.14 per questionnaire, or $418.00 to interview 101 employers on the telephone.)

Costs for interviewing in the Materials Planning and Control Technician Survey were $225.00, based on 45 hours of interviewing time at $5.00 an hour. With 58 completed surveys, we had a cost per survey of $3.88.

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Overall, doing the survey in-house with student interviewers was far more cost effective than contracting the interviews with a market research or telemarketing firm. And the costs were not substantially more than a mail survey. We believe the time savings and quality of information were well worth it.

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Appendix A

Sample Introductory Letter

Date

Dear (Name of Contact Person or Employer):

(Name of) Technical College is launching a study to learn more about the employment potential of (name of occupation). We are considering developing a (insert program length, e.g., two-year) program that would train students to (describe what the occupation does here briefly). In investigating the need for this program, we are seeking the opinions of key employers in our region.

You will be contacted shortly by telephone and asked to complete a brief interview. Our interviewers will ask you about your future needs for (name of occupation). If necessary, please feel free to ask them to reschedule the call at whatever time is convenient for you. We are hoping to speed up the investigation process by conducting the research by telephone instead of by mail.

Thank you in advance for your participation in this survey. Meanwhile, if you have any questions about this project, (Name of Research Director) at (phone number) would be happy to answer them.

Sincerely,

Director/President

Appendix B
Sample Questionnaire

Note: Instructions to interviewers are capitalized. The actual
script they read to respondents appears in lower case.

Needs Assessment Telephone Survey

Hi, this is ___ from _____ Technical College. We're
conducting a brief survey on your company's need for (name of
occupation). Could I please speak to the person responsible for
hiring or supervising (name of occupation)?

IF THE COMPANY HAS NO EMPLOYEES IN THE OCCUPATION, TERMINATE
INTERVIEW.

A. Are you the person responsible for hiring or supervising
    (name of occupation) in your organization?

    Yes-----------1 CONTINUE
    No------------2 ASK TO SPEAK TO PERSON RESPONSIBLE/
                     ARRANGE TIME FOR CALLBACK IF NECESSARY

B. We're conducting a brief survey on your company's need for
    (name of occupation), whose duties would ordinarily include
    (brief description of duties). Would you have a few minutes
    to answer some questions about that occupation?

    Yes-----------1 CONTINUE
    No------------2 RESCHEDULE INTERVIEW FOR ANOTHER TIME

_____

1. How many full-time (name of occupation) does your firm
    employ, defining full-time as 35 hours or more per week?

        _____ Full-time   (IF NONE, ENTER ZERO.)

2. And how many part-time, defining part-time as less than 35
    hours per week?

        _____ Part-time   (IF NONE, ENTER ZERO.)

    IF ZERO FOR BOTH QUESTION 1 AND 2, ASK: Do you have any
    plans to hire a (name of occupation) within the next four
    years?

    Yes----------1 CONTINUE INTERVIEW WITH QUESTION 6.
    No-----------2 THANK RESPONDENT AND END INTERVIEW.

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3. Generally, what is the educational background of **most** (name of occupation) in your firm? Is it best described as...READ CHOICES AND CIRCLE ONLY ONE.

Less than high school----------------1
High school diploma------------------2
Technical college degree-------------3
Some four-year college---------------4
Bachelor's degree--------------------5
Graduate work------------------------6
Other -------------------------------7
     (Specify:_____)

4. Has the number of **full-time** (name of occupation) at your firm increased, decreased or stayed the same over the past four years? How about **part-time**? CIRCLE ANSWER BELOW.

	Incr	Decr	Same	Don't know
a. Full-time---------1		2	3	4
b. Part-time---------1		2	3	4

*5. During the next four years, do you expect the number of **full-time** (name of occupation) at your firm to increase, decrease or stay the same? How about **part-time**? CIRCLE ANSWER BELOW.

	Incr	Decr	Same	Don't Know
a. Full-time---------1		2	3	4
b. Part-time---------1		2	3	4

*5a. IF INCREASE OR DECREASE: What do you think is the reason for the change?

_____

_____

6. Considering new positions and positions due to turnover, how many openings for **full-time** (name of occupation) do you expect at your firm over the next four years? And how many **part-time**?

_____ Full-time   (IF NONE, ENTER ZERO)

_____ Part-time   (IF NONE, ENTER ZERO)

* Question not required to complete Section 7 Statistical Report

7. Do you ever have difficulties finding qualified (name of occupation)?

    Yes---------1
    No----------2

8. In general, were your (name of occupation) well-trained when you hired them?

    Yes---------1
    No----------2

*8a. IF NO: Why you say that? _____

    _____   _____

9. What is the typical starting hourly wage for a (name of occupation) in your firm?

    $_____ per hour

READ PROGRAM CONCEPT STATEMENT:

_____ Technical College is looking into the possibility of offering a (name of occupation) Program. This (one or two)-year program would train people to perform (name of occupation) duties, such as _____, _____ and _____. Students would take courses in _____, _____, _____ and _____.

10. Assuming you had an opening, would you be willing to hire a graduate of the (name of occupation) program if he or she had no previous work experience?

    Yes---------1
    No----------2
    Not sure---3

*10a. Why do you say that?

    _____

    _____

    *Question not required for Section 7 Statistical Report.

11. Would you encourage your present employees to participate in this program if offered at _____ Technical College?

   Yes---------1 *IF YES: How many? _____

   No----------2 *IF NO: Why do you say that? _____

   _____

   _____

12. On a 1-4 scale, with 4 being very important and one being not at all important, how important are the following factors when you hire a (name of occupation)? READ EACH ONE AND CIRCLE RATING.

	Very Import		Not at all
a) High school diploma or GED-------4	3	2	1
b) Previous work experience---------4	3	2	1
c) Special certification/license----4	3	2	1
d) Technical college degree---------4	3	2	1
e) Four-year college degree---------4	3	2	1
f) Interpersonal skills-------------4	3	2	1
g) Personal recommendation----------4	3	2	1

*13. Overall, what is the minimum level of education you feel would be sufficient to qualify a candidate to be hired as a (name of occupation)? READ CHOICES AND CIRCLE ONE ANSWER.

   High school diploma---------------------------1
   One year technical college degree-------------2
   Two year technical college degree-------------3
   Some four-year college -----------------------4
   Bachelor's degree-----------------------------5
   Graduate work---------------------------------6
   Other --7
      (Specify:_____)

*14. If _____ Technical College offered this program, would you be interested in serving on an employer advisory board?

   Yes---------1
   No----------2

*15. How many employees does your organization have?

   _____

   *Question not required for Section 7 Statistical Report

16. CODE RESPONDENT'S LOCATION

    In district----------1
    Out of district-------2

_____

FILL IN:

RESPONDENT'S NAME _____

POSITION _____

FIRM _____

ADDRESS _____

PHONE _____ CITY _____

INTERVIEWER INITIALS _____ DATE _____

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Appendix C

Sample Cover Letter for Mail Option

Date

XXXXXXXXXXXXXXXXXXXXX
XXX XXXXXXXXXXX XXXXXXX
XXXXXXXXXX, XX XXXXX

Dear (Name of Respondent):

When our telephone interviewers contacted your office recently, they were told you would prefer to complete our survey on the need for (name of occupation) by mail. Enclosed is the survey form. Although it is formatted for a telephone survey, I think you will find it easy to fill out.

Thank you very much for your participation in this survey. Before the (name of occupation) training can be offered through (name of) Technical College, we must know whether there is substantial need for more (name of occupation)s in our region.

Your response is important to the success of our study, and we will look forward to hearing from you.

Sincerely,

(Name and Phone Number of Research Director)

Enclosure

Sample Call Record Form

Employer	Result	Call back #1	Call back #2	Call back #3
Jones, Bill J. 1721 N. Rankin St. Appleton, WI 54911 555-1214	Rem	mon 4:10		
Smith, Nancy 333 E. Wisconsin St. Appleton, WI 54911 555-2356	C			
Edwards, Larry J. 2830 Longview Dr. Appleton, WI 54911 555-1803	C	Tues 9 am	Thurs 10:15 am	
James, Barbara M. 323 E. Franklin St. Appleton, WI 54911 555-1110	mail			

Codes That Can Be Used
To Record Outcomes of Calls

C	-	Completed interview
Rem	-	Remove from pool
Ref	-	Refused interview
CB	-	Call back
Mail	-	Mail out survey

Note: These forms can be put into three-ring binders for interviewers.