Three techniques for surveying alumni and alumni's employers were utilized over the space of 3 academic years, for the purpose of comparing these methodologies. In the first study, alumni of the University of Tennessee, Knoxville were asked to complete a mailed questionnaire, then were encouraged through a follow-up mailing to grant permission for their employers to be contacted. In the second year, the alumni were asked for their permission for employer contact on the initial survey instrument, and in the third year, alumni were contacted by phone for this permission after they had returned their own questionnaires. Employers were surveyed through the mails in every case, but their instrument was revised in the third year to replace a Likert scale for item responses with a forced-choice format. Comparison of response rates indicates that gaining permission for employer contact directly on a questionnaire mailed to alumni is just as effective as phone contacts. The results also suggest that employers answer Likert items with a response set unless forced to do otherwise. The study concludes that a mailed survey methodology for alumni and their employers can be effective if the graduates's permission is obtained on the initial questionnaire and if employers are forced by the survey instrument's format to differentiate among listed job characteristics and performance ratings. Included are 14 references. (Author/JB)
CRITIQUE OF A METHOD FOR SURVEYING EMPLOYERS: A LOOK AT THE TENNESSEE EXPERIENCE

by

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Running head: Employer survey critique
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Jean Endo
Chair and Editor
Forum Publications
Editorial Advisory Committee
CRITIQUE OF A METHOD FOR SURVEYING EMPLOYERS: A LOOK AT THE TENNESSEE EXPERIENCE

ABSTRACT

Three techniques for surveying alumni and employers were conducted over the space of three academic years for the purpose of comparing these methodologies. In the first study, alumni were asked to complete a mailed questionnaire, then were encouraged through a follow-up mailing to grant permission for their employers to be contacted. In the second year, the alumni were asked for their permission for employer contact on the initial survey instrument, and in the third year, alumni were contacted by phone for this permission after they had returned their own questionnaires. Employers were surveyed through the mails in every case, but their instrument was revised in the third year to replace a Likert scale for item responses with a forced-choice format. Comparison of response rates indicates that gaining permission for employer contact directly on a questionnaire mailed to alumni is just as effective as phone contacts, and is more effective than the two successive mailings to graduates. The results also suggest that employers answer Likert items with a response set unless forced to do otherwise by the method of questioning. This study indicates that a mailed survey methodology for alumni and their employers can be effective if the graduate's permission is obtained on the initial questionnaire and if employers are forced by the survey instrument's format to differentiate among listed job characteristics and performance ratings.
CRITIQUE OF A METHOD FOR SURVEYING EMPLOYERS:
A LOOK AT THE TENNESSEE EXPERIENCE

As colleges make more self-conscious efforts to improve their effectiveness, interest is increasing in surveying employers to gather their opinions and suggestions concerning the preparation of graduates. During the 1989-90 academic year, with grant support from the Fund for the Improvement of Postsecondary Education (FIPSE), faculty at the University of Tennessee, Knoxville formed a consortium of seven two-year and four-year colleges and universities for the purpose of developing a mail survey for employers of graduates. This survey methodology was pilot-tested that year, and several shortcomings were noted. The employer questionnaire and a companion instrument for alumni were modified, and two more pilot studies were performed during the 1990-91 and 1991-92 academic years. While the initial trial of the survey took place on five campuses, funding constraints limited the second pilot to two of the institutions and the third to only one, The University of Tennessee, Knoxville.

The purpose of this paper is to describe the experience of the one institution that was able to pilot test this methodology in all three years. It provides a critique both of the revised questionnaires and of the modifications made in administration procedures. The result is a cost-effective survey methodology that can be used by two- and four-year institutions to assess employer satisfaction with graduates.

LITERATURE REVIEW

This review of related literature investigates the use of employer surveys in both two-year and four-year institutions. Studies are examined for their perspectives on survey methodology and attendant response rates. The review of survey methods is guided by several questions. Will employers be asked questions about individual graduates or about
graduates in general? What method of questioning will be used -- mail survey, telephone interview, or face-to-face interview? What kind of follow-up will be conducted?

**Experience of two-year institutions**

In keeping with the emphasis in their missions on job preparation, two-year institutions have accumulated more experience in surveying employers than four-year institutions. In fact, two-year colleges and institutes have experimented with virtually every employer survey technique available.

At least two institutions report having used what might be called a "broadside" approach to surveying -- sending questionnaires to employers only, without identifying any particular graduates. A survey of community college employers in New York yielded a 47 percent response rate when placement records were used to obtain the names of the employers (Francis & Jones, 1976). St. Louis Community College at Forest Park identified employers from responses to an alumni survey (Kapraun & Nienkamp, 1985), a technique that yielded an employer response rate of 39 percent.

In an attempt to obtain more specific information about program quality, many two-year colleges have linked their surveys of employers to named graduates. This approach necessitates obtaining the graduate's permission to question the employer, and the additional step lowers generalizability because those who grant permission may differ in important ways from those who do not. Institutions have used various techniques to resolve these problems.

Some colleges have obtained permission as part of a mailed alumni survey (Gell & Jones, 1975; Montemayor, Hardin, & Reed, 1986; Head, 1990; Gell, Jones, & Lowe, 1976). This technique has yielded permission rates varying from 34 to 40 percent. (One institution did obtain a permission rate of 71 percent using the technique, but this was much higher than its usual rate (Gell, Jones, & Lowe, 1976), and the authors were unable to provide an explanation for the difference.)
In another approach, Lorain County Community College mailed postcards to alumni explaining the purpose of the survey and asking for permission to survey the graduate's employer (Isbell & Jonas, 1976). This method yielded a 46 percent rate of return. Finally, one institution surveyed its alumni first, then sent a letter requesting the graduate’s permission to collect information from his/her employer (University of Hawaii, 1977). This technique yielded a permission rate of 29 percent -- lowest of the methods in current use.

A seemingly more productive approach involves the use of telephone interviews with former students. Using this method, Johnson County Community College obtained an 80 percent permission rate (Conklin, 1990), highest of all techniques described in the current literature.

Regardless of the method used to obtain permission, the response rate on the part of employers has been relatively high (Head, 1990; Case, 1986; Conklin, 1990; Maryland State Board for Community Colleges, 1986). Employers respond at the rate of 60 to 90 percent when asked for their opinions of specific employees by institutions of higher education. Response rates are highest when the survey mailing includes a copy of the graduate’s signed statement granting permission for the employer to respond (Head, 1990).

The literature concerning methods employed by two-year institutions indicates that "broadside" surveys of employers of graduates elicit response rates of 39 to 47 percent, while surveys that identify specific employees attract higher rates of 60 to 90 percent. However, surveys that ask about a specific employee require that person's permission. This additional step reduces the employer pool because only 34 to 48 percent of the alumni typically give their permission. The alumni permission rate can be increased if contact is made by telephone rather than by mail, but the expense of a telephone interview may force those who use this technique to ask fewer questions of alumni than they would include in a mailed questionnaire.
Experience of four-year institutions.

Four-year colleges and universities have much less experience with employer surveys than do two-year institutions, and, in general, their techniques have yielded lower response rates. For instance, four-year institutions identifying employers through placement records have obtained response rates approximating 18 percent (Knoblauch & German, 1989; Atkins & Kent, 1988). By seeking permission to contact employers through a telephone interview with alumni, Harper College obtained permission from 72 percent of its graduates and a response from 78 percent of their employers (Lucas, 1984).

Employer responses

Surveys of employers generally produce positive findings, regardless of the type of institution or the survey methodology applied. Employers rate most employee attributes as important and most specified employees as good or very good. In fact, employer responses have little variance and appear to be the result of a response set rather than carefully considered rankings.

Summary and Research Questions

The literature suggests that the most effective way to obtain alumni permission for employer contact is through a telephone survey, and the least effective way is through a second mailing after an initial response to an alumni survey. In addition, published studies reveal that high percentages of employers respond to college-initiated surveys, but their generally positive employee ratings show little variance. However, these techniques have not been systematically compared by applying different instruments and methods to the same population.

This study undertook that systematic analysis. Over the space of three years, three different methods were used to survey the same population -- graduates of a single four-year institution. The investigators sought to determine the best methodology for gathering
employer opinion -- a valuable source of assessment information for institutions of higher education.

FIRST ADMINISTRATION

Methods

The first survey administration took place during the 1989-90 academic year. The subjects for this and two subsequent studies, were graduates of the University of Tennessee, Knoxville and their employers. For the initial study, alumni of the class of 1988 were contacted by mail and invited to participate.

The two questionnaires involved were developed at the University of Tennessee, Knoxville (UTK). The instrument for alumni had been used twice before, while the employer survey was developed exclusively for this study.\(^1\)

As a part of its performance funding program, the Tennessee Higher Education Commission requires each public institution of higher learning to survey its alumni every other year using a common survey. The 1989-90 academic year was one in which this Alumni Survey was required.

The basic methodology used in this and all other mail surveys conducted at UTK included the following steps. A mailing list of alumni (in this case, the entire 1988 graduating class) was generated, and the survey instrument, along with a letter of explanation and a stamped return envelope, was sent to each person listed. If the alumnus had not responded to the survey after 10 days, a reminder post card was sent. Finally, 20 days after the initial mailing, a second letter and questionnaire were sent to all individuals who still had not responded. This methodology has generally resulted in response rates of between 50 and 60 percent for UTK alumni.

\(^1\) Copies of these two survey instruments may be obtained by writing the authors at the Center for Assessment Research and Development, University of Tennessee, Knoxville.
Given the constraints of Tennessee's performance funding requirements, UTK could not alter the language of the survey instrument. Thus the request for permission to contact employers had to be separated from the Alumni Survey process. Immediately following receipt of the Alumni Survey, a second letter was sent to all respondents asking them for permission to contact their employers and for answers to several questions about their employment. Subsequently, employers of those alumni who granted permission were sent the Employer Survey. The same methodology for follow-up was used for both the Employer and Alumni Surveys.

Results

Table 1 records the various response rates for the first administration of the surveys for alumni and their employers. The response to the Alumni Survey was at a rate typical for UTK, and it was found that most of the alumni were employed full time. However, very few of the alumni (21 percent) responded in the affirmative to the second letter asking for permission to contact their employers.

The employer response rate was very high (93%). However, there was little variance among the responses of any given employer. The core of the Employer Survey

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents to the Alumni Survey</td>
<td>1563</td>
<td>53%</td>
</tr>
<tr>
<td>Respondents Employed Full Time</td>
<td>1217</td>
<td>78%</td>
</tr>
<tr>
<td>Full Time Employed Who Gave Permission</td>
<td>255</td>
<td>21%</td>
</tr>
<tr>
<td>Employers Who Responded</td>
<td>236</td>
<td>93%</td>
</tr>
</tbody>
</table>
was a set of 42 items that asked employers to rate on a 3-point scale, ranging from not important to very important, the importance of 21 characteristics of the graduate's job and then to rate on a 4-point scale, ranging from poor to excellent, the performance of the alumnus on these same characteristics. Some examples of these 21 characteristics are planning projects, speaking effectively, writing effectively, being dependable and on time, and using computers. These items were common to all three employer instruments. Of the 9,912 (236 respondents X 42 items) possible responses to these items, 6,623 or 67 percent of them were 3's (very important in terms of importance to the job and good in terms of performance). A response rate that is so uniformly positive is of little value to institutional decision-makers.

Discussion

Response rates for both the Alumni Survey and the Employer Survey were acceptably high using this first administration methodology. However, too few alumni gave permission to contact their employers when they were contacted by means of a second letter. Moreover, those employers who responded to the survey designed for them tended to rate all identified characteristics as very important to the graduate's job and the alumnus as good in all of these areas. It was concluded that if the information from the employer survey was to be useful to college and university personnel, revisions in the methodology were required.

SECOND ADMINISTRATION

Methods

The second study was undertaken during the 1990-91 academic year. The subjects for this second survey also consisted of UTK alumni and their employers. However,
instead of surveying an entire graduating class, a representative sample of classes separated by five-year intervals was selected.

1990-91 was not a year during which the common alumni survey was required for the State's performance funding program. The researchers, therefore, revised the Alumni Survey instrument to include additional questions about the graduate's job. The most important revision consisted of asking alumni to rate their performance and the degree to which their education had added to each of the 21 job characteristics previously listed in the Employer Survey instrument. This change was undertaken to permit comparison of answers given by alumni and by employers on the 21 characteristics.

Another important revision involved adding to the Alumni Survey instrument the request for permission to contact the employer. By asking for permission on the primary survey, rather than in a secondary mailing, the researchers hoped to improve the permission rate.2

The minor changes made in the Employer Survey instrument during the second year involved eliminating a few items that were no longer of interest. Both instruments were mailed using the procedure described previously, with the Employer Survey mailing following the Alumni mailing by approximately a month. Thus the methods in the first two administrations studied differed only in that the second questionnaire for alumni contained more job-related items, and a revised procedure for obtaining alumni permission was employed.

Results

Table 2 contains the response rates for the second survey method. These rates are very similar to those obtained using the first method except for the permission rate. Twice as many alumni gave permission to contact their employer. Eliminating the second mailing

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2 A copy of this survey instrument may be obtained by contacting the authors at the Center for Assessment Research and Development, University of Tennessee, Knoxville.
Table 2: Response rates for the second administration

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents to the Alumni Survey</td>
<td>540</td>
<td>54%</td>
</tr>
<tr>
<td>Respondents Employed Full Time</td>
<td>410</td>
<td>76%</td>
</tr>
<tr>
<td>Full Time Employed Who Gave Permission</td>
<td>172</td>
<td>42%</td>
</tr>
<tr>
<td>Employers Who Responded</td>
<td>162</td>
<td>94%</td>
</tr>
</tbody>
</table>

apparently improved substantially the percentage of alumni who were willing to give permission to contact their employer.

Once again, the response rate for employers was high -- 94 percent, or almost exactly the same as that obtained in the first administration. In addition, employers' responses continued to show little individual variance. Of the potential 8,604 responses to the common items, 4,185 or 62 percent, were assigned the rating of 3 (very important to the graduate's job or good performance by the alumnus). Lack of response variance was still a problem with the employer survey.

Discussion

Changing the format of the Alumni Survey instrument and the methodology for obtaining permission to contact the graduate's employer did result in an improved alumni permission rate. The Employer Survey instrument, however, continued to evidence the lack of response variance noted in the first administration. Apparently, the lack of employer variance was not the result of a low permission rate, which suggested that only satisfied employees had granted permission, but rather was due to something inherent in the questionnaire design. The investigators determined that the employer questionnaire should be modified in a way that might increase response variance.
THIRD ADMINISTRATION

Methods

The third survey method was tested during the 1991-92 academic year. Since this was again a year when the common Alumni Survey was required for the performance funding program, the subjects included constituted a full graduating class -- in this case the class of 1989-90. Subsequently, the Employer Survey was sent to those who granted permission for contact with their employers.

The alumni questionnaire was the same as that used in the first year of this study, but the employer instrument was modified in an attempt to increase the variance in employer responses. The response format for the section including the 21 job characteristics described above was modified to eliminate the Likert scales used in previous surveys. In place of those scales, the researchers used a forced-choice format.

Twenty of the characteristics were divided into two groups. One characteristic, which seemed duplicative of another, was eliminated to make it easier to complete the instrument. The employer was instructed to divide 100 points between the 10 characteristics in each group such that the point assignment would represent the relative importance of that characteristic to the graduate's job. A second 100 points was to be divided on the basis of the relative performance of the alumnus on that characteristic. In this way, the employer was forced to choose among the characteristics as opposed to saying all were important.3

The methodology for administering the Alumni and Employer Surveys was the same as that reported above, with the exception that a different strategy for gaining alumni permission was used. Since permission could not be requested on the original alumni

3 A copy of this survey instrument may be obtained by contacting the authors at the Center for Assessment Research and Development, University of Tennessee, Knoxville.
instrument, as occurred in the second phase of this study, the researchers decided to use a telephone contact process for gaining permission.

Of those responding to the Alumni Survey, the first 721 full-time employed respondents were chosen for contact by telephone. Student interviewers called these alumni over a four-week period and asked them for permission to contact their employers. If he or she agreed, the graduate was asked for the employer's name and address, and then was asked the employment-related questions that had been on the second alumni instrument but not the first. Thus, the investigators made two changes in the methodology for this survey. They changed the response format of the Employer Survey, and they used a telephone contact for gaining the graduate's permission to contact that individual's employer.

Results

Table 3 presents the response rates for the third survey administration method. The alumni response rate is, once again, typical of that obtained via mailed surveys at UTK; and the number of alumni working full time is also typical. The permission rate secured through phone contact is similar to that obtained through direct mail in the second survey, but higher than with the secondary mail contact employed in the first study. Nevertheless, this rate is dependent upon how it is calculated.

The permission rate may be calculated in one of three ways. First, the rate could be the percentage of those who were actually reached by phone. In other words, of those people who answered the phone and talked with the caller, how many responded in the affirmative? In the time available for the permission phase, 276 alumni were contacted, and 220 or 80 percent of them granted the university permission to contact their employers. This calculation, however, is not directly comparable to that computed for mailed surveys because it does not take into consideration those individuals who could not be contacted.
Table 3: Response rates for the third administration

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents to the Alumni Survey</td>
<td>1253</td>
<td>51%</td>
</tr>
<tr>
<td>Respondents Employed Full Time</td>
<td>910</td>
<td>73%</td>
</tr>
<tr>
<td>Full Time Employed Who Gave Permission</td>
<td>220</td>
<td>45%</td>
</tr>
<tr>
<td>Employers Who Responded</td>
<td>176</td>
<td>80%</td>
</tr>
</tbody>
</table>

due to wrong numbers or refusal by parents and others to give the researchers the graduate's current phone number.

When these individuals are included in the calculation, the response rate drops to 45 percent. This still may not be directly comparable, though, because many alumni never answered the phone. When these individuals are added to the calculations, the response rate drops to 31 percent.

This study used the second of these three response rate calculations because it represents the best case scenario if the researchers have all the time necessary to contact the alumni. In any case, the permission rate for this method of phone contact is at best no better than that obtained by the single mailing method and at worst is just slightly better than that resulting from the double-mailing method.

The employer portion of this third administration revealed a decrease in response rate. The response rate dropped from 93% in previous administrations to 80% in this administration. While a significant decrease, this is still an excellent response rate.

The forced-choice method apparently affected the response rate because of a perceived lack of time to complete the questionnaire. A small but significant number of respondents wrote to complain about the technique. One employer said it took him 15 minutes to fill out the form and it would have taken 15 more minutes to complete it
properly. He went on to say that he and others do not have 30 minutes to participate in this sort of endeavor.

There was greater variance among employer responses in this third administration. The most prevalent response to the common items was a 10, which is exactly the number of points that one would give if they were evenly dividing the points among the items. Of the 7,040 possible responses (176 respondents times 40 questions), 40% were 10s. This percentage represents a decline of more than 20 points in the proportion of common responses assigned by employers in previous administrations. The forced choice method apparently reduced the proportion of common response and thus increased the variance within a given set of ratings.

Discussion

The changes made for this third administration of the surveys made little difference in the permission rate for alumni but made a big difference in variance among employer responses. The permission rate obtained by telephoning alumni was very similar to that obtained through a single mailing technique. Contacting alumni by phone does not seem to improve the permission rate, at least for University of Tennessee graduates, because it is so difficult to get through to them. Requiring employers to distribute points across items instead of using the traditional Likert scale does seem to improve the response variance, but this improvement apparently reduces the employer response rate. Whether or not the increased variance is worth the reduction in responses is a question that must be answered by each institution prior to undertaking a survey of employers.

GENERAL DISCUSSION

The results of this trial of three methods for surveying alumni and their employers demonstrate that obtaining alumni permission to contact their employers can be a serious
problem in employer surveys. Our two-letter procedure drew a very low permission rate, and substituting phone contact for the second letter did not produce substantial improvement. Employers tended to respond with little variance unless forced to do so by the response format, but a forced-choice format may produce a backlash that will reduce the employers' response rate.

This research, although the only study to systematically test various methodologies, produced the same results as those reported previously in individual studies. Those institutions that have used the two-letter approach have obtained a very low permission rate (University of Hawaii, 1977), while others who contacted their alumni only once obtained rates between 30 and 46 percent (Gell & Jones, 1975; Head, 1990; Isbell & Jonas, 1976). Studies using phone contact have reported a higher response rate -- usually around 80 percent (Conklin, 1990; Lucas, 1984), but this may well be the result of calculating the rate on the basis of those who were actually contacted.

This research suggests that the most cost-effective method for obtaining graduates permission to contact their employers is as a part of an alumni survey or other direct mailing. Phone contact could improve the chances of obtaining permission, but only if the institution has accurate phone numbers and resources for making follow-up phone calls. Employers will tend to respond to their survey with a response set if the methodology allows it. Therefore, researchers should use a forced-choice format when asking about job skills among which they want employers to discriminate.

Employers' opinions about an institution's graduates can be valuable information for improving college and university programs and services. The information can assist faculty as they contemplate needed changes, but to be of most use, the information must be current and must provide for some discrimination among the factors being assessed. For this to occur, institutional researchers must carefully select the survey methodology. This research suggests that no method is without flaws, but that a methodology that includes two mailed surveys, gaining permission from alumni directly on their survey instrument, and
forcing employers by the instrument format to differentiate between job characteristics will provide useful information for the improvement of higher education.
REFERENCES


