E-mail Versus Mail Surveys: A Comparative Study

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Abstract

The development and evaluation of new research methodologies for conducting accounting research is a continuous process. The purpose of this study is to evaluate the strengths and weaknesses of e-mail survey data collection techniques as compared to conventional mail survey research for conducting accounting research. This comparison is highlighted by the authors' experience gained from an a survey of accounting academics that was conducted using both the traditional mail and e-mail mediums. In addition, the authors also present a generalized discussion of advantages and disadvantages of e-mail versus mail surveys. Results from this study suggest that e-mail is an effective and viable means of performing accounting research.

Introduction

The rapid development of electronic media, computer technology, and information processing capabilities in general have permitted the evolution of new and innovative survey-related data collection techniques. During the past five years, these technological enhancements have made it possible for surveys to be conducted by researchers through e-mail. This paper examines the strengths and weaknesses of e-mail survey data collection techniques as compared to traditional mail survey research. This comparison is then capsulated by a comparison of e-mail versus mail response rates resulting from a survey that attempted to ascertain the effects of computer technology on accounting academicians.

Background And Review Of Relevant Literature

Research using surveys is often useful when underlying research questions pertain to

Readers with comments or questions are encouraged to contact the authors via e-mail.

social, behavioral, cognitive, psychological, or economic variables that relate to facts, opinions, beliefs, and/or attitudes and behavior of a target population. Cook and Campbell (1979), Sproull (1986), and Kiesler and Sproull (1986), among others, note that traditional survey research collection methods have predominately utilized mail questionnaires or personal interviews with target subjects. In addition, sales and marketing professionals also utilize telephone questionnaires when conducting research. Schuldt and Totten (1994) also note that technological changes now permit the use of CATI (computer-assisted telephone interviewing) and CAPI (computer-assisted personal interviewing). Oppermann (1995) also mentions the advantages versus disadvantages of using fax surveys to collect data for professional or social science research.

Greenburg (1997) develops a case for increased use of the Internet. More specifically, he notes the added use of the Internet for activities such as new job searches, direct marketing and advertising, electronic shopping and commerce, as well as corporate technology en-

hancement. Because of the rapid evolution of these electronic media and information processing capabilities, new survey-related data collection techniques have also evolved that may assist professional as well as academic researchers.

A very promising contemporary development has resulted from the rapid growth of Internet use. Consequently, researchers now have the capability of conducting surveys on the Internet using electronic mail (hereafter referred to as e-mail). An e-mail survey is a survey that is created on the computer and transmitted or downloaded to one or many specifically selected subjects either individually or simultaneously by e-mail. Subjects, in turn, are then able to complete the e-mail survey online (or off-line) and then return the survey to the researcher using the same e-mail medium.

Bertot and McClure (1996), Chisholm (1995), and Oppermann (1995) emphasize that marketing and behavioral science researchers and professionals are already increasingly using e-mail survey research to generate and collect meaningful data. In the opinion of the authors, use of the e-mail medium for survey research in academia is still relatively rare, however. Anecdotal evidence indicates that the majority of e-mail surveys are presently conducted by market research professionals.

The authors are unaware of any published academic study in accounting that has utilized an e-mail survey instrument to collect data. Therefore, the purpose of this paper is to study the strengths and weaknesses of e-mail survey data collection techniques as compared to conventional mail survey research. This comparison is highlighted by the authors' experience gained from a survey that was conducted using both the traditional mail and e-mail mediums.

The remainder of this paper is organized as follows. The next section presents the authors' pilot survey that purposed to compare the efficiency and effectiveness of mail versus e-mail surveys. This pilot research will be used as

a reference point for the subsequent generalized discussion of advantages and disadvantages of e-mail versus mail surveys.

Comparison Of E-mail Versus Mail Surveys: Results Of The Authors' Pilot Comparison Study

Recently, the authors conducted an e-mail and mail survey of accounting professors in the United States in order to assess the general effectiveness of an e-mail survey as compared with a conventional mail survey. The purpose of the survey itself was to ascertain generalized opinions of this academic group with respect to the effect of computer technology on accounting academicians. Accounting professors were chosen as the subject group of the survey for a number of reasons. First, there has been little research with respect to the impact of computerization on accounting professors. Second, this diverse professorial group could possibly provide some insights into the possible effect of computer technology on all academics.

The e-mail survey medium for the accounting professor target group is deemed to be appropriate since survey research by Mahoney and Roush (1997) indicates that the majority of accountants now use e-mail for an average of at least two hours a week. The authors assume that most accounting professors would use e-mail even more than the management accountants surveyed since it is expected that all professors have at least reasonable access to e-mail, even in the unlikely scenario where they do not have a terminal at their desk. In addition, the accounting professors in the survey have assigned e-mail addresses, which gives further evidence that the respective universities reasonably support such Internet activity.

To provide a meaningful comparison between mail and e-mail survey instruments, the authors developed a simple, one-page survey and made a dedicated effort to make both, e-mail and mail surveys, as similar as possible (see Appendices A and B). The one-page questionnaires

contained three different question or response formats: 1) a three-point Likert-scale continuum where a response of "1" indicated **Not at All**, a response of "2" indicated **Moderately**, and a response of "3" indicated **Extensively**, 2) open-ended questions, and 3) a listing of types of processing (fill-in-the-blank) that had to be marked.

The two samples (e-mail and mail) were obtained from John Hasselback's *1996 Accounting Faculty Directory*. For both samples, 200 persons were selected from the population using a systematic random sample of approximately every fiftieth person. It took approximately five passes through the population to select the two samples.

In the first sample that used e-mail, 200 persons were identified, and due to disk quota limits, the survey was transmitted in three separate batches by e-mail. Returned e-mail to the researcher indicated there were 38 bad e-mail addresses. Efforts to correct the bad e-mail addresses, by checking for accuracy and surfing the World Wide Web for correct addresses, resulted in a fourth transmittal of 33 surveys. Therefore, in this sample five participants were lost due to the inability to locate e-mail addresses for them.

The second sample used conventional mail. Surveys were mailed to 200 different professors that were selected. Those who received the mail survey also were provided a postage-paid return envelope as an incentive to participate in the survey. In addition, none of the mail surveys were returned to the sender for having a bad mail address.

To provide meaningful results, the authors made a concerted effort to release both surveys in close proximity of time (February 4 and February 8). For this research study, respondents from both samples were allowed two months to respond to the two surveys. Not surprisingly, most of the survey replies occurred in the first month after the start of the surveys.

Discussion Of Results

After conducting this experiment, the following observations are offered. First, both surveys had a favorable return rate (more than 25%). Out of the 195 surveys transmitted by e-mail, there were 62 respondents (31.8%). Of the 62 respondents, there were 4 surveys received with no responses. This gave us 58 usable e-mail surveys with responses (29.7%). In comparison, out of the 200 surveys transmitted by conventional mail, there were 79 respondents (39.5%) and all were usable. This suggests that either data gathering technique would be acceptable for conducting accounting research.

Second, the conventional mail survey had approximately a ten percent higher return rate. Oppermann (1995) reported that response rates of e-mail surveys have ranged from 19% to 73% and indicated that e-mail surveys generally have **lower** response rates than mail surveys. The present study supports the results of Oppermann (1995) by having a response rate within the 19% to 73% range and an e-mail survey with a lower response rate than a similar mail survey. Rupert and Fischer (1995) noted that low response rates in accounting research are of particular concern in surveys if the researcher attempts to garnish confidential information. Based upon an acceptable response rate (more than 25%), the present study seems to indicate that the participants probably did not find the questions in the surveys to be "confidential" information and is further supported by the fact that the present study was strictly voluntary.

There may also be other explanations for the differences in response rates for the e-mail and mail surveys. One explanation for this occurrence may be that the participants are more familiar with conventional mail surveys than e-mail surveys. Another is that a conventional mail survey is physical and may serve as a reminder, while an e-mail survey is virtual and can be easily deleted with one character stroke. Overall, the authors conclude that the response rates for both surveys are good.

Table 1

A third overall observation regarding this study involves costs and time. For the e-mail survey there were no costs, while the mail survey incurred \$107.28 for survey copy costs, envelopes, return envelopes, postage, and return postage. In addition, the time required to transmit the e-mail surveys, less than a minute, was far superior to the mail survey which required approximately three hours to fold and stuff envelopes and take them to the post office. As an added bonus of using e-mail to transmit surveys, the authors received back, in some cases instantly, any survey with a bad e-mail address. None of the mail surveys were returned, implying that the postal service must have forwarded any incorrect addresses to their correct destination. In light of the costs and time utilized, the authors believe that the e-mail survey was far superior to the mail survey.

Another observation involves the time frame used in this study. Both surveys in this study allowed participants two months to respond. Based on the results, the majority of the e-mail responses were received within 0 to 10 days. (One respondent transmitted their reply within minutes of receiving the survey.) For the mail survey, the majority of replies were received 6 to 23 days after the release date. Therefore, the e-mail survey provided a faster response time frame than the mail medium. In addition, many subjects commented how much easier it was for them to make a timely response via e-mail. E-mail subjects were also able to query us individually when they had specific questions or comments about the survey. (Some were concerned that the survey would involve a later solicitation for a product purchase or was from some political action group trying to identify their position on political issues. Therefore, an extremely clear statement of purpose must be made at the beginning of any e-mail survey.)

Control of the survey is another issue that was observed in the study. The authors were able to control the exact time of release for the e-mail survey and participants received them in a matter of minutes. In comparison, the mail

surveys were delivered to the U.S. Postal Service, and participants received their surveys varying days later. Therefore, better release date control can be achieved with e-mail surveys than mail surveys that may improve overall response rates.

Another specific observation from this research is the importance of length for surveys. While the authors intentionally made both surveys simple (one type-written page), they found that it is very important to clearly label the length of the e-mail survey, as well as the number of questions, as part of the top introduction or header portion of the survey. Since e-mail participants can only initially see the header portion of the messages with no indication of number of pages, some may believe that the survey is longer than it is in reality, thus causing many potential subjects to delete the survey before reading further. With mail surveys, the participants can physically examine the length of the survey readily. The authors conclude that care must be taken to explain the purpose and length of the survey succinctly to e-mail participants.

Finally, the authors observe that care must be taken with regards to question or response types when preparing an e-mail survey. Since the authors believe that e-mail research is limited by participants ability to respond when compared to mail surveys, a secondary purpose of this research is to examine e-mail users ability to respond to three different question or response types: Likert-scale with a space provided for an answer, open-ended questions, and fill-in-the-blank type responses. The e-mail respondents had difficulty with the Likert-scale responses. Some did not indicate their answers in the space provided, while others placed an "X" along the Likert-scale continuum. The open-ended questions posed no difficulty. Finally, the fill-in-the-blank responses were somewhat successful with almost all participants able to indicate their responses. In comparison, the respondents to the mail surveys had no problems responding to all three questions or response types. Overall, the authors realize that due to different e-mail sys-

tem capabilities, researchers currently using e-mail surveys must be careful in their selection of question or response types. (In this study, some e-mail surveys were returned with no responses and additional follow up had to be pursued.) In the future, the ability to answer these three question or response types will probably not be an issue that a researcher will be concerned with.

Although the return rate was higher for conventional mail surveys, the key advantages reinforced by this experiment, specifically cost, time and control, far exceed the disadvantages discussed. Therefore, e-mail surveys are an effective and meaningful way of conducting accounting research.

Advantages Of E-mail Surveys Compared With Traditional Mail Surveys

Based on the authors' pilot e-mail versus mail survey comparison study above, several advantages of e-mail surveys emerged. The following section discusses some of these key advantages.

Survey Cost

An increasingly important research goal is keeping research costs low, given the current funding crisis that most universities must grapple with. Kiesler and Sproull (1986) emphasize the obvious: costs can be prohibitive with conventional mail surveys. Although the authors' pilot comparison study purposely used a relatively simplistic questionnaire, the cost of the mail survey was still significant. The survey must be developed, reviewed and critiqued by colleagues, printed, and finally mailed to participants. In addition, most surveys, including the authors' pilot study above, provide a prepaid envelope to return the survey to the researcher. Overall, the costs to print, mail, and return a survey can be very expensive. Many medium to large surveys cost thousands of dollars for multiple mailings, which may prohibit many worthwhile studies from ever progressing past the initial research idea and planning stages. Consequently, many

researchers in the behavioral sciences find it necessary to obtain grants or other supplemental research funding in order to render traditional mail survey research feasible.

Since most universities provide faculty with free access to the Internet in order to conduct research, however, an e-mail survey can be developed electronically on the computer, reviewed and critiqued by colleagues, transmitted to participants, and returned to the researcher without any printing or postage costs. Chisholm (1995) concurs and notes that surveys by e-mail radically change the overall economics of survey research. Also worth noting is Chisholm's observation of the almost proportional relationship that traditional mail survey research costs bear to the number of respondents. In contrast, the cost of conducting an e-mail survey is almost independent of the number of respondents, except for the time necessary to key in subject e-mail addresses. Consequently, the primary advantage of e-mail surveys that was experienced by the authors in their pilot comparison study is that the e-mail medium eliminated almost all of the cash outflows usually associated with traditional mail surveys. Use of e-mail also removed any cost restraint that would have made the survey impractical, and also drastically increasing the pool of subjects.

Response Time

The second advantage that was observable in the authors' pilot comparison study relates to response time savings. Oppermann (1995) argues that the potentially fast response times of e-mail surveys represent the most important advantage of using them. With conventional mail surveys a researcher faces a built-in time lag. The survey must first be mailed to a participant, which will take normally between two and five days. An even worse time lag often occurs after the participant receives the questionnaire, because it is often set aside if it is not immediately discarded. Depending on a participant's workload, it may be a month or more before a completed survey is actually returned.

Finally, the subject responds to the survey and returns it via mail, which simply adds to this overall time lag. A typical scenario would involve a turnaround of about one to three months for most mail surveys.

The authors, on the other hand, were able to transmit their e-mail survey to participants within minutes anywhere in the world. Sproull (1986) notes that e-mail messages are sent at the convenience of the sender and may be read at the convenience of the receiver. After completion, the return to the authors was just as timely. One survey was transmitted to a participant, completed, and returned in minutes.

Survey Control

The researcher may not control the date that a conventional mail survey is delivered to a participant. In general, the researcher is at the mercy of the U. S. Postal Service with respect to survey delivery. Many experts believe that higher response rates can be attained if surveys are delivered on specific week days, e.g., Tuesday rather than Monday or Friday, and during specific time periods, e.g., early December rather than the Christmas holiday period. With e-mail surveys being almost instantaneously dispatched, a researcher can somewhat control time and period of delivery. Therefore, increased control potentially gives the researcher the ability to increase response rates. The authors were able to send their survey to the recipient group of professors during a time period well before final exams which was expected to generally be convenient.

Ease Of Survey Follow-Up And Response Efforts

One key advantage that the authors experienced with their pilot e-mail survey was the ease of follow-up when surveys were not returned in a timely manner. Chisholm (1995) emphasizes that e-mail surveys eliminate the familiar difficulties of conventional surveys. The researcher must no longer make follow-up ef-

forts via telephone, fax, or additional mail questionnaires. In addition, the researcher is able to minimize the eyestrain caused by having to decipher respondents' handwriting or transcribing their spoken words, or manually keying in answers. An e-mail survey may be completed from start to finish by a lone researcher who has a very modest research budget and few, if any, research assistants. Oppermann (1995) notes further that second and third mailings are also relatively simplistic since persons responding to the initial survey may be easily identified and documented from the e-mail header addresses.

Survey respondents also benefit from the ease of an e-mail survey. They no longer must tediously fill out questionnaires by hand or be interrupted by telephone interviewers. Subjects may also respond to the e-mail survey at their own convenience, and may ask questions of the researchers themselves via e-mail if they do not understand the wording of particular survey questions.

Environmental Correctness

Schuldt and Totten (1994) also mention that e-mail surveys are environmentally correct because they do not use any of our scarce natural resources. Typical mail surveys involve a tremendous amount of paper and other products that use precious environmental resources. The initial sample relating to the pilot survey used in this present study involved 400 addresses. When one considers the survey document itself, the envelopes, and any additional mailings, environmental costs may quickly become significant. This will become an even more important issue as we proceed towards a cashless and paperless society in the 21st Century.

Disadvantages Of E-mail Surveys Compared With Traditional Mail Surveys

The advantages of e-mail survey research are important and likely will save the researcher significant costs and time. The disadvantages of this particular research method

should not be overlooked, however. In addition, Sproull (1986) emphasizes that the feasibility of an e-mail survey also needs to be carefully considered before the project is implemented. As an example, the willingness of e-mail users to respond to e-mail surveys needs to be assessed. In addition, the comparability of data collected via e-mail surveys needs to be compared with data collected by more conventional means. The following sections address additional potentially relevant disadvantages and considerations that researchers should be aware of before utilizing the e-mail medium to collect survey data for behavioral research.

Intrusiveness

Most participants do not feel that a mail survey is intrusive. Generally, many mail survey recipients have an understanding that this is an accepted means of conducting research. Recipients that believe that a survey is intrusive or otherwise bothersome simply throw them in the trash or otherwise disregard the survey altogether.

A big disadvantage of e-mail surveys that the authors encountered in their comparative pilot study was intrusiveness. Many survey recipients perceive e-mail surveys as unsolicited or junk e-mail. Others believe that e-mail surveys are an invasion of a private communication medium. Based on either view, the recipient feels violated and quickly decides with one keystroke to not participate. Although the issue of intrusiveness is a current obstacle that researchers must overcome, the problem likely will subside as the newness of the electronic mail medium dissipates.

Computer System Limitations

Computer systems are not involved with delivering and responding to conventional mail surveys, so computer system limitations are not generally a problem. With e-mail surveys however, computer systems are at the heart of performing this type of research. Oppermann

(1995) notes that older computers and software do not feature the response function and, therefore, seriously impede the use of e-mail questionnaires. In addition, one of the key e-mail survey computer-related issues is that the participant's computer system may be at maximum capacity with users and thus wrongly return the survey as undeliverable to the researcher without an indication of the real problem, inability to deliver the e-mail survey at that moment.

The authors found that a participant's computer system may return an e-mail survey as undeliverable when the participant's e-mail account has fully utilized its available computer space. An additional potential problem involving computer systems is that the e-mail reader of the participant may be different from the e-mail system used to transmit the e-mail survey, making it hard or impossible for the participant to respond.

It is doubtful that these obstacles will persist in the near future. Presently, the obstacle of user saturation can usually be overcome by programming one's computer to transmit surveys in the early morning hours when the Internet is at its lowest usage level and most computer systems are easily accessible. As individuals become more e-mail conscious, the obstacle of e-mail computer space will be overcome as more people get in the habit of checking their e-mail accounts on a regular basis while also making sure that they have adequate computer space to receive e-mail. Finally, the last obstacle of dissimilar e-mail readers versus transmitters will be mitigated when e-mail becomes more standardized in the future and e-mail systems can more easily communicate with each other.

Problem Of Incorrect Addresses

Most addresses can be easily obtained for traditional mail surveys by referring to databases or phone books, or in some cases, the postal service will forward mail. In contrast, a current disadvantage of e-mail survey research is the lack of e-mail addresses or databases con-

taining such addresses of participants. This obstacle may limit the population that can be sampled or may introduce a sample selection bias for an e-mail survey. In addition, another problem often encountered is that one keystroke mistake in an e-mail address will cause the survey to be returned as undeliverable.

One method used by the authors to mitigate invalid e-mail addresses was to double check all e-mail addresses, and to correct and retransmit them when necessary. A second approach that the authors used in their pilot study to overcome this e-mail address problem was to surf the Internet to obtain additional addresses. Unfortunately, the authors found this to be a very time consuming process that often produced fruitless results.

Ease Of Discard

Oppermann (1995) emphasizes that the potentially quick response time of e-mail surveys are not without their downside: the questionnaires are also easy to delete. With one click of the mouse computer device, a prospective respondent can wipe out the survey and also rid him/herself of any reminder that the survey has not been completed. Although traditional mail surveys also run the risk of being "roundfiled," the mail questionnaire at least has a chance to be whisked into the potential subject's inbox for action at a later, more convenient time. Ease of discard can possibly be overcome by creating e-mail surveys that entice the recipient to respond (e.g., utilization of graphics or color) while maintaining the survey's integrity.

Mandates User-Friendliness

Schuldt and Totten (1994) emphasize that the rigid keying requirements of an e-mail survey make clear and simple directions a necessity. The format and wording of these directions is especially important, because many computer users are still trying to overcome fear and intimidation. Unclear directions make the survey appear to not be user-friendly, which even in-

creases this intimidation factor, often causing subjects to either put off answering the survey or to delete the survey altogether. Inexperience with e-mail and the general fear of computers may constitute a response bias. The problem of user-friendliness can be overcome by making survey instructions clear and succinct and will be further mitigated as recipients regularly complete e-mail surveys.

Privacy And Security Concerns

Mail surveys may be designed so that the researcher is "blind" to who the respondents are. Since e-mail surveys are returned by e-mail and the researcher is cognizant of the e-mail address of the respondent, there may be a response bias involved when using this data collection approach to research. Since e-mail must have a return e-mail address, there is no means readily available today to overcome this problem.

E-mail security is an even greater problem that needs to be addressed. Burton (1995) and Romano (1996) note that Internet security is not only a serious problem, but is also one that will be very difficult to deal with. Heubusch (1997) reports that nearly two-thirds of adults agree that the government needs to scan Internet messages to prevent online fraud. McGee (1996) found that only about 37 percent of the 500 companies she surveyed had written policies regarding e-mail use. If e-mail users become too concerned with security breaches on the Internet, they will refuse to respond to e-mail surveys based on the fear that their responses to possibly sensitive and personal questions may become public.

It is not surprising that many view use of the Internet as a double-edged sword. As hardware and software improve, use of the Internet becomes even more efficient and effective as an e-mail survey and research tool. This increased usage, however, also increases the risk of security breaches and so called "hackers." The problems of privacy and security will be overcome by technological advances that will

allow anonymous responses to e-mail and provide credibility to Internet security. Finally, stiff legal consequences for breaching Internet security will also act as a deterrent.

Conclusion

Based on the results of our pilot accounting survey conducted using both mail and e-mail, the authors believe that the advantages of conducting accounting research using e-mail surveys outweighs the disadvantages encountered. We further assert that e-mail surveys in accounting research are an effective data collection technique that will expand the ability of academics to conduct research in a more cost-effective, timely manner. Accounting researchers using e-mail surveys need to carefully design the survey introduction and header so that respondents know how long the survey is and how many questions it contains. The purpose of the survey also must be communicated in order to calm the suspicions of potential respondents. Demand effects, as with any survey document, need to be minimized. Finally, the release and response periods should be carefully chosen to avoid problems with holidays.

E-mail systems will undoubtedly become more standardized over time, and users will continue to become more comfortable with computers as a whole. These trends, along with the steady progression towards a paperless society, should increase e-mail response rates and enhance e-mail as a useful data collection tool for accounting research in the near future.

Overall, there are a number of key advantages to using e-mail surveys. These include cost effectiveness, minimization of time lag between issuance versus receipt of the surveys, and control of the time when respondents receive the survey. Key disadvantages of e-mail surveys include personal intrusiveness, computer system limitations, address errors, and potential response bias due to a lack of sender/respondent privacy and security.

Finally, although e-mail surveys in accounting research are somewhat less effective than conventional mail surveys with respect to response rate, they are much more cost and time effective than the traditional mail survey technique. The addition of e-mail surveys as a methodological approach for researchers will greatly expand the ability to conduct future accounting research.

Implications For Future Research

Based upon the present study, there are opportunities for additional research. Some respondents in the comment section of the present study noted that the length of the survey made it suspect. Focusing on length, both mail and e-mail surveys could be prepared that are several pages in length and a comparison could be made between the two surveys. Based on the authors' experience with e-mail surveys, it is hypothesized that the longer the survey, the lower the response rate.

Another study that could be performed would involve a comparison e-mail and mail survey study that examines the demographics of those responding to the surveys. The authors are concerned that only those who are computer literate are responding to e-mail surveys. Thus introducing a bias into e-mail survey results.

Finally, a study could be performed that examines, and compares and contrasts other electronic means of conducting survey research. This discussion should include e-mail, fax, webpage, and any other electronic survey collection means.

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Appendix - A

E-mail Survey

Dear Accounting Colleague:

February 4, 1997

You have been selected to participate in a survey involving the effect of computer technology on the accounting profession. Please take a few minutes to answer the following questions. If possible, use REPLY and include the entire contents of this survey. (If your mail package cannot automatically include the contents of this survey, then use the FORWARD function to send this message to ODENA@TTU.EDU)

Please answer the following questions as honestly as possible. A space is provided at the end of the survey for your comments about any of the questions.

1. To what extent would you say that computer technology has changed the way you do your job?

1-----2-----3
 Not at all Moderately Extensively

ANSWER:

ANSWER:

2. Has computer technology affected your classroom teaching delivery?

1-----2-----3
Not at all Moderately Extensively

ANSWER:

3. Has computer technology affected the way in which you conduct your research (i.e., have changes such as the Internet affected the way in which you conduct research)?

1-----2-----3
Not at all Moderately Extensively

ANSWER:

4. Approximately how many hours per day do you spend working on your computer?

ANSWER:

5. How much time is spent sending/receiving e-mail or accessing the Internet?

ANSWER:

6. On what type of processing is the majority of your time spent while on the computer?

E-mail	_____	Presentation	_____
World Wide Web	_____	Statistical software	_____
Word processing	_____	Database	_____
Spreadsheet	_____	Other: (please specify)	_____

Thank you very much for your time and your input. If you would like to receive a copy of the results of this survey, please indicate your e-mail address in the following space:

Comments:

Mail Survey

Dear Accounting Colleague:

February 8, 1997

You have been selected to participate in a survey involving the effect of computer technology on the accounting profession. Please take a few minutes to answer the following questions and return the survey via the enclosed business reply envelope.

Please answer the following questions as honestly as possible. A space is provided at the end of the survey for your comments about any of the questions.

1. To what extent would you say that computer technology has changed the way you do your job?

1-----2-----3
Not at all Moderately Extensively

ANSWER:

2. Has computer technology affected your classroom teaching delivery?

1-----2-----3
Not at all Moderately Extensively

ANSWER:

3. Has computer technology affected the way in which you conduct your research (i.e., have changes such as the Internet affected the way in which you conduct research)?

1-----2-----3
Not at all Moderately Extensively

ANSWER:

4. Approximately how many hours per day do you spend working on your computer?

ANSWER:

5. How much time is spent sending/receiving e-mail or accessing the Internet?

ANSWER:

6. On what type of processing is the majority of your time spent while on the computer?

E-mail	_____	Presentation	_____
World Wide Web	_____	Statistical software	_____
Word processing	_____	Database	_____
Spreadsheet	_____	Other: (please specify)	_____

Thank you very much for your time and your input. If you would like to receive a copy of the results of this survey, please indicate your mailing address in the following space:

Comments: