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Survey Mode Preferences of Business Respondents

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Abstract

Response rates to business surveys are often quite low. Because of the special circumstances and characteristics of business surveys, average responses rates to business surveys may range from lows of 10% to no higher than about 50%. We were interested in understanding whether these low response rates were in part due to the survey mode, and whether business respondents had preferences for different survey modes. In a recent mail survey of businesses in Washington State, we included a question, asking business respondents what their most preferred survey mode was. The response options included the following: mailed survey, telephone survey, web survey, face-to-face survey, and no preference. The sample of 2,626 businesses was stratified by geographic region, business size, and industry. The mail survey was implemented using total design methods (TDM) and three follow-ups to encourage a high response rate. The survey included an internet response option, and also a telephone followup of nonrespondents. The telephone followup attempted to get information from businesses on their survey mode preferences. A total of 1265 businesses responded to the survey, with 1152 responding by mail, and 113 responding on the web. Another 1041 of the nonresponding businesses were contacted by telephone. This paper presents an analysis of the survey mode preferences by business strata. We also compare the results of survey mode preferences for respondents and nonrespondents. The mode preferences of business responding by mail and those responding by web are different, and our paper presents these differences. We discuss the implications of these survey mode preferences for improving response rates to business surveys in the future.

Introduction

Response rates to surveys of businesses are often very low because of the difficulties involved in reaching a respondent, and persuading them to participate in the survey. Paxson (1992) estimated an average 21% response rate for 183 surveys of businesses in the hotel and restaurant industry. However, among business surveys that used Dillman's Total Design Method, average response rates for 26 mail surveys of businesses was 51% (Paxson, et al. 1995). A number of factors are involved in the decision about whether or not to respond to a survey. Willimack, et al (2002) suggest that respondent burden as perceived by the respondent is the main factor, and that data collection mode is one of the considerations taken into account by potential respondents. Dillman (2002) recommends a tailored approach to

designing surveys of businesses respondents, including follow-ups in different survey modes, as a way to improve overall survey response rates.

Willimack, Nichols, & Sudman (2002) suggest that reducing the burden on businesses by offering multiple alternative response modes, and by varying followup procedures can help to improve response rates in business surveys. Dillman's Tailored Design Method advocates a mixed mode approach to business surveys involving multiple contacts by different modes to improve response rates.

Typical survey modes for business surveys include mail, telephone, and now internet surveys. A typical procedure for business surveys that we conduct involve a prior letter mailing to let businesses know that a survey is coming, followed one week later by a mail survey addressed to the owner or manager of the business. The mail survey cover letter may include an invitation to complete the survey on the internet if the respondent chooses. One week later a postcard reminder is mailed to all businesses in the survey. Two weeks later a second mailing, with an invitation to respond on the internet, is sent to all nonresponding businesses. Two weeks later, a telephone followup call is made to all nonresponding businesses to encourage response to the survey, and if possible to complete the survey by telephone. This sequence of survey procedures can often achieve response rates between 40% and 50% for surveys of businesses.

Businesses generally want to be contacted, thus any of the traditional survey modes make sense including telephone, mail, internet, and face-to-face. Below is a table showing the contact rates for a recent survey of business in Washington State. Out of over 2,600 businesses in the sample, almost 44% returned a mail survey questionnaire, and over 4% completed the survey on the internet. Another almost 40% of respondents were contacted by telephone, but chose not to participate in the survey. Thus, 88% of all sampled businesses were contacted for the survey, and only 12% could not be contacted.

Since we had NAICS information on the sampled businesses, we were able to compare respondents, telephone contacts, and nonrespondents by NAICS code. Out of 16 major NAICS categories in this survey, we were able to contact all business in all but two NAICS categories: retail trades, and sporting goods.

Response Disposition	Frequency	Percent
Mail survey	1152	43.9
Web survey	113	4.3
Phone followup	998	38.0
Other	43	1.6
Nonrespondent	320	12.2
Total	2626	100.0

Research Questions

To our knowledge, no one seems to have asked the question of which survey mode businesses most prefer to use in responding to surveys. The question has hardly been addressed among household surveys either. Two exceptions are an early study by Groves and Kahn (1976), and a more recent Internet survey by Miller, et al. (2002).

Groves & Kahn (1976) asked respondents in a telephone and a face-to-face survey of households, which survey mode they would most prefer to use in completing a survey. The choices provided were: face-to-face interview, telephone interview, mailed questionnaire, or don't know/mixed opinion. All individuals who had just completed a survey by either telephone mode or face-to-face mode were asked this question.

The results are displayed in the table below. The preferred mode in each case was the same as the survey mode that the respondent had just experienced in completing an interview. The authors suggest that respondents may have been influenced by the presence of the interviewer in their choice of survey mode preference.

Preferred Mode	Telephone	Face-to-Face
FTF	23%	78%
Telephone	39%	2%
Mail	28%	17%
Don't know/mixed	10%	3%

A more recent internet survey conducted by Miller et al. (2002) included a question asking two groups of community internet respondents how likely (very and somewhat likely) they would be to complete the same survey in each of three different survey modes, including a mailed questionnaire, a telephone interview, and a face-to-face interview. The results are displayed in the table below. A clear majority of respondents indicated that they would be willing to complete the survey by mail (67% - 71%). Smaller percentages of people indicated that they would be willing to complete the survey by telephone or by face-to-face.

Survey Mode	Internet Group One	Internet Group Two
Mail	67%	71%
Telephone	37%	38%
FTF	40%	38%

Since this question has apparently not been asked of businesses, and since businesses can be contacted in a variety of ways, we felt it important to ask the question. We had an opportunity to do this in a survey of businesses in Washington State that we conducted last year.

Methodology

In late summer of 2003, we mailed an 8-page, 19-item self-administered questionnaire to businesses in the State of Washington to collect information on the fiscal impacts of one part of the National Streamlined Sales and Use Tax agreement that governs how local government sales taxes are collected. Using a Tailored Design Method (TDM) survey protocol, SESRC sent three mailings to businesses in the State of Washington, followed by a telephone contact to non-respondents. Respondents had the option of completing either a paper or an Internet version of the questionnaire. This questionnaire was sent to 2626 businesses in 16 targeted industries. The sample of businesses was stratified by geographic region, business size, and industry. A total of 1265 respondents completed questionnaires, resulting in a completion rate of 48.6%. The response disposition table for the survey is displayed below:

48% RR DRVB	Percent	Total N
Completed Questionnaires		
Mail	43.9%	1152
Web	4.3%	113
Refusals	0.7%	20
Ineligible	0.6%	16
Return to Sender	0.3%	7
Telephone Contact	38.0%	998
Nonresponse	12.2%	320
Total	100.0%	2626

The survey included a question at the very end, which asked about respondents' preferred survey mode. The question used in the internet survey is displayed below. This question was exactly the same in both the mailed questionnaire and the internet survey.

Washington State Streamline Sales Tax
Simplification Survey

Question 19
Periodically there is a need to collect information from businesses so that Washington State agencies can provide accurate data to legislative requests. As a business owner or manager, to which ONE of the following survey methods do you MOST prefer to respond:

- A mailed survey
- A telephone survey
- A web survey on the internet
- A face-to-face interview
- No preference or none of these

[Next Question](#)

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The same question was also asked in the telephone followup of nonrespondents to this survey. However, there is one important difference between those who responded to the survey and those who responded to the telephone followup call. The respondents to the mail and internet survey were the owners or managers of the businesses contacted. However, those responding to the telephone followup contact could have been the owner or manager, or a receptionist or other "gatekeeper" for the businesses.

In addition, we included this same question in another different telephone followup of nonresponding businesses that we were conducting at the same time. This was also a TDM mail survey of businesses in the state of Washington, and the topic of this survey was satisfaction with the services received by a state agency. The mail questionnaire was 12 pages long, but the questionnaire did not include this question about survey mode. Businesses could complete the survey on the internet. A total of 1222 respondents completed questionnaires, resulting in a completion rate of 39%. The reponse disposition table for the survey is displayed below:

RR=39% DRV5	Percent	Total
Completed		
Mail	32.4%	1038
Web	5.8%	184
Refusals	1.5%	49
Ineligible	0.8%	26
Return to Sender	1.6%	52
Other	0.2%	7
Telephone Followup	25.6%	820
Nonresponse	32.1%	1023
Total	100.0%	3200

Results

The results for the question about preferred survey mode are displayed in the table below. Overall, the preferred survey mode is for a mailed survey, with 57% of businesses saying that they prefer this mode. The least preferred survey mode is a face-to-face interview, selected by only 2% of businesses. A telephone survey is also only preferred by 3% of businesses. Over 15% of businesses say that they would most prefer to complete a web survey on the internet. And, the remainder, 23% of businesses, say that they have no preference or would prefer something else (probably no survey).

Preferred Survey Mode		Source of the data			Total
		Mail survey	Web survey	Phone contact	
A mailed survey	Count	806	16	446	1268
		74.6%	16.8%	42.8%	57.2%
A telephone survey	Count	23	0	43	66
		2.1%	.0%	4.1%	3.0%
A web survey on the internet	Count	102	73	161	336
		9.4%	76.8%	15.5%	15.2%
A face-to-face interview	Count	9	0	36	45
		.8%	.0%	3.5%	2.0%
No preference or none of these	Count	141	6	355	502
		13.0%	6.3%	34.1%	22.6%
Total	Count	1081	95	1041	2217
		100.0%	100.0%	100.0%	100.0%

Businesses that returned a completed mail questionnaire, were more likely than those that completed the survey on the web, to prefer a mail survey (75% vs 17%). Those completing the survey on the web were more likely to prefer the web survey than those completing it by mail (77% vs 18%).

Businesses that did not return a mail questionnaire or that did not complete the survey on the internet were contacted by telephone to encourage participation in the survey. Interviewers were instructed to try to speak with the owner or manager, but if that wasn't possible, to ask the survey mode question of whoever was on the telephone. The results for these businesses is similar to the results for the mail survey. The majority of businesses contacted by telephone, said that a mailed questionnaire was preferred (43%). Telephone and face-to-face modes were again least preferred. A web survey was the second most preferred survey mode (15%), and a large percentage (34%) said they had no preference for a survey mode. Figures 1, 2, and 3 present the results of this question graphically for this survey of businesses.

As mentioned previously, we also asked this survey mode question of nonresponding businesses in a separate survey of businesses that we contacted in a telephone followup. Figure 4 presents the results from the 820 businesses that were contacted and asked this question. The results mirror the overall results for the other survey of businesses. Most prefer the mail survey mode (36%), and a large percentage prefer the web survey mode (22%). Only 5% prefer the telephone mode, and only one percent prefer the face-to-face survey mode. Over 35% have no preference for a survey mode.

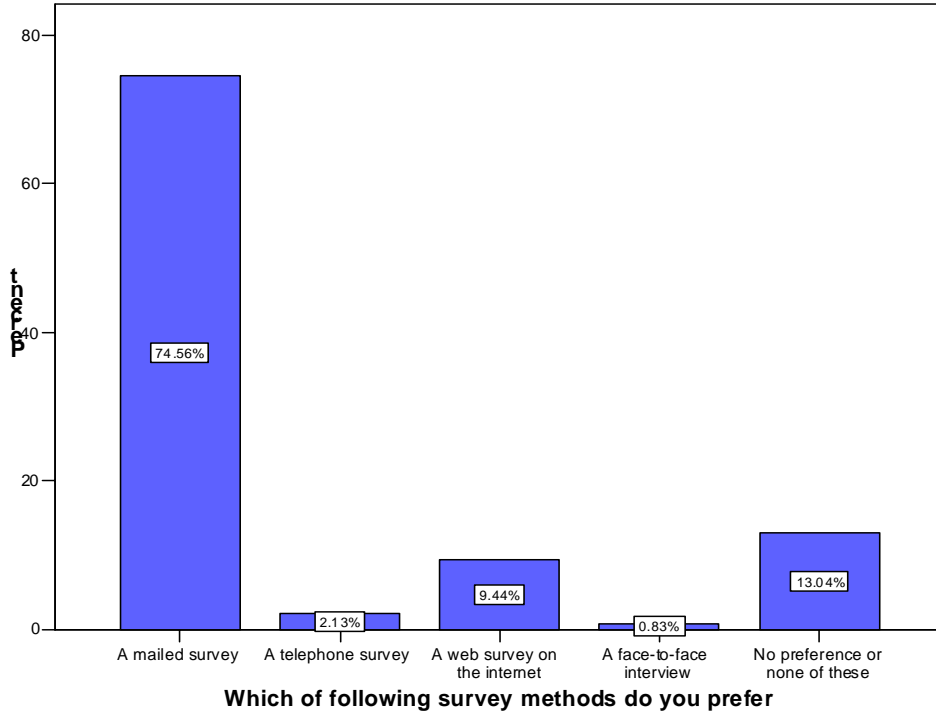


Figure 1: Survey Mode Preference for Mail Business Respondents

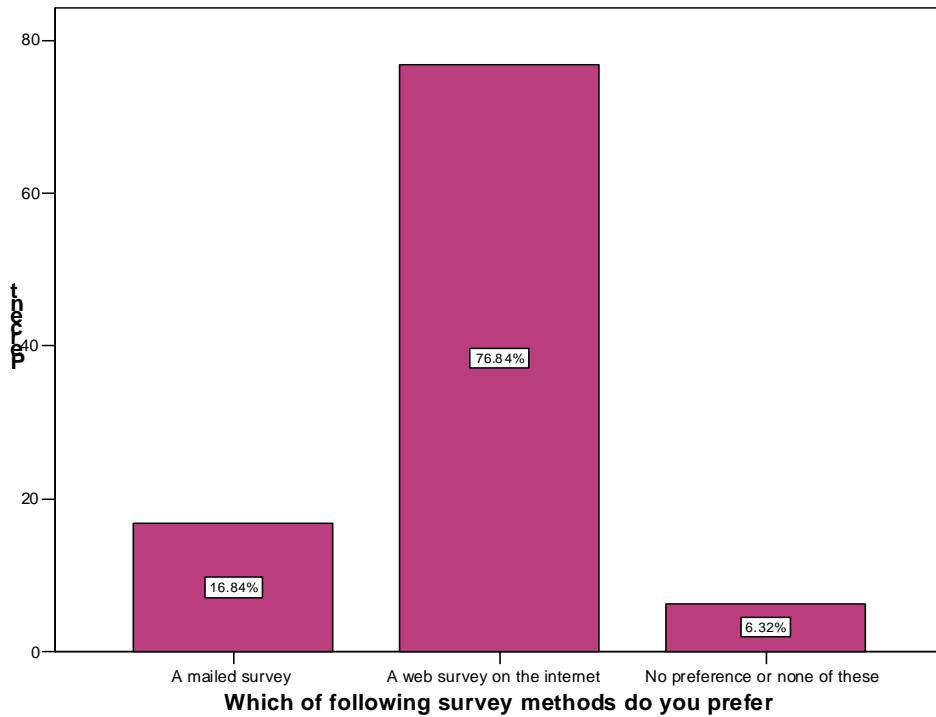


Figure 2: Survey Mode Preference for Web Business Respondents

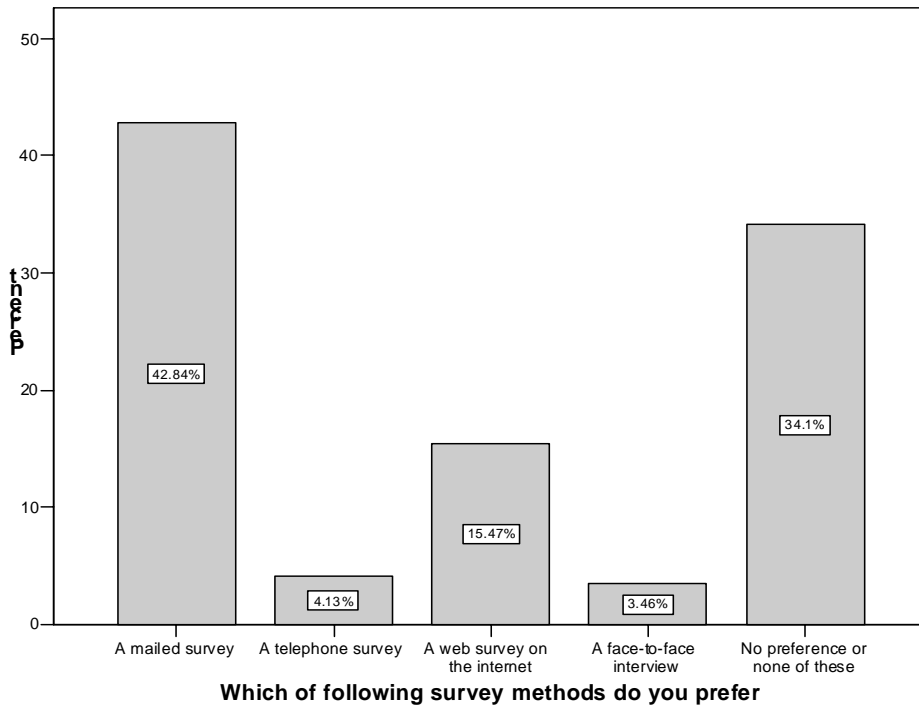


Figure 3: Survey Mode Preferences for Business Contacted in the Telephone Followup

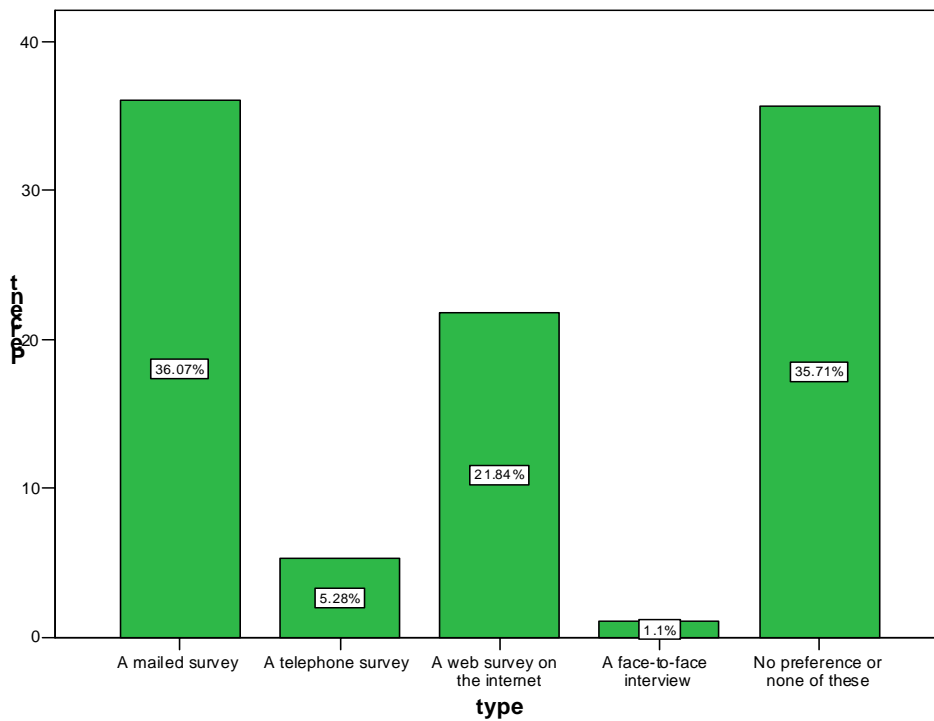


Figure 4: Survey Mode Preferences for Telephone Followup Nonrespondents

Survey Mode Preference by NAICS category

	Which of following survey methods do you prefer					Total
	A mailed survey	A telephone survey	A web survey on the internet	A face-to-face interview	No preference or none of these	
Wholesale	57.7%	3.3%	17.3%	1.6%	20.2%	100.0%
Retail	59.6%	2.9%	14.7%	2.4%	20.4%	100.0%
Sporting Goods	62.4%	7.5%	10.8%	1.1%	18.3%	100.0%
Mining	72.0%	12.0%	8.0%		8.0%	100.0%
Printing	55.7%	4.9%	11.0%	3.7%	24.8%	100.0%
Product Mfg	47.1%		23.5%	2.9%	26.5%	100.0%
Computer Mfg	41.2%		23.5%		35.3%	100.0%
Furniture Mfg	58.8%	2.3%	13.0%	1.5%	24.4%	100.0%
Misc Mfg	60.0%	5.0%	16.7%	1.7%	16.7%	100.0%
Furniture Stores	55.1%	2.0%	17.0%	2.3%	23.6%	100.0%
Electronics Stores	53.0%	1.8%	14.0%	.7%	30.5%	100.0%
Gen Merchandise	61.7%	2.1%	23.4%	3.2%	9.6%	100.0%
Nonstore Retailers	59.7%	1.7%	15.3%	2.3%	21.0%	100.0%
Warehouse & Storage	100.0%					100.0%
Paper Mfg			33.3%	33.3%	33.3%	100.0%
Office Supplies	56.1%	1.9%	13.1%	.9%	28.0%	100.0%
Total	57.2%	3.0%	15.2%	2.0%	22.6%	100.0%

Mode of Response by NAICS Category

	Source of the Data				Total
	Mail survey	Web survey	Phone Contact	Nonrespondent	
Wholesale (n=320)	49.1%	5.3%	45.6%		100.0%
Retail (n=609)	29.2%	2.5%	26.1%	42.2%	100.0%
Sporting Goods (n=159)	28.9%	3.1%	28.3%	39.6%	100.0%
Mining (n=26)	46.2%		53.8%		100.0%
Printing (n=258)	48.8%	3.5%	47.7%		100.0%
Product Mfg (n=37)	51.4%	10.8%	37.8%		100.0%
Computer Mfg (n=17)	35.3%	5.9%	58.8%		100.0%
Furniture Mfg (n=135)	45.9%	5.9%	48.1%		100.0%
Misc Mfg (n=62)	56.5%	1.6%	41.9%		100.0%
Furniture Stores (n=312)	51.0%	3.5%	45.5%		100.0%
Electronics Stores (n=292)	49.3%	7.2%	43.5%		100.0%
Gen Merchandise (n=100)	54.0%	7.0%	39.0%		100.0%
Nonstore Retailers (n=182)	53.3%	5.5%	41.2%		100.0%
Warehouse & Storage (n=1)	100.0%				100.0%
Paper Mfg (n=3)	33.3%		66.7%		100.0%
Office Supplies (n=113)	48.7%	3.5%	47.8%		100.0%
Total	43.9%	4.3%	39.6%	12.2%	100.0%

We were able to crosstabulate survey mode preferences by NAICS category for the businesses in the tax simplification survey. As can be seen in the two tables above, there are no real differences among business groups according to the survey mode by which they responded to the survey, with the exception of the retail and the sporting goods groups, both of which had a large nonresponse percentage. In none of the other industry groups were there any businesses that we were not able to contact.

There were only minor differences in survey mode preferences by industry group. In general, all businesses, regardless of industry group, preferred the mail survey mode the most, and preferred the face-to-face survey mode the least. The second choice of survey mode was for a web survey for all industry groups as well, except for businesses involved in mining, which preferred a telephone survey mode over a web survey.

Discussion and Conclusions

It is possible to obtain high response rates to business surveys, and giving respondents multiple ways of responding can help to reduce respondent burden. The businesses in the two surveys included in this paper, clearly preferred the mail survey mode. It's possible that their preferences for this mode may have been influenced by having received the survey in the mail; we can't know for certain. However, approximately 15% of business respondents prefer completing a survey on the web, and will participate in that mode. This argues in favor of including both mail and web survey modes whenever possible, since people who may not respond in one mode, may do so in the other mode.

Telephone and face-to-face survey modes are the least preferred survey modes among these business respondents, garnering only a small percentage of respondents who are in favor of these two modes. However, using the telephone to contact businesses to encourage response to a survey is worthwhile, as shown by the sales tax simplification survey response disposition, with 88% of businesses being contacted, and only 12% that could never be reached.

A substantial percent of respondents (between 23% and 35%) indicate that they have no preference or would prefer some other mode (possibly none). These may be the hard core respondents that would not participate in most survey efforts.

It is encouraging to find that nonrespondents in both of the surveys here, have the same survey mode preferences as respondents. This suggests that the survey mode itself may not be a cause of the nonresponse. However, it's unclear why some businesses that completed the survey on the web, still said that they preferred to complete surveys by mail, since they had originally received the survey in the mail.

In conclusion, offering several options for survey mode may help to increase response rates to business surveys. And, a sequence of prior letter, initial mail survey, with a web option, a mail followup to nonrespondents, with a web response option, and a final telephone followup with web option, seems to be effective at achieving high response rates to business surveys. Although we have not discussed it here, survey length does matter. For the two surveys discussed in this paper, one was in an 8-page booklet format, and it garnered a 48% response rate, while the other, which was longer and was in a 12-page booklet format, garnered only a 39% response rate. The topic of the shorter survey was tax simplification and how much taxes businesses were paying. The topic of the longer survey was satisfaction with services received from a state agency.

References

- Christianson, A. * Tortora, R. T. (1995) Issues in surveying businesses: an international survey. In: B. G. Cox et. Al. (Eds.) Business Survey Methods. New York: Wiley.
- Dillman, D. A. (2000) Mail and Internet Surveys (2nd Ed.) New York: Wiley.
- Groves, R. M. & Kahn, R. L. (1979) Surveys by Telephone, New York: Academic Press.
- Miller, T. I., Miller-Kobayashi, M., Caldwell, E., Thurston, S., & Collett, B. (2002) Citizen surveys on the web: general population surveys of community opinion, Social Science Computer Review, 20, No. 2, 124-136.
- Paxson, M. C. (1992) Unpublished Data: Response Rates for 183 Studies, Pullman, WA: Department of Hotel and Restaurant Administration, Washington State University.
- Paxson, M. C., Dillman, D. A., Tarnai, J. (1995) Improving response to Business Mail Surveys, In: B. G. Cox et. Al. (Eds.) Business Survey Methods. New York: Wiley.
- Willimack, D. K., Nichols, E., & Sudman, S. (2002) Understanding unit and item nonresponse in business surveys, In R. M. Groves, et al. (Eds.) Survey Nonresponse. New York: Wiley.