

# **Fax Surveys: A New Data Collection Method**

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The objectives of this study were, first, to compare the response rate from a fax survey with that of a well-conducted mail survey and, second, to compare the response times. A one-page questionnaire and a short covering letter addressed to "The Manager" were sent to randomly selected firms in September, 1989. There were 100 firms in the mail sample and 98 in the fax sample. Both the response rate and the speed of response were better for the fax than for the mail survey. The response rate for the mail survey was 76%; that for the fax survey was 88%. The target level of 70% was achieved on day 23 for the fax survey, and day 32 for the mail survey.

Keywords: fax survey, response rates, design, data collection

## **Introduction**

Mail surveys are a long-established method of data collection. Although it is often claimed that response rates are likely to be low, this is not the case with well designed and professionally executed surveys. Mail surveys can obtain response rates of at least 70% (Hoinville, Jowell & Associates 1978; Wright 1986).

A more serious problem is that there is usually a rather long delay between the point at which the questionnaire is ready to go into the field, and the availability of results. High response rates usually require at least two reminders, and this implies that some 3 or 4 weeks is about the minimum elapsed time that can be expected before results are available; six to eight weeks is more usual. In contrast, face-to-face surveys can often be completed within a week or so, depending on the size of trained field force available, and computer assisted telephone interviewing (CATI) can produce analysed results at the end of each day's work.

The time delays associated with mail surveys are largely due to the constraints of the postal service, and the lack of incentive for respondents to complete and return a questionnaire as soon as it is received. The advent of the facsimile technology suggests a way of eliminating both of these factors, for business surveys at least, since a very high proportion of businesses now have facsimile machines.

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## **Method**

A list of all business fax subscribers in Palmerston North was compiled from the Telecom fax directory, the UDB directory, the yellow pages, and Who's who in NZ business. An equal-interval sample of 200 subscribers was selected from this list, alternate cases being assigned to the fax and mail sub-samples.

A one-page questionnaire and a short covering letter addressed to "The Manager" were sent to each firm in September, 1989. There were 100 firms in the mail sample and 98 in the fax

sample (two fax numbers turned out to be those of telephones, and these were dropped from the survey).

The treatments of the two groups were identical in every way, except for the medium of delivery. The questionnaires and covering letters were exactly the same, and all respondents were invited to reply either by Freepost or by fax. Two reminders were sent to non-respondents.

Response rates were calculated after excluding firms which had "gone, no address", or to which the questionnaire was not relevant.

## Results

### Response Rates

The response rate for the mail survey was 76%; that for the fax survey was 88%. Details are shown below.

**Table 1. Response rate by means of delivery**

	Mail		Fax	
	n	%	n	%
Sent out	100	100	98	100
Less: not eligible or "gone, no address"	12	12	7	7
Potential respondents	88	100	91	100
Less: refusals	1	1	4	4
No reply	20	23	7	8
Valid replies	67	76	80	88

The difference in response rates is 12%, and the standard error of this difference is 5.5%. The difference is thus significant at the 5% level.

### Speed of Response

The response from the fax sample was more rapid than that from the mail sample. The target level of 70% was achieved on day 23 for the fax survey, and day 32 for the mail survey. Replies to the fax survey continued to trickle in until 8 weeks after the initial faxing, mainly from respondents who said they had been out of town when the faxes had arrived. Details are shown below.

**Table 2. Timing of response by means of delivery**

	Cumulative response (%) at end of week:							
	1	2	3	4	5	6	7	8
Mail	30	43	52	64	73	76	76	76
Fax	42	50	68	82	85	86	87	88

## Discussion

Fax has been shown to be a feasible data collection method for surveys of businesses. Both the response rate and the speed of response were better for the fax than for the mail survey. This may have been due to some extent to the novelty of a fax survey, but the fax questionnaires may have been perceived as more important than the mail ones, and this effect may survive increasing familiarity with the medium.

Although the speed of response was markedly better for fax than for mail it is still much slower than a CATI survey.

There was no evidence of resentment at receiving "junk" fax, but the subject of the questionnaire (the extent to which firms were marketing oriented) may have helped.

Data collection costs were substantially lower for the fax survey, at \$2.90 per valid response, than for the mail survey at \$6.29. This difference is due mainly to lower labour and stationery costs. All firms in the sample were within the Palmerston North free-calling area, but the difference in cost would allow for considerable toll charges.

The method is clearly unsuitable at present for consumer surveys, as the penetration of fax machines into homes is currently very low.

## References

Hoinville G; Jowell R & Associates (1978). *Survey Research Practice*, London: Heinemann Educational Books.

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