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**APPLYING THE FOOT-IN-THE-DOOR APPROACH
TO INCREASE RESPONSE RATES TO MAILED QUESTIONNAIRES
AND TO ENHANCE DONATION BEHAVIOUR**

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Thesis submitted to
the School of Graduate Studies and Research
in partial fulfilment of the requirements for the M.B.A.
degree in Administration

University of Ottawa

 Richard R.J. Lauzon, Ottawa, Canada, 1990



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ABSTRACT

This study evaluated the ability of a promised charitable donation to the Heart and Stroke Foundation by a corporate sponsor, Bell Canada, to stimulate a higher mail questionnaire response rate. In addition, the study assessed whether the intention to complete the questionnaire and its eventual return by mail would increase donations through a "foot-in-the-door" (FITD) effect during Heart and Stroke Month. Three study groups which included an experimental group (the Heart Group) and two control groups (the Bell and Mail Only Groups) were established by random assignment from a randomized cluster-sample of 910 households in the City of Kanata, a satellite community west of Ottawa, Ontario. The primary dependent variables were mail questionnaire return rates and mean donations to the Heart and Stroke Fund. Differences in the proportions associated with questionnaire returns were tested for statistical significance using the standardized z-test, while differences in mean donations were analysed using a t-test. Statistical significance was measured at the .05 level.

With regard to mail-questionnaire return rates, the Heart Group produced a superior response rate for the personal-visit method of delivery when compared to both the Bell and the Mail Only Groups. Although the same pattern of results were observed when overall rates (personal visit and mail-box drop) were compared, the statistically significant differences between the Heart and Bell Groups disappeared. There was an overwhelming difference in favour of the personal-visit method of delivery over the mail-box drop method for both the Heart and Bell Groups, although this advantage was most likely influenced by different sample characteristics associated with the households which received the mail-box drop (*i.e.* no adult answered the door on the evening the personal visits were made to deliver questionnaires). No major differences occurred among the study groups for speed of response except at the end of the data collection period as noted above.

The Heart Group were much more generous in their donations to the Heart and Stroke Fund than the Bell Group both on a per household and on a per donor basis. There was a 42% difference in donations when main effects were analyzed per household. When the data was partitioned by proxy income (*i.e.* assessed value of the house), the statistically significant differences persisted. Similarly when the study groups were compared by questionnaire delivery method, the same pattern of results were observed, although only the personal-visit condition achieved statistical significance.

Information on total revenue, anecdotal comments by study team members, and written comments on surveys suggested that this approach to raising funds for the Heart and Stroke Foundation was beneficial to both co-sponsors of the survey, financially and from a public relations perspective. More qualitative data would have improved observations on these issues.

In conclusion, the promised charitable donation by a corporate sponsor stimulated a greater response rate for personally-delivered mail questionnaires, and a foot-in-the-door effect associated with returning a mail questionnaire subsequently increased donations to the Heart and Stroke Fund.

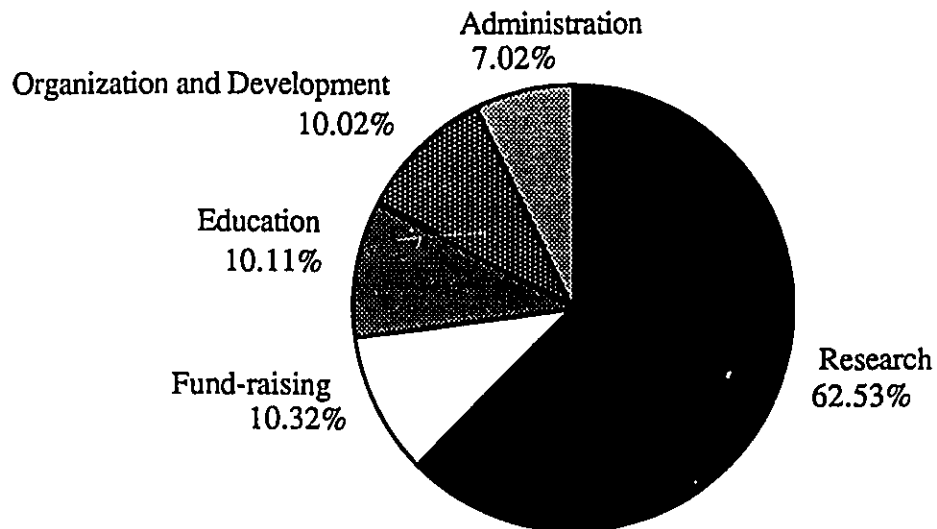
CHAPTER ONE

INTRODUCTION

Background to the Study

The Heart and Stroke Foundation of Canada (formerly the Canadian Heart Foundation) is a federation of ten provincial non-profit voluntary health agencies whose sole purpose is to further the study, prevention and relief of cardiovascular disease. The Foundation addresses its mission by raising funds to sponsor cardiovascular-related research and to conduct educational programs for Canadians. These tasks are accomplished by several hundred thousand volunteers supported by staff. Figure 1.1 describes how funds of some \$44,330,000 were

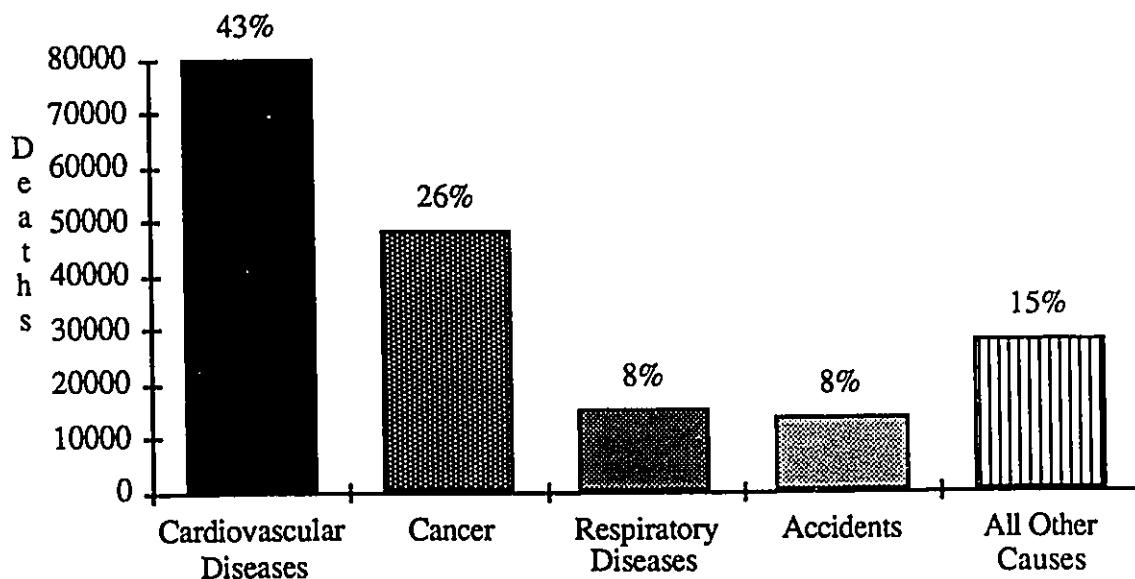
FIGURE 1.1: Percentage of HSFC Expenses by Activity, 1987-88.



allocated in 1987-88. Approximately 63% of all funds raised were devoted to research, 10% to

organization and development, education and fund-raising respectively, and 7% to administration (Canadian Heart Foundation, 1988). Even though cardiovascular disease accounted for 43% of all deaths in Canada in 1986 (Figure 1.2) -- the single largest cause of death -- the Foundation ranked only fourth in revenues among voluntary health agencies (Table 1.1). Their appeal for donations has been facing stronger competition as more not-for-profit health and social service agencies are adopting sophisticated strategies in the solicitation of funds. A 1987 market study (Decima Research, 1987) showed that the Heart and Stroke Foundation (at 22%) was the third ranked charity in "top-of-the-mind awareness" behind United Way/Centraide (39%) and the Cancer Society (38%). This was an improvement from two sixth-place results in 1984 and 1985 (Gallup, 1985; Thompson-Lightstone Study, 1985). Top-of-the-mind awareness is critical to a charity because of the impulsive way donations are made (Cox, 1985).

FIGURE 1.2: Causes of Death in Canada, 1986



The major source of revenue for the Heart and Stroke Foundation has been the household donation. The Heart and Stroke Fund is an annual campaign which focuses its effort each

TABLE 1.1: Charitable Health Sector Revenue for 1986 (\$000s).

Rank	Revenue	Agency
1	170458	Canadian Red Cross Society
2	143455	United Way/Centraide Canada
3	57781	Canadian Cancer Society
4	37121	Canadian Heart Foundation
5	13178	Canadian Diabetes Association
6	12062	Arthritis Society
7	11944	Canadian Lung Association
8	8593	Multiple Sclerosis Society
9	7221	Muscular Dystrophy Association
10	<u>6955</u>	Kidney Foundation of Canada
Total	468768	

(Adapted from Aubry *et al*, 1987).

February with a door-to-door canvass. During 1987-88, over 24 million dollars were raised in this fashion. Figure 1.3 compares the revenue categories. It should be noted that corporate donations accounted for only 2% of all monies raised (Canadian Heart Foundation, 1988). This sector will be approached more aggressively in the near future, not only by the Heart and Stroke Foundations, but by most not-for-profit agencies.

Per capita giving varies considerably across Canada for the Heart and Stroke Fund. As described in Figure 1.4, Manitoba had the highest rate of household donations at \$1.72 per capita. Four other provinces, Saskatchewan (\$1.32), Ontario (\$1.30), P.E.I. (\$1.09) and Alberta (\$1.07), exceeded one dollar per capita. The average national per capita figure of \$0.99 at 58% of Manitoba's rate identifies considerable room for improvement (Heart and Stroke Foundation, 1988). Thus, the provincial Foundations and Divisions should be receptive to innovative ways to increase the number of households which donate during the campaign or to stimulate a more generous response from household donors.

FIGURE 1.3: HSFC Sources of Revenue, 1987-88.

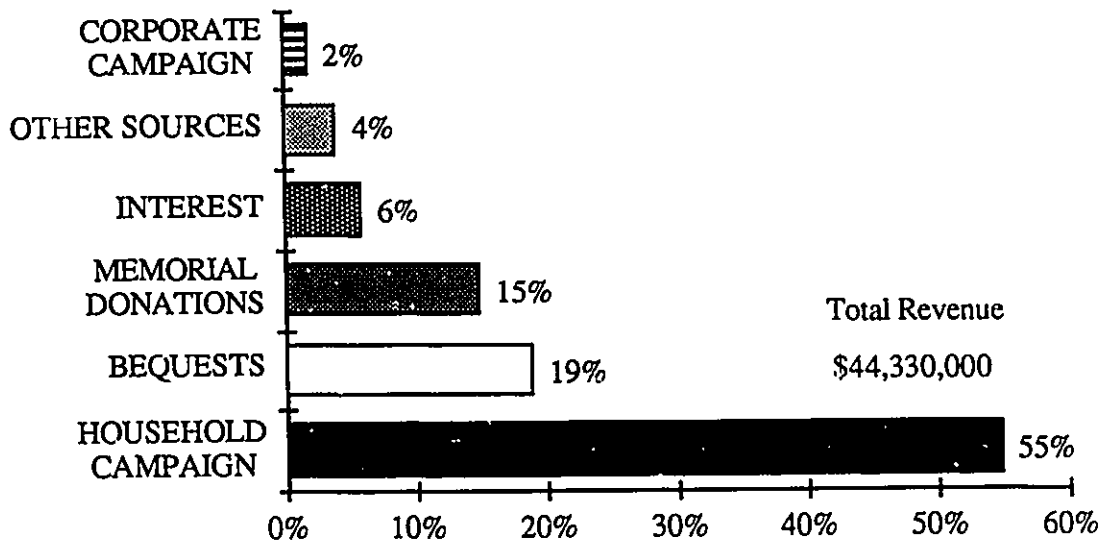
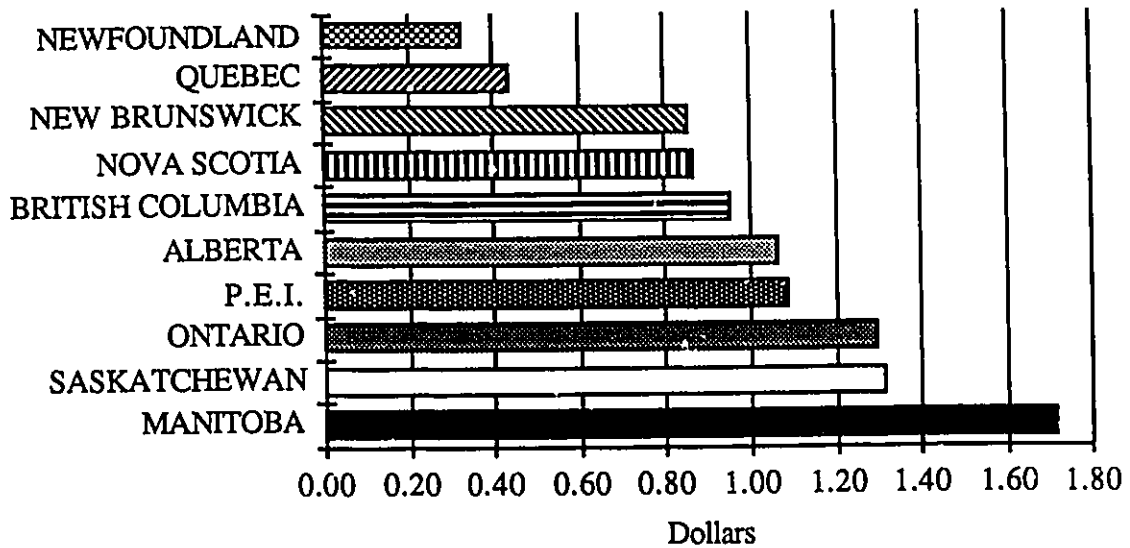


FIGURE 1.4: HSFC Campaign Revenue, per capita (\$), 1987-88.



Very few agencies canvass door-to-door nation-wide. The Heart and Stroke Foundation is known for its extensive and committed canvasser network. Combined with its excellent community image due to its humanitarian mission, there would be a strategic advantage in

adopting a project which consolidated the strengths of the organization -- its excellent image, strong canvasser network and its attractive humanitarian appeal.

Purpose of the Study

The purpose of this study was two-fold: to investigate a promised charitable donation to improve mail-survey response rates, and to study the use of the foot-in-the-door (FITD) approach to increase campaign-related revenue for the Heart and Stroke Foundation. Operationally, Bell Canada agreed to have Heart and Stroke volunteers deliver a mail questionnaire on their behalf; for each questionnaire returned, Bell Canada would provide a \$5 donation to the Heart and Stroke Fund. This co-sponsorship of a survey provided a unique form of corporate involvement with the annual Heart and Stroke campaign.

Two additional advantages were important in the above project. First, by associating itself with the Heart and Stroke Foundation, survey response rates might increase for Bell Canada, thereby improving the efficiency of the sampling procedure and resulting in a greater value for dollars spent. Second, by timing the survey just before Heart and Stroke Month, a larger number of households might contribute to the campaign due to the influence of a FITD effect or be more generous in their donation.

The following questions were relevant to this study:

1. Would the Heart and Stroke Foundation's association with Bell Canada increase survey response rates to a mail questionnaire?
2. Would the initial compliance to fill out the questionnaire and secure a Bell Canada donation to the Heart and Stroke Fund stimulate more or larger household donations when homes were canvassed subsequently during Heart and Stroke Month?
3. Would households who donated to the Heart and Stroke Fund return completed mailed questionnaires more frequently than non-donors after Heart and Stroke Month?

Limitations of the Study

In a field study, a number of variables are difficult to control. Some of these are imposed by the research design, others by sample characteristics, and still others by the study sponsor. These difficulties may present problems with the internal and external validity of the study. Although every effort was made to control for these problems, a number still existed and accordingly, posed limitations to the study.

1. The household member who agreed to complete the questionnaire might not be the same person who actually filled out the questionnaire and mailed it in.
2. The person who completed the survey might not be the same person who donated to the Heart and Stroke Fund.
3. The study design would be unable to differentiate the name effect of the Heart and Stroke Foundation as compared to some other not-for-profit co-sponsor.
4. Kanata residents might be different than residents of other Canadian communities.
5. The incentive to complete the survey (*i.e.* a promised \$5 donation) might be too high or too low.
6. Differences between the survey teams (treatment and control) might have influenced the study results.
7. Differences between Heart and Stroke Foundation canvassers might have influenced donations received.

CHAPTER TWO

REVIEW OF LITERATURE

Two major issues were investigated in this study. First, a promised contribution to a charitable agency, the Heart and Stroke Foundation of Ontario, was analyzed to ascertain its effect on improving survey response rates to a mail questionnaire. Second, the "foot-in-the-door (FITD) approach " was assessed to determine its influence on donation behaviour. A review of pertinent literature will address each of the aforementioned topics; in addition, some information on behavioural intention and donation behaviour will be supplied.

MAIL SURVEY RESPONSE RATES

Mail questionnaires are a cost-efficient method to survey individuals. Non-response however and ways to reduce it decrease the cost-efficiency of such surveys. This section will begin with a review of summary reports on mail survey response. The latter portion will present some information about the relative effectiveness of personal contact as a form of preliminary notification in order to improve mail response rates.

The first systematic review on mail survey technique was completed by Scott (1961) and presented within the context of reporting on five mail surveys conducted by the Government Social Surveys in Great Britain. A random sample was used for each survey, three of which were of the the general adult population, one of motorcycle owners, and one of residential telephone subscribers. The secondary purpose of the paper was to summarize and synthesize the published literature following the presentation of survey results to provide a comprehensive commentary on mail survey techniques as a basis for future research. The author organized his exhaustive and excellent review as follows:

1. Who are the non-responders?
2. Speed of response.
3. Factors affecting the response rate.
4. Reliability and validity of mail survey response.
5. Conclusions.

Given the extensive number of details discussed in this paper, this review will highlight summarized observations only. Moreover, the high response rates quoted by the author (87 to 94%) are quite high in comparison to North American studies, which suggest that different sample dynamics may have influenced survey returns among British subjects completing government-sponsored surveys.

When response rates were high -- in the 90% range -- non-respondent bias was no longer a crucial problem since non-responders form a relatively small proportion of the study sample. The majority of studies used sample frame data such as residence (urban / rural), age and sex to identify characteristics of non-respondents which may have been associated with variations in the response rate. Faster returns were expected from more interested or concerned recipients. Follow-ups or reminders were the most potent technique for increasing response rates by a substantial amount (over 20%). One or two follow-ups were the most common number and several authors recommended sending a copy of the questionnaire on each follow-up occasion. Questionnaire length did not seem to be a major factor in higher returns. The most often mentioned device for augmenting response was supplying a premium or reward, and no study reviewed found any bias related to monetary premiums. The author noted that, while the evidence on mail survey response validity and reliability was "meager in quantity and poor in quality", mail survey responses were generally no "less accurate than those given by interview". The following listing summarizes the experimental evidence cited by the author (in no order of priority) which appeared to stimulate increased mail-survey response rates:

- follow-ups
- the presence or absence of particular questions (*e.g.* income)

- official sponsorships
- stamp (vs. frank) on the return envelope
- Special Delivery or air-mail for the outgoing mailing
- handwritten postscript to the covering letter urging reply
- letter on back of questionnaire (vs. separate letter)
- a premium of at least 25¢, preferably enclosed.

In his book, Professional Mail Surveys, Erdos (1970) listed the major advantages (p. 6) and limitations (p. 11) of mail surveys (Table 2.1). The author pointed out that the self-administered nature of mail surveys meant that no researcher was present to ask the questions nor guide the respondent. This feature resulted therefore in "important differences in survey design, questionnaire construction, and various other aspects of the survey" relative to other types of studies (p. 1). It was believed in the 1930's that mail surveys with a 10% response were satisfactory, but in 1970 the author noted that "no responsible research man would consider a return of less than 50 percent as very good, and returns of 75 percent and higher not unusual (p. 4)". In an interesting Appendix, "Percentage and Speed of Response", the author presented data on 415 separate studies and surveys involving some 771,004 questionnaires. Table 2.2 reproduces the percentage distribution by percentage of return (one mailing). The median return rate to one mailing was 57%.

The questionnaire to be reported in this study was composed of 14 questions on five pages (of 8.5 x 11 in.). In a table on survey size and number of pages, Erdos reported on the response rates for surveys of similar size (Table 2.3). Only 16 % of the surveys of similar size achieved returns in excess of 60% and almost a third did not reach the criterion of 50%, which Erdos felt "was not very good" as mentioned above. The author also presented a useful chart to show the response pattern to the first and second waves for 103 surveys, as well as similar charts describing a variety of results relative to differing incentive conditions associated with first wave and second wave mailings. With regard to speed of response, a review of some 50

studies involving 44,645 questionnaires showed that "many surveys can be closed after three weeks" since the average additional response added fewer than 3% to the final return (p. 262).

TABLE 2.1: Advantages and Limitations of Mail Surveys (Erdos, 1974).

ADVANTAGES	LIMITATIONS
<ul style="list-style-type: none"> • Wider distribution. • Less distribution bias in connection with the neighborhood. • Less distribution bias in connection with the type of family. • Less distribution bias in connection with the individual. • No interviewer bias. • Better chance of truthful reply. • Better chance of thoughtful reply. • Time-saving (under certain circumstances). • Centralized control. • Cost-saving, resulting in more flexibility per dollar spent. 	<ul style="list-style-type: none"> • No mailing list is available. • The mailing list is incomplete. • The available mailing list is biased. • Subject requires a specially trained interviewer. • The questionnaire cannot be structured. • The questionnaire is too long. • The questionnaire is too difficult. • The information required is confidential. • The respondent is not the addressee. • The available budget is inadequate. • The available time is insufficient.

TABLE 2.2: Return Rate Distribution for One-mailing Surveys.

Percentage of Return (one mailing) <u>%</u>	Percentage (n = 415 studies)	
	<u>%</u>	<u>cum %</u>
< 30%	5	5
30 - 39	7	12
40 - 49	18	30
50 - 59	31	61
60 - 69	24	85
70 - 79	13	98
80+	2	100

(Taken from Erdos, p. 256).

TABLE 2.3: Response Rates for Surveys Larger than Two Pages (8.5 X 11 in. page).

<u>One-mailing Response Rates (%)</u>	<u>Percentage Distribution (n = 31)</u>
< 50	29
50 - 59	55
60 - 69	10
70 +	<u>6</u>
	100%

Median response: 54%

(Adapted from Erdos, p. 257).

Kanuk and Berenson (1975) cited 85 articles in a review of empirical studies to identify factors related to increasing mail questionnaire response rates. Their report summarized the literature according to the following approaches:

- follow-ups
- preliminary notification
- concurrent techniques
 - questionnaire length
 - survey sponsorship
 - return envelopes
 - postage
 - personalization
 - cover letters
 - anonymity
 - size, reproduction, and colour
 - money incentives
 - deadlines
 - differences between respondents and nonrespondents.

The only strong empirical evidence supporting any approach occurred with follow-ups and the use of monetary incentives. The authors noted that the main reason for these results was the sparse number of research studies available to make conclusive statements about any one technique to improve mail survey response rates.

Follow-ups were the most powerful response-rate enhancing approach, with multiple follow-ups capable of stimulating returns in excess of 95% in several studies. Single follow-ups added significantly to the total rate but on a more modest scale (up to 50%). While preliminary notification, especially by telephone, improved rates somewhat, the authors advised that "follow-ups appear to be a better investment than preliminary notification". As for concurrent techniques, only monetary incentives were highly related to increasing response rates, and larger sums increased rates more. The available evidence on differences between respondents and nonrespondents suggested that the higher educational background of

respondents and their greater facility in writing were responsible for improved mail survey returns.

A second major review of the literature on mail questionnaire responses was completed at about the same time by Linsky (1975). Of the 59 articles listed in the footnotes, 32 (or 54%) also appeared in the Kanuk and Berenson (1975) review. Linsky organized his paper into three major sections:

1. mechanical and perceptual factors
 - pre-contact
 - postcard enclosure
 - follow-up
 - types of mailing for outgoing and return envelopes
 - length of questionnaire
 - printed vs. mimeographed questionnaires
 - pre-coded vs. open-ended questionnaires
 - colour of questionnaire
2. broad motivational factors
 - anonymity
 - covering letters
 - sponsoring organizations and titles
 - use of deadlines
3. direct motivational factors: rewards
 - cash rewards enclosed
 - size of rewards
 - meaning of rewards
 - cost factors
 - enclosures of prizes, premiums, and other non-cash rewards.

Linsky concluded that five techniques were very effective or appeared to have a positive effect. First, one or more follow-ups or reminders sent to non-responders worked very well, and the more intensive the follow-up, the better the results (*i.e.* telephone, registered mail, special delivery letters). Second, pre-contact with potential respondents, especially by

telephone, increased returns. Third, the type of postage on outgoing and return mail was an important factor, with more "high powered" mailings, such as special delivery and airmail, being superior to normal mail. The fourth technique which stimulated higher response rates were cash rewards, promised rewards and other types of premiums (*e.g.* pens, stamps, mechanical pencils). Finally, there was some positive influence from the type of organizational sponsor and the title of the person signing the cover letter.

In each of the above articles, the authors were critical of the lack of attention to identifying a consolidating theory of mail questionnaire return behaviour, as researchers apparently added or omitted techniques more as a "bag full of tricks" rather than by relying on some deliberate and definitive approaches dictated by a set of theoretical constructs to improve response rates. In this context, the data on pre-contacts (Linsky) or preliminary notification (Kanuk and Berenson) resembled a FITD condition which solicited compliance with an initial request (to complete the questionnaire) as a means of encouraging greater total response to the enclosed questionnaire.

A review of monetary incentives in mail surveys was conducted by Armstrong (1975). His article summarized a study he performed in 1969 of 100 randomly selected people from the Philadelphia telephone book who were split into an incentive group (\$1 honorarium) and a no-incentive group. The results of this study were compared to seventeen other studies of prepaid monetary incentives. The eighteen studies provided 25 comparisons of which 24 (96%) supported the author's conclusion that prepaid monetary incentives increased mail survey response rates. A sub-set of three studies showed that the promise of a reward did not have as strong an effect. The monetary incentive was much more effective when it was paid before rather than as a follow-up. Armstrong posed the following question in order to develop some generalizations about prepaid incentives and response rates: "What percentage reduction in nonresponse might be expected from various levels of prepaid monetary incentives?". This statement was intended to control for the variation among the studies (from 10 - 65%) in the no incentive (control) rates

of return. The author's attempt to develop a mathematical formula to predict nonresponse was "rather unsatisfactory" and, subsequently, he offered a simple rule of thumb that "there is a 1 per cent decrease in the nonresponse rate for each one-cent increase in the prepaid incentive up to a maximum of 40 percent".

The findings Scott (1961), Linsky (1975) and Kanuk and Berenson (1975) were also observed in a complex study of students associated with various organizations on nonviolent action by authors Blumberg, Fuller and Hare (1974). A sample of 2000 subjects assigned to a variety of equivalent subgroups served as tests for several postal survey features grouped according to physical characteristics of the survey: outer envelope, covering letter, questionnaire, premium, return envelope, and follow-up reminders. Higher response rates were associated with more expensive mail services, an explanatory covering letter preferably from an official sponsor, a questionnaire not overly long with interesting rather than objectionable items, an initial premium, a return envelope, and "especially", a postcard reminder / thank-you followed by a series of reminders to nonrespondents.

Whitmore (1976) assessed response bias induced by mail survey premiums in a study of 1000 new car purchasers in the continental United States. Half of the sample of 500 Ford Pinto owners and half of the 500 Volkswagen Beetle owners were randomly assigned to a premium (inexpensive key ring) or a nonpremium group. The sample received an initial questionnaire mailing and two weeks later nonrespondents were sent a follow-up mailing which included a cover letter and a colour-coded questionnaire. There was an overall response rate of 54.8%. Some 83 variables and dummy variables were analyzed against the receipt of a premium to determine any possible bias in the data. Results for each of the 83 variables were ordered from the lowest probability of a type I error to the highest. The author concluded that no systematic bias was produced by including a premium in the survey mailing. The level of significance for variables such as age (.19), occupational category (.30), marital status (.30), zodiac sign (.63), sex (.73), education level (.93) and total reported magazine exposure of

respondents (.99) demonstrated the lack of relationship of these variables with premium inclusion.

Houston and Nevin (1977) investigated the effects of source (university or commercial sponsored) and appeal (altruistic or egoistic) on mail survey response patterns with eight groups of 250 households (N=2,000) in Madison, Wisconsin using a random selection drawn from the local telephone directory. An approximately 150-item questionnaire tapping consumer images and behaviour about five Madison-area shopping centres were mailed to subjects in the eight groups with different cover letters to represent each of the four appeals for each questionnaire sponsor. The four appeals were as follows:

1. social utility
2. help-the-sponsor
3. egoistic
4. combined.

Dependent measures included response rate, speed and completeness. The overall response rate was 41.4%. The highest response rates occurred with the university - social utility appeal (47.2%) and the commercial - egoistic appeal (46.8%). Respondents replied more quickly to altruistic appeals by about a day, and were more likely also to provide more complete replies.

Yu and Cooper (1983) synthesized research from 1965 to 1981 which dealt with increasing questionnaire response rates. They combined results arithmetically across studies and computed the statistical significance of the synthesized results using the independent two-group chi-square test. Studies included must have reported at least one response rate of interest in this review and were not simply summaries of articles. The search process produced 497 response-rate effects contained in 93 journal articles drawn from abstracting services (25 items) and a manual search of articles included for review (68 items). The most pertinent study characteristics were as follows: sampling method; target population characteristics; method of

contact; questionnaire length; monetary incentives; nonmonetary incentives; response facilitators; and appeals. Five separate cumulative response rates (experimental, control, without-control, method-absent, and unknown) were calculated for each of the above characteristics in order to assist the authors in drawing inferences for within- and between-study comparisons. Since sample sizes ranged from 12 to 14,785 subjects, response rate comparisons were weighed by the underlying number of contacts.

The weighted average response rate for the total sample was 48.8%. With respect to the study sample characteristics, personal interviews (81.7%) and telephone surveys (72.3%) were found to be superior to mail surveys (47.3%) in securing survey returns, although mail surveys accounted for almost 80% of the studies. Multi-stage (69.7%) and random sampling (52.7%) were associated with higher returns. Questionnaire length was uncorrelated with the average total response rate. Pre-paid and promised monetary incentives positively improved rates of return. Significant positive effects were also observed for preliminary notification, foot-in-the-door technique, personalization and a follow-up letter. Appeals stressing the social utility or help to the researcher did not significantly influence response rates.

An article written by Ray and Still (1987) suggested that techniques for maximizing response rates in surveys may be counter-productive. In a study to examine the impact of a preliminary letter and a follow-up mailing of the questionnaires sent to 400 registered voters selected randomly from electoral rolls of the Australian States of Queensland and New South Wales, the authors investigated acquiescent response bias (*i.e.* the tendency for respondents to agree rather indiscriminately with many statements) by analyzing responses on several psychological scales / batteries which formed the questionnaire. This instrument had been used previously with similar samples and had produced response rates of about 25%, which in the absence of a control group served as a baseline measure for comparison with this study.

The initial mailing stimulated a 35% return and the follow-up wave an additional 12% for an overall response rate of 47%, or almost double the expected rate. Although not all scales /

batteries were equally affected, there were several indications of acquiescent response bias, as indicated by changes in the reliability of both balanced and one-way worded scales. The authors noted that efforts to reduce nonresponse bias by various enhancement techniques may not be justified given that respondent profiles in mail surveys, at least in Australia, resembled very closely the demographic profiles of the population in general. The authors discounted the value of follow-up mailings and said that the most productive technique seemed to be the use of a preliminary letter, an observation which differs with the data presented by Scott (1961), Kanuk and Berenson (1975) and Linsky (1975). None of these three articles were included in Ray and Still's reference list.

Personal Contact as a Preliminary Notification Technique

Douglas, Westley and Chaffee (1970) selected a personal delivery mechanism with a study instrument to investigate the influence of a public information campaign about mental retardation. A random sample of residents in two southwestern Wisconsin rural centres were interviewed for demographic data and media habits, and were subsequently asked to complete a self-administered questionnaire which was to be returned by mail to researchers at the University of Wisconsin. Response rates of 81% and 44% respectively were achieved in the two communities. An after-campaign questionnaire was mailed to initial responders. Telephone and personal follow-ups produced final return rates of 85% and 78% respectively for the two study sites. There were no other control groups to compare the results against since survey delivery method was not a primary focus of the study.

The effectiveness of delivering and retrieving self-administered questionnaires by hand was demonstrated by Stover and Stone (1974), in two experiments using cluster samples of 300 subjects drawn from upper-middle class and working-class census tracts. The first experiment in Madison, Wisconsin involved adults aged 21 years or older whereas the second experiment in Boulder, Colorado focussed on registered voters aged 18 years and older. The

voter's list in the Boulder sample enabled researchers to send a preliminary letter to each potential respondent. The researcher asked each subject if they would complete a questionnaire at the respondent's convenience, and arranged a pick-up date. The response rates were 70% for the Madison study and 84% for the Boulder study. Although not quoted, the combined response rate was 77%. Questionnaires were composed of several closed-ended and one open-ended question, which took about 30 minutes to complete. The authors commented on the considerable dollar saving compared to a personal interview procedure and the modest saving over traditional mail surveys. They suggested that the technique "may prove useful to survey researchers wishing to conduct low-cost surveys in geographically compact areas (p. 287)." No control groups were identified.

An article by Lovelock, Stiff, Cullwick and Kaufman (1976) reported on three experiments which studied personal delivery (and collection) of self-administered questionnaires. The first study by Kaufman and Stiff included a pilot test of the procedures in which they employed a 13-page questionnaire on adult education delivered by mail and by personal visit to 138 households. Mail delivery returns of 34% (for one questionnaire) and 38% (for two questionnaires) were considerably less than the 74% return rate for personal delivery. In the main study, the return rate for personal delivery was 65%. The second study by Cullwick, this time on diet and health, using similar methods except for the addition of asking subjects to maintain a 3-day food diary, achieved a 74% response rate (although only 41% returned food diaries). The third study by Lovelock on urban transportation required the survey-takers to keep a detailed logsheet on the substitution of households, refusals and "ineligibles". The resultant response rate of 73% was similar to the two previous results, although it was based on the households visited *less* "ineligibles" and not-at-homes. In each of the above studies, the cost per completed questionnaire was considerably less than the actual or estimated mail-delivery cost. Preliminary notification by postcard was used by Cullwick only, while follow-up procedures such as callback and/or postcard reminders were features of the

Kaufman and Stiff, and the Lovelock studies. No differential effects were reported in the article for any of the latter response-enhancement techniques.

Bellizzi and Hite (1986) used a balanced 2x2 study design of 400 subjects to compare face-to-face distribution (advanced contact) against traditional mail-survey technique (no advance contact) combined with a one-dollar enclosed incentive or no monetary incentive. "Face-to-face" questionnaires were distributed in supermarkets and returned by mail. Four supermarkets located in different parts of the city were selected to reach female consumers of every income group and social class. The normal mail survey conditions (no advance contact group) were selected at random from the telephone directory. A subsequent comparison between the two sample frames failed to detect any significant differences on 10 of 11 socioeconomic and demographic variables. Responses to the 81 Likert-type questions on shopping convenience and life style were analyzed using a factorial (2x2) analysis of variance. Major dependent variables included response rate, response differences and survey costs.

The advance contact and the monetary incentive groups produced significantly higher response rates than the no-advance-contact ($p < .004$) and the no-monetary incentive conditions ($p < .001$) respectively. No major significant observations were apparent in response differences, as assessed by factor analysis. Higher response rates and the elimination of non-respondent mailings produced lower survey costs per return for the advanced contact group, even after including labour costs associated with face-to-face distribution. Under the incentive condition, mail distribution (\$2.92 / return) was more expensive than face-to-face distribution (\$1.83 / return). Under no incentive, mail distribution (\$1.54 / return) was more than twice as expensive as face-to-face distribution (\$0.61 / return). The authors noted that supermarket distribution was both an unbiased and cost-effective way to conduct consumer research compared to mail distribution. They explained their results using dissonance theory and self-perception theory.

Gowans (1987) reported on the data obtained from the market survey which Bell Canada conducted within the context of this thesis project, as well as commenting on the overall impact of the promised charitable contribution employed to encourage a higher response rate. Rather than duplicate a discussion of the main findings now, this summary will be limited to data pertaining to the enclosed questionnaire *per se*. The questionnaire (see Appendix B) delivered by hand but returned by mail surveyed the attitudes and experience of respondents towards consumer surveys. The overall response rate was 63% with no significant differences between experimental and control groups. In general, respondents had participated in surveys before (72%), preferred mail surveys (87%), and would be willing to spend more time participating in survey research sponsored by a university or charitable organization than by Bell Canada or a professional polling company (N=587).

FOOT-IN-THE-DOOR (FITD) APPROACH

The research quoted in this section will review pioneer work in the FITD phenomenon, report on a number of summary articles which synthesized the literature over a given period of time, and present a sub-set of FITD articles which employed an increase in survey response rates as a dependent variable. This review will not address the theoretical bases of the FITD effect except indirectly, since the main objective was to assess the relative effectiveness of the technique in influencing individuals to adopt a target behaviour. Nor will this section deal with the Door-in-the-Face (DITF) phenomenon except in a comparative way since some studies investigated both approaches. Where the FITD technique uses an initial compliance to a small request to increase the likelihood of agreement to a second larger request, the DITF approach presents a very large initial demand (expected to be refused) to stimulate a compliance to a smaller more reasonable request (Cialdini *et al*, 1975).

Pioneer Studies in the FITD Approach

Research into the FITD approach or gradation technique originated with Freedman and Fraser (1966) in trying to answer the question: "How can a person be induced to do something he would not rather do?" Two experiments were conducted to test the assumption that once a person has complied with a small request he is more likely to comply with a larger demand. In the first experiment with 156 randomly selected housewives, the experimental group was asked by a single interviewer to answer a few questions about the kinds of soap they used. This was followed up three days later with a request to allow a 5- to 6-person consumer research survey team to enter the home for two hours to classify household products used. Four conditions were studied:

1. Performance -- initial questions asked followed later by the larger request
2. Agree - only -- initial questions not actually asked (researcher would call-back)
3. Familiarization -- initial contact but no questions
4. One-contact -- no initial contact.

Each request condition (groups 1 and 2) resulted in significantly higher compliance rates than the familiarization and one-contact (control) conditions.

The second experiment was designed to control for possible moderating influences in the first study. Two public issues provided the context for the recruiting subjects: a safe driving campaign and a community - beautification project. The first request involved placing a small sign in the subject's window or signing a petition while the second request asked subjects to place a very large sign on their front lawn which said, "Drive Carefully". The aforementioned resulted in four conditions regarding issues and tasks, with a fifth condition being the control group who were only asked the second request. A sample of 112 subjects about equally divided among the five groups was selected from cluster samples in Palo Alto, California. The third or fourth house on each neighbourhood block was selected for the study and all subjects on one block were assigned to the same condition. Subjects were primarily female (103

women, 7 men) and were contacted face-to-face by a male or a female experimenter who alternated between subjects relative to the first or second request, except for control subjects who were contacted only once.

There were no significant differences among the study groups for compliance with the first request. As in the first experiment, agreement with the initial demand significantly increased the likelihood that the larger request would be granted, as 55% of the experimental versus 20% of the control subjects agreed to place the large sign on their front lawns. The requests which were similar in task or issue produced the larger differences relative to controls, although even the dissimilar task or issue groups were significantly greater than the control group. There were no significant differences among the experimental groups. The authors pointed out in their discussion of the results that, "In all cases the requests were made by presumably nonprofit service organizations".

One of the first follow-up studies to Freedman and Fraser occurred with the conceptual replication work of Pliner, Hart, Kohl and Saari (1974). Experimenters canvassed 88 householders in a suburban Toronto neighbourhood on behalf of the Canadian Cancer Society. Households were randomly assigned to one of three conditions: (1) small prior request (n=27); (2) moderate prior request (n=26); and (3) no prior request (control, n=35). The small request consisted of asking the householder to wear a pin to publicize the Cancer Fund drive. The moderate request further required the respondent to wear the pin the next day and to persuade another family member to do likewise. All subjects agreed to the above two requests. The large request consisted of asking the subject to donate money to the Cancer Fund.

The FITD - condition subjects performed significantly better than the no-prior-request condition both in terms of the percentage who donated (small request = 74.%; moderate request = 81% versus control = 46%) and in the amounts of money donated (\$0.58 in the control group with \$0.98 in the small request and \$0.87 in the moderate request respectively). However when donations were divided by donors only, the above donation differences

disappeared. Thus, the FITD technique demonstrated by Freedman and Fraser was replicated in this study insofar as donation behaviour was concerned.

The initial request size and the timing of the second request were investigated in two experiments by Cann, Sherman and Elkes (1975). Initial request size by delay set up a 2 X 2 factorial design of four experimental conditions with a fifth group (control) receiving only the second request. The small first request involved answering three short questions from a local group promoting traffic safety. The large first request required subjects to spend two hours at a street intersection monitoring traffic flow. The intermediate second request would compel subjects to hand out fifteen pamphlets to neighbours on traffic safety. In the delay conditions, the intermediate request was made immediately (no delay) or 7-10 days later. Experimental subjects were 88 residents of Bloomington, Indiana selected at random from the telephone directory and assigned in relatively equal groups to each condition.

All subjects in the small initial request agreed to the first request compared to only 12% of those in the large initial request group. The major reason for this effect was because the moderate second request made immediately was superior to the delayed request (90% versus 29%) in influencing compliance. There were no significant differences among the other three experimental conditions relative to the dependent measure. The combined experimental results however were highly significant compared to the control group which confirmed the FITD hypothesis. The second experiment repeated the first experiment's no-delay and control conditions except that the new experimenter was blind to the experimental hypothesis and to the area of research (n=60). The same pattern of results as in the first experiment was observed in this second study. The only crucial consideration appears to be that if the initial request is large there should be no delay in making the second request in order to increase compliance.

Seligman, Bush and Kirsh (1976) also looked at the size of the first request relative to compliance in a FITD model. They randomly assigned 112 of 119 adults chosen from a telephone directory probability sample to five groups (four experimental and one control).

Each experimental subject was telephoned and asked to answer questions on the energy crisis, after which they were asked 5, 20, 30 or 45 short-answer questions. No significant differences arose among the four groups in their compliance with the first request. Two days later, an experimenter telephoned the initial complier and posed the second request which required the person "to complete the survey" by agreeing to answer a further 55 questions. Statistically significant chi-squares were produced only for the 30- and 45-question experimental groups (73%) in comparison to the 5- and 20-question groups (38% and 35% respectively) and to the control group (31%). The authors mentioned that their results did not support Freedman and Fraser's self-perception explanation, but that this might be due to the need for this study's subjects to express their intention to comply with the first request.

In applying the FITD approach in a commercial environment, Scott (1976) tried to determine its relative effectiveness at various incentive levels designed to induce trial of a new weekly newspaper in a northwestern suburb of Chicago. The small request of subscribing for a two-week period was followed-up by a request subsequently to subscribe on a regular basis (minimum period of six months). The study was also designed to estimate the ability of the self-perception theory to explain the findings. The sample of 430 potential subscribers was randomly assigned to four experimental incentive/trial groups (none, 50% discount, free-trial, and free-trial plus a 50¢ fast food restaurant coupon) and to a no-trial control group. The regular subscription price for two weeks was 50¢. Data were analyzed using all participants (whether or not they accepted the trial) to avoid self-selection bias. The only significant differences appeared with the 50% discount group (25¢ saving) when compared to the free-trial and to the control group, whereas the lowest subscription rate overall occurred with the free-trial (50¢ saving) group. The superiority of the 50% discount condition was further reinforced when the initial trial acceptors only were compared against the no-trial group, which produced a result that was almost 500% better. Significant differences were produced also for the regular-price trial versus the free trial and control groups and the free-trial-plus-premium group

versus the free-trial group. While the free-trial-plus-premium group was almost as effective as the discount group itself (32 vs. 44% respectively) in the analysis of trial adopters, the former condition was much more expensive on a per subscription basis. The author offered some practical suggestions based on the results in her discussion section.

In a FITD-related study, Swinyard and Ray (1977) investigated the interaction between advertising and personal selling in a field experiment in residential Palo Alto, California involving the Red Cross Blood Center. Subjects were sent 0, 1, 2 or 4 direct-mail advertisements for the Blood Center before or after a personal visit by a "volunteer". The volunteers delivered a standard promotional message (personal selling) during which they labelled or did not label the subject with a charitable label. The attribution approach used in this study is related conceptually to the self-perception explanation several authors proposed as the mediating effect of the FITD technique (Beaman *et al*, 1983). The dependent measure was determined through a follow-up telephone by experimentally blind interviewers who respondents were told represented a Stanford University student project on public health organizations. A question on behavioural intentions named five social health organizations and asked respondents which of these groups they would volunteer to work for as a first or second choice. A no-personal-contact and no-advertising control groups were established within the study design which employed a total sample size of 303 subjects.

The personal selling condition was significantly greater than the control without selling regardless of the number of subsequent exposures to advertising although the impact increased after 1 and 4 exposures. When all personal selling groups were combined, the FITD-like conditions were substantially significant. Once the advertisements began to appear, "responses begin to soar". Thus, the labelled subjects improved the effectiveness of the advertising and they were likely to volunteer for the Blood Center. The authors noted that "the benefits from increased expenditures for sales training programs -- aiding the salesperson in developing an effective sales presentation strategy -- may be dramatic" (*ibid*, p. 514).

The modification of socially-conscious behaviour was the stimulus for a FITD study by Scott (1977). The author postulated that behavioural influence strategies (*i.e.* those which alter behaviour directly) were likely more effective and efficient than persuasion strategies (*i.e.* those which attempt to influence cognitive precursors) when the individual's attitudes were already supportive of a given issue or position. She tendered three questions in advancing the FITD model as a possible behavioural approach to employ:

1. Can the FITD effect be replicated when behavioural response to a large request constitutes the criterion measure?
2. How effective is the FITD technique relative to other behavioural strategies?
3. Does self-perception theory provide an adequate explanation for the effects of an initial small request on subsequent compliance?

The sample was composed of 315 residents of single-family homes in a Chicago suburb contacted at random personally and asked to place a small sign in their windows which promoted resource recycling. Subjects were randomly allocated to several treatments which included incentives of \$1, \$3 or no incentive to comply with the initial request, and half of the sample were asked to complete a behavioural attribution instrument. A second request to address either 25 (moderate request) or 75 (large request) envelopes for a recycling publicity campaign was made two weeks later by a different experimenter who again visited the homes to make the requests, and who offered \$3 to some to comply (*i.e.* a "double" incentive). Both behavioural intentions and actual behaviour were monitored, and a subset of experimental subjects as well as a second control group were interviewed for a community opinion poll by an independent commercial research firm after all experimental procedures had been concluded. The latter contained measures of attitudes towards recycling and personal activism. The independent variables of four incentive levels and two degrees of second request resulted in a 4 X 2 experimental design. There were seven major dependent variables: first and second request behavioural intention; first and second request behaviour; attributions; personal activism; and attitudes.

No significant differences occurred among the experimental groups re: compliance with the first request. Compliance with the second request varied. When the request was moderate, there was a significant FITD effect on both verbal (45%) and actual (42%) behaviour; however, both the \$1 (47%) and double incentive (60%) levels produced significant results for behavioural intention. When the request was large, only the no-incentive (38%) and the \$3 (36%) levels achieved significance for verbal intention. No level achieved significance for overt behaviour, although the no-incentive group (at 31%) produced the greatest degree of compliance. Except for circumstantial attribution, scores for attribution (personal and stimulus), personal activism and attitudes toward recycling were in the direction implied by self-perception theory, although these scores did not reach statistically significant levels.

Scott (1977) concluded that, "Gaining compliance with a small initial request under conditions of no incentive enhances the likelihood of positive behavioural intentions for subsequent moderate and large requests". Furthermore, she suggested that the FITD approach could be employed for behaviour modification if the target behaviour was not too large and the behavioural request was made in person.

Summary Articles of the FITD Literature

The earliest published summary of the FITD literature occurred when DeJong (1979) analyzed studies to determine how reliable the procedure was, what hypotheses could be associated with the self-perception explanation most commonly advanced as the theoretical basis for the FITD effect, any evidence of alternative explanations, and directions for future research. He reviewed 25 articles containing 31 experiments chosen according to the criteria below:

1. studies required a proper control group;
2. the data analysis must have included all experimental subjects and not just first-request compliers (in order to avoid self-selection bias);
3. high compliance with the initial request was required (although how high was not stated).

The author displayed the studies cited in his review in a handy table which included the nature of both the first and second requests, the percentage compliance achieved by the experimental groups and the no-initial request control group, and the conclusion. While a large number of failures to show a FITD effect were listed in the table, most were in the predicted direction, and several had a plausible reason for failing to replicate Feedman and Fraser's initial success. DeJong concluded that the FITD effect could be readily obtained. Three alternative explanations accounting for the FITD phenomenon proved to be inadequate in comparison to the self-perception rationale; however, the author felt that researchers needed to be more specific about the precise way in which self-perception mediated the FITD effect. On the other hand, DeJong noted that Bem (1972), who pioneered conceptual work on self-perception, admitted that "self-perception theory does not fully explain the link between self-attribution and subsequent behavior".

Zuckerman, Lazzaro and Waldgeir (1979) studied the effects of extrinsic rewards on FITD relative to overjustification effects (*i.e.* receiving rewards for tasks which are intrinsically interesting), and analyzed the results according to self-perception theory. The study methods were similar to Snyder and Cunningham (1975). A random selection and subsequent assignment of 140 subjects chosen from a telephone directory to one of three groups (pay, no-pay and control) constituted the study sample. On the first request, subjects were asked whether they would be willing to answer a 5-minute questionnaire for the Bureau of Civic Safety. Pay-group subjects were informed that they would be mailed \$1.50 after the interview. The second request was made 2-3 days later when a different experimenter telephoned on behalf of the Consumer's Interest Group and asked subjects to participate in a 25-minute interview about the respondent's use of various household products. As hypothesized, no-pay subjects (at 64% compliance) were significantly more willing to agree to the second request than control-group (45%) and pay-group (33%) subjects. The results reinforced the self-perception explanation for the FITD effect and was consistent with overjustification literature.

Some fifteen years after the first study of the FITD technique, Beaman *et al* (1983) performed a meta-analysis on 120 experimental groups reported in the available literature to August 1981. Meta-analysis is a method of using "the results of collections of research paper to answer specific questions, usually in a quantitative manner" (Louis, Fineberg and Mosteller, p. 1). Louis *et al* also noted that,

- Meta-analyses differ from careful literature reviews in that they create and analyze at least one numeric summary from each primary study (selected).
- Compared to a literature review, a meta-analysis addresses sharper questions, usually with quantitative answers.
- A meta-analysis can lead to stronger inferences about the subject of the primary studies and also assesses other effects that depend on the collection of primary studies.
- ... the meta-analysis itself is an observational study with the strengths and weaknesses associated with that design (p. 2).

In their meta-analysis, Beaman *et al* considered a number of variables which should explain the compliance to a second request following an initial demand such as:

- a. the time between the two requests,
- b. the compliance rate for the first request,
- c. an active or passive participation with the first request,
- d. selected demographic variables re: the experimenter and the subject, and
- e. the effect size.

In addition, the study looked at a sub-set of "pure tests" of the FITD hypothesis, which involved "eliminating studies which did not include an explicit, direct second request" (Beaman *et al*, p. 187). Lastly, the analysis examined the self-perception explanation for the FITD effect, which had been accepted by most early researchers as the theoretical basis for the phenomenon.

The results showed that, although the FITD phenomenon was replicable, the effect was weak. Furthermore, the self-perception explanation was not sufficiently precise to account for the variance, as the pure-test results revealed a number of previously undisclosed problems

hindering better predictions from this theoretical model. As for key predictor variables, the authors suggested that time between the two requests (*i.e.* strongest mean effect size was a two-week time lapse), initial compliance with a request, an "active" request and male-sex experimenters produced small but larger effect sizes than the alternative condition. The authors concluded that "the FITD phenomenon appears to be more complex than typically thought" (*ibid*, p. 192).

Dillard, Hunter and Burgoon (1984) reviewed FITD and DITF messages strategies in a meta-analysis of the use of sequential requests to secure behavioural compliance. The FITD and DITF approaches produced relatively small effects ($r = .17$ and $.15$ respectively), "even under optimal conditions" (p. 461). The authors noted that both self-perception theory (re: FITD) and reciprocal concessions theory (re: DITF) were seriously flawed in helping to explain the effects produced.

Three criteria were used to select studies: (1) the FITD and DITF articles cited were taken from published research reports; (2) some suitable summary data must have been included; and (3) unambiguous explicit appeals for both requests must have been made. These criteria resulted in 28 FITD and 18 DITF reports suitable to review, and because of multiple data collections in some reports, 37 FITD ($n = 4927$) and 24 DITF ($n = 2524$) effect estimates were available for analysis. The most common dependent variable was verbal compliance to complete the second request.

In the FITD analysis, 79% of the coefficients were greater than zero, which demonstrated the existence of the FITD phenomenon. Since only 28% of the variance was attributable to sampling error, the authors suggested that moderator variables should be considered. Based upon self-perception theory, they analyzed the following features: delay (number of days between requests); effort (high or low re: compliance with the first request); appeal (prosocial or self-oriented); and incentive (monetary inducement to comply). Nontrivial correlations were

obtained for effort, appeal and incentive. The timing of the two requests was an unimportant factor.

Of significance to this study was the sub-set of four "prosocial appeal - incentive present" studies ($n = 328$). The initial meta-analysis produced a significant chi-square ($X^2 = 17.85$, $p < .001$). Further analysis revealed that the Scott (1977) study supplied most of the variability. Scott (1977) employed environmental topics, face-to-face contact to make the requests, and a two-week delay between requests. A similar analysis was made for the "prosocial appeal - incentive absent" group of 33 studies and 3255 subjects. The effect size was twice as large as the standard deviation ($r = .16$, $s.d. = .08$) which substantiated a FITD effect.

The summary of FITD subgroup analyses taken from Dillard, Hunter and Burgoon (1984) is illustrated in Table 2.4. Appeal and incentive interacted to produce a FITD effect only when the appeal was prosocial and incentives were absent. In the DITF analyses, two conditions were required to demonstrate an effect: no delay and a prosocial appeal. The average effect however was small.

In their discussion of the results, the authors noted the common finding for FITD and DITF strategies: "neither technique is effective at increasing compliance when coupled with a self-oriented request" (*ibid*, p. 481). Initial meta-analysis support for a positive relationship between effort and effectiveness of FITD disappeared when effects due to incentive and altruism factors were removed. As mentioned previously, timing between the first and second requests was not important. In a section on practical considerations, Dillard and colleagues recommended FITD and DITF persuasive strategies for those involved in prosocial campaigns. They postulated that these techniques might help to increase survey response rates depending on the sponsoring organization and estimated that compliance might be enhanced by 20% on average.

Fern, Monroe and Avila (1986) synthesized the results of 59 articles on FITD and DITF using previous review - paper bibliographies such as DeJong (1979), Beaman *et al* (1983) and

TABLE 2.4: Summary of the FTTD Subgroup Analyses From Dillard *et al* (1984).

Group (Appeal)	No. of Subjects N	Mean Effect Size r	Est. True S.D. s.d.	% Variance from Sampling Error
Total Sample	4927	.11	.14	28
Self-oriented, incentive absent	533	.02	.00	100
Self-oriented, incentive present	300	.02	.00	100
Prosocial, incentive absent	2972	.17	.00	100
Prosocial, incentive present	188	.05	.00	100

(Taken from Dillard *et al*, 1984, p. 478).

Dillard *et al* (1983), as well as various indexes. This paper employed the "availability hypothesis" offered and tested by Tybout, Sternthal and Calder (1983) as the conceptual basis for the review, which was explained as follows by Fern and colleagues:

...information about one's own behaviour and information about the requester (request behavior) determine compliance in multiple request situations. ... An individual's decision to comply with a critical request depends on the favorableness of the issue-relevant information available in memory (p. 145).

Two criteria were applied in selecting studies. First, only published studies were reviewed. Second, sufficient information suitable for a quantitative assessed was essential. The former condition was biased deliberately toward reports having larger mean effect sizes. The latter condition helped to eliminate self-selection among subjects re: receiving both first and second requests; it assured that theoretical constructs associated with the availability hypothesis could be tested; and an appropriate control group for each study cited enhanced the search for causal relationships. The 59 studies produced 77 results suitable for analysis. A sub-set of 38

results with 80% initial compliance was analyzed separately from the other studies with a "less pure" test of FITD.

Data were coded to highlight: (1) the magnitude of the moderating request; (2) the time delay between requests; (3) the similarity of requests; (4) the same versus different requester; and (5) the type of initial request. The data would be used to test four hypotheses regarding increasing compliance with the critical second request in FITD studies:

- a. by increasing the relative magnitude of the initial request;
- b. by performing rather than agreeing to perform the initial request;
- c. by increasing the time delay between requests; and
- d. by having the two requests made by a different person.

Significant results were obtained when the initial request was categorized as moderate and when the initial requested behaviour was actually performed. Although not statistically significant, compliance with the second request increased as the magnitude of the initial request increased, or a different requester made the second request. Increasing the time delay had no effect on second-request compliance.

The authors concluded that the FITD multiple request strategy was associated positively with compliance and that it was likely to be more effective than the DITF approach. In discussing methodological issues, the authors noted that FITD and DITF research was characterized by low statistical power. They suggested that future sample sizes needed to be at least 150 if the traditional significance level of $p = .05$ was used. They also proposed that, if initial compliance did not equal 80%, the research study should not proceed as planned until this standard could be achieved.

Reingen (1978) tested six behavioural influence strategies in a field experiment involving 224 college students who were asked to donate money to the American Heart Association. Including the control conditions, the seven study groups established were composed of 32 students each as follows:

1. Donation request only (donation control)
2. Small request, then donation request
3. Extreme request, then donation request
4. Donation request plus "even-a-penny"
5. Small request, then donation request plus "even-a-penny"
6. Extreme request, then donation request plus "even-a-penny"
7. Volunteer request only (volunteer control).

In the small request conditions, subjects were asked to answer four short Heart Association related questions. The extreme request required subjects to pledge three dollars a month for 12-month period as part of a Long Term Donor Program. Four weeks later, the conditions for study groups four and five above and the donation request only control were replicated with 84 male adults (28 per condition) in a downtown urban walkway. Following each donation request in the five experimental conditions, subjects were asked to become a fund-raising volunteer for the Heart Association.

A significant chi-square was obtained between the donation control and the five experimental conditions. Five orthogonal contrasts showed no significant differences among the various influence strategies. Few subjects agreed to volunteer for the Heart Association within the experimental groups. Practically, the experimental study groups increased donations from 1.8 times (group 4) to 2.3 times (group 5) the total funds obtained from the donation-control condition. A similar pattern of results were observed in the replication study.

The author concluded that "the experimental conditions produced greater totals than the control -- a result that fundraisers, in particular, should find important" (p. 100), and noted the relative ease with which such conditions could be applied, although results should be confirmed with a household population. The inability to elicit an agreement to the volunteer request was a surprising result. Reingen offered the "reactance theory" as a possible explanation for this effect (*i.e.* subjects perceive the small request as a way to have them agree to a series of successively larger requests). He suggested also that the even-a-penny condition

was an efficient means to induce greater behavioural compliance and that it could be useful in other contexts beyond fund-raising (*e.g.* survey research).

Vredenburg (1986) completed a detailed review of the FITD research within the context of behavioural influence strategies in his doctoral dissertation. Reference to his review of literature (Chapter 3) enabled the researcher to launch this study in the short time-frame available. In addition, personal communication with Dr. Vredenburg (1987) complemented this pragmatic literature review to ensure that the study was based upon a sound theoretical framework.

Vredenburg described the self-perception interpretation for the FITD phenomenon as follows:

1. Compliance is gained with the first small request because the request is so insignificant and little thought, if any, is given to compliance;
2. upon receipt of the second, or large, request the requestee examines his/her own behaviour in order to form a self-perception;
3. compliance with the second request results because non-compliance would be inconsistent with the self-perception formed.

Vredenburg's study *per se* investigated the relative effectiveness of alternative telemarketing strategies, some of which employed FITD approaches. Several hundred firms were contacted by telephone in two field experiments to determine whether a FITD strategy could increase seminar enrollment rates for a Telecom Canada account development program. This study demonstrated a weak FITD effect, extending the external validity of the technique to an industrial marketing setting.

There have been over 30 studies on the FITD concept during the 1980's, as cited in Social Sciences Citation Index (SSCI). Fundamentally, the basic process has not been altered and accordingly these studies will not be reviewed in detail here. A few however will be cited as examples of the contextual range for current FITD studies.

Kilbourne and Kilbourne (1984) investigated FITD effect variation relative to social norms. Subject justifications or excuses were monitored following compliance and noncompliance respectively in a FITD paradigm. Results supported the hypothesis that (external) norms of social conduct could be a more useful conceptual explanation than the (internal) self-perception theory. A second study by B. Kilbourne (1988) extended the above study methodology to whether or not friends and strangers might react differently to a FITD or DITF manipulation. Friends were more compliant.

Katsev and Johnson (1984) applied the FITD approach as well as other behavioural strategies such as monetary incentives to promote energy conservation. While FITD has been shown to be effective in prosocial behaviour change as noted above, the authors concluded that no single condition was superior to the others, given the relatively small gains made in residential electrical energy conservation. An interesting variation in their study was the use of monetary incentives for compliance with the second-request rather than the more traditional first-request approach.

Goldman (1986) cited five additional studies which he had been involved in as a joint author since 1981. Title variations in his references such as two-door-in-the-face procedure and two-feet-in-the-door suggested a creative re-working of the process. In the 1986 study, the author combined both the FITD and the DITF procedures to formulate a new compliance technique which consisted of two initial requests to precede the target request.

Using the FITD Approach to Enhance Survey Response Rates

The study by Snyder and Cunningham (1975) to test the self-perception explanation of the FITD phenomenon was also relevant to investigating how a FITD strategy could improve survey response rates. A random selection of 92 Minneapolis telephone directory respondents were randomly assigned to two experimental and one control group. Under the guise of the

Consumer's Interest Group or the Bureau of Public Safety, subjects in the experimental conditions were asked to comply with a small initial request (to answer 8 questions), or to comply with a large initial request (to answer 30 questions). The former request was designed to stimulate high compliance and the latter request, low compliance. Compliers were informed that the survey questions would be conducted at an unspecified later date. Consistent with self-perception theory, the two conditions should have resulted in relative compliance and noncompliance respectively with the second request, which was to answer 30 questions. The second request situation was scheduled two days after the initial request and was delivered by a different experimenter representing the alternative service organization to the one used in the initial contact. Control group subjects were only asked the second request.

More than half of the small initial-request subjects (.52) agreed to the second request compared to a third of the control group (.33), which was a statistically significant difference. About one fifth of the large initial-group subjects complied with the second request. These results supported the self-perception interpretation for FITD.

Reingen and Kernan (1977) looked at the FITD approach in a commercial setting in order to test whether its success in public interest causes could be duplicated in profit-oriented situations. Subjects were asked to reply to 5 or 35 questions over the telephone with about half of the subjects offered \$5 to participate in the survey (the other half were offered no incentive). The second request tendered 7-9 days later required compliers to answer 20 questions. Randomly selected names from the Westchester County, New York telephone directory produced 109 female and 24 male residents assigned systematically to each of the four experimental and single control groups. Greater initial request compliance was obtained for the small (.84) versus the large (.55) request and for the \$5 incentive (.72) versus no incentive (.63), although the latter difference was not statistically significant. The best compliance results for the second request were achieved with the classic FITD condition, namely the low initial request / no incentive condition. Of the nine predictions advanced by the authors prior to

the study, eight were confirmed by the data. The authors proposed in their discussion of results that "it seems reasonable to consider the possibility of using foot techniques rather than or in combination with money incentives to increase response rates" (p. 368), and that telephone solicitations seemed a more appropriate setting for this approach.

Robertson and Bellenger (1978) investigated a variation of a traditional altruistic appeal in stimulating higher mail survey returns. Egoistic appeals (*i.e.* stressing the importance of the individual's response) and altruistic appeals (*i.e.* opportunity to do something good for someone else) are common ways to enhance a respondent's motivation with an initial mail contact. Three groups of 150 Denver area residents selected at random were mailed questionnaires (N=450): (1) no incentive group (control), (2) personal incentive of \$1.00 group, and (3) contribution of \$1.00 to a charity of choice group.

The charitable contribution group produced returns which were significantly greater than the personal incentive or no incentive groups. No demographic variables (sex, marital status, educational background, or annual household income) had any moderating effect on the charitable contribution group results. Furthermore, the response rate for the charitable contribution group (41.3%) was almost 60% greater than the personal incentive group (26%) and over 75% greater than the no incentive group (23.3%). The authors pointed out that the costs to administer the charitable incentive per respondent was relatively small since only seven charities were named to receive donations, a feature which reduced clerical time to process the checks.

The recommendation in the reviews by Kanuk and Berenson (1975) and Linsky (1975) to develop a theoretical basis for methods to enhance survey returns prompted Hansen and Robinson (1980) to study the relative effectiveness of the FITD model with alternative manipulations in a market research setting. Inspired by the Reingen and Kernan (1977) methodology, the authors employed two initial "foot" conditions, one a low personal involvement question - answer request (Yes / No condition), the other a higher involvement

interview using follow-up questions (probe condition). The subsequent or critical task required that subjects reply to a 32-question or a 102-question instrument mailed to all study group subjects within three days of the initial contact. The sample of 600 individuals was randomly selected from the Columbus, Ohio telephone directory and randomly assigned in equal numbers to each of the six cells of a 3 X 2 factorial design (3 conditions by 2 critical task situations). The experimenters hypothesized that the more involved foot condition would be superior to the low involvement and control conditions respectively, and that response rates generally for the shorter version of the mailed questionnaire would be greater than the longer version. Response speed and completeness were also monitored.

The probe foot condition (58%) achieved significantly better results than both the Yes / no (43%) and the no prior contact control (30%) conditions on the shorter questionnaire with a similar though inferior pattern of the longer version. The hypothesized pattern of results appeared for response speed (not statistically significant) but there were no differences among the groups on response completeness. Thus, the study supports the FITD technique. The authors noted the large difference between initial agreement and actual completion of the questionnaire among all experimental subjects (Yes/no: 86 vs. 58%; high: 95 vs. 46%), and recommended that behavioural rather than intentional compliance be included in future studies. Practically, the 35 to almost 50% increase in response rates by the high involvement foot group for the short and long questionnaires respectively suggested to the investigators that market researchers consider seriously the nature of the setting in the design of the foot for future applications of the technique. Hansen and Robinson observed that, from a theoretical perspective, the following four situations have been receptive to the use of the FITD approach: (1) when the sponsoring organization and the topic have been prosocial; (2) when two contacts have been used, positive results have been produced in both prosocial and commercial situations; (3) the timing of requests is less important in prosocial situations; and (4) the recent study suggested that a high involvement foot would have the greatest chance of success in a commercial business setting.

Prior notification relative to self-perception theory was the context for Allen, Schewe and Wijk (1980) in their study of a foot manipulation to improve mail survey response. A simpler version of the methodology used by Hansen and Robinson (1980), this study employed two pre-call solicitation approaches (a direct solicitation and the same solicitation with three open-ended questions), and a no-prior notification control group. The authors made a distinction between a foot manipulation and a self-perception-based foot manipulation. They stated that the respondent's agreement to the simple solicitation as a behavioural intention qualified the condition as a foot manipulation whereas the act of answering the three questions qualified that condition as a self-perception-based foot manipulation, and implied that this distinction should be made in future studies. Subjects for this study came from a random sample of 1075 residents in Malmo, Sweden who had been chosen for a research project on Swedish consumer feelings of alienation from the marketplace and their dispositions toward the global energy problem. The two experimental groups (n=239) received the prior-notification telephone contact and 196 subjects agreed to complete a mailed questionnaire. The no-prior-notification group (n=836) received the same questionnaire directly. This questionnaire included 92 Likert scale items, household energy consumption questions, and demographic measures.

No significant differences were produced between the two experimental conditions, but the pre-call groups surpassed the control group by a margin of more than three to one, 68% compared to 22%. These results did not replicate entirely Hansen and Robinson's (1980) results, but they did confirm their findings on the value of prior notification. Given the differences in the design of the two studies, Allen and co-workers suggested that the more involved condition they used may not have been enough of a higher involvement condition as in the Hansen and Robinson study.

Furse, Stewart and Rados (1981) compared the relative efficacy of the FITD technique against established procedures of follow-up contacts and monetary incentives to improve survey response rates. A mailed questionnaire on attitudes and usage of long distance

telephone services and other issues was sent to 907 residential telephone subscribers in Nashville, Tennessee. A university was identified as the sponsoring organization. Three principal study groups were established: (1) a no-prior-contact control group (n=294); (2) no prior contact plus a 50-cent incentive enclosed with the mailed questionnaire (n=294); and (3) a FITD group which received a telephone request prior to receiving the questionnaire (n=214). Half of the nonrespondents in each of the above groups received a follow-up mailing which included another questionnaire and a 50-cent incentive enclosed, while the other half received only another questionnaire. Thus, six treatments were available for analysis.

A significantly better result was produced for the 50-cent incentive than for either the FITD or control conditions. The follow-up mailings increased responses for all six groups. Results confirmed earlier findings about the superiority of enclosed incentives and follow-up contact to improve response rates. The authors suggested that the costs of administering a FITD interview as a higher involvement "foot" request would exceed costs for an enclosed monetary incentive and follow-up mailing. They concluded that the FITD approach does not work as well as established survey response-rate enhancing techniques.

The inconsistent finding of Robertson and Bellenger (1978) with empirical research was tested in a replication study by Furse and Stewart (1982). They sent a two-page questionnaire to 600 oven owners selected at random from a manufacturer's warranty records. The sample was divided into six equal groups exposed to a different incentive condition to influence survey return:

1. no personal or charity incentive
2. \$1 charity incentive
3. 50¢ cash incentive enclosed
4. \$1 cash incentive enclosed
5. 50¢ cash incentive plus \$1 charity incentive
6. \$1 cash incentive plus \$1 charity incentive.

The cash was enclosed with the questionnaire and the promised charitable incentive was sent to a charity chosen by the respondent (from a list of ten national charities) when the questionnaire was returned.

Pairwise z-tests showed that the only significant findings were associated with the amount of personal incentive used and thus, this study failed to replicate the Robertson and Bellenger (1978) result. Combining the promised charitable incentive with a personal cash incentive performed no better than the monetary incentive alone. Furse and Stewart found the cash incentive to be more cost-efficient than any of the charitable-related conditions.

Tybout, Sternthal and Calder (1983) advanced the availability hypothesis in their article as a better explanation of the dynamics involved in multiple request strategies such as the FIFD approach. Of interest here was their report on the third of four experiments they conducted. The authors investigated the willingness of subjects to answer 5 questions on the telephone in a Bureau of Health Care survey. Subjects who had complied with the small initial request were either asked the 5 questions or told they would be scheduled for a future time. Subsequently, subjects were asked the second critical request, to answer 20 questions. The second questionnaire battery was presented as a different survey which required a response immediately. As this experiment was a field test of the availability hypothesis, the two experimental conditions were intended to distinguish between own-behaviour information and request-behaviour, such that the expected superior result would occur for the own-behaviour condition.

A random sample from the telephone directory supplied 56 subjects (22 men, 34 women) who were randomly assigned to the two experimental groups and to a critical request only control group. Compliance with the initial request was similar for both groups. As predicted, the questionnaire response rate was significantly greater for the own-behaviour-condition subjects who actually answered the 5-questions (81%) than for the request-behaviour group (46%) or for the control group (55%). The difference between the control and request-

behaviour groups was not significant. The authors concluded that the availability hypothesis was applicable in practical circumstances, and that two strategies could be employed to increase compliance with requests. It would be important however: (1) to ensure that favourable information was available as a basis for judgements in research procedures; and (2) to enhance the favourableness of the information available in a given situation. It was not surprising when the authors noted that,

Multiple request techniques are likely to be effective in contexts where the requests pertain to issues toward which people typically are favourably disposed (p. 289).

Wynn and McDaniel (1985) looked at the FITD approach as a response stimulation technique in a study to examine response quality. An in-house mail questionnaire was sent to 569 members of an exercise and recreational club selected at random in a medium-sized southwestern city in the United States. Two FITD variations were applied using the telephone to 122 and 123 subjects respectively, and the remaining 324 subjects were simply mailed a questionnaire. The FITD manipulations elicited an almost three times greater response rate than the control group (49% versus 18%) which was highly significant. No significant difference occurred between the two FITD tactics. Furthermore, no significant differences were apparent for any of the response quality measures, item omission, response error, or completeness of answer.

The trade-off between maximizing response rates (RR) against the cost per respondent in market surveys was the conceptual focus of O'Keefe and Homer (1987) who conducted a cost-effectiveness study of foot-in-door (FID) and pre-paid monetary incentives (PMI). Dependent variables included response rate and respondents per dollar (RD) as well as response speed, response bias and item omission. A 2x3 factorial design with two FID manipulations (no FID, FID) and three PMI levels (zero, 25¢, \$1.00) served as the independent variable configuration for the study. The authors adapted the methodology of Allen, Schewe and Wijk (1982) in selecting a FID strategy which was "nonactive, public, and voluntary." The first request

required top managers / owners of 403 local manufacturing firms (with 100 employees or less) listed in the manufacturer's directory in the U.S.A. Northwest Standard Metropolitan statistical area, to commit to completing a questionnaire being sent to them about the accounting services they utilized in their business. The 85% who agreed to the request received the questionnaire shortly thereafter by mail.

The six study groups and main results were as follows:

<u>Survey Method</u>	<u>RR</u>	<u>RD</u>
1. No FID, No PMI	.12	.113
2. No FID, PMI = 25¢	.25	.187
3. No FID, PMI = \$1	.28	.133
4. FID, No PMI	.34	.192
5. FID, PMI = \$1	.43	.154
6. FID, PMI = 25¢	.42	.206

Unfortunately, time constraints prevented the researchers from conducting the FID manipulation for the "FID, PMI - 25¢" group, and data for this cell were estimated using a probit model to infer the response rate for the missing cell. Response rate was maximized by combining FID with PMI=\$1.00 while the respondents-per-dollar criterion was maximized by combining FID with PMI=25¢. Response bias, response speed and item omission were not affected by the FID or the PMI manipulations.

BEHAVIOURAL INTENTIONS

Only a brief presentation will be given here on behavioural intention since it was not a major strategic component in this study. Fishbein and Ajzen (1975) and subsequently Ajzen and Fishbein (1980) described how behavioural intentions influenced behaviour in their classic texts on the subject. Their theory of "reasoned action" viewed "a person's *intention* to perform (or not to perform) a behavior as the immediate determinant of the action" (*ibid*, p. 5).

Sherman (1980) and authors Greenwald, Carnot Beach and Young (1986) demonstrated in a

series of experiments how asking individuals to predict a future behaviour increased the likelihood that the action occurred. Sherman's experiment involved a request to help raise funds for the American Cancer Society, and the Greenwald *et al* research was concerned with predicting voting behaviour. Because of the positive influence of a behavioural intention on future behaviour, managers in prosocial agencies would be advised to incorporate a behavioural intention mechanism in soliciting the individual's involvement on behalf of their agency whether as a volunteer or in relation to donations.

DONATION BEHAVIOUR

This section of the Chapter will provide a very brief overview of some socio-psychological aspects of donation behaviour. In addition, some information will be supplied about the not-for-profit market sector in Canada.

The classic Canadian text on the charitable sector and its estimated 50,000 humanistic organizations was written by Samuel A. Martin (1985). He began with a philosophical and historical treatise on philanthropy, developed a rationale for donation behaviour and completed the picture by illustrating the fund-raising landscape with pertinent examples which supplied a unifying context for Canadian tax-deductible altruism. Martin's exhaustive work should be required reading for any serious student of fund-raising in the not-for-profit sector. An Appendix described four family donation regression models categorized by religious and non-religious giving, and presented as either a quantity model (expressed in dollars) or a quality model (expressed as a percentage of family income). The most important overall determinants to charitable giving were ability or capacity factors. With respect to non-religious giving, income and the number of children in the family were the only statistically significant independent variables for the quantity model, while only the number of children in the family was statistically significant for the quality model.

Cialdini and Schroeder (1976), Reingen (1978), and Brockner *et al* (1984) showed through their research that donation behaviour may be influenced positively through psycho-social strategies by legitimizing small donations. Related to the FITD concept, these studies were oriented to altering the perception of the size of the first request, without necessarily endorsing a small donation. Earlier work by Harris (1972) had established that performing a charitable act increased the salience that the individual would see themselves as being charitable and in compliance with a social norm supporting such compliance. Moreover, Kraut (1973) demonstrated that verbally labelling an individual as charitable increased the amount of the donation received from the subject. Thus, donation behaviour should be viewed much like any other behaviour, subject to socio-demographic influences and modifiable within limits by applying simple behavioural and social reinforcement theory.

The Canadian Not-for-Profit Market. The total not-for-profit market in Canada was estimated in 1980 by the Secretary of State Department to be valued at \$5.8 billion (Ross, 1983). This was equal to about 11% of all federal government revenues that year. The largest share belonged to the religious sector (41%) at \$2.4 billion followed by welfare (24%), other community groups (14%), health (12%), education (8%), and miscellaneous (2%). Within the health sector, the \$672 million of revenue were derived principally from donations (38%) and government grants (34%). By comparison, the Heart and Stroke Foundation obtained almost 90% of its revenues in 1987-88 through donations from individuals (Figure 1.3).

SUMMARY

This chapter identified several features which would influence the strategy to be used in testing the research hypotheses in this study concerning (1) the use of a promised charitable donation to improve mail-survey return rates, and (2) the impact of complying with a request to complete a mail-questionnaire re: future donation behaviour. Although Scott (1961), Erdos (1970), Linsky (1975), and Kanuk and Berenson (1975) observed that follow-ups were the

most potent vehicle for stimulating higher survey return rates, such a strategy would violate the FITD model. On the other hand, Yu and Cooper (1983) noted that preliminary notification, while not as powerful as follow-ups, was a worthwhile method to improve return rates. To this end, preliminary notification may have operated as a behavioural intention, which had been identified as a fundamental determinant of behaviour by Ajzen and Fishbein (1980). Kanuk and Berenson also noted that the only incentives which were truly effective were monetary ones. In his review of monetary incentives, Armstrong (1975) showed that such incentives increased return rates in 24 of 25 studies, and that promised incentives performed less well than prepaid incentives. Some disagreement existed in the literature about the value of a promised charitable incentive. A study by Robertson and Bellenger (1978) demonstrated that a promised charitable incentive was an effective FITD stimulus. However, Furse and Stewart (1982) indicated that cash incentives were more effective than a promised charitable donation.

The review of FITD studies by Fern, Avila and Monroe (1986) proposed that any future studies of the concept involve at least 150 subjects if the .05 level of significance were being used to test hypotheses. With regard to compliance with the second critical request, Hansen and Robinson (1980) advised that behavioural rather than intentional compliance be employed. They also observed that there would be a better chance of success if the issue were prosocial and that two personal contacts be scheduled, preferably with different experimenters.

CHAPTER THREE

DESIGN OF THE STUDY

The chapter begins with a brief synopsis of the study. This is followed by a presentation of the essential characteristics of the study sample, a description of the study instruments used in the mail questionnaire survey including specific documents employed with each of the study groups, a discussion of details about the design or framework of the study, and a report on data comparing the study groups to show that each of the groups displays the same socio-demographic profile. The chapter ends with sections on the data analysis procedures and the study hypotheses.

Synopsis of the Study

The background to this study was the determination of whether the FITD procedure could be adapted by the Heart and Stroke Foundation to generate more revenue during Heart and Stroke Month, a time when tens of thousands of volunteers make a personal visit to households in virtually every of community in Canada. After some brainstorming, it was decided that volunteers could be used in the future to deliver a small self-administered market survey for a corporate sponsor, thereby earning revenue from the sponsor and serving as a reasonable first request condition typical of a FITD approach (Litvack, 1986). The second critical request would of course be the request for a donation to the Heart and Stroke Fund. Reingen (1978) had observed that the FITD approach appeared to stimulate greater donations to a charity. Two studies concluded that FITD approaches enhanced survey return rates (Robertson & Bellenger, 1978; Wynn & McDaniel, 1985) although Furse and Stewart (1982)

had discounted its ability to do so. The operational purpose of the study would be to test the impact of a promised charitable contribution by the corporate sponsor on survey return rates, and to track whether the willingness to complete the self-administered questionnaire would affect the number or the size of the donations to the Heart and Stroke Fund.

Three study groups were established to investigate the operational approach described. Households in the experimental group (hereinafter known as the Heart Group) were visited by members of the survey-delivery team and asked to participate in the survey from Bell Canada. Only adult household members were given the opportunity participate in the project and, when children answered the door, they were asked to call a parent or adult to the door. If the adult agreed, they received a stamped, pre-addressed envelope which included a covering letter from the Vice-President of Fund-Raising, Heart and Stroke Foundation of Ontario (Ottawa-Carleton Chapter) soliciting their help, and an introductory letter from the Manager of Marketing Research for Bell Canada asking recipients to complete the attached mail questionnaire and to send it in by mail (Appendix B). The return envelope for Heart Group respondents was clearly Heart and Stroke Foundation stationary and the address was the Foundation address. Each member of the survey team was asked to use the following script at the door of each household:

"Good evening. My name is (give your name). I am a volunteer for the Heart and Stroke Fund. We are conducting a small mail survey for Bell Canada. For each survey mailed back to us, Bell Canada will donate \$5.00 to the Heart and Stroke Fund. Will you help us by completing the survey?"

(Wait for response -- try to get a definite Yes or No).

"Thank you for helping the Heart and Stroke Fund. Good night!"

There were two control groups. The primary control group (hereinafter known as the Bell Group) employed exactly the same procedure as the Heart Group except that the survey was being conducted only on behalf of Bell Canada. No reference was made to the Heart and Stroke Foundation. The external envelope was a Bell Canada envelope and addressed to Bell

Canada. Both the Bell Group and the Heart Group households were visited on the same evening the week before Heart and Stroke Month (February 1987). The script used by the survey team members for the Bell Group was similar to the Heart Group:

"Good evening. My name is (give your name). We are conducting a small mail survey for Bell Canada. Will you help us by completing the survey?"

(Wait for response -- try to get a definite Yes or No).

"Thank you for helping Bell Canada. Good night!"

The second control group was similar to the Heart Group except that no personal request was made to complete the questionnaire and the envelopes were dropped off in their mailboxes one week after Heart and Stroke Month. This second control group (known hereinafter as the Mail Only Group) was added to the study as a way to test whether the act of donating to the Heart and Stroke Fund could act as a FITD stimulus to improving survey returns. While this seemed like a good idea initially, not enough critical thinking was done to adjust for the inability to code households in order to track the influence of making a donation on the subsequent return of mailed questionnaires. Nevertheless, this group provided an interesting twist to the original FITD concept and some of the data collected will be presented later in this report.

The FITD Approach. The first request condition for the Heart Group and the Bell Group consisted of a behavioural intention and the subsequent completion and mailing-in of the Bell Canada questionnaire. The second or critical request was the actual donation to the Heart and Stroke Fund when visited by a Foundation canvasser. On the other hand, for the Mail Only Group, the first request was the donation during Heart and Stroke Month, and the second request was the completion and mailing-in of the questionnaire dropped off in their mailbox. Both request conditions required that some action be performed, a feature which provided a very robust measure of compliance. It should be noted that several researchers found that compliance with the second request was enhanced when the first request involved an action to

be performed rather than a simple verbal intention to comply (Hansen and Robinson, 1980; Tybout, 1983; Beaman *et al*, 1983; Dillard *et al*, 1984; Fern *et al*, 1986).

None of the survey team members were used to canvass for donations since the Foundation was not prepared to disturb the normal canvasser relationship established with the relevant volunteers. Canvassers were informed that the survey team had visited homes the week prior to Heart and Stroke Month, and survey team members were advised to refuse any donation to the Heart and Stroke Fund when they solicited individuals to participate in the mail questionnaire. In the latter case, the survey team member informed the householder that volunteers would be canvassing homes during the next month. Essentially, survey team members were "blind" to the compliance with the second request (*i.e.* the donation, if any) and the volunteer canvassers were "blind" to the compliance with the first request (*i.e.* the completion and mailing-in of the questionnaire). The data on donations was obtained from receipt books available from the Heart and Stroke Foundation. Thus, there were only minor changes to what was a naturally-occurring community event and the minimal intrusion improved the character of this field study.

Sample Selection

The ultimate application of this study would be with volunteers attached to the Heart and Stroke Foundations. Thus, a cluster sampling procedure was employed to mimic the volunteer canvassing structure currently in use. The principal investigator selected the City of Kanata as the study site due to the preference of the regional Heart and Stroke Foundation for an intact community and because of his familiarity with the city.

A grid composed of 240 numbered squares was superimposed over a map of the city. A table of random digits was used to identify clusters for the study group (Fleiss, 1981). Streets appearing in the randomly selected grid cells were assigned to the experimental group. Control groups were selected at the same time and matched to the experimental group. Study group clusters were adjacent to each other and were composed of groups of homes with a perceived

equal market value. Furthermore, streets appearing in the randomly selected grids were chosen to produce a study sample which had three estimated home-value ranges: large single-detached homes; smaller or "linked-single" homes; and high-density (garden) homes. The above prognostic stratification of households by estimated home value-- higher, average and lower -- was used as a proxy measure for household income. To facilitate subsequent data collection, entire streets were used, again mimicking the routine of establishing a canvasser's walking route during Heart and Stroke Month.

Sample Size

In order to avoid sample size difficulties in the analysis phase through loss of statistical power, it was decided that the study should have generous sample sizes for each study group. Study groups of 250 households were selected initially as the target sample size, for an overall target study sample of 750 households. This was consistent with Fern *et al* (1986) who recommended a minimum sample of 150 subjects for FITD comparisons at the .05 level of significance.

The study group sample size was selected to adjust for the estimated sample losses shown in Table 3.1 in order to provide a minimum first-request sample of 150 subjects. A sample size and relative variance estimation for the target study samples is included in Appendix A. Based on the assumptions above, and employing the .05 level of significance, the greatest degree of confidence would be associated with results for equal study groups. The computed relative variance of 21% is quite acceptable for studies of this type.

The study results would have been easier to analyze with equal cell sizes for the study groups. The cluster sample technique used to select the sample made such a design feature difficult to achieve since it was necessary to consider Heart and Stroke Fund canvasser routes at the same time. In addition, it was easier to plan for the delivery of the surveys when entire streets or portions of streets could be assigned to the survey-delivery personnel. There was little difficulty matching houses with a similar relative value due to the planning model used to

design housing development in the City of Kanata. As in most satellite suburban communities, great care was taken to ensure that adjacent homes were relatively equal in assessed value.

TABLE 3.1: Determination of Target Sample Size.

<u>Basis for Sample Determination</u>	<u>Estimated Sample</u>
• initial target sample size	250
• 20% non-response due to absence, during the study recruitment phase	$250 \times .80 = 200$
• 20% maximum refusal to fill out a questionnaire (at the door)	$200 \times .80 = 160$
• 40% questionnaire return rate	$160 \times .40 = 64$
• comparison of sub-groups	
• equal groups, <i>i.e.</i> $p = .50$	$64 \times .50 = 32$
• unequal groups, <i>i.e.</i> $p = .25$	$64 \times .25 = 16$
• unequal groups, <i>i.e.</i> $p = .10$	$64 \times .10 = 6$

Study Instruments

The study instruments are listed in Table 3.2 according to the study groups. It was important to ensure a high identification or salience with the survey sponsors. Thus, Heart Group and Mail Only Group households were required to mail their questionnaires to the Heart and Stroke Foundation of Ontario. The covering letter and return envelope employed Heart and Stroke Foundation stationary in order to increase further the salience and reinforce the relationship of the survey to the Heart and Stroke Fund. Similarly, Bell Group materials and stationary identified Bell Canada as the sole study sponsor. Copies of the instruments may be found in Appendix B. No mail or telephone follow-ups were used to increase the survey

response rates beyond the original delivery of the questionnaires. Such additional contact with subjects would have violated the first request condition of the FITD approach.

TABLE 3.2: Study Instruments.

EXPERIMENTAL	CONTROL	CONTROL
HEART GROUP	BELL GROUP	MAIL ONLY GROUP
<ul style="list-style-type: none"> • stamped pre-addressed envelope (Heart and Stroke Foundation) • Heart and Stroke Foundation covering letter • Bell Canada covering letter • 14-item survey 	<ul style="list-style-type: none"> • stamped pre-addressed envelope (Bell Canada) • Bell Canada covering letter • 14-item survey 	<ul style="list-style-type: none"> • stamped pre-addressed envelope (Heart and Stroke Foundation) • Heart and Stroke Foundation covering letter • Bell Canada covering letter • 14-item survey

Study Personnel

Seven volunteers were recruited to visit Heart Group households. Bell Group households were to be visited initially by Bell Canada employees; however, a week before the study, the Marketing Manager decided to employ a local market research firm to deliver the Bell Group questionnaires. Mail Only Group questionnaires were delivered to household mailboxes by the researcher and his teenage son. A brief training session was held with each Heart Group volunteer as well as with the supervisor for the Bell Group survey team, and instruction sheets identified the location of the sample clusters, the recommended verbal introduction to adult household members, and general directions to survey personnel (see Appendix B). Each survey-team member kept a tally sheet to record the address of each home visited and to note any remarks from household members or other observation (*e.g.* vacant house) which might be important to the study.

Timetable

This particular study could only be done during the final two weeks of January because of the annual scheduling of Heart and Stroke Month in February and because of the theoretical nature of the FITD approach. For example, Beaman *et al* (1983) found that a two-week delay between the first and critical requests produced the strongest mean effect although Hansen and Robinson (1980) suggested that timing was less important in FITD strategies employed in prosocial situations. With regard to the deadline for the receipt of surveys, the initial deadline for questionnaires from the Heart Group and the Bell Group was going to be the first business day following Heart and Stroke Month. However several surveys arrived during the following week (41 days total) for the first two study groups (Heart and Bell Groups) and it was decided to include these in the analysis phase. For the Mail Only Group, questionnaires were delivered during the week following Heart and Stroke Month. Except for one questionnaire received in late August (not included in the total), almost all Mail Only returns were received within 45 days, and these also were added to the return rate for the Mail Only Group. Tallies for the return of questionnaires for each of the study groups by method of delivery and by date of return may be found in Appendix C.

Study Design

The basic design illustrated in Figure 3.1 describes three experiments. As mentioned previously, Heart and Stroke (H & S) Month is an annual event in February. In the first experiment, the effect of a promised charitable donation on mail questionnaire returns was evaluated by comparing the Heart Group against the Bell Group. The second experiment tested the FITD effect on increasing survey response rates (using donations as the initial request) by analyzing the survey response rate for the Mail Only Group (at T3) against the response rate for the Heart Group (at T2). The third experiment assessed the FITD effect of completing a mailed questionnaire on donation behaviour again comparing the Heart Group to the Bell Group.

Figure 3.1: The Study Design.

	<u>T1</u>	<u>T2 (H & S Month)</u>	<u>T3</u>
<u>Experiment 1: Questionnaire Returns</u>			
R	Heart Group	Heart Group	
R	Bell Group	Bell Group	
<u>Experiment 2: Questionnaire Returns</u>			
R		Mail Only Group	Mail Only Group
R	Heart Group	Heart Group	
<u>Experiment 3: Donations</u>			
R	Heart Group	Heart Group	
R	Bell Group	Bell Group	

(R = Random assignment)

Independent, Intervening and Dependent Variables

Independent Variables. The promised charitable donation by Bell Canada to the Heart and Stroke Fund was the primary independent variable (also identified as a treatment effect) in experiment one (Table 3.3). The impact of this independent variable was measured by establishing the Bell Group as a control condition to compare against the results of the experimental Heart Group. The influence of making a donation was the major independent variable for experiment two. The act of completing a questionnaire and sending it in was the primary independent variable in experiment three.

Dependent Variables. The dependent variables or criteria of success were the questionnaire response rate, the speed of return, the number of donors, and the mean donation. The process of random selection of city streets for the study sample and the subsequent random

allocation of these clusters to the study groups were procedures to improve the likelihood that the differences observed between the study groups were attributable to the independent variable.

Intervening Variables. Intervening variables have been defined as "all conditions which impede attributing all differences in dependent variables to the independent variable" (Fox, 1969, p. 454). Through the mail questionnaire, data about the level of schooling, employment status, the number of persons in the household and household income were possible intervening variables of note relative to the questionnaire return rate. The inability to code each of the questionnaires did not allow any comparisons to be made against other dependent variables. However, it was possible to attribute each questionnaire returned to a specific study group and to its relevant method of delivery by means of a simple coded message written on the outside of return envelopes. The words, "Please Return!" written in different ways enabled the researcher to distinguish each of the study sub-groups. Thus, it was possible to employ

TABLE 3.3: Independent and Dependent Variables for Each Experiment.

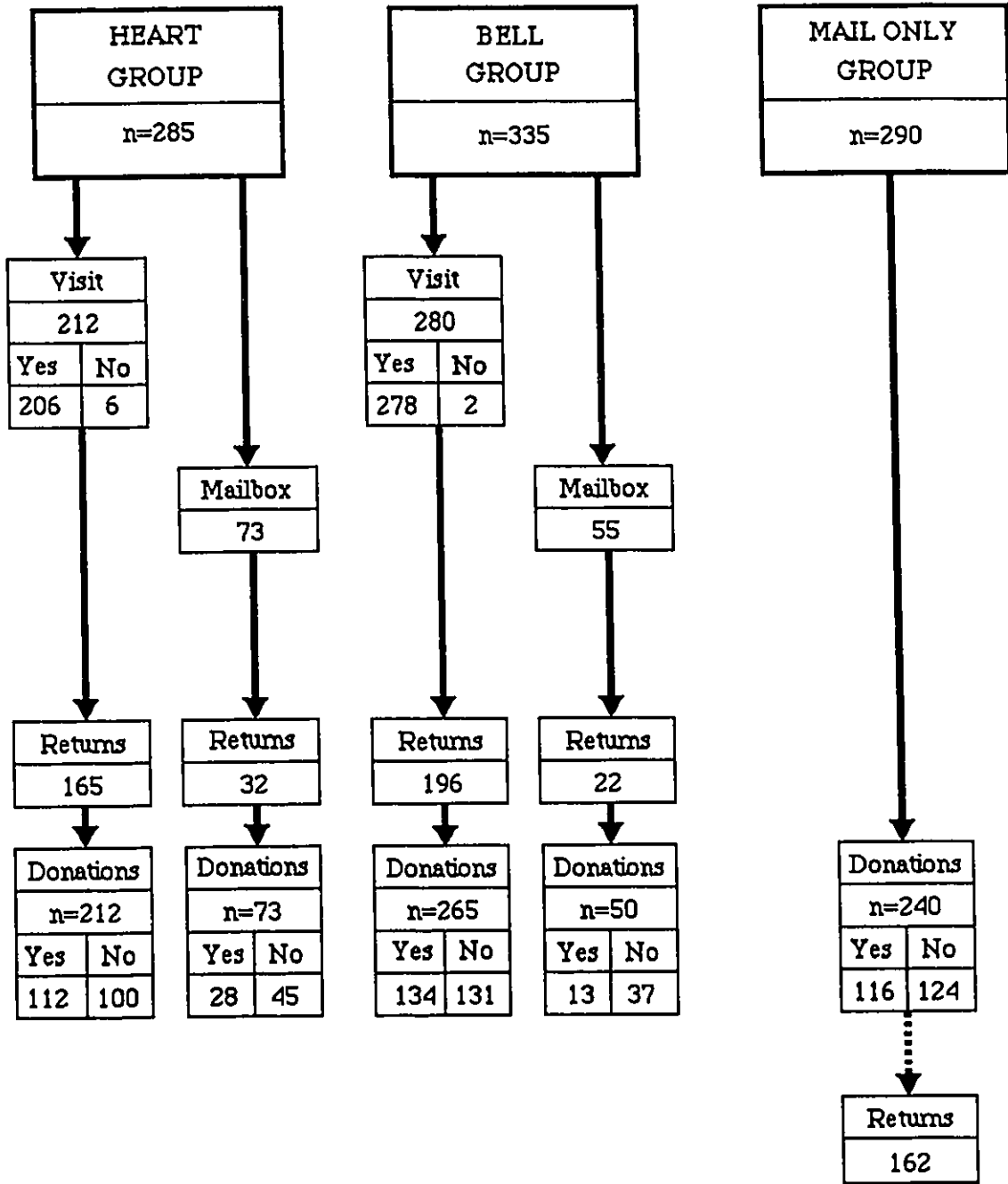
<u>Independent and Variables</u>	<u>Sample Households</u>	<u>Dependent Variables</u>
<u>Experiment 1</u>		
• Promised Contribution	Heart Group Bell Group	Questionnaire Returns Speed of Response
<u>Experiment 2</u>		
• Donation during Heart and Stroke Month	Mail Only Group Heart Group	Questionnaire Returns Speed of Response
<u>Experiment 3</u>		
• Questionnaire Sent in	Heart Group Bell Group	Donations Number of Donors

some of the Bell Canada survey socio-demographic data to compare the study groups to ensure that they had a similar socio-demographic profile. In addition, the study groups were prognostically stratified by proxy income (*i.e.* the estimated value of the house) to control for income as a source of bias. The estimated value of the house was verified by securing data on the actual assessed value of the house from the City of Kanata Planning Department (City of Kanata, 1987b).

Description of the Study Sample

The sample was composed of 910 households located on 24 streets in the City of Kanata. There were 8721 housing units within urban Kanata in January 1987 (City of Kanata, 1987a). The sample size reflected a 10.4 % sample of the city. Streets were assigned at random to one of the three study groups, and within each study group, to a pre-stratification based upon three estimated home-value categories as described above. Figure 3.2 describes the initial sample plan and the subsequent survey returns for each study group. The market survey questionnaire used by Bell Canada allowed survey returns to be analyzed by five potential intervening variables, more specifically, the number of people in the household, household income, and the respondent's age, employment status and highest level of schooling (Tables 3.4 to 3.8). The sample sizes differed somewhat from the frequencies reported elsewhere in this thesis because of some study group misclassification which occurred at the end of the data collection period and which could not be resolved. It appeared that some of the Mail Only Group sample were classified as either Heart Group ($f=1$) or Bell Group ($f=7$). Given the large denominators involved with each of the groups, the overall impact of the misclassifications relative to the analysis of intervening variables, although annoying, should not hamper a description of the study sample. None of the study groups contained any significant differences for any of the above socio-demographic variables. The three study groups therefore should be considered to be comparable in these respects.

FIGURE 3.2: Questionnaire Returns and Donations by Study Groups.



The Number of People in the Household. There were virtually the same proportion of individuals residing in study households (Table 3.4). About two-thirds of the sample included households having 3-4 people living in the house. This result was consistent with data

published in Canadian Markets -- 1987/88 which stated that there were 3.4 persons in the average Kanata household (The Financial Post, 1988).

TABLE 3.4: Percentage Distribution of the Number of People in the Household by Study Group.

	n	<u>No. of People in Household</u>			<u>Total(%)</u>
		<u>1 - 2</u>	<u>3 - 4</u>	<u>5+</u>	
Heart Group:	198	24	64	13	101*
Bell Group:	225	21	68	11	100
Mail Only Group:	157	21	65	14	100

*Rounding Error

The Respondent's Employment Status. The large majority of respondents were employed (Table 3.5), a finding remarkable considering that the 1981 census labour force statistics showed that only 61.1% of the females over age 25 in Kanata were employed versus 95.4% for males (The Financial Post, 1988). Unfortunately, the Bell survey did not capture data on the gender of the respondent. The results here suggested that more males than females replied to the Bell questionnaire although this observation is only speculation.

TABLE 3.5: Percentage Distribution of the Bell Survey Respondents' Employment Status by Study Group.

	n	<u>Respondents' Employment Status</u>		<u>Total (%)</u>
		<u>Employed</u>	<u>Unemployed</u>	
Heart Group:	172	88	12	100
Bell Group:	182	90	10	100
Mail Only Group:	123	85	15	100

Household Income. Again the data were remarkably consistent among the three study groups (Table 3.6). Modal household income appeared to be relatively high in comparison to other Canadian cities, a fact confirmed by a January 1987 newspaper report of the average incomes across 16 major cities in Canada, which placed Ottawa-area household incomes at the top of the list at \$50,918 (Middleton, 1987).

TABLE 3.6: Percentage Distribution of the Household Income (\$000s) by Study Group.

	n	<u>Average Household Incomes</u>			<u>Total</u>
		<u>\$0 - 24.9</u>	<u>\$25 - 49.9</u>	<u>\$50+</u>	
Heart Group:	186	5	35	61	101*
Bell Group:	198	2	32	67	101*
Mail Only Group:	144	4	31	65	100

*Rounding Error

Respondent's Age. The study sample was a relatively young sample with the modal age in the 30's (Table 3.7). The City of Kanata had recently experienced a dramatic increase in its population due to the influx of high-technology industry in the immediate area, an industry which is characterized by a younger work force. This could have posed an important influence on donation behaviour since the Decima study of October 1987 pointed out that Canadian donors were typically older (30 years of age and older) and married with children (especially those who have left home).

Respondent's Level of Schooling. Except for a slightly higher proportion of university-schooled respondents among Heart Group subjects, Table 3.8 repeated the comparability

among study groups for their level of schooling. The large percentage of graduate degrees was likely due to the high-technology workforce residing in Kanata. Four of every five respondents reported completion of at least college level work.

TABLE 3.7: Percentage Distribution of the Bell Survey
Respondents' Age (in years) by Study Group.

	n	<u>Respondents' Age (in years)</u>						<u>Total</u>
		<u><20</u>	<u>20's</u>	<u>30's</u>	<u>40's</u>	<u>50's</u>	<u>60+</u>	
Heart Group:	198	1	9	43	32	11	6	102*
Bell Group:	223	0	15	41	25	13	6	100
Mail Only Group:	158	1	17	44	24	8	6	100

*Rounding Error

TABLE 3.8: Percentage Distribution of the Bell Canada Survey
Respondents' Level of Schooling by Study Group.

<u>Group</u>	<u>n</u>	<u>Elem. School</u>	<u>High School</u>	<u>College</u>	<u>Univ.</u>	<u>Post-Grad.</u>	<u>Total</u>
Heart :	198	0	15	21	41	23	100
Bell :	225	0	19	24	34	23	100
Mail Only :	158	1	20	27	35	17	100

Bell Canada representatives had agreed to allow each survey questionnaire to be coded so that subsequently each household could be identified. This would have permitted the matching of survey returns with donations later in the study. One week prior to the study, Bell Canada representatives informed the study investigator that this coding would not be authorized. While

this imposed constraints on the data analysis, the decision did not invalidate the basic objectives of the study. However, it did not allow for a study of non-responders to the survey questionnaire, for example, since they could not be identified. Nor could non-donors be compared according to selected socio-demographic variables in the questionnaire. On the other hand, the prognostic stratification of the sample would enable some comparisons by the relative value of the home as a proxy measure of household income.

Proxy Income and the Assessed Value of House

Following the data collection constraint imposed above, the assessment roll for Kanata was used to determine the approximate market value for each of the homes included in the study sample. The assessed value of the house is based upon 4.85% of the estimated market value of the house indexed to 1975. In order to compare this figure to today's market value, it would be necessary to divide the assessed value of the house by .0485 and multiply the product by the estimated future value from the index year 1975. For example, a home with an assessed value of \$4000 which has appreciated an average of 7% since 1975 would have an estimated 1989 market value of \$212,662 (*i.e.* $\$4000 \div .0485 \times 1.07^{14}$). These values were employed as a proxy measure of household income as described above (City of Kanata, 1987a, 1987b).

It was important to control for income in some manner since a positive relationship between donation behaviour and income was noted by Martin (1985, pp.105-40; p.17). Accordingly, the study sample was stratified into three sub-categories in order to create a variable called "proxy income". Table 3.9 summarizes the data for the assessed value of the house. A review of the mean differences between the three study groups identified significant differences between the Heart Group and the Mail Only Group ($t=2.10$, df 573, $p<.04$) and between the Bell and Mail Only Groups ($t=2.29$, df 623, $p<.025$). However, donation behaviour was not a study criterion for the Mail Only Group so these differences should have little impact upon the results and subsequent inferences.

The percentage distribution of the proxy income category by study group are presented in Table 3.10 below. The two primary study groups, the Heart and Bell Groups, have about the same proportions in each of the proxy income categories. The relatively large differences among the two primary groups and the Mail Only Group would be significant except that, as above, this difference would be important if donation behaviour was a dependent variable for this group.

TABLE 3.9: Mean Assessed Value of Homes by Study Group (\$ indexed to 1975).

<u>Study Group</u>	<u>n</u>	<u>Mean Assessment (\$)</u>
Heart Group	285	2929 ± 684
Bell Group	335	2936 ± 695
Mail Only Group	290	2809 ± 685

TABLE 3.10: Percentage Distribution of Households by Study Group According to Type (Estimated Value) of Home.

	<u>n</u>	<u>Type of Home</u>		
		<u>Large Detached</u>	<u>Smaller Link-Single</u>	<u>High-Density Attached</u>
Heart Group	285	32	47	21
Bell Group	335	30	47	23
Mail Only Group	290	23	62	16

The Survey Teams

Each study group was assigned a different set of survey personnel. Heart Group team members were volunteers (7 males, one female) recruited on behalf of the Heart and Stroke Foundation of Ontario. Current Heart Month canvassers were not used in order to avoid

biasing the foot-in-the-door effect regarding donation behaviour. Bell Group members were originally going to be Bell Canada employee "volunteers", primarily male. However, management decided at the last minute to use external professional market research personnel to deliver the questionnaires. The Bell Group survey team was entirely female. Since the Mail Only Group did not require a personal contact with households, questionnaires were delivered to mailboxes by the principal investigator and his teenage son.

Each survey team member was supplied with specific instructions about the delivery of questionnaires and the verbal contact with household members (see Appendix B). Personal visits to households were made on the same evening (January 27, 1987) for the Heart and Bell Groups, about one week before Heart and Stroke Month (February). Households which did not have an adult member present to receive the questionnaire were visited the next day and a questionnaire was dropped in the mailbox. Individuals who refused to participate in the project did not receive a questionnaire nor was one delivered subsequently to their mailbox. Mail Only Group households were visited about one week after Heart and Stroke Month (March 6, 1987) and a questionnaire was dropped in their mailbox.

Questionnaire return envelopes were unobtrusively coded to distinguish among the three study groups, and whether the questionnaire represented compliance to a personal request or from a mail drop. The return envelopes included a hand-written script which read, "Please Return!". Some scripts were underlined. Both black and blue ink were used to help distinguish among the sub-groups. No follow-up procedures were used since they might bias the FITD initial request condition.

Questionnaire Distribution and Returns

Table 3.11 summarizes the survey distribution and subsequent returns, as well as the number of homes canvassed during Heart and Stroke Month which related to the study sample. This information was presented in part in Figure 3.2. It was remarkable that 97% of the Heart Group (206 of 212 households) and 99% of the Bell Group (278 of 280 households) agreed to

complete and send in the mailed questionnaire. The data on differences between the study groups in questionnaire return rates and donations will be discussed in Chapter Four.

TABLE 3.11: Distribution of Surveys, Survey Returns, and Heart and Stroke Canvass by Study Groups.

DISTRIBUTION OF SURVEYS	Heart Group		Bell Group		Mail Only Group	
	f	%	f	%	f	%
• By Person	212		280		n.a.	n.a.
• Intends to Send In	206	73	278	83	n.a.	n.a.
• Refuses to Send In	6	2	2	1	n.a.	n.a.
• In Mailbox	<u>73</u>	<u>26</u>	<u>55</u>	<u>16</u>	<u>290</u>	<u>100</u>
Total	285	101	335	100	290	100
<u>SURVEY RETURNS</u>						
• From Personal Appeal	165	78	196	70	n.a.	n.a.
• From Mailbox Drop	<u>32</u>	<u>44</u>	<u>22</u>	<u>40</u>	<u>162</u>	<u>56</u>
Total	197	69	218	65	162	56
<u>HEART and STROKE FUND CANVASS</u>						
• Homes Canvassed	285	100	315	94	240	83
• Total Donations (\$)	1703	n.a.	1327	n.a.	1056	n.a.
• Number of Donors	141	49	148	47	116	48
• Mean Donation (\$)	5.98	n.a.	4.21	n.a.	4.61	n.a.
• Donor Mean Donation	12.07	n.a.	8.97	n.a.	9.55	n.a.

n.a. : not applicable

Data Analysis

Differences in the percentage response for the mail questionnaires between the study groups were analyzed using a z-test for the difference between proportions as described by

Fleiss (1981, pp. 23-4.). Means for donations and proxy income were calculated by a SAS-computer program and the differences between means were analyzed with the SAS t-test procedure under the assumption of unequal variances. (SAS, 1985 a,b).

Refusals were added to the denominator for the personal visit category for both the Heart Group (f=6) and Bell Group (f=2). It was felt that this was appropriate since the personal contact, whether positive or negative, could influence donation behaviour later during Heart and Stroke Month. In fact, of the six Heart Group refusals, only one donated to the Heart and Stroke Fund (amount: \$2), and no refusal donated from the Bell Group.

Study Hypotheses

Four null hypotheses were tested in this study.

1. Ho1: There will be no difference in mail questionnaire return rates between the Heart and Bell Groups.

The purpose of this hypothesis was to test the co-sponsor name effect of the Heart and Stroke Foundation through the influence of a promised charitable donation. It was expected that there would be a noticeable difference in mail questionnaire return rates as householders were able to trigger a donation to a very worthy cause. This incentive to participate in the project had been shown to be effective in a number of prosocial situations.

2. Ho2: There will be no difference in mail questionnaire return rates between the Mail Only and the Heart Groups.

The intent of this hypothesis was to investigate whether the act of being asked to make a donation to the Heart and Stroke Fund could influence the return of mail questionnaires later to financially benefit the Foundation. Thus, this hypothesis tested the FITD effect of donating to the Heart and Stroke Fund to encourage higher mail questionnaire return rates. The Heart Group would serve as an adequate reference group relative to comparing the differences in questionnaire returns between

a personal visit and a mailbox-drop delivery method, but no adequate reference group was available to control for the influence of making a donation *per se* on mail questionnaire returns.

3. Ho3: There will be no difference in the proportion of donors between the Heart and Bell Groups.

In much the same way that donations were expected to increase, there was an expectation that the large proportion of households completing the questionnaire would translate itself into a higher proportion of donors when compared to controls.

4. Ho4: There will be no difference in the mean donation between the Heart and Bell Groups.

It was expected that the compliance with the request to complete a mail questionnaire on the behalf of the Foundation would stimulate a larger donation subsequently to the Heart and Stroke Fund. Given that donation behaviour is related positively to income there was an expectation that an income-related variable would identify that larger mean donations would be found in the higher income categories.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF THE DATA

This chapter is devoted to the presentation and analysis of the response rate data associated with the return of Bell Canada questionnaires, and the information secured from donation receipt books for study households. The statistical tests described in the previous chapter for differences in the dependent variables will be applied to help identify statistically significant findings. All data have been displayed in tabular form and, where appropriate, graphs have been generated to illustrate the results. As the chapter title implies, the data will be presented as well as analyzed since the study segments were relatively discrete, and it was felt that this form of chapter organization would help the reader to understand the results. References to the acceptance or rejection of study hypotheses appear in the relevant sections.

The data will be presented as follows:

- (1) Bell Canada Survey Returns;
- (2) Donations to the Heart and Stroke Fund;
- (3) Total Revenue; and
- (4) Anecdotal Comments.

BELL CANADA SURVEY RETURNS

Experiment One: The Influence of a Promised Charitable Contribution

The first experiment studied the effect of a promised charitable contribution to the Heart and Stroke Foundation of Ontario by Bell Canada on the return of a mail questionnaire to Kanata residents. Table 4.1 shows a clear significant difference for survey returns between the Heart and Bell study groups for the personal request category ($z=2.40$, $df 490$, $p<.02$). The ten percentage point differential between the groups translated into a 14% advantage for the Heart Group condition over the Bell Group, indicative of a positive co-sponsor influence by

the Heart and Stroke Foundation on survey returns. Although there was a positive percentage difference in favour of the experimental Heart Group for the return rates on the mail-drop portion, the difference was not statistically significant ($z=.39$, $df\ 126$, $p<.70$). Similarly, the positive difference for total returns did not achieve a significant level ($z=1.51$, $df\ 618$, $p<.15$). Gowans (1987) suggested that some or all of these differences may be due to the higher average household incomes for Kanata residents, the possible over-representation by Bell Canada employees in the sample, and the stated behavioural intention to complete a survey.

In addition, there were highly significant differences between response rates when a personal request (visit) was used with an adult household member rather than a simple mailbox-drop, as illustrated in Figure 4.1. The magnitude of the difference was similar for both groups which produced significant p-levels beyond the .0001 level for each group and for the combined results as well. With respect to the combined results, the returns stimulated by the personal appeal (74%) compared favourably with the results found in the Stover and Stone (1974) study (77%), and the return rate for the "advance contact -- incentive" condition in the Bellizzi and Hite (1986) study (73%). However, the lower return rate for the mailbox-drop (43%) may have been due to different sample characteristics rather than to treatment effects. Unfortunately, the study design for this part of the experiment did not help to explain these results.

In summary, the null hypothesis of no difference between the Heart Group and the Bell Group (H_01) was rejected. A promised charitable donation did have a significant effect in stimulating a greater survey response rate. Further, there was a significant difference between the Mail Only Group and the Heart Group which required that H_02 also be rejected. The increased mail questionnaire return rate for the Heart Group could be attributed to the personal request and subsequent behavioural intention to complete the questionnaire since the major difference between the groups was the personal appeal (see Table 3.2: Study Instruments). It was unlikely that the Heart and Stroke Fund solicitation in February stimulated a more negative

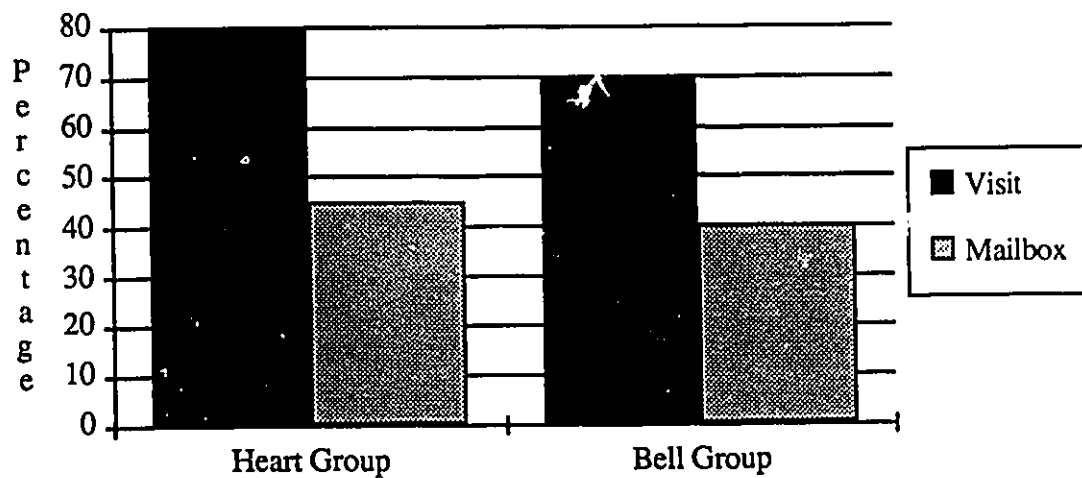
response for the Mail Only Group. The study design however did not enable the researcher to determine how plausible this alternative reason would be.

TABLE 4.1: Bell Survey Response Rates for Heart and Bell Groups.

	<u>Personal Request</u>			<u>Mail Drop</u>			<u>Total</u>			<u>p-level</u>
	<u>n</u>	<u>f</u>	<u>%</u>	<u>n</u>	<u>f</u>	<u>%</u>	<u>n</u>	<u>f</u>	<u>%</u>	
Heart Group	212	169	80	73	33	45	285	202	71	p<<.0001*
Bell Group	280	196	<u>70</u>	55	22	<u>40</u>	335	218	<u>65</u>	p<<.0001*
Combined	492	365	74	128	55	43	620	420	68	p<<.0001*
p-level			p<.02*			p<.80			p<.15	

* Statistically significant

FIGURE 4.1: Questionnaire Response Rates for Heart and Bell Groups by Delivery Method.



Experiment Two: The Personal (Visit) Appeal and the FITD Effects

The second experiment was intended to determine the influence of the Heart Group personal appeal to complete the mail questionnaire, and to study whether making a donation to the Heart and Stroke Fund could stimulate an enhanced mail survey response rate among Mail Only subjects. The control group for the first part was the Heart Group. Significant differences were observed between the mail-drop response rates for the Mail Only Group and the Heart Group ($z=2.02$, $df\ 375$, $p<.05$), and in the total rates between the two study groups ($z=2.93$, $df\ 587$, $p<.005$) as shown in Table 4.2.

TABLE 4.2: Bell Survey Returns for the Mail Only and Heart Groups.

	<u>Personal Request</u>			<u>Mail Drop</u>			<u>Total</u>		
	<u>n</u>	<u>f</u>	<u>%</u>	<u>n</u>	<u>f</u>	<u>%</u>	<u>n</u>	<u>f</u>	<u>%</u>
Mail Only Group	--	--	--	304	171	59	304	171	59
Heart Group	212	169	80	73	33	<u>45</u>	285	202	<u>71</u>
p-level			--			$p<.05^*$			$p<.005^*$

* Statistically significant

Unfortunately, the inability to match donors and survey responders limited the observations made at this point about the FITD effect for the second part of this experiment. The first request for the Mail Only Group was the solicitation by a Heart and Stroke Foundation canvasser for a donation. The second request was the covering letter from the Vice-President, Fund-Raising (Heart and Stroke Foundation) enclosed with the Bell Canada survey dropped in the mailbox. There was no control group for this comparison. The return rate of 59% for the Mail Only Group was essentially similar to the average return rates quoted

by Yu and Cooper (1983) and Erdos (1970) of 47% and 54% respectively. The apparent difference between the mail-drop portion of the Heart Group returns against the total for the Mail Only Group might be expected given the likely differences in the sample for this comparison. The more appropriate contrast was between the group totals for both the Heart and Mail Only Groups.

Survey Response Speed

Table 4.3 summarizes how quickly survey questionnaires were returned to the sponsors. These data are displayed in Figure 4.2 and 4.3. The relevant comparisons are between the

TABLE 4.3: Cumulative Percentage Distribution of the Speed of the Questionnaire Returns by Study Groups.

No. of Days (n)	<u>Heart Group</u>			<u>Bell Group</u>			<u>Mail Only Group</u>		
	V (212)	M (73)	T (285)	V (280)	M (55)	T (335)	V -	M (290)	T (290)
1 - 7	51	14	41	46	13	40	n.a.	32	32
8 - 14	70	34	61	66	35	61	n.a.	48	48
15 - 21	73	40	64	70	36	64	n.a.	54	54
22 - 28	76	41	67	70	40	65	n.a.	55	55
29 - 35	78	44	69	70	40	65	n.a.	56	56
35+	80	45	71	70	40	65	n.a.	56	56

V = Personal Visit

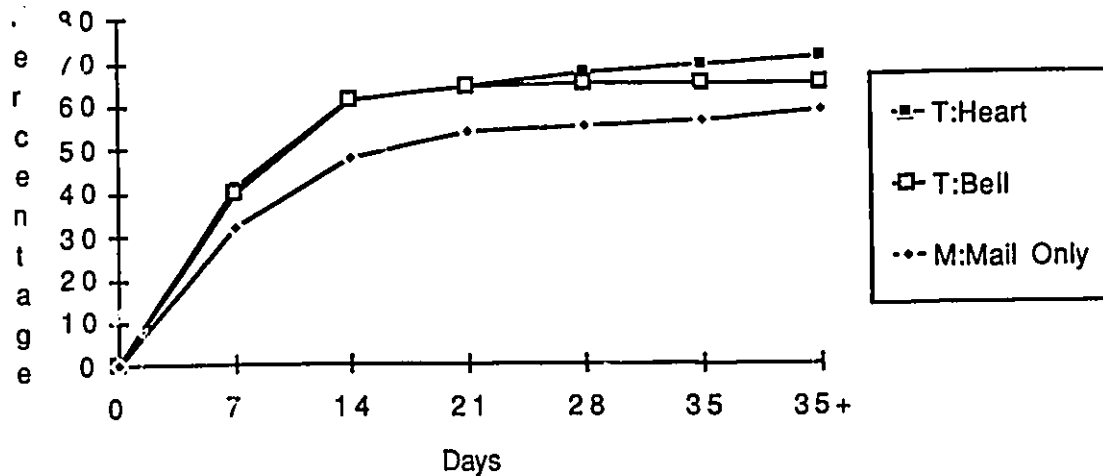
M = Mailbox Drop

T = Total

Heart and Bell Groups and between the Heart and Mail Only Groups, as well as the comparisons within study groups for surveys returned by a personal visit (request) versus a mail-drop. Over half of the surveys distributed were returned within 14 days for the Heart and Bell Groups, within 21 days for Mail Only Group, and virtually all of the survey returns were received within 45 days for all groups.

Figure 4.2 describes the total returns for each group. By the 28-day mark, both the Heart Group and the Bell Group were experiencing statistically significant differences compared to the Mail Only Group. The significant differences disappeared for the Bell Group however by the end of the data collection period. A casual comparison of the personal request and mailbox-drop conditions suggests that asking household members to return surveys appeared to influence a faster return rate and a greater overall rate of survey return than did the mailbox-drop condition.

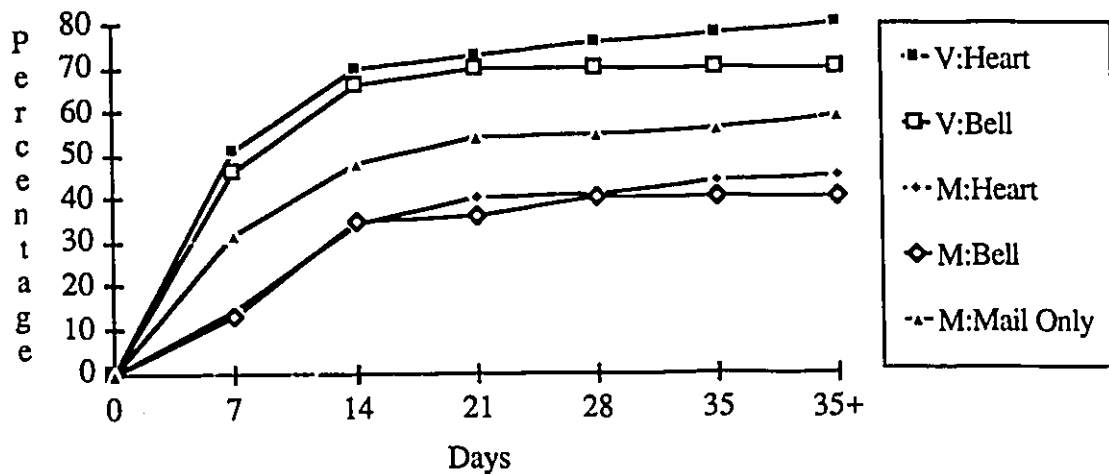
FIGURE 4.2: Cumulative Response Rate (%) by Study Group.



T = Total Returns M = Mail-drop Returns

The figures in bold print in Table 4.3 identify the end of the official study period. The results on speed of response agreed with the observation by Erdos (1970) that the return rate achieved at the three-week point would be approximately equal to the total return for the study. No "Heart Group by Bell Group" differences for either a personal visit or mail-drop achieved statistical significance, except at the end of the data collection period. But, every intragroup difference between the personal visit and mail-drop conditions was highly significant. The maximum significant difference occurred at the 21-day point for both the Bell Group ($z=4.65$, $df\ 333$, $p<.001$) and the Heart Group ($z=4.92$, $df\ 283$, $p<.001$). The superiority of a personal request over a mailbox-drop was demonstrated in a faster speed of return.

FIGURE 4.3: Cumulative Response Rate (%) for Study Groups by Delivery Method.



V = Visit Returns M = Mail-drop Returns

A Possible Source of Bias

One unfortunate observation was made during the questionnaire return phase of the study. The Bell Canada Marketing Research Department noted that several questionnaires were

returned to them through their internal mail system. This stimulated further thinking about the sample. Kanata has been called "Silicon Valley North" because of the concentration of high-technology industry in the immediate area. Thus, there was a strong likelihood that households included a higher than normal distribution of individuals who either worked for a Bell Canada related company or for a company who supplied or purchased material from Bell Canada and/or a subsidiary. While the randomized design should have ensured that this potential bias would be proportionately distributed among the study groups, the bias may have had a moderating or differential effect on any differences subsequently observed or expected between the experimental and control groups.

HEART AND STROKE FUND DONATIONS

Heart and Stroke Fund canvassers solicited donations during February 1987. However, two streets in the study were not canvassed, which included study households in the Bell and Mail Only Groups. This reduced the sample by 20 and 50 households respectively for analyses relative to donation behaviour. Since donations from Mail Only Group households were tracked for interest only, the loss of these households did not affect the study. Given the larger size of the Bell Group sample (335) compared to the Heart Group (285), the sample losses likely did not bias the results; furthermore since the sample loss occurred in the average level income sub-sample, the comparative sample sizes for analysis of 133 and 138 for the Heart and Bell Groups respectively probably improved the analysis. The analysis of donation main effects is summarized in Table 4.4 and in Figure 4.4.

The proportion of donors. The proportion of donors was virtually the same so no significant difference between the Heart and Bell Groups could be expected. The act of completing a questionnaire to produce a charitable donation by Bell Canada did not act as a FITD stimulus in encouraging a greater proportion of donors. Ho4, therefore, was accepted.

TABLE 4.4: Donation Rate and Mean Donation (\$) by Study Group.

Study Group	n	Donors		Mean Donation (\$)	
		f	%	Per Household	Per Donor-Household
Heart Group	285	141	.49	5.98 ± 9.36	12.07 ± 10.17
Bell Group	315	148	.47	4.21 ± 6.53	8.97 ± 6.94
p-level			n.s.	p<.009*	p<.003*

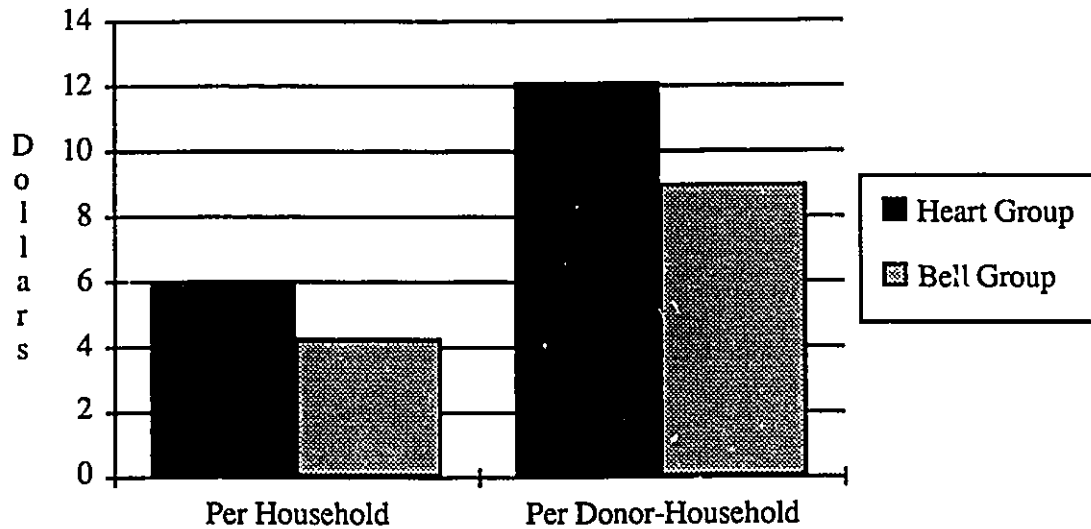
* Statistically significant

n.s.: not significant

Mean Donations. There was however a very significant FITD effect on mean donations between the Heart and Bell Groups ($t=2.65$, df 501, $p<.009$). In relative terms, the Heart Group / Bell Group differential supplied a 42% increase by the Heart Group in donation revenue to the Heart and Stroke Fund, which is illustrated in Figure 4.4. When the donations were analyzed by donor-households only, the absolute magnitude of the difference increased as would be expected and this was reflected in a higher level of statistical significance as well ($t=3.02$, df 245.8, $p<.003$).

For purposes of comparison, the mean donation for the Mail Only Group was $\$4.41\pm7.06$. Given the random nature of the selection of this group, and considering that no study contact was made prior or during Heart and Stroke Month, this value could be considered to be a reasonable estimate of the mean donation for the City of Kanata.

FIGURE 4.4: Mean Donations (\$) by Study Group.



Donations by Proxy Income

Proxy income was defined in Chapter Three as an estimate of household income based upon the perceived value of the home. Higher incomes were presumed to be related to large, single-detached homes. Likewise, an average income was expected to be associated with smaller detached homes, and lower incomes with high-density homes. Table 4.5 and Figure 4.5 display the data by proxy income. The large FITD effect noted previously with mean donation was observed also for the two highest income categories, although only the average proxy income sub-group achieved statistical significance on both a per household ($t=2.85$, df 225.3, $p<.005$) and on a per donor basis ($t=2.43$, df 108.9, $p<.02$) when the Heart and Bell Groups were compared. Mean donation by donor-household was significant statistically for the higher proxy income category as well ($t=2.35$, df 100.5, $p<.03$). No statistically significant difference was noted for the lower proxy income categories.

TABLE 4.5: Mean Donation (\$) for Study Groups by Proxy Income.

Proxy Income	Group	n	Proportion Donating	Mean Donations (\$)	
				Per Household	Per Donor-Household
Higher	Heart	93	.67	10.13 ± 12.45	15.44 ± 12.55
	Bell	100	.72	<u>7.94 ± 8.57</u>	<u>11.02 ± 8.24</u>
	p-level			p>.16	p<.03*
Average	Heart	133	.47	4.89 ± 7.31	10.33 ± 7.53
	Bell	138	.37	<u>2.75 ± 4.75</u>	<u>7.45 ± 5.10</u>
	p-level			p<.005*	p<.02*
Lower	Heart	59	.29	1.86 ± 3.20	6.47 ± 2.35
	Bell	77	.32	<u>1.98 ± 3.56</u>	<u>6.12 ± 3.70</u>
	p-level			p<.85	p<.75

* Statistically significant

There was a considerable within-group difference among the three proxy income categories for both study groups. As predicted by Martin (1985), household income was a major determinant associated with donations. Table 4.6 presents the mean donation for each of the study groups as a ratio of the lowest proxy income category as well as for a ratio comparison between the study groups. While the largest absolute increase was associated with the higher income category (*i.e.* 5.45 times the lower category), the largest relative increase between the Heart and Bell Groups appeared for the average proxy income category (*i.e.* 1.89 versus 1.36).

Table 4.5 also specifies the proportion of donors by proxy income. No between-group differences were statistically significant. All within-group differences except one were highly significant ($p < .001$). The latter result confirmed again the previously noted effect of income on the ability and willingness to donate (Martin, 1985; Decima Research, 1987).

FIGURE 4.5: Mean Donation (\$) for Study Groups by Proxy Income.

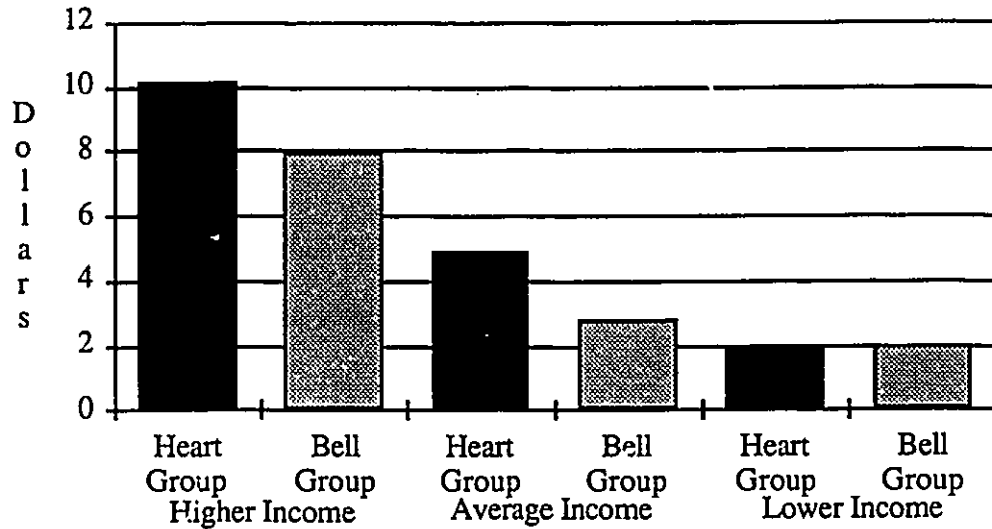


TABLE 4.6: Ratio Comparison of Mean Donation as a Function of the Lower Proxy Income Category.

Proxy Income	Heart Group	Bell Group	Heart : Bell Ratio
Higher	5.45	4.01	1.36
Average	2.63	1.39	1.89
Lower	1.00	1.00	1.00

Influence of Personal Visit and Mail-Drop Conditions

Donations were analyzed according to whether they were produced from a household having a personal visit or a mail-drop (Table 4.7 and Figure 4.6). With respect to within-group differences, statistically significant differences were produced in favour of a personal visit over a mail-drop for both the Heart ($t=2.56$, $df\ 279$, $p<.02$) and Bell ($t=2.07$, $df\ 311$, $p<.05$) Groups. Significant differences were noted between the Heart and Bell Groups for the

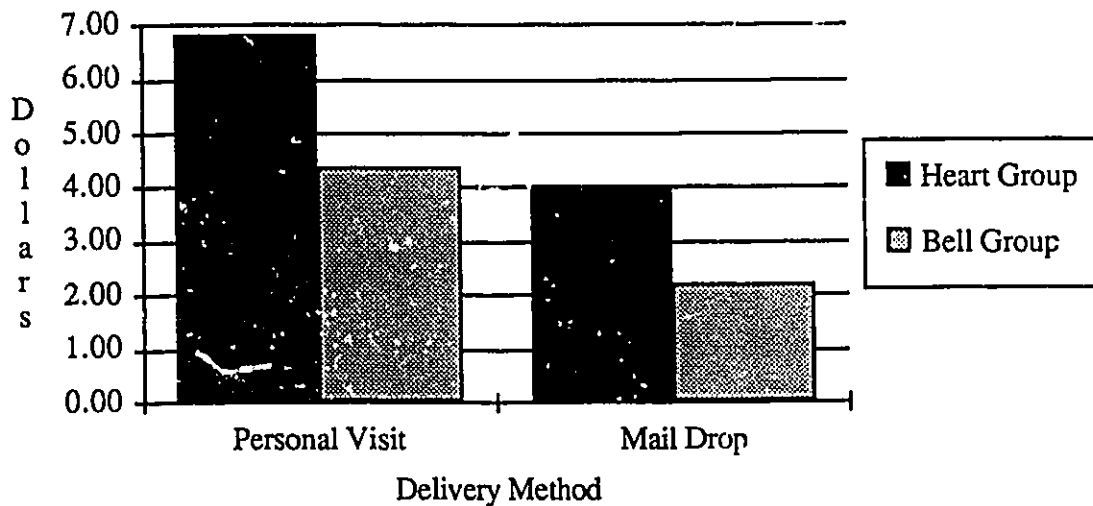
personal visit condition ($t=2.67$, $df\ 355.2$, $p>.008$) but not for the mail-drop condition ($t=1.30$, $df\ 119.9$, $p<.20$). The same pattern of results were observed when the data were analyzed by donor - households, except that the level of significance increased for the personal visit condition ($t=3.10$, $df\ 187.9$, $p>.003$).

TABLE 4.7: Mean Donation (\$) by Study Group for Personal Visit and Mail-Drop Conditions.

	n	Mean Donations (\$)				p-level
		Personal Visit		Mail Drop		
		f	\$	f	\$	
Heart Group	285	206	6.65 ± 9.85	73	4.01 ± 7.48	$p < .02$
Bell Group	315	278	4.54 ± 6.65	55	2.48 ± 5.62	$p < .05$
p-level			$p < .008^*$		$p < .20$	

* Statistically significant

FIGURE 4.6: Mean Donation (\$) for Study Groups by Delivery Method.



Donations by Delivery Method and Proxy Income

Table 4.8 presents the data on mean donations by delivery method and proxy income. The only significant result on a per household basis between study groups occurred with the average proxy income group who received a personal visit to deliver the questionnaire ($t=2.42$, $df 159.7$, $p<.02$). Although there appeared to be a substantial difference between the Heart and Bell Groups in the higher income category under the personal visit, the \$3.47 mean difference in donations did not achieve statistical significance ($t=1.93$, $df 114.4$, $p<.06$). It

TABLE 4.8: Mean Donations (\$) for Study Groups by Personal Visit and Mail Drop Conditions According to Proxy Income.

Proxy Income	Study Group	n	f	<u>Mean Donations (\$)</u>		
				Personal Visit \$	f	Mail Drop \$
Higher	Heart:	93	67	11.60 ± 12.99	23	5.65 ± 10.03
	Bell:	100	89	<u>8.13 ± 8.66</u>	10	<u>6.20 ± 7.96</u>
	p-level			p<.06		p<.90
Average	Heart	133	99	4.98 ± 7.49	32	4.63 ± 6.83
	Bell	138	118	<u>2.92 ± 4.57</u>	24	<u>1.17 ± 5.78</u>
	p-level			p<.02*		p<.12
Lower	Heart	59	40	2.32 ± 3.37	18	0.83 ± 2.57
	Bell	77	56	<u>2.21 ± 3.69</u>	21	<u>1.38 ± 3.17</u>
	p-level			p<.90		p<.60

* Statistically significant

should be noted however that the difference on a per donor-household basis (not shown) did achieve statistical significance ($t=2.49$, $df 79.9$, $p<.02$) as did the average proxy income

category difference ($t=2.50$, $df 75.7$, $p<.02$). The joint frequency distributions produced in the analysis of the three variables, donation by delivery method by proxy income, resulted in a number of cells which had few observations on a per donor-household basis. Accordingly, the relative variance or margin of error could be expected to be large as the cell frequencies decreased, as identified in Appendix A. For this reason, no data will be presented on a per donor - household basis for the mail-drop category.

TOTAL REVENUE

There were two main sources of revenue for the Heart and Stroke Foundation in this study. First, for each questionnaire returned to the Heart and Stroke Foundation, Bell Canada supplied a \$5 donation to the Heart and Stroke Fund. This generated \$985 ($197 \times \5) from the Heart Group and \$810 ($162 \times \5) from the Mail Only Group. Second, the mean donation difference of \$1.77 between the Heart and Bell Groups produced an absolute increase of \$504.45 ($285 \times \1.77) in favour of the experimental group. Thus, the total revenue attributable to the experimental Heart Group was \$1489.45 ($\$985 + \504.45), or \$5.23 per Heart Group subject ($n=285$).

The urban component of Kanata donated \$23,844 during the 1987 Heart and Stroke Fund campaign. With 8721 households in the urban community, the average household donation was \$2.73. Although the relative proxy income proportions of the study sample were no doubt different than the canvassed sample of the city, it appeared as if there could be a substantial opportunity to increase campaign related revenue from an average of \$2.73 to \$5.23 per household, or approximately 1.92 times the average household donation.

ANECDOTAL COMMENTS

There were three sources of anecdotal comments relevant to the study. First, each of the Heart Group survey team members told the principal investigator how impressed they were by the response of household members to their request on behalf of the the Heart and Stroke

Foundation to complete a mail questionnaire. Comments registered by survey personnel on their tally sheets from sample household members included the following:

- Great idea! Neat idea. Good move.
- Very positive about the idea
- Pleased at no donation
- Will do this tonight (several).

Several of the team members volunteered to help again in any similar project, including a marketing research professional who emphasized that he had never experienced such a positive response at the door with a survey. It should be noted that the evening of the survey was one of the coldest nights of the year that winter.

A second source of feedback about the study procedures came from the remarks subjects made on study instruments. Some of the introductory letters (returned with the questionnaires) had comments written on them. In addition, comments written on the mail questionnaires analyzed by Bell Canada were documented for later review. While most of these comments related primarily to a particular question, some dealt with the overall experience. The following were taken from the two sources above:

- It was our pleasure to assist the Heart and Stroke Foundation by participating in this survey.
- Feel too much money spent on administration in most charitable organizations. I may answer differently depending upon charity.
- The only reason I filled out this questionnaire was the donation to a worthy cause.
- I'm not at all sure these questions are worth researching. Only did it because of the Heartfund contribution.
- Steve (*i.e.* Bell Canada Marketing Manager). Your humble respondent happens to be a long-standing MaBell shareholder and former employee.
- But I like the idea of the money going to a charity.
- For donations to a worthwhile charity, anytime.

The third source of anecdotal remarks came from the Director of Marketing Research and Planning for Bell Canada (Bebee, 1987). He indicated that he had been so impressed with the early results of the study that Bell Canada planned to use the methodology in an omnibus survey being conducted in British Columbia. Although it was not possible to secure harder data from the experience in British Columbia, the verbal reports from the field-survey personnel in British Columbia indicated that they were very pleased with the new approach to providing an incentive to home-owners participating in the survey. Individual home-owners were much more receptive at the door when they were informed that the survey would benefit the B.C. Heart Foundation. Likewise the survey personnel were more appreciative of the promised charitable donation since they did not have to cart around a variety of "gifts" such as pens or pencils to induce individuals to participate in the survey. Lastly, the public relations benefit was perceived to be a bonus for management given the high esteem the public had for the Heart and Stroke Foundation.

It was obvious from the above observations that both qualitative as well as quantitative benefits of the approach used in the study should be assessed. Unfortunately, no other qualitative criteria other than householder remarks were available to evaluate the methodology.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND IMPLICATIONS

SUMMARY

This study evaluated the ability of a promised charitable donation to the Heart and Stroke Foundation by a corporate sponsor, Bell Canada, to stimulate a higher mail questionnaire response rate. In addition, the study assessed whether the intention to complete the questionnaire and its eventual return by mail would increase donations through a FITD effect during Heart and Stroke Month. Three study groups which included an experimental group (the Heart Group) and two control groups (the Bell and Mail Only Groups) were established by random assignment from a randomized cluster-sample of 910 households in the City of Kanata, a satellite community west of Ottawa, Ontario. The primary dependent variables were mail questionnaire return rates and mean donations to the Heart and Stroke Fund. Differences in the proportions associated with questionnaire returns were tested for statistical significance using the standardized z-test, while differences in mean donations were analysed using a t-test. Statistical significance was measured at the .05 level. The following four null hypotheses were stated to evaluate the effectiveness of the study procedures:

1. Ho1: There will be no difference in the mail questionnaire return rates between the Heart and Bell Groups.
2. Ho2: There will be no difference in the mail questionnaire return rates between the Mail Only and the Heart Groups.
3. Ho3: There will be no difference in the proportion of donors between the Heart and Bell Groups.
4. Ho4: There will be no difference in the mean donation between the Heart and Bell Groups.

CONCLUSIONS AND IMPLICATIONS

Each of the four null hypotheses stated above from Chapter Three will be reviewed in turn relative to the main conclusions of the study. Subsequently, the implications of the main findings will be addressed and, where appropriate, recommendations will be made.

H₀₁: There will be no difference in mail questionnaire response rates between the Heart and Bell Groups.

This hypothesis was rejected. A promised charitable donation to the Heart and Stroke Foundation increased mail questionnaire response rates for the Bell Canada survey. This finding was evident principally with the personal visit component of the study groups since the mailbox-drop and total returns, although positive, were not statistically significant. On the other hand, the central strategy of the research hypothesis was founded on personal-visit dynamics associated with a later FITD influence on donation behaviour. The previous work on the superiority with the personal delivery of mail questionnaires by Stover and Stone (1974) and subsequently by Lovelock, Stiff, Cullwick and Kaufman (1976) was confirmed by this study.

Private sponsors of mail surveys should be encouraged by these results because of the help to control non-response and ultimately to reduce the survey costs. In addition to the improved return rates, Lovelock *et al* (1976) pointed out how sources of non-response could be accounted for by personally delivering mail-questionnaires while simultaneously ensuring that the intended sample targets received questionnaires. Although the 14% improvement stimulated by the promised charitable donation to the Heart and Stroke Fund might be considered to be practically less significant by some potential sponsors, the bias discovered with having Bell Canada the private sponsor (as opposed to some other corporate sponsor) might suggest that an even higher differential could be produced. A replication of this study with more control features would be required to definitively answer this possibility.

The data on speed of response showed no significant advantage for the Heart Group over the Bell Group, except at the end of the questionnaire return period for surveys delivered personally to an adult household member. However, the personal visit methodology used in both the Heart and Bell Groups was decidedly superior to the mailbox-drop procedure used with the Mail Only Group in terms of faster responses and in the final results. It is worth noting that the final response rates produced in this study would place the methodology among the more productive mail surveys studied by Erdos (1970) in his comparative study. Only 16% of the surveys in his review achieved returns in excess of 60%. Another important consideration would be the opportunity to employ follow-up techniques to further increase response rates. Several authors (Scott, Linsky, Kanuk and Berenson to name a few) stated that follow-up techniques could augment rates by as much as 20%.

From the Heart and Stroke Foundation perspective, the results provide valuable information about an additional excellent mechanism to raise funds and to learn more about their donors. Canvasser routes segmented by postal codes could provide another way to secure market research data. By being able to offer such a mechanism to target householders for corporate sponsors, Foundations could incorporate the delivery of similar questionnaires relatively easily into the annual canvass of homes across Canada. Postal codes could help to target households to appeal to local, provincial and national sponsors interested in researching particular market segments. Unfortunately the inability to track individual households seriously delimited the ability of the study to explain some of the differences noted in questionnaire response rates, and subsequently to determine the relative influence of actual versus proxy income on return rates and other possible predictors. In future similar initiatives, if some of the socio-demographic data collected through sponsored mail questionnaires were available to the Foundations, and if this data could be merged with donation data, then Foundations could track the relative success of its related promotional campaigns before and during Heart and Stroke Month, as well as to segment the population and to develop appeals uniquely targeted to priority segments. Some corporate sponsors might be willing to provide

questionnaire space as an added feature of their sponsorship. Of course, householders would have to be informed clearly in advance of any plans to merge data sets when their cooperation was being solicited. Such informed consent must be seriously solicited. The anecdotal results discussed in Chapter Four emphasized the positive reception and goodwill which the public had for the Heart and Stroke Foundation, and the success of future similar initiatives will depend upon the preservation of this esteem and goodwill.

Ho2: There will be no difference in mail questionnaire return rates between the Mail Only and the Heart Groups.

This hypothesis was rejected since there was a highly significant positive difference for the experimental Heart Group over the Mail Only Group. As mentioned above, the personal-visit delivery method and the behavioural intention to complete the questionnaire produced superior results for both the Heart and Bell Groups. While it might have been preferable to have split the experimental group sample in half, with one half using a behavioural intention strategy and the other half omitting such an approach, this would have served little practical purpose since the ultimate application of the technique would include a behavioural intention as a key component. A second part of the experiment associated with this hypothesis was the issue of whether donors from the Mail Only Group would be more likely to send in the mail questionnaires. There was no reference group to compare results against, and the inability to link donors to mail survey returns limited observations about the FITD influence of donations on survey returns. This design deficiency should be addressed in any future study.

It would be important to assess the receptivity of volunteer canvassers to perform the extra task of personally delivering a questionnaire before launching a similar program. It would also be worthwhile to determine if this method of generating extra campaign-related revenue would cannibalize donation revenue via householders adjusting downward their personal donation to the Heart and Stroke Fund. The results here suggested that they would not.

Ho3: There will be no difference in the proportion of donors between the Heart and Bell Groups.

This hypothesis was accepted because the proportion of donors for the Heart (.49) and Bell (.47) Groups was almost exactly the same. Although there did not appear to be a FITD effect produced relative to the proportional number of donors, it was encouraging to note that the act of generating a donation from Bell Canada did not discourage individuals in the Heart Group from donating to the Heart and Stroke Fund. This study did not include any mechanism other than the FITD first-request situation to influence a greater proportion of donors. In light of no effect however, there would be considerable merit in pursuing such research. For every non-donor converted to a donor, the Heart and Stroke Fund would receive an average of \$4.41 (Mail Only Group mean) from Canadian households *ceteris paribus*, and decidedly more if the effort were focused on higher income segments.

Ho4: There will be no difference in the mean donation between the Heart and Bell Groups.

This hypothesis was rejected due to the substantially larger mean donation observed in the Heart Group both for households in general and for donor-households. When data were analysed by proxy income, the same differential was noted in the two higher income categories. Similarly, when data were reviewed by delivery method, this pattern was replicated yet again. Thus, the FITD effect was quite robust and consistent regardless of possible intervening variables capable of moderating the effect. It was observed however that when the data were partitioned simultaneously by proxy income and delivery method, the above effects were tempered somewhat, as indicated by less dramatic significance levels, although the general pattern of results was maintained.

The results were consistent with those of Robertson and Bellenger (1978) who discovered no moderator-variable effects from sex, marital status, education or income relative to donations. The main effects replicated the findings of Pliner *et al* (1974), and they

confirmed the positive FITD effect with a household sample as proposed by Reingen (1978) in his study which showed increased donations with college students. The highly statistically significant effects might be explained as resulting from a high-involvement foot condition which Hansen and Robinson (1980) had advanced as a way to increase compliance. Furthermore, the act of completing a questionnaire as a first request could be considered to be a self-perception-based foot manipulation as suggested by Allen, Schewe and Wijk (1980).

Over \$24 million was raised in Canada through the door-to-door canvass in 1987-88 (Canadian Heart, 1988). If the 2.92 fund-raising factor identified in Chapter Four were applicable within the rest of Canada, each 1% randomly-selected national campaign sample frame could produce an additional \$700,800 ($2.92 \times .01 \times \$24,000,000$) using the FITD technique of delivering sponsored questionnaires to householders around Heart and Stroke Month.

The stimulus for the larger donations in the Heart Group was really quite simple. The next step of course would be to try the strategy with actual canvassers on a single visit to monitor its administrative efficiency and effectiveness. Also, its application with canvassers during Heart and Stroke Month must determine whether the FITD donation effect would be similar when both the donation request and the questionnaire-completion request were tendered at the same time. Alternatively, there would be a benefit for the Foundation to associate its name with a market research project sponsored by a reputable firm which was delivered to homeowners just before Heart and Stroke Month even if the sponsor's incentive was marginal, since the subsequent impact on donations themselves would merit such a strategy. Lastly, if the Foundation could not secure a sponsor for a questionnaire, it would be worthwhile for the organization to conduct its own market research just prior to Heart and Stroke Month to stimulate a FITD effect on donations. This strategic timing for the survey could conceivably produce sufficient extra revenue to cover the survey costs. In the latter two cases however, it would be necessary to pilot these approaches since their respective impacts could be significantly different from this research study. The data analysed by proxy income reinforced

observations from Martin (1985) that there would be considerable value segmenting households to ensure that higher income neighbourhoods were canvassed during the household campaign since they provided almost five and a half times as much revenue as lower income households and over two and a half times the revenue of average income households.

In conclusion, the FITD effect was demonstrated positively with the promised charitable donation to improve mail questionnaire return rates, and subsequently, to increase donations to the Heart and Stroke Fund. The marketing techniques in this study applied with each of the private and not-for-profit sector sponsors demonstrated how mutually beneficial initiatives could enhance the financial positions of each of the partners. While it was not the purpose of this study to investigate the public relations success of the joint-venture, the anecdotal qualitative data captured during the earlier phases of the study suggested that each of the partners improved upon the community goodwill associated with their respective organizations.

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APPENDICES

Appendix A Determination of the Study Sample Size and Sample Relative Variance

Appendix B Study Instruments

Appendix C HSFO - BELL Survey Returns for Study Groups by Date of Return

Appendix D Personnel Involved in the Study

APPENDIX A

Determination of the Study Sample Size and Sample Relative Variance

The following formula may be used to determine minimum sample sizes for comparison among the various sub-groups in the data analysis stages (Craig, 1987):

$$n = \frac{z^2 pq}{d^2} \times \text{deif}, \text{ where:}$$

- n is the minimum sample size
- z is the confidence interval value
- p is the preliminary population proportion having the characteristic of interest
- q is the value 1 - p
- d is the specified margin of error
- deif is the design effect inflation factor. A value of 1.2 has been used by recent large household studies using randomized cluster sampling (Statistics Canada, 1981).

Alternatively, margin of error (relative variance) may be determined for a given sample size by re-arranging the above formula:

$$d = \sqrt{\frac{z^2 pq}{n}} \times \text{deif}$$

The table below was generated using the formulae above.

<u>z</u>	<u>p</u>	<u>q</u>	<u>d</u>	<u>deif</u>	<u>n</u>	<u>n*</u>	<u>d*</u>
1.96	.10	.90	.50	1.2	2	6	.29
			.25		7		
			.15		18		
			.10		41		
1.96	.25	.75	.50	1.2	3	16	.25
			.25		14		
			.15		38		
			.10		86		
1.96	.50	.50	.50	1.2	5	32	.21
			.25		18		
			.15		51		
			.10		115		

The variables n* and d* relate to the target sample sizes in this study and their corresponding relative variances. Thus, the greatest degree of confidence will be associated with results for equal groups *(i.e. 21% relative variance), given that the target sample sizes appear in the relevant data cells.

APPENDIX B**Study Instruments**

1. Letter from the Heart and Stroke Foundation
2. Letter from Bell Canada
3. Bell Canada Questionnaire
4. Envelopes from the Heart and Stroke Foundation and from Bell Canada
5. Directions to Survey Personnel
6. Survey Member -- Tally Sheet

Bell

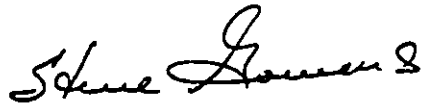
1987 01 27

Dear Customer:

Bell Canada sends out a number of questionnaires each year to its customers. In the past, you may, or may not have received one of our questionnaires in the mail, or have been interviewed over the telephone about your reactions to your telephone service.

Because we rely on questionnaires as one way to help us know how to provide better services to our customers we would naturally like our questionnaires to be as good as they can be.

You could help us by taking a few minutes to complete the enclosed questionnaire about questionnaires. After you complete it, please mail it to us in the addressed envelope provided for you. Thank you for taking the time to help us with this survey.



S. Gowans
Manager -
Marketing Research

Encl.



Associated with Canadian Heart Foundation

Adress 2 le Fondation
Association des malades
du coeur

Ottawa-Carleton Chapter
Chapitre d'Ottawa Carleton
1214-1 Nicholas St.
Ottawa, Ontario
K1N 7B7
(813) 233-7739

MRS CAROLYN CLANCY
AREA CO-ORDINATOR/
COORDINATRICE

JEANETTE SCRIBSHAW
REGIONAL MANAGER/
DIRECTRICE REGIONALE
119 RUE SYDNEY STREET
CORNWALL ONTARIO
K6H 3H1

January 26, 1987

Greetings:

This survey is being conducted by volunteers with the Heart and Stroke Fund for Bell Canada. For each survey completed in full and returned to the Heart and Stroke Foundation of Ontario, Bell Canada will donate \$5.00 to the Heart and Stroke Fund. By giving a little of your time, you will help us fight heart disease and stroke in Canada.

Give to the research that saves more lives. Thank you for your time and effort.

Yours sincerely,

Donald G. Grant
Donald G. Grant
Vice-President, Fund Raising

PROVINCIAL PRESIDENT/
PRESIDENT PROVINCIAL
A.F. GRAHAM M.D.

EXECUTIVE DIRECTOR
DIRECTEUR EXECUTIF
R.K. GALLOP

Charitable Registration Number/
Numéro d'enregistrement d'organisme de charité 0000 182 11 13

PLEASE READ EACH QUESTION AND TELL US WHAT YOUR ANSWER IS BY
PLACING AN X IN THE BOX BESIDE THE APPROPRIATE ANSWER

01. Have you ever been a respondent in a survey?

Yes	[]	1
No	[]	2

02. IF YES. Was the survey done ...
(CHECK MORE THAN ONE BOX IF APPROPRIATE)

By Mail	[]	1
Over the telephone	[]	2
Face to face	[]	3
Other	[]	4

03. In general, which type of survey would you prefer most to
participate in? One done by ...

Mail	[]	1
Over the telephone	[]	2
Face to face	[]	3

04. Have you ever declined to participate in a survey?

Yes	[]	1
No	[]	2

05. IF YES. Did you decline to participate because you...
(CHECK MORE THAN ONE BOX IF APPROPRIATE)

Didn't have the time	[]	1
Didn't want to divulge sensitive information about yourself	[]	2
Didn't think it was worth your while	[]	3

08. What is the maximum amount of time that you would be willing to spend on a survey done by ...

(a) A professional polling company

0 minutes	[]	1
1 to 10 minutes	[]	2
10 to 20 minutes	[]	3
20 to 30 minutes	[]	4
30 minutes or more	[]	5

(b) A university researcher

0 minutes	[]	1
1 to 10 minutes	[]	2
10 to 20 minutes	[]	3
20 to 30 minutes	[]	4
30 minutes or more	[]	5

(c) Bell Canada

0 minutes	[]	1
1 to 10 minutes	[]	2
10 to 20 minutes	[]	3
20 to 30 minutes	[]	4
30 minutes or more	[]	5

(d) A charitable organization

0 minutes	[]	1
1 to 10 minutes	[]	2
10 to 20 minutes	[]	3
20 to 30 minutes	[]	4
30 minutes or more	[]	5

WE WOULD ALSO LIKE TO KNOW JUST A LITTLE ABOUT YOU SO THAT WE CAN SEE HOW DIFFERENT TYPES OF PEOPLE FEEL ABOUT THE ISSUES WE HAVE BEEN EXAMINING. YOUR ANSWERS TO QUESTIONS IN THIS SECTION WILL BE KEPT STRICTLY CONFIDENTIAL AND WILL ONLY BE USED TO COMPARE YOUR RESPONSES WITH THOSE OF PEOPLE SIMILAR TO YOURSELF.

09. How many people are living in your household at the present time?

1	[]]
2	[]]
3	[]]
4	[]]
5	[]]
6	[]]
7 or more	[]]

10. At the present time are you employed?

Yes	[]	1
No	[]	2

11. If YES. Are you employed full-time or part-time?

Full-time	[]	1
Part-time	[]	2

12. What is the total yearly income of your household?

Under \$15,000	[]	1
\$15,000 - \$19,999	[]	2
\$20,000 - \$24,999	[]	3
\$25,000 - \$29,999	[]	4
\$30,000 - \$34,999	[]	5
\$35,000 - \$39,999	[]	6
\$40,000 - \$44,999	[]	7
\$45,000 - \$49,999	[]	8
\$50,000 and over	[]	9

13. How old were you on your last birthday?

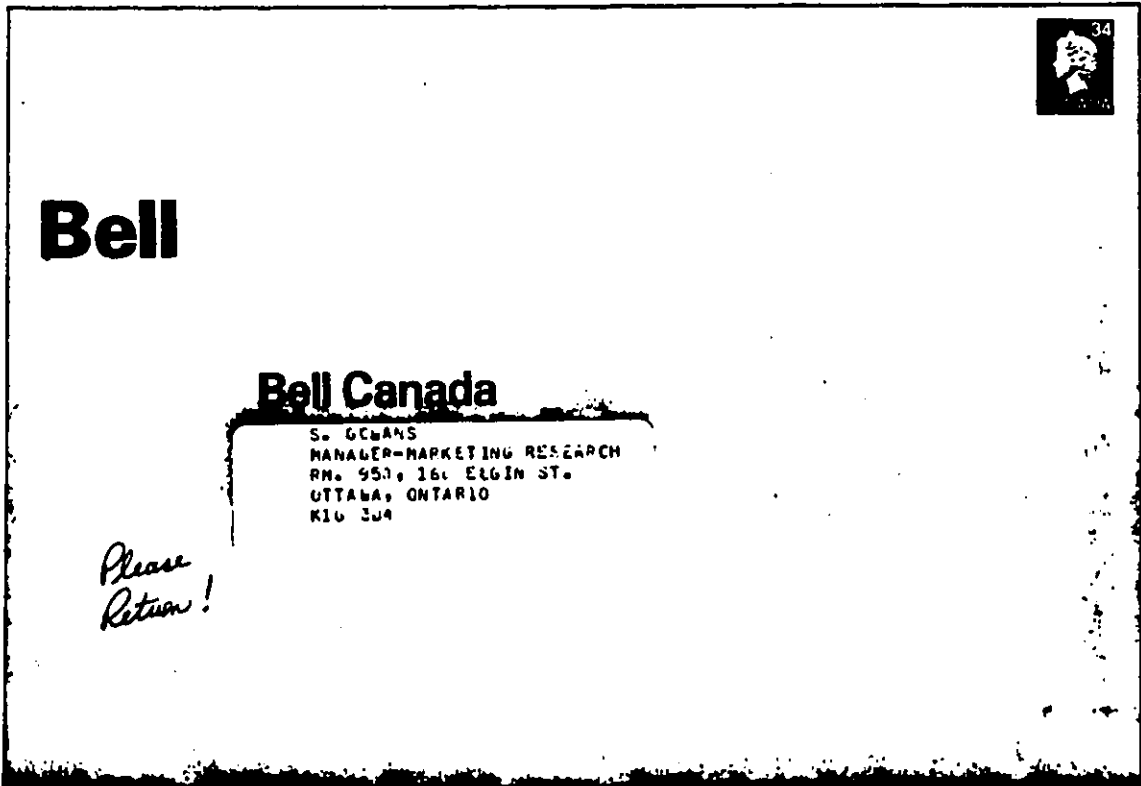
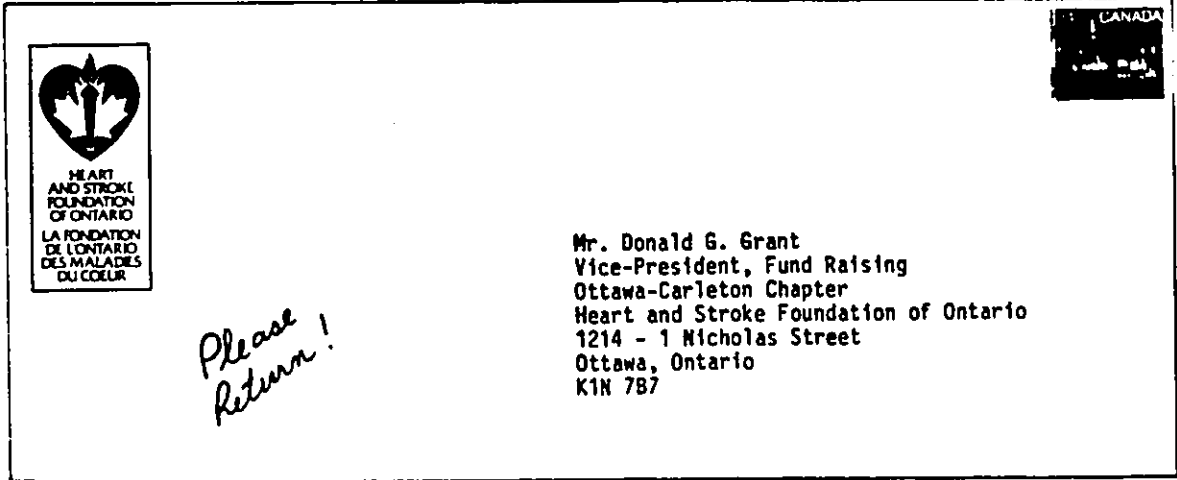
Under 20	[]	1
20 - 24	[]	2
25 - 29	[]	3
30 - 34	[]	4
35 - 39	[]	5
40 - 44	[]	6
45 - 49	[]	7
50 - 54	[]	8
55 - 59	[]	9
60 and over	[]	10

14. What was the last level of schooling you completed?

Less than grade 8	[]	1
Completed grade 8	[]	2
Completed grade 9 or 10	[]	3
Completed grade 11, 12 or 13	[]	4
Attended college or technical school or CEGEP	[]	5
Completed college or technical school or CEGEP	[]	6
Attended University	[]	7
Completed University	[]	8
post graduate	[]	9

THANK YOU FOR YOUR COOPERATION

Envelopes from the Heart and Stroke Foundation and from Bell Canada



DIRECTIONS TO SURVEY PERSONNEL

1. Use same verbal greeting and explanation (see script). Give to adults only.
2. If asked, you are a volunteer for the Heart and Stroke Fund.
3. Prefer all Questionnaires to be sent in by mail in stamped pre-addressed enveloped supplied.
4. Complete all items on the tabulation sheet. Record and householder comments about the survey, which relate to the methodology (on the back of the tabulation sheet).
5. Important: identify each home visited and identify whether or not they intend to fill out the questionnaire.
6. Without being too assertive, try to get a verbal YES or NO re: completing the survey.

NOTE: Return all tabulation sheets to Richard Lauzon, Tuesday evening (January 27, 1987).

THANK YOU!

APPENDIX C

HSFO - BELL Survey Returns for Study Groups by Date of Return

n	Heart Group						Bell Group						Mail Only	
	V		M		T		V		M		T		M	
	212 f	cum %	73 f	cum %	285 f	cum %	280 f	cum %	55 f	cum %	335 f	cum %	290 f	cum %
1	0	0	0	0	0	0	1	0	0	0	1	0	0	0
2	47	22	0	0	47	16	40	15	0	0	40	12	0	0
3	37	40	3	4	40	31	40	29	0	0	40	24	0	0
4	0	40	0	4	0	31	0	29	0	0	0	24	2	1
5	0	40	0	4	0	31	3	30	2	4	5	26	31	11
6	20	49	3	8	23	39	28	40	2	7	30	35	44	27
7	4	51	4	14	8	41	16	46	3	13	19	40	16	32
8	21	61	7	23	28	51	30	56	4	20	34	50	17	38
9	7	64	2	26	9	54	17	63	4	27	21	57	0	38
10	4	66	2	29	6	56	4	64	2	31	6	59	0	38
11	0	66	0	29	0	56	0	64	0	31	0	59	10	41
12	0	66	0	29	0	56	0	64	0	31	0	59	6	43
13	5	68	2	32	7	59	6	66	1	33	7	61	6	46
14	4	70	2	34	6	61	1	66	1	35	2	61	7	48
15	1	71	1	36	2	62	0	66	0	35	0	61	6	50
16	1	71	1	37	2	62	1	67	0	35	1	61	0	50
17	1	72	0	37	1	63	2	68	0	35	2	62	0	50
18	0	72	0	37	0	63	0	68	0	35	0	62	3	51
19	0	72	0	37	0	63	0	68	0	35	0	62	2	52
20	0	72	1	38	1	63	6	70	1	36	7	64	5	53
21	2	73	1	40	3	64	0	70	0	36	0	64	2	54
22	1	73	0	40	1	65	1	70	2	40	3	65	0	54
23	2	74	1	41	3	66	0	70	0	40	0	65	0	54
24	0	74	0	41	0	66	0	70	0	40	0	65	0	54
25	0	74	0	41	0	66	0	70	0	40	0	65	1	54
26	0	74	0	41	0	66	0	70	0	40	0	65	0	54
27	3	75	0	41	3	67	0	70	0	40	0	65	2	55
28	1	76	0	41	1	67	0	70	0	40	0	65	0	55
29	2	77	0	41	2	68	0	70	0	40	0	65	0	55
30	2	78	0	41	2	68	0	70	0	40	0	65	0	55
31	0	78	2	44	2	69	0	70	0	40	0	65	0	55
32	0	78	0	44	0	69	0	70	0	40	0	65	1	56
33	0	78	0	44	0	69	0	70	0	40	0	65	1	56
34	0	78	0	44	0	69	0	70	0	40	0	65	0	56
35	0	78	0	44	0	69	0	70	0	40	0	65	0	56
>35	4	80	1	45	5	71	0	70	0	40	0	65	9	59
T	169	80	33	45	203	71	196	70	22	40	218	65	171	59

APPENDIX D

Personnel Involved in the Study

Heart and Stroke Foundation of Ontario:

Don Grant
 Carolyn Clancy
 Tony Mitchelson

Heart and Stroke Foundation of Canada (formerly Canadian Heart Foundation):

E. McDonald	Mona Allan
J. McCrea	Margaret Lewis
Denise Chiasson	Mark Taylor

Bell Canada:

Ed Beebee
 Steve Gowans
 Les Melamed

University of Ottawa:

David Litvack

McGill University / University of Calgary:

Harrie Vredenburg

Questionnaire Preparation and Survey Delivery Volunteers:

Jim Edwards	Charlie Muir
Gord McCay	Ian Jarvis
Jan Lauzon	J.G. Jarvis
Andrew Lauzon	Paul Perry
Mike McNally	Bell Canada Survey Team
Charles Lauzon	Elizabeth Lauzon