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AUTHOR Goldhor, Herbert
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ABSTRACT

A study was made to compare early respondents with late respondents and with non-respondents, using data collected from a study of 1,186 adult borrowers of two public libraries. Usable information was collected from 718 respondents either by one or more telephone calls or by a postcard sent first or when there was no answer by telephone. The collected data were used to determine whether the differences between the first and second waves of respondents would have predicted correctly the known distribution of the non-respondents. Results of the study showed that the direction of change between the first and second waves does not usually predict correctly even the direction of difference between the second wave and the non-respondents, and the differences between the predicted and observed distributions of the non-respondents are often significantly greater than what would be expected by chance alone. Differences between early and late respondents cannot be relied on to predict correctly the nature of the non-respondents. (DB)

THE USE OF LATE RESPONDENTS TO ESTIMATE THE NATURE OF NON-RESPONDENTS

by Herbert Goldhor

When people are asked to supply information (whether by mail or in person), many refuse or fail to do so. It is often critical to know whether or not the non-respondents differ and by how much from the respondents, on various relevant traits. It has been suggested that one way by which to do this is by comparing early and late respondents, on the assumption that late respondents are more nearly like the non-respondents than like the early respondents.(1) This assumption has been challenged(2) and tested(3) with generally negative results.

Presumably those with a special interest in the subject at issue will answer earlier and significantly more often than will those with less or no interest.(4) As Suchman points out, the question is not whether the survey returns are biased but whether the bias affects the test of the hypothesis, and often it does not.(5) Lacking information on that question, one's confidence is strengthened or reduced by a knowledge of whether respondents are or are not characteristically different from non-respondents.

In a recent study, data were available by which to compare early respondents with late respondents and with non-respondents on three traits, and in a setting in which interest or lack of interest in the subject was not a factor.(6) For twelve months in 1969-70, certain data were collected on all adult borrowers of 110 selected titles in both the Urbana and Champaign (Ill.) Public Libraries. From the circulation records and borrower registration files of the two libraries, it was possible to ascertain in most cases (a) the type of book borrowed (i.e., whether it was fiction or non-fiction), (b) the sex of the borrower, and (c) his occupation. An effort was made to reach the 1186 borrowers by either telephone or mail about three weeks after they had taken the books. Responses were secured from 718 borrowers (60% of the total), but 233 (20%) did not respond, and another 235 (20%) were not approached either because they had borrowed one of these

selected titles more than once in three months (and it was feared that repeated polling would be inadvisable), or in a few cases, because the information needed to locate them was incomplete or incorrect.

Of all 718 respondents from whom usable information was secured, 79% were reached by the first method of contact (either by one or more telephone calls, or by a postcard sent first or when there was no answer by phone). Information was secured from the other 21% of all respondents by one or more telephone calls after a postcard had been sent and never returned. The former group constitutes the first wave of respondents in that they replied after the first effective contact was made with them; the second and smaller group is here called the second wave of respondents because they replied only after a second contact was made with them. This assumes that the postcards sent to the respondents in this second group were indeed delivered; we did not directly confirm this, but it is indirectly supported by the fact that our information on these respondents' home telephone was correct and so presumably was our record of their home address.

Each person who was reached by phone or postcard was asked to answer four questions on his use of one of the selected titles, viz., (1) whether he had borrowed the book for himself (or for someone else, or loaned his card to someone else to use), (2) how much of the book he had read, (3) how he had come to select this particular book, and (4) whether or not the book had served his purpose in borrowing it.

The information secured (for the three categories from circulation and registration records and for the four questions asked of those borrowers who could be reached) was utilized to ascertain whether conditions in the use of the two libraries were comparable (1) in the first six-month period and again (2) in the second six-month period when an experimental variable was introduced in one of the libraries. The question to be discussed here, however, concerns whether the differences between the first and second waves of respondents would have predicted correctly the known distribution of the non-respondents. Table 1

shows results for all three traits for which we had information. The differences between the first and second waves of respondents, by type of book borrowed, point in a different direction for the non-respondents than is known to be true, and the size of the difference between predicted and observed is just beyond the limits of sampling variability. In regard to sex, the non-respondents were in the predicted direction but much beyond what was predicted. And, on the third trait, occupation, no change was predicted but in fact there was a shift; however, the differences between the predicted and observed distributions of the non-respondents are random.

The data so far presented, however, are really for a combination of four different samples, viz., one for each of two time periods for each of two libraries. In the original study, these four samples were compared with each other to establish the equivalence or non-equivalence of the respective situations. Since the experimental period in the Champaign Public Library was the critical one, and since it accounts for 40% of all the circulations in the original study and 36% of all the responses, we will analyze that sample in the same manner as was done for all four samples combined.

Table 2 shows that, on all three variables, the predicted distribution of non-respondents is in the reverse direction from their actual or known distribution. The differences between the observed and the predicted distribution of the non-respondents are greater than can be explained by sampling variability. Similarly of the three other sub-samples (with three comparisons each), 7 would have predicted distributions in the wrong direction, one would have indicated no change when there was a marked change, and one predicted the correct direction but much more of a change than there was. When the four samples were combined, many of the differences cancelled each other and produced the results shown in Table 1 which give some support to the hypothesis that late respondents are more like

non-respondents than like early respondents.

It thus appears from these data that, when we have knowledge of the non-respondents, the direction of change between the first and second waves does not usually predict correctly even the direction of difference between the second wave and the non-respondents, and the differences between the predicted and observed distributions of the non-respondents are often significantly greater than what one might expect by chance alone. Even when interest in a subject is not a major factor, differences (or lack of differences) between early and late respondents cannot be relied on to predict correctly the nature of the non-respondents. In other words, according to the data of the present study, late respondents are not necessarily more like non-respondents than like early respondents.

Table 1. Comparisons Between First and Second Waves of Respondents and Non-Respondents

A. By Type of Book Borrowed

	First Wave	Second Wave	Non-Respondents (Actual)	Non-Respondents (Predicted)
Fiction	441 (74%)	94 (76%)	161 (72%)	182 (78%)
Non-Fiction	153 (26%)	30 (24%)	72 (28%)	51 (22%)
Total	594(100%)	124(100%)	233(100%)	233(100%)

(X^2 = 4.86, 1 df, p = .03)

B. By Sex

Male	108 (18%)	25 (20%)	69 (30%)	50 (22%)
Female	477 (82%)	98 (80%)	160 (70%)	179 (78%)
Total	585(100%)	123(100%)	229(100%)	229(100%)

(X^2 = 4.18, 1 df, p = .04)

C. By Occupation

Student	207 (42%)	45 (42%)	96 (50%)	82 (42%)
Non-Student	288 (58%)	62 (58%)	98 (50%)	112 (58%)
Total	495(100%)	107(100%)	194(100%)	194(100%)

(X^2 = 2.00, 1 df, p = .16)

Table 2. Comparison Between First and Second Waves of Respondents and Non-Respondents, in Champaign in the Experimental Period

A. By Type of Book Borrowed

	First Wave	Second Wave	Non-Respondents (Actual)	Non-Respondents (Predicted)
Fiction	176 (82%)	45 (90%)	63 (75%)	82 (98%)
Non-Fiction	39 (18%)	5 (10%)	21 (25%)	2 (2%)
Total	215(100%)	50(100%)	84(100%)	84(100%)

(X^2 = 18.16, 1 df, $p < .001$)

B. By Sex

Male	37 (17%)	5 (10%)	28 (34%)	2 (3%)
Female	177 (83%)	45 (90%)	54 (66%)	80 (97%)
Total	214(100%)	50(100%)	82(100%)	82(100%)

(X^2 = 27.50, 1 df, $p < .001$)

C. By Occupation

Student	52 (30%)	10 (24%)	30 (43%)	13 (18%)
Non-Student	120 (70%)	31 (76%)	40 (57%)	57 (82%)
Total	172(100%)	41(100%)	70(100%)	70(100%)

(X^2 = 9.68, 1 df, $p < .01$)

(1)

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(3)

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(5)

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(6)

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