

THE FATE OF A PANEL OVER A FIVE-YEAR PERIOD

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This year marks the tenth anniversary of the studies of adult life carried out in Kansas City by the University of Chicago's Committee on Human Development. "Adult life" is a euphemism for age and aging. The studies have dealt primarily with personal and social adjustment associated with middle and old age. They have been also concerned with the sociological and psychological processes of change which are usually termed "aging."

My purpose here today is not, however, to discuss any substantive findings of the Kansas City research. It is to describe the history and fate of the longitudinal panel from which the data were collected in a series of interviews carried out at intervals over $5\frac{1}{2}$ years from September, 1956, through March, 1962.¹

The major goal of the research with this panel was to acquire, through time, a rich source of information and insight from which hypotheses concerning the aging process could be developed. It was felt that continued contact with the respondents would allow the collection of data serially, the augmentation of information about each case, and the addition of new questions as knowledge increased. For these reasons and because repeated contacts with respondents over a five-year period could easily produce a mountain of unmanageable data, the size of the panel was kept small.

The "base sample" from which the panel for the study of adult life was drawn, consisted of 8,300 households and 400 persons in quasi-households selected randomly from the Kansas City Metropolitan Area. These 8700 dwelling units comprised over 95% of the original area sample.

Time does not permit a complete discussion of the sample which came ultimately to make up the study's panel. Briefly, however, the details are as follows: The study design called for a sample of respondents that was stratified relative to three variables: age, sex, and social class. Further, the sample was to include non-institutionalized white persons between the ages of 49 and 71 who were not unable, because of serious disability, to perform in their usual capacities such as work or housekeeping. Respondents were also to be restricted to those living in the Urbanized Area as contrasted to the Metropolitan Area which also included farm and village inhabitants. This Urbanized Area includes both Kansas City, Missouri, and Kansas City, Kansas, and contiguous suburbs. It contains approximately 95% of the population of the Metropolitan Area. After elimination of the cases which did not meet the established criteria, there remained 1236 cases to score for social class. This was done by using an adaptation of the Warner Index of Social Characteristics carefully worked out² over a period of years for Kansas City, and by using data gathered in a survey of cases from which the panel was drawn. On the basis of ISC scores, upper- and lower-lower class persons were eliminated from the 1236 cases.

The cards, each representing one of the remaining cases, were then sorted into age, sex, and social class categories, assigned numbers,

and through use of a table of random numbers, cases were chosen with which Wave I of the interviewing was to be attempted.

Interviewers were given a total of 236 assignments on Wave I. Of these, 88 males and 86 females completed the interview and agreed to cooperate with the research. Thirty-seven potential respondents refused, and 25 potential respondents were not available for study because they had moved, died, or were unobtainable for other reasons after data on the base sample had been gathered.³

Before going into my discussion of the fate of this main panel, the selection of which I have just described, I should like to mention another portion of the study population from which we have obtained data. This is a supplementary quasi-sample made up of persons between the ages of 70 to 90. It was added at the time of Wave III of the main panel in order to give a greater age span than that represented by the main panel itself. It covered the period from June, 1957, through March, 1962. Difficulty and expense in obtaining a random sample of healthy, very old persons would, of course, be created by the scarcity of such people in the general population. This supplementary sub-grouping was, therefore, recruited into the study population from among neighbors, acquaintances, and other sources of three interviewers, one each from the upper-middle, lower-middle, and upper-lower classes. Social class status was assigned to these very aged respondents on the basis of information gathered during interview Waves III through VI.

The compositions of the panel at the completion of Wave I and the quasi-sample at the completion of Wave III will be seen in Tables Ia and Ib and Tables Ic and Id, respectively.⁴ From these tables we also get a picture of the fate of the main panel through the seven successive waves of interviewing and of the quasi-sample through five waves.

In Tables Ia through Id, commencing with Wave II, a sub-category of completed interviews termed "pick-ups" is introduced. A "pick-up" is a respondent marked as a refusal after persistent attempts to interview during the period of a particular wave but who at a later date--in most cases after the completion of Wave VI--consented to be interviewed one or more times. A pick-up may or may not be a reinstatement into the study because a completed interview associated with a particular wave does not necessarily indicate the respondent consented to interviews associated with other waves. Conversely, the same respondent might be listed as a pick-up on several interviews.⁵

The number of attritions or drop-outs due to refusals, deaths, or moves which could not be traced or were away from the Kansas City area, is also recorded in Tables Ia through Id commencing with Wave II. A number of devices were employed in an effort to keep the attrition rate at a minimum. The study was explained in considerable detail to each respondent, and his cooperation for a five-year period sought at the time of the

first interview. Hard-sell methods were avoided because it was felt that sustained cooperation could not be obtained by pressure tactics. Each respondent received a greeting card from the project director during the holiday season.⁶ Upon the completion of an interview, the respondent received a thank you note from the project director.

In general, it was felt that once an interviewer established rapport with a respondent, that interviewer should continue to be assigned the respondent. Changes in the interviewing staff did not always make this possible, and for Wave VII it was decided that no respondent should be interviewed by a staff member by whom he had ever been previously interviewed. Further, if a respondent and an interviewer did not hit it off, another interviewer was given the assignment.

After Wave VI, when contact with special study groupings, to be discussed later increased, feedback indicated that a sizable proportion of respondents were becoming restless because of the demands being made upon them. It, therefore, seemed especially desirable to attempt to increase the sense of involvement of respondents in the project. To that end, a number of personal letters--some associated with specific interviews, some not--were sent to each respondent from the project director. A pamphlet explaining the research in lay terms was distributed freely among respondents and their significant others during an investigation of small social systems carried out between Waves VI and VII. Also, after Wave VI, an especially competent, highly trained interviewer was given the task of attempting interviews with persons who had been marked "final refusals" sometime during the course of the research. Nearly all of the previously mentioned "pick-ups" were moved from the refusal category to the completion category through the efforts of this interviewer.

From Tables Ia and Ib, we note that 67% of male panel members remained with the study at the end of 5½ years while 59% of female respondents on the panel remained. In each wave, with the exception of Wave IV, the attrition rate for females ran one or two per cent above that of males. This is in spite of higher death rates, as expected, for males. For both males and females, the range of attrition rates by social class and age category for each of the six waves after Wave I was from 1% to 10% with both the mean and the median at 6%. The rate of final refusals for female panel members for the whole study was 34% while for male panel members it was but 19%. Except for upper-lower class males in the 49-59 age grouping, the rate for females refusing to be interviewed was greater than that of males for all categories. Out of 174 persons completing Wave I, eight--four males and four females--were lost through moves. The females, who moved were, however, concentrated in the lower-middle class while males who moved were from both the upper-middle and the upper-lower, but not the lower-middle, classes.

Table IIa summarizes the total of combined male and female panel members by age category and social class who completed interviews during each of the seven waves and the per cent of the total of Wave I who completed Wave VII. Table IIb gives

another perspective on the combined total, showing the total number of interviews completed by age, sex, and social class for each of the seven waves and the per cent of the total of Wave I who completed Wave VII.

The difference in rate of attrition between social classes was significant at the .05 level. The lower-middle class had higher attrition rates than either the upper-middle or the upper-lower classes. The reasons for attrition, i.e., refusals, deaths, moves, were individually evaluated, in terms of age, sex, and class, for their effect on attrition; no significant relationships were established between each of these variables and attrition. A within class analysis of attrition resulted in a significant difference at the .05 level, by class between females. One concludes that the relationship between social class and attrition was due to lower-middle class females who die, move and refuse more often than either the upper-lower or upper-middle class females.⁷

Tables Ic and Id show the completed interviews and amount of attrition for male and for female respondents, respectively, in the quasi-sample after each interview wave, by age and social class. From among the 50 male respondents aged 69-90 who were incorporated into the study group at the time of Wave III, only 20, or 40%, completed Wave VII. This compares with the 38 female respondents, or 67%, out of 57 in the same age categories and social class range who completed the same wave. Males had a higher percentage of total attrition in each wave. This difference between males and females is significant at the .05 level.

Death rates for males in the quasi-sample again ran higher than those for females, the relative percentages for the 3 3/4 year period being 26% and 18%. At the .05 level there is a significant difference in the death rates in each interview wave for males. Also, with regard to deaths, there is a significant difference between persons aged 69-79 and persons 80 years of age and over.

Table IIc shows the total of combined male and female quasi-sample respondents by age category and social class who completed interviews during each of the five waves and the per cent of the total of Wave III who completed Wave VII. Table IId shows the total number of interviews completed by age, sex, and social class for each of the five waves and the per cent of the total of Wave III who completed Wave VII.

It is worth noting that the proportion of respondents who were brought back into the study after they had been considered to be refusals is much greater for the quasi-sample than it is for the main panel, and indeed, this difference is significant. However, in contrast to the younger respondents making up the main panel, the final refusal rate for males in the quasi-sample was higher than that for females.

Lest some of my hearers get the impression that persons who did not abort from the panel were approached for interviews but seven times--five in the instance of the quasi-sample--I would like to mention once again the special study groupings. The numbers of male and female respondents in both the main panel and the quasi-sample in these special groupings are shown in

Tables IIIa through IIId.

In all, interviews for five studies subsidiary to the general study were carried out. In general, the special interviews concerned with morale, affect-control, and kinship were designed to develop insights and hypotheses which could be tested in regular interview waves on the total study population. The life satisfaction interview, clinical in nature, was for the purpose of validating a scale, items for which were contained in several of the regular interviews.

The study of small social systems involved not only respondents, in the sense that names and permissions were obtained from them, but also interviews with their relatives, friends, and professional and business acquaintances whom we call "significant others." Formal interviews were carried out with respondents and with their "significant others" in the studies concerned with social and cultural systems in which respondents have their beings. Additional data on systems were gathered by two participant observers who lived in areas where they had the opportunity to make informal, continuous contact with several respondents over a period of up to six months. These contacts resulted in ethnographic-type reports. The last column in Tables IIIa through IIId indicates that this manner of approach to certain respondents was not entirely successful while it had considerable success with others.

A further word about length and number of interviews seems to be in order. Throughout the research, the minimum time required to complete an interview with any one respondent was in the neighborhood of one hour. The maximum occasionally reached six to eight hours, and three- or four-hour interviews were not unusual.

With respect to number of contacts with the study's staff, seven were, of course, the minimum for respondents in the main panel with whom the whole series was done. Five interviews were the minimum for respondents in the quasi-sample. It is well to remember, however, that the supplementary sub-studies added contacts. One woman included in the study of small social systems actually met with interviewers and other researchers 25 times in something over five years. Instances of 12 and 13 personal contacts between staff members and a respondent are not unheard of. Eight and nine interviews with main panel respondents are quite common.

In conclusion, let it be said that the longitudinal investigation of age and aging conducted in Kansas City from September, 1956, through March, 1962, involved a total of 281 respondents between the ages of 49 and 90. Of these, 113 or about 40%, aborted during the study. Of the 113, a total of 64 respondents or 37% dropped from the main panel of persons 49 to 71 years of age and 49 respondents or 46% dropped out of the quasi-sample of 69 to 90 year-olds.

It is difficult to say, given the demands made upon the respondents, their ages, and Kansas City as the location for the Study, whether this is a good record. Nor, with the increased use of surveys for scientific and commercial purposes, could one hope for as much success at a future date with a population identical albeit more adept at defending its privacy.

We can, however, say that in the current re-

search we have been flexible and sympathetic but persistent in our approach to our respondents. This probably shows in the large number of persons who put up with so much for so long.

FOOTNOTES

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²By Warren A. Peterson, Richard Coleman, John C. Scott, Jr., and others.

³Every attempt was made to reach persons who refused as many times, each time with a different interviewer, as was considered appropriate. When these approaches, coupled with letters, still failed to produce cooperation, the person was classified as a definite refusal. These refusals became the object of a special sub-study inaugurated for the express purpose of finding out whether they differed from the persons who consented to be included in the study. A mock television interview was developed which replicated, briefly, some of the key issues of the first interview. An experienced and persistent interviewer, new to the respondents, was able to obtain this shorter interview with 22 of the refusal group. Examination of these interviews has allowed us to compare them with the completions. In this respect, there are but 15 persons in the 236 persons on which little information is available.

⁴Space limitations preclude the inclusion of the lengthy tables accompanying this paper in these Proceedings. Persons who desire a set of these tables may obtain them by addressing the Kansas City Study of Adult Life, 716 Railway Exchange Building, Kansas City 6, Missouri.

⁵For reasons related to the content of the interview schedules and the analysis of data, it was decided to reverse the sequence of interviews with pick-ups. After Wave VI any respondent who had refused to be interviewed any time during the research was approached with the interview for Wave VI. If this interview was completed, he was approached at still a later date with the interview for Wave V, and so on. If a "pick-up" once again became a refusal on any interview, he was not approached during Wave VII. Therefore, all pick-ups listed for Wave VII have completed the whole series of interviews.

⁶Some also sent cards in return, but one wife felt miffed when one of her husband's cards was not addressed to her too.

⁷The statistical analysis of data was done by a two-way analysis of variance by ranks using the F test for significance. The formula used to obtain the F score is:
$$\text{Total} = \frac{m(n^2 - n)}{12}$$

$$\text{Between} = \frac{\sum (\sum \text{Col}_1)^2 + \dots (\sum \text{Col}_{1+n})^2}{m} - \frac{mn(n+1)^2}{4}$$

$$\text{Within} = \text{Total} - \text{Between}$$

Using the results of the above formula where m is the number of rows and n is the number of columns then:

$$F = \frac{\text{Sum of squares between columns}/n-1}{\text{Sum of squares within columns}/(n-1)(m-1)}$$

In the event of a $m \times n$ contingency table in which each row entry in a column receives the same rank as other rows in the column, the within group sum of squares will be equal to 0--that is, F is of maximum size. This relationship is evidenced by simple inspection of the table under consideration.