Survey Research in Aging An Evaluation of the Harris Survey

Gloria Cardocki, MA, John C. Henretta, PhD, Richard T. Campbell, PhD
The NCOA-Harris survey, "The Myth and Reality of Aging," suggests new directions for research on the social aspects of aging. In this paper we evaluate the data quality and content of the NCOA-Harris survey and discuss its usefulness for researchers and practitioners in aging. An analysis of the survey suggests that the sample of older persons is representative of the American older population. An analysis of the content suggests that social gerontologists need to pay more attention to the cumulation of knowledge in the field. In addition, the differing needs of practitioner and researcher for knowledge about the elderly may mean that one survey cannot be expected to serve the needs of both.

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John C. Henretta, PhD, Richard T. Campbell, PhD, and Gloria Gardocki, MA

In the past few years, a number of national surveys of special relevance to aging have become available. Two are on-going longitudinal studies: the National Longitudinal Surveys (Parnes, 1970) and the Social Security Retirement History Study (Irelan, 1972). Though it is not a survey of the aged, the repetition of certain questions each year since 1972 in the National Opinion Research Center (NORC) General Social Survey allows aggregation of a respectable sample of the old over a several year period (e.g., Cutler, 1976; Henretta & Campbell, 1976). The recent large NCOA-Harris study of attitudes toward aging provides further information. While there have been previous national surveys relating to aging, these four examples are important for each has been designed to serve as a data source for the social science research community and to have applicability to a wide range of possible research interests.

Given the cost of contemporary social science research, this is a very useful direction; secondary analysis has a long tradition in other areas of social science and the easy availability of these surveys will do much to popularize it in aging research. Yet if an increasing amount of research is to flow from such data, it is important to assess the quality of the data as well as the choice of items included. In this paper we will perform this task for one of the currently available surveys: The NCOA-Harris survey of attitudes toward aging. We will describe the survey, present an analysis of data quality, assess its content, and discuss different requirements for surveys to be used in research and advocacy. We will conclude with suggestions for increased replication and cumulation in research on the social aspects of aging.

A Description of the Harris Survey

The Harris survey was commissioned by the National Council on Aging and was funded by a large grant from the Edna McConnell Clark Foundation supplemented by a grant from the Florence V. Burden Foundation to allow an oversample of the black elderly. The survey was conducted in June and July of 1974 by Louis Harris and Associates. The goals of the survey were twofold: to gather information of the public's perceptions of aging and to obtain data on the attitudes and situation of the elderly.

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In order to achieve these goals a complex sample was drawn. In addition to a standard national sample of approximately 1500 persons, persons 55-64, 65 and over, and blacks 65 and over were oversampled to achieve more accurate estimates of their attitudes. The total sample size is 4254, of whom 2797 are age 65 or over.
The majority of the items included in the survey are social-psychological. There are items on attitudes toward aging, self-perceptions, life satisfaction, and political attitudes related to aging. In addition, there are a number of reports of behavior: community participation, daily activities, and family relationships. As in any survey, data on various individual characteristics such as education, income, and religion were collected.

During the past year, under a grant from the Edna McConnell Clark Foundation to the Center for the Study of Aging and Human Development, Duke University, we have been preparing a user-oriented tape and documentation for the survey. We have deposited a standard EBCDIC tape, control cards for an SPSS file, and accompanying documentation in the Harris data archive maintained by the Institute for Research in the Social Sciences at the University of North Carolina, Chapel Hill.

An Assessment of Data Quality

An issue of special concern to aging researchers is the quality of the data. Is the sample truly representative of the population of older persons? There are standard techniques for assessing data quality of survey samples, primarily comparisons with census or Current Population Survey (CPS) distributions. Such comparisons are both relevant and necessary because in any survey of older persons there is concern about the possible effects of self-selection resulting from the social isolation of a number of the elderly. For example, among the various cautions that Riley and Foner (1968) include in their compendium of research is the following: “Activity [i.e., measures of social participation] may be especially affected by sampling bias (from self-selection, reliance on the investigator’s judgment rather than on probability, or high rates of no response).”

The techniques for developing representative multi-stage probability samples are well developed, and there are several accessible discussions available to the reader who wishes to learn about them (e.g., Kish, 1965). We do not doubt the validity of the sampling frame or techniques used for national samples by the Harris organization; it is known that these and similar frames used by other organizations yield representative samples of the American population. However, since older persons are only a small part of the American population, the oversample of the old required special screening techniques at the final stage of the sampling to find older persons to interview. While Harris used standard techniques for such a problem (Kish, 1965), it is worthwhile examining the results of the survey to see if the final sample is representative of the elderly American population. In fact, we do find that the Harris survey has captured an adequately representative sample of the old; in this section we describe the evidence that led to this conclusion.

The assessment of “adequate” representativeness is a difficult one. There is the problem of sampling variability in all surveys; while it is usually possible to reduce it, greater precision becomes increasingly expensive. Thus it is always necessary to compromise cost and accuracy. For multi-purpose survey, there is no one definition of adequacy. In this paper we will use informal criteria. A significant difference is one that is relatively large—say, a 4% difference between the Harris survey and CPS—and one that is theoretically significant. That is, since the concern in the aging literature has been for under-representation of the socially isolated, we will look for under-representation of persons with characteristics associated with social isolation.

It is worth noting that the census and CPS are prone to the same kinds of errors as any survey, particularly bias resulting from errors in coverage or nonresponse. CPS is a survey, and since many of the questions used in the census are asked of only 5% or 20% of the population, they too are subject to sampling error. The census bureau does not claim its data are error free; indeed, it expects greater error at advanced ages (Bureau of the Census, 1976). However, it is reasonable to use the
census and CPS as benchmarks for comparison since they are the best available data. A
The choice of census data limits the kinds of comparisons that can be made, but we would argue that these are exactly the proper comparisons. Using the CPS, we can compare age, sex, education, and marital status distributions of the different surveys. These are appropriate for two reasons. First, attitude or behavior reports are inadequate because of their temporal instability and their well-known dependence on the details of wording of the question (Schuman & Duncan, 1974). This is particularly important, since the CPS comparisons are from surveys conducted at different times from the Harris survey. Second, since age, sex, education, and marital status are associated with social isolation (Riley & Foner, 1968), they can be used as proxies for it in our attempt to ascertain whether social isolates were excluded from the sample. There is no other stable way of assessing whether certain kinds of people were systematically excluded. Given the oversampling described earlier, the comparisons presented here are obviously done following weighting of observations from the survey. The issue of weighting is described in the NCOA publication, "The Myth and Reality of Aging" (1974).

The first and most basic question is whether the age distribution of old people is the same in Harris as in CPS. Obviously a departure would not be important if one wanted to compare an attitude by age within the aged group. However, it might be important if one wanted to assess the average attitude or situation of all old persons. Table 1 contains the comparison of the Harris survey with the 1970 and the 1975 CPS distributions. In all three cases, the population refers to the noninstitutionalized population.

Table 1. A Comparison of Age Distributions

<table>
<thead>
<tr>
<th>Age</th>
<th>1970 CPS</th>
<th>1975 CPS</th>
<th>Harris</th>
</tr>
</thead>
<tbody>
<tr>
<td>65+</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>65-69</td>
<td>35.0</td>
<td>36.2</td>
<td>37.0</td>
</tr>
<tr>
<td>70-74</td>
<td>27.2</td>
<td>25.8</td>
<td>26.6</td>
</tr>
<tr>
<td>75-79</td>
<td>19.2</td>
<td>17.9</td>
<td>19.5</td>
</tr>
<tr>
<td>80+</td>
<td>18.6</td>
<td>20.2</td>
<td>16.9</td>
</tr>
</tbody>
</table>


There is a slight divergence among the surveys at the end of the age scale; the percentage of persons over age 80 in the Harris study is less than in either the 1970 census or the 1975 Current Population Survey. This underrepresentation is accompanied by an overrepresentation in another old-old category: 75-79. This is a small difference, though it does occur among that segment of the older population that is least accessible.

We next checked the sex ratios (the number of males per 100 females) within age groups. We do not present the table, but can report that for both whites and blacks over age 65 these ratios are quite similar (within two points) to those reported in the CPS for 1975. This should not be surprising, since part of the weighting procedure employed by the Harris organization involved adjusting respondent weights for sex ratios within age groups to the 1970 U.S. Census ratios.

However, for ages 55-64, we did find discrepancies in the sex ratios. While the overall sex ratio and the ratio for blacks at this age are accurate (overall: Harris —88.9; CPS —89.6; blacks: Harris —83.3; CPS —84.3), the white ratio is lower (Harris —85.8; CPS —89.9) and the ratio for other races (i.e. nonwhite and nonblack) is much too high: 213 in Harris. This same problem is repeated in the older age groups, but the overrepresentation of "other" race males is much less pronounced. This problem results from the small number of interviews in these other-race categories (158 for all ages). However, if one uses the original Harris weighting scheme which weights to population totals, these results could be quite misleading.

Our next attempt to test the informal "isolation" hypothesis was to examine marital status of the respondents to the survey compared to the 1970 and 1975 Current Population Survey. Generally, the Harris survey fits the census figures quite closely. As Table 2 shows, there is some underrepresentation of the unmarried at ages 55-64 for both men (8.2%) and women (6.7%).

The final and perhaps most important comparison involved education, allowing us to examine possible social class bias in the sampling. Education is better for this purpose than income for several reasons. Education...
Table 2. Marital Status by Sex and Age.

<table>
<thead>
<tr>
<th></th>
<th>70CPS</th>
<th>75CPS</th>
<th>Harris</th>
<th>65-74</th>
<th>75CPS</th>
<th>Harris</th>
<th>70CPS</th>
<th>75CPS</th>
<th>Harris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>85.2</td>
<td>85.0</td>
<td>93.2</td>
<td>78.0</td>
<td>83.9</td>
<td>84.0</td>
<td>64.3</td>
<td>70.0</td>
<td>67.8</td>
</tr>
<tr>
<td>Not married</td>
<td>14.8</td>
<td>15.0</td>
<td>6.8</td>
<td>22.0</td>
<td>16.1</td>
<td>16.0</td>
<td>35.7</td>
<td>30.0</td>
<td>32.2</td>
</tr>
<tr>
<td>Men</td>
<td>55-64</td>
<td>75CPS</td>
<td>Harris</td>
<td>67.4</td>
<td>32.6</td>
<td>55.2</td>
<td>49.0</td>
<td>21.0</td>
<td>21.9</td>
</tr>
<tr>
<td>Women</td>
<td>70CPS</td>
<td>75CPS</td>
<td>Harris</td>
<td>45.2</td>
<td>51.0</td>
<td>51.8</td>
<td>79.0</td>
<td>76.6</td>
<td>78.1</td>
</tr>
</tbody>
</table>


Married includes: “married” and “separated” in Harris; and “married, spouse present” and “married, spouse absent” in CPS.

Table 3. Education by Age.

<table>
<thead>
<tr>
<th></th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>CPS</td>
<td>H</td>
<td>CPS</td>
</tr>
<tr>
<td>0-7</td>
<td>15.3</td>
<td>16.7</td>
<td>24.9</td>
</tr>
<tr>
<td>8</td>
<td>16.2</td>
<td>11.4</td>
<td>22.1</td>
</tr>
<tr>
<td>9-11</td>
<td>18.6</td>
<td>20.1</td>
<td>16.4</td>
</tr>
<tr>
<td>12</td>
<td>32.0</td>
<td>30.1</td>
<td>21.2</td>
</tr>
<tr>
<td>13-15</td>
<td>9.2</td>
<td>12.5</td>
<td>7.4</td>
</tr>
<tr>
<td>16</td>
<td>5.2</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td>17+</td>
<td>3.7</td>
<td>4.9</td>
<td>3.2</td>
</tr>
</tbody>
</table>


is a much more stable characteristic, and thus the comparison survey need not have been conducted at exactly the same time. Second, reports of education are more reliable than those of income (Seigel & Hodge, 1968). Third, education reports are probably less affected by the wording of the question and probing by the interviewer. We present the data for this comparison in Table 3. CPS data for this comparison were collected in March, 1974 just 3 months before the Harris survey was conducted. The Harris coding for education is slightly different from the CPS. To attain comparability, we have added their “junior college graduate” category to the 13-15 category and their “vocational training” category to the high school graduate category. As will be seen, this does not affect the comparison.

There is quite close correspondence between Harris and the CPS in the middle ranges. For example, the largest difference in the estimate of the percentage of high school graduates in an age group is 2%, not a large difference since both surveys are subject to sampling error. There is, however, under-representation of those with little education at older ages. For example, at ages 55-64 and 65-74, CPS reports 3.4% and 3.2% more of the population with 8 years or less of education than does Harris. However, at ages over 75, there is a gap of 10.6 percentage points. CPS reports 61% of the over-75 population with an education less than 8 years, while Harris reports 50.4%. Of course, this means there is an overrepresentation of persons at higher education levels.

The education by age distribution in the Harris survey departs from CPS norms in a noticeable way. This may be a result of the screening technique used; a large amount of screening maximizes the possibility of missing low status and very old persons since, in effect, the most available persons are interviewed. There may be few alternatives to such a screening technique; however, the Harris survey does suggest that special attention be paid to the inclusion of old-old low status persons in any future survey. With the exception of this caution, the Harris survey does seem to have captured an adequately representative sample of the American aged population.

An Evaluation of Content

If national surveys are to become more important in aging research, it is necessary to evaluate content as well as sampling. The Harris survey emphasizes two content areas. One is attitudes toward aging and the aged of both young and old persons. This includes perceptions of problems, perceptions of personality and attitudes, feelings toward growing old, and perceptions of the treatment of the old by the media. The other content area is behavioral reports of activities. This includes community participation, educational...
and recreational activities, and family activities.

There are two related criteria we will use to evaluate content. These are replication: do the questions in a content area conform to standard usage and allow us to test for trends or replicate earlier findings?; and cumulation: do attempts to gather more information in a topic area build on earlier efforts?

**Replication**

A major interest of analysts in the social sciences is testing for trends or checking other researchers’ findings. For example, we might be interested in assessing whether the attitude of the public toward government efforts to provide income support for the old has changed or remained stable. This research question requires that survey questions be replicated. Unfortunately, replication is not just a matter of repeating a question; it also requires the same sampling procedure, the same context for asking the question, similar training for interviewers, and other controls (Featherman & Hauser, 1975). This degree of similarity is seldom achieved but should be a benchmark for comparison.

A good example of attempts to replicate questions is the NORC General Social Survey. As noted earlier, it is conducted yearly, and several years’ surveys can be combined to provide a moderate sized sample of the elderly. One of the advantages of the NORC survey is that care is taken to repeat a number of items each year in exactly the same form. For example, one 1975 question asks respondents about the amount of confidence they have in various leaders and institutions. An appendix in the codebook tells us that the same question was asked in the 1973 and 1974 surveys. In addition, the same question was included in polls conducted by the Harris organization in 1966, 1971, and 1972. This conscious attempt at replication allows an analyst to ask whether there have been trends in the past 10 years in expressions of confidence in leadership and whether such trends differ within various subpopulations. The analyst has available six surveys in which the question was asked.

There are some attempts to use questions asked before in the Harris survey. For example, question 21c is “Who do you think should provide income for older people when they are no longer working?” The coded answers are: provide for themselves; children; em-

ployer pension plan; government; government through social security; other; not sure. The set of responses, if not the question, is quite similar to one asked by Shanas (1961) in her 1957 survey of the health of older persons: “Who do you think should take care of older people when they are no longer working? (emphasis added) Which of those do you think should take the most responsibility?”

The similarity in the question, and even more similarity in the answers, does invite a 17-year trend comparison in attitudes of the general population and the attitudes of old people on who should take care of the elderly. While the question in the Shanas survey was asked in the context of income, making the questions more similar than they seem at first glance, the wording is slightly different. It is known that small changes in wording can make a large difference in responses (Schuman & Duncan, 1974). In addition, the published tables from the Shanas question provide for only one answer per respondent; we do not know whether there exist multiple responses. The Harris questionnaire allowed multiple responses to this question.

More comparable is question 20b and c: “Here are some things that people have told us they missed about their jobs after they stopped working. For each, tell me if it is something you missed, or not. Which one of these things did you miss most about your job after you stopped working?” This is an almost exact equivalent of the question used by Shanas, Townsend, Wedderburn, Friis, Milhoj, and Stehouwer (1968).

A closely related problem in survey research methodology is the development of standard definitions of basic concepts. What, for example, is a full-time job? What shall be considered as income? How does one count apprenticeships in determining years of education? When is an unemployed respondent looking for work? Over the years, largely following the lead of the census bureau, researchers in other organizations have developed standard definitions of many such concepts and standard ways of asking the questions. A good example is occupation. Using census bureau procedures (as NORC does in the General Social Surveys), it is necessary to ask three specific questions to determine occupation. These questions are then used by coders to assign a three-digit occupation code which can then be converted into other codes commonly used in sociological research such
as the Duncan SEI. The NCOA-Harris survey did not follow this procedure; instead interviewers were asked to probe for the respondent’s occupation and then assign it to an eight-category classification.

There are other departures from standard procedures in the Harris survey, for example, in the choice of categories for education and income. Education is coded in categories, not years; and income is reported in a precoded format rather than in actual dollars. For many research applications these problems are minor. It is only when one is investigating, say, the impact of occupation on retirement that occupation coding becomes extremely important. Question formats and coding schemes which are quite acceptable for general research purposes may not be for more specialized work.

We present these examples not to criticize the questions asked in the Harris survey, but rather to suggest the real difficulties that are encountered in doing any research that attempts to replicate earlier work. Yet we would argue that doing so is valuable and justifies the effort involved in coordinating later surveys with earlier ones. Unless there are standard ways of assessing certain kinds of information, each new survey is just that—another survey. If each subsequent survey takes items from earlier ones, its usefulness is increased. The state of affairs in non-aging research is far from perfect, and it is often necessary to make compromises in order to do comparisons since there is seldom complete parallelism. However, repetition does represent a step forward in making knowledge systematic in a field.9

Of course, learning from previous surveys does not just mean repeating the same questions. Sometimes we learn that a certain question yields uninterpretable answers and in the future modify it or eliminate it. However, this should be done carefully since as we noted there are losses involved in such changes.

**Cumulation**

A related issue is what we can learn from previous work about kinds of items that need to be included. We have just argued that each new survey of the aged should not be done in a vacuum. This may involve repeating questions, but it also means choosing areas for investigation that provide new knowledge or provide increments to already established knowledge. Surveys should contribute to the cumulation of knowledge. For example, one useful aspect of the Harris survey, and to the best of our knowledge a new item in a national survey, is an assessment of convenience and attendance of the elderly at certain public facilities: movies, restaurants, libraries, and parks. This may well be useful in developing an analysis over time of the accessibility of public facilities for the old. Of course, to do so it must be repeated in later surveys in the same form.

On the other hand, some items are less useful. To illustrate this, we purposely chose an area of great substantive importance: the family relationships of the old. In the NCOA-Harris survey the data are not collected in a way which allows any new information to be added to what we already know about inter-generational relationships. It is well established that aged parents have close and continuing contact with at least one child, and that many services are traded within families (Riley & Foner, 1968; Stehouer, 1965). Of course, it is useful to ask sometimes (though perhaps not every year) whether this situation has changed; to do so, questions should be repeated exactly. But if a survey is to contribute to the cumulation of knowledge it is important to do an in-depth assessment of the particular area. The problem with the family questions in the Harris survey is that they are less detailed than family questions in other surveys. Given our already advanced knowledge of family relations of the old, questions that are less detailed than those asked previously waste valuable survey interview time and lack the potential to tell us anything new. Some detail already collected in other surveys include assessment of telephone contact, more detailed information on services traded, and distance of residence of closest child.

We should repeat that these are not really criticisms of the Harris survey because having these data brings to our attention the potential such surveys have. While lack of replication and cumulation are reflections of the disarray of the conceptual framework of social gerontology, care in research can help resolve this problem. There is enough research in the area that it is no longer possible to ignore earlier work. There are standard content areas: for example, family relationships, or
retirement patterns. And in each area, there are some good research models. New research should build on these models.

In the examples we have presented it is clear that, in an informal way, the designers of the Harris survey attended to the earlier research in aging. However, we wish to make the point most strongly that the time for informal recognition of previous research is past; we need to relate new research to old in a more formal way, either through replication or through a conscious attempt to advance knowledge in an area.

The Dilemma of the Multi-Purpose Survey

The Harris survey attempts to serve two purposes: (1) to provide research material for social scientists interested in aging (within this category, it attempts to provide data for many research topics), and (2) to serve an advocacy function—the advocates of the elderly are interested in assessing how the American public feels about helping the elderly. For example, the survey shows widespread support for Social Security among persons of all ages. Such knowledge may be used in advocacy for the elderly and may enter into public policy formation. This advocacy function is not just directed at decision makers. The survey, if given proper publicity, may help dispel public misperceptions about the elderly.

In this paper we have been primarily interested in the first use: the use of the survey for research. Of course, an evaluation of quality of the sampling is of interest to advocates; they want to know how adequate a picture the survey gives. However, our comments on replication and cumulation are mostly directed toward research purposes. These comments may well appear to the reader who is primarily interested in advocacy for the elderly to be picky and unnecessary. Indeed, we would agree. Our comments on the coding of education or occupation, if practiced, would provide more information than is needed for the public relations, public policy, or advocacy uses of the survey. If the survey were to be used primarily for these purposes, money and valuable survey time would be wasted on unneeded precision.

On the other hand, for research purposes the detail and care we have described are necessary for such surveys to actually advance knowledge in the study of the social aspects of aging. Viewing each survey as part of a research tradition leads to great advantages in design and content. Perhaps one problem with the Harris survey is that it was designed to serve both purposes; serving two masters is as hard in the world of sample surveys as it is in the occupational world and it often leads to disappointment on the part of one or both. We have no solution for such a problem short of abandoning one of the functions. We do recognize the dilemma; and in reading the following proposal for future study of the aged, the reader should keep in mind that a preliminary decision on the intended use of a survey may have to be made.

National Surveys and Aging Research: A Proposal

The Harris survey indeed tells us that the national survey strategy can yield a representative sample of the United States elderly population. Instead of using local samples and arguing they are representative, we can gather national estimates with surveys that are, in fact, probably better in their sampling than the ad hoc local survey undertaken by a lone investigator.

However, since such surveys are quite expensive, we need to ask how we can use them most effectively. In this paper we have given two answers to this question: we must pay attention to standard ways of collecting data, replicating certain items periodically; in addition, we should choose areas for investigation that either replicate or provide new information. The Harris survey meets these standards only partially. Close attention to both of these principles can allow aging research to break out of the circle of repetition.

We believe the most efficient and economical way to do this would be through a supplement to a survey similar to the NORC General Social Survey every 2 or 3 years. While we have emphasized comparisons to the NORC General Survey because it is widely known and used, both NORC and the Institute for Social Research (ISR) conduct several other similar surveys. In such a supplement, both young and old could be asked questions of special interest to researchers in aging. In addition, there could be a special oversample of the elderly. Careful attention to replication and cumulation of knowledge by a panel of researchers in aging could give these surveys a direction that the Harris survey only partially has. For example, in the area of family relations, such a panel would need to assess whether to test for a trend one year, to try to
gather some new information that previous research suggests might be useful, or to ignore family relations in that year's survey, since more pressing areas will take up all available space.

We believe such a supplement would be economical, since the survey done this way would be less expensive than if a full-scale aging survey were mounted every 2 or 3 years. It would be more efficient, since the aging research community would take special care that this repeated survey benefited from earlier experience in the field. The Harris survey of aging will be important in the history of aging research if it brings the great potential of the repeated and cumulated national survey to the attention of the aging research community.

References


