

Letters

Data on Aging

In the section "Science in the News," *Science* carried an unsigned story [132, 604 (2 Sept. 1960)] regarding research done by us. On 19 October 1960 an employee of *Science* signed a receipt for a registered letter which we submitted for publication in reply to this story. You recently informed us, with an apology which we are happy to accept, that our letter was misplaced before it could be printed. Since we do not care to enter the name-calling arena, which is political rather than scientific, we wish, again, to comment about our study and its data.

"A Profile of the Aging: U.S.A." is the first national study of the total life situation of the population 65 years of age and older. Previous national studies have focused on economic status (Steiner and Dorfman), on health and economic status (Shanas *et al.*), or on medical expenditures and medical costs (Odin W. Anderson *et al.*; U.S. Social Security Administration publications). The U.S. Bureau of the Census regularly collects limited data about the total population, which include the "older" category. By contrast, our interviewers asked more questions about religion and religious participation than about health and the economics of health.

We excluded certain groups, chief of which were the recipients of old age assistance grants. Here we followed the precedent of the Social Security Administration, whose 1956 study excluded recipients of old age assistance unless they also received social security payments. It has been estimated that the often-quoted Social Security study excluded 55 percent or more of persons 65 and over. Other studies have typically excluded certain categories of the universe to be sampled, and a recently reported national study excluded "individuals in certain occupational groups and those living in institutions."

We are pleased to report that it has been unnecessary to weight any of our data to produce an artificial "representativeness" in our sample. The readers of *Science* will doubtless know that weighting of strata in sample data is a

common procedure when the actual sample is found not to be representative of the population sampled. The findings of the U.S. Bureau of the Census are commonly "weighted," particularly in the "Current Population Reports," but also in the "Decennial Censuses of Population." Steiner and Dorfman reported that their data were weighted to compensate for underrepresentation of certain characteristics of the population. A recent report of a joint study by the Health Information Foundation and the National Opinion Research Center (NORC) included weighted as well as unweighted data. We do not wish to be understood as criticizing these weighting procedures. Rather, we invite attention to their being commonplace, and to the high representativeness of our own sample, which made weighting unnecessary.

Characteristics of our sample are compared to independent estimates of the United States population 65 years of age and over in Table 1. It should be noted that the sample was not stratified for these characteristics, and that the data shown for the "Profile" study are purely random.

The readers of *Science* will be familiar with a number of procedures for analyzing the "fit" of the two sets of characteristics.

Considerable attention has been given to our findings, with the statement or inference that they are inaccurate. As a matter of information only, it can be reported that the findings of the Steiner-Dorfman study were called "controversial." Ethel Shanas's National Opinion Research Center study also created considerable discussion. Her report of income for the aged was higher than U.S. census estimates, and she reported that 60 percent of the aged are either as well off economically after age 65 as before, or are better off after 65. In spite of the generally recognized fact that census figures for income are some 20 percent too low, Shanas's findings were attacked again in the "Background Paper on Income Maintenance," prepared for the 1961 White House Conference on the Aging. (It seems fairly obvious that the Social Security study would tend to substan-

tially understate income, since the recipients of Social Security retirement grants are removed from the rolls if their income from employment rises too high.)

From the latest data available, it is illuminating to examine the income of the aged. The "Chart Book" for the White House Conference on Aging states that federal programs provided \$17 billion in benefits and services to the aged population. The "Background Paper on Income Maintenance" reported that the federal programs provided between one-third and two-fifths of the total income to the aged. Assuming the lesser total income, we reach a gross income for 17 million aged of \$42.5 billion. Simple arithmetic reduces this to an average per capita income of \$2500. The median aged respondent in the "Profile" study reported income between \$2000 and \$3000.

Our findings in the field of health produced some comment. We found that 90 percent of our respondents had no unmet medical needs that they knew of. It has been suggested that all kinds of people know more about an older person's health than he does. In any case, a considerable number of studies by state or region, and most national studies, have assumed that the respondent has a fair idea whether he is sick or not.

Table 1. Random characteristics of the "Profile" study sample compared with data from other sources.

Category	"Profile" study %	U.S. census* (%)	NORC† (%)
<i>Age distribution</i>			
65-69	34.5	37.3	
70-74	26.5	28.0	
75-79	22.3	19.3	
80-84	11.5	9.8	
85 and over	4.3	5.3	
<i>Marital status</i>			
Married	54.0	51.9	
Divorced	3.0	1.5	
Widowed	35.4	38.1	
Single	6.4	7.2	
Separated	0.4	1.3	
Not married	46.0	48.2	
<i>Religious preference</i>			
Protestant	74.5	67.9	
Catholic	19.0	22.2	
Jewish	4.7	3.7	
Other	1.7	1.3	
<i>Sources of income</i>			
Employment	31.4		30.4
Old age and survivors insurance	58.8		57.3‡
Rent	20.0		17.8
Non-cash assistance	32.1		30.8

* Age distribution data for 1957; marital status data for March 1959 [*Current Population Repts. Ser. P-20, No. 96* (1959)]; religious preference data for 1957 [*Current Population Repts. Ser. P-20, No. 79* (1958)]. † Data for 1956. ‡ Includes related programs.

Ninety-six percent of our respondents reported no medical debts, and exactly the same percentage was found by Steiner and Dorfman for 1951.

The most recent study of medical expenses of the aging known to us is based on data collected through the National Opinion Research Center. Odin W. Anderson, Patricia Collette, and Jacob J. Feldman, in "Family Expenditures for Personal Health Services" (Health Information Foundation, 1961), present findings comparable to our own. The "Profile" study showed that 97 percent of respondents had expenditures for physicians below \$50

for one month, and that 2 percent had expenses above \$50 but below \$100. Anderson *et al.* found that 86 percent of their aged respondents had expenditures for physicians below \$100 for an entire year. The "Profile" study showed that 95 percent of the respondents had no hospital expenditures in one month and that 3 percent had hospital expenditures below \$100. Anderson reports that 86 percent of his aged respondents had no hospital expenditures in a year, and that 5 percent had hospital expenditures below \$100. According to the "Profile" study, 98 percent of the aged had expenditures for medicines of

less than \$50 in a month, while Anderson reported that 88 percent had spent less than \$100 for (prescribed) medicines in a full year.

If a few of our regional associates in the study, in response to a request from a subcommittee of the United States Senate, have felt it their duty to support the subcommittee, we may expect the data to be biased in favor of universal misery. If, in spite of the data they delivered and certified to us, some associates wish to believe that the aging are in a grave plight, it is a tribute to their professional competence and scholarly objectivity that they furnished the data as obtained by the interviewers. It has often been said that a chief mark of the scientist is that he even reports findings he does not like.

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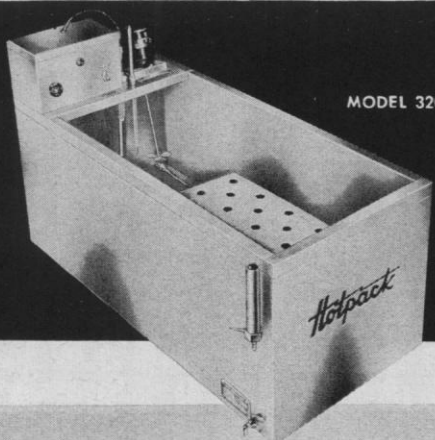
Our reporter did try to contact Wiggins and Schoeck before publishing the news article. He telephoned Atlanta, but was unable to reach them. His report was based not on the press releases of the Senate subcommittee but on an examination of the letters in the files of the subcommittee; interviews with American Medical Association officials in Washington; the report, under the by-line of Wiggins and Schoeck in the Wall Street Journal summarizing the findings of their study; and the A.M.A. press release interpreting their work.—Ed.

Degrees and Titles

This letter is a commentary on your most interesting editorial in *Science* [133, 441 (17 Feb. 1961)] entitled "A question of degrees." In 1920 the Society for the Rationalization of the Title of Doctor was organized at the University of Virginia and immediately received a great deal of favorable publicity. I would like to call your attention to the stand the society took at the time, but I have to rely on my memory alone. I believe the following numbered statements give the society's position.

1) The title of Doctor was to be limited to doctors of medicine, dentists, druggists, ministers of the Gospel, and Ph.D.'s of less than 1 year's standing, although, on occasion, it could be applied to a Ph.D. in either affection or derision.

2) The title of Professor was to be limited to high school teachers (male), to aviators giving exhibitions (they did in those days), and to any professional wrestler who owned a gymnasium and taught wrestling.



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