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MORTALITY EXPERIENCE UNDER THE OLD-AGE
AND SURVIVORS INSURANCE SYSTEM

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W. RULON WILLIAMSON:

Mr. Shudde's trail-clearing paper here enters another *terra incognita*—though there have been a few scouting reports before about the low mortality in OASI. The territory has so many idiosyncrasies that it was necessary to telephone Mr. Shudde to get more orientation for comments.

I. *Exposurè*. No statement of life-years exposed appears in the report, but it is stated that the experience deals with insured lives only, leaving those "covered" but not insured for future consideration when they gain status. Thus the insured lives have run from 24 million in 1940 up to 49 million in 1949 (as the estimates stand), perhaps 350,000,000 life-years over-all exposure.

Mr. Shudde mentions 60,000,000 as insured now, following the 1950 gift of status to many millions. Recently the Social Security Administration has been shifting attention from lives to jobs—perhaps natural in labor legislation. Early discussion of the results of the Amendments quoted 10,000,000 new jobs. I should guess that the truly additional people getting new quarters of coverage might be as low as 3,000,000. Some 100,000,000 benefit account numbers have been assigned since the start in the fall of 1936. Over 80,000,000 of those to receive wage credits are believed to have survived. Sixty million now insured is very close to Mr. Wallace's 60,000,000 jobs and very little below total jobs now reported in civilian life. Adding wives and children to either the 80,000,000 or the 60,000,000 runs us up to very large, and somewhat overlapping, figures.

II. *Deaths*. The impressively low ratios of Actual to Expected Deaths among active lives, under age 65, is perhaps to some extent accounted for by the 1949 figure of 30,000,000 covered but uninsured persons, and to a lesser extent by the 30,000,000 wage reports—too inaccurate to use. With a waiting period before "coverage" yields to insured status, and with a further waiting period, following covered employment, before insured status is lost, the personal and family ignorance as to whether at any point of time there is insurance or there is no insurance must be very general.

There are complexities in the law, in the terminology, in the administration.

Some of the 30,000,000 incomplete wage reports are probably solitary episodes of covered wages; others could be the magic qualification for insured status. There is an extensive no man's land where men do not know their rights in the shadows of about-to-gain, or about-to-lose, insured status.

Age 65, sometimes called "the Retirement Age," is sometimes considered the boundary between work and retirement. The continued work beyond 65 sometimes delays becoming a "beneficiary," but men are urged to register for benefits, lest slightly lighter later wages could lose some benefits. Therefore Table 4 includes about one-eighth who are not receiving benefits, but whose work-status is being lumped with the truly retired. The effect of retirement upon mortality would not be shown specifically here.

III. *Insurance.* One of the most striking things about this protection is that apparently only about $\frac{1}{3}$ of the men and 5% of the women have minor children. This comes from claims data. Perhaps 40% of the men would have them—particularly, now, with a larger percentage married early and a larger percentage having children. Those with such children had been protected by perhaps \$10,000 of expected family benefits, against a small death benefit of \$200 for the majority without children. The contrast in personal interest and family interest must be striking, and it would not be surprising if the changes in status would themselves make for incomplete filing.

IV. *Selection.* Not only are the records before retirement rather complex as to certain specific boundaries, and the facts of work and nonwork after age 65 hard to get, too, but there is a doctrine of disablement being built up to use with the demand for socialized medicine, that needs fuller information as to the mortality of the persons who pass 65. It would be desirable to follow from the time of retirement, the first, second, third, fourth, etc., years. Mr. Falk, Director of the Division of Research and Statistics, has (from the abstract of his talk, published in the supplement to the last *Journal of Gerontology*) just been telling the members of the second international Congress of Gerontology that from $\frac{2}{3}$ to $\frac{3}{4}$ of the beneficiaries of OASI are incapacitated from work. He also indicates that an aged couple of this sort will be needing some \$160 for its medical care. The general evidence of Mr. Shudde's paper, while diluted with one-eighth still working, is much in the line of the experience on Group conversions, where against the standard table the experience kept getting better in the later years after conversion.

Here in Table 4, the later ages show very low ratios of actual to expected, while the earlier ages—not far from retirement, and with retirement largely at a time of exceptionally good work opportunities—show the higher ratios. Disability is the thing everybody talks about and few bother to define. When retirement does take place, there are probably those who retire to die, others with stubborn chronic disability, more with temporary disability, and mostly those normal for their age. After the first class has died, the second yielded to treatment a bit, the third regained their health, and the fourth perhaps grown less select, the survivors as a whole will be apt to look much better. The moving-picture and not the snap-shot techniques are needed here. Select and ultimate tables should add to our perceptions.

V. *Gerontology*. A mid-Western life insurance company has been running colorful advertising as to the problems of the aged. Lately they have sent a questionnaire to men wise enough to buy insurance, as to their attitudes toward retirement. As a member of this Society, and a constant clipper of items on the aged, I am the first to admit that we are barely on the threshold of wisdom and have had some sound intuition and pulled some astounding boners. But both the hopes of adding years to the life, and of adding life to the years, are sound. To claim progress along either line, as Jenkins and Lew indicated in discussing the rates of mortality at extreme ages, offers technical difficulties. The more than 3,000,000 aged beneficiaries of OASI and the 2 $\frac{3}{4}$ million beneficiaries of Public Assistance, claiming to be 65, offer promise of much education to the students of mortality and morbidity among these advanced ages. The two types of beneficiary are both the recipients of Federal largess so far. They may long serve as guinea pigs for actuaries, demographers, sociologists, geriatricians and gerontologists. Doubtful territory is about to be invaded, surveyed, and mapped.

ABRAHAM M. NIESSEN:

A clear picture of general mortality trends can be obtained only when studies of various population groups are brought together. Of course, no array of studies could be complete without data on the colossal OASI system. Mr. Shudde's paper is therefore, in my opinion, of great value to students of current mortality trends in general and to pension consultants in particular.

I was interested in comparing the mortality of railroad nondisability annuitants with the OASI retired lives. Mr. Shudde kindly supplied me with the general population mortality rates for each of the calendar years 1946-49. These rates with proper adjustments were applied against rail-

road retirement exposures for attained ages 65 and over. The mortality ratios came through as shown in Table 1.

It is interesting to note that for the railroad retirement experience the mortality ratios were reasonably uniform and on the whole somewhat less than 100 percent.

TABLE 1
RATIOS OF ACTUAL TO EXPECTED DEATHS
(In Percent)

AGE LAST BIRTHDAY	BENEFIT YEAR 1946-47		BENEFIT YEAR 1947-48		BENEFIT YEAR 1948-49	
	OASI*	Railroad Retirement	OASI*	Railroad Retirement	OASI*	Railroad Retirement
65-69.....	132	99	129	96	127	99
70-74.....	102	102	103	94	108	96
75-79.....	96	†	96	98	98	99
80-84.....	78	†	82	99	84	98

* As a rough approximation, the average mortality ratios for two calendar years from Mr. Shudde's Table 4 (Males) were taken.

† No mortality rates by single age were made available to this writer.

(AUTHOR'S REVIEW OF DISCUSSION)

LOUIS O. SHUDDE:

Mr. Williamson's discussion is concerned largely with "idiosyncrasies" in OASI: exposure, deaths, insurance, selection, and gerontology. He brings out some points that are irrelevant to the subject. The exposure is measured in terms of insured workers, not of jobs. The deaths are among insured workers, so that the number of covered but uninsured persons does not particularly matter unless it affects the ratio of actual to expected deaths. The incomplete wage reports, if credited to the proper parties, presumably would add to both the number of insured and the number of deaths without necessarily changing the resultant ratio materially. As Mr. Williamson states, Table 4 does not represent a pure category because about one-eighth of the in-force group is not in current payment status.

The paper had anticipated Mr. Williamson's criticism as to the amount of insurance in force at death affecting the percentage filing claims. It clearly states, "The low ratios are undoubtedly due to nonfiling of claims, especially where only a lump-sum death payment was due." His suggestion of a select table for the disabled is a good one and the basic data may be made available. As he states, the experience of the OASI (and OAA) beneficiaries offers data for valuable mortality analyses.

Mr. Niessen has made a comparison of railroad retirement experience of retired railroad workers age 65 and over with my Table 4 showing the ratios of actual to expected mortality of those who had been awarded retirement benefits, with expected mortality on the same basis I used. He found that railroad nondisability annuitants experienced a mortality just a little bit better than the general population mortality whereas I found OASI mortality of primary beneficiaries considerably higher than population mortality, particularly in the early years after retirement. The main reason for this difference is that the railroad system draws off the disabled lives (with higher mortality on the average) into a separate category leaving the remainder with a lower mortality on the average. Mr. Niessen did not state how the mortality of the combined old-age and disability annuitants compared with OASI mortality.

In this connection it is necessary to keep in mind the fact that the railroad retirement system began in 1935 as a more mature system with many aged workers retiring almost immediately.