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EDITORIAL

LATER RETIREMENT

The logical case for encouraging Americans to stay longer in the work force — to retire later — has been presented elsewhere, and is far too complex to be treated here. Suffice to say that it is built upon a combination of demographic, economic, and psychological considerations, and involves far more than the financial health of any retirement system.

Yet the first indication that workers may eventually stay in the work force longer comes from the 1983 amendments to the Social Security Act. The framers of this legislation may have had only SS solvency in mind, but they nonetheless took an important first step toward a later retirement age.

Under the law now in effect the Normal Retirement Age (NRA) stays at 65 for another 15 years, then moves over the next 25 years (slowly, and with one long halt) to age 67; but there is no change in the early (earliest) retirement age — it remains at age 62. The NRA determines the *amount* of benefit, but has no *direct* effect on when it begins. Note also that the Medicare eligibility age remains at 65.

It seems quite possible that the 1983 amendments will have very little effect on retirement age patterns, and hence on the crucial worker-to-retired ratio. The substantial cost savings projected for OASDI can be realized under either of two conflicting scenarios, only one of which is the movement of *actual* retirement ages upward. The other assumes no effect on the ages at which benefits are claimed, but smaller benefits due to the more stringent early retirement reduction factors that flow from the later NRA. (The age 62 factor has long been 80%, but it becomes 70% 40 years hence when the NRA reaches 67).

Social Security actuaries, as they project the long-range OASDI picture, must choose one of these scenarios, or some blend between. The more likely depends in large part upon what other plans may do. Surely if private plans amend their NRAs to stay in step with SS, actual ages of retirement would seem to be eventually affected. If not, the private plan may encourage the maintenance of present retirement patterns, and in the long run have the effect that the employer "restores" the SS cut.

It would seem, then, that the public policy question is still open — the future trend of actual retirement still obscure. Advocates of upward movement in the average retirement age would like to see the SS early retirement age move with the NRA (eventually reaching age 64), some movement in the private plan area (and in plans for government employees), and (for consistency if nothing else) a Medicare eligibility age that moves slowly to 67.

For retirement age reformers time may not be an immediate factor. The adjustments need to be accomplished by the end of the century, but not necessarily tomorrow. Pension actuaries should realize that they have a role to play; and that, for getting movement started, today is not too soon.

C.L.T.

ANOTHER NEW FEATURE?

This same column of the March issue carried what might be considered a trial balloon, a suggestion (rather than an announcement) as to a future feature. In this issue we employ the same technique to try out another idea for a new *The Actuary* feature.

We base this idea on the mathematical background common to all actuaries. Although most are pretty far removed from mathematics, we must have been interested once, and we may be still.

Surely *The Actuary* could carry several times each year a column presenting mathematical facts, oddities, problems, puzzles, and the like; or items of math history. *The Actuary* has always had some math component (see for example "Exam Memories" in this issue); but it has tended to emphasize other things. Would readers like a little movement in the math direction? Yes or no, let us hear from you.

As one small example of the type of item that such a column might contain we here present a seeming paradox:

We are told that the Arabs brought the modern decimal system of writing numbers to Europe in about the 9th century, though the idea of "place" or "position" upon which the system is built goes back to some much earlier Hindu.

Like several of the ancient languages, Arabic is written from right to left, and hence appears to westerners as "backwards" or "in mirror image".

Even so, the current year appears in Arabic newspapers as 1986, not as 6891. In fact, all numerical representations appear "correct" to westerners. Words and sentences seem to be in mirror-image, but not figures.

Perhaps the Arabs express the smaller numbers first (i.e. the units place, followed by the tens, the hundreds, etc.) If so, the two order reversals would cancel each other out, making a 1986 representation logical under both systems. At least, when we asked, this is what we were told.

But the foregoing explanation raises other questions. If a telephone number were listed in an Arab directory as 1986, would the six be dialed first? Would Arabs say the current year as the Arab equivalent of 6891? In what order does

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