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WOMEN'S LIBERATION AND THE FEMALE MORTALITY RATE

by Barnet N. Berin

In this country, and in many other parts of the world — the female mortality rate is lower than the male mortality rate. Most people who read *The Actuary* know this, but the statement is incomplete and the ramifications of a more complete statement are interesting.

Once the problems associated with childbirth were largely conquered, which has happened in this century, it became clear that the female mortality rate was lower than the male mortality rate *at all ages*. Further, it has been noted that the mortality rate from conception to delivery is lower for female fetuses than for male fetuses. Put the two together and we have a startling situation. Almost from the moment the sperm unites successfully with the egg, the female has a better chance of survival throughout the human life span.

In the days of pre-history, women certainly must have died during first or second child-briths—with few exceptions—so that the twentieth century breakthrough is in the nature of an evolutionary development. The hitherto more favorable male mortality may well account for male dominance, more so than any other factor.

1970 U.S. Census, General Population Characteristics, shows the ratio of males to females by ages. At all ages the ratio is 94.8%. In 1960, the corresponding ratio was 97.1%. The initial excess of male births produces a ratio of 104.1% under 1 year of age which holds at about this level to age 15 and then decreases to 101.1% at age 18. At age 19 the ratio drops below 100% to 98.0% and remains below 100% thereafter. At ages 65 and over, the ratio is 72.2%. In 1960, the corresponding ratio was 82.8%. There

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RECENT SOCIAL SECURITY CHANGES

by Francisco Bayo

Social Security changes were passed by Congress on June 30, 1973, as a rider to H.R. 7445 (a Bill extending the Renegotiation Act) and were signed into law (P.L. 93-66) by President Nixon on July 9, 1973. The changes were principally intended to advance the payment of part of the increase in Social Security benefits projected to become effective in January 1975, according to the automatic benefit adjustment provisions enacted last year, but they also include other modifications. The most important changes are as follows:

1. OASDI benefits are increased by about 5.9% (the increase in the CPI from June 1972 to June 1973) effective June 1974, first to be reflected in July 3, 1974 checks. This increase will affect all benefit payments for the 7-month period June 1974 to December 1974.

   Benefits for January 1975 and thereafter will not be affected; i.e., they will be computed as they would have been under the 1972 Act. For example, if benefits were projected to increase by 8.5% for January 1975, according to the automatic benefit adjustment provisions in the 1972 Act, the new changes will increase benefits earlier by 5.9% for June 1974 and provide that the remainder of the 8.5% become effective for January 1975.
2. The annual exempt amount in the retirement test is increased from $2,100 to $2,400 effective for 1974. This will also establish a new point of departure regarding future automatic increases in the retirement test. In that sense, this is a permanent change since it affects the retirement test for all future years.

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FELLOWSHIP EXAMINATIONS— THE NEW LOOK

by John A. Fibiger

After extensive study and development within the Education and Examination Committee, a proposal for restructuring the Fellowship examinations of the Society was presented to the Board of the Society at its meeting in October, 1972. The Board "approved the proposal to restructure the Fellowship examinations as recommended by the General Officers as being appropriate in principle to the needs of the Society of Actuaries, but mindful of the interests of the other actuarial bodies and the desirability of their continued joint sponsorship, directed the President to refer the proposal to each of the other actuarial bodies for their consideration with the request that the President report back to the Board the results of such considerations as soon as possible."

The basic provisions of the restructured examinations were summarized in the following manner in the description of Board action furnished to the members of the Society of Actuaries:

1. The Fellowship examinations would be completely reorganized into four examinations structured along functional lines, rather than directed at current products. In brief, the subject matter would be as follows:

   Part 6

   a. Types of coverage
   b. Selection of risks
   c. Marketing

   Part 7

   a. Gross premiums and pension contributions
   b. Analysis and distribution of surplus
   c. Contract values and changes
   d. Experience analysis

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Letters

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plan for a salaried group having a typical average age and service distribution was found to be approximately 11.9% of payroll. For such a group, the employer who grants an across-the-board 10% pay increase will find that his pension costs on the suggested method in the following year will increase by 11.2% of payroll to a total of 23.1%, and on a 10% greater payroll base. This sizeable increase in pension cost will no doubt serve to restrain the unwary employer from an over-enthusiastic adoption of across-the-board pay increases in amounts that cannot be permanently supported by the business. In the case of a rather mature organization, where pension costs by this method worked out at 19.7% of payroll, a 10% pay increase was found to involve an added pension cost of 18.9% for a total of 38.6% of payroll in the next year. Thus the funding method by itself provides a greater disincentive for unrealistic pay increases for the mature companies. Incalculable social good might come of this.

There are considerable investment advantages offered by the unit-credit actuarial-loss funding method. Given a period of several years in which insurance company rates, the employee group, and the rate of salary increases are all fairly stable, consider the remarkable effect of a temporary drop in market value of fund assets of say 20%. In order to maintain the pension fund at a level equal to the value of accrued benefits, the required contributions from the employer must be increased by 20% of the previous market value of the fund. On the surface this may seem unsatisfactory but note that the added contribution will come to the fund at a time when the market is at low ebb so that these extra funds are invested when they will buy a greater number of units of the particular securities considered desirable for the fund. Similarly, a rise in market value would reduce or eliminate the required employer contribution at a time when security prices are high and the investment of a given sum would thus purchase fewer units. This advantage is so great that monthly or weekly actuarial valuations and redetermination of employer contributions may prove desirable in order to maximize the fluctuations in employer contribution and thereby maximize the investment advantages.

Mr. Larson assumed that Employer B has a pension trust that is "a poor investment vehicle." If so, B's first concern should be a changeover to the best investment vehicle possible for his pension monies, because while a reduction of contributions to a poorly performing fund clearly represents less waste than would have been the case with higher contributions, it still represents a source of unnecessary cost. Going further, if as suggested Employer B really has customers who will not accept price increases and if he has no excess funds in his business, then logic requires that he seek the absolute minimum amount to be placed in the pension trust. Zero contribution requirements can be achieved if B will simply forego the luxury of promising pensions to his employees. And, by having no plan at all, B can also meet Mr. Larson's second requirement that his employees should not run any risk with their pension rights because of B's funding method. With no rights there can be no risk. Actually, the employees under this set of circumstances are demonstrably better off because they then are so clearly responsible for the provision of their own financial support in old age that they will not be tempted to rely on the promises of Employer B. Finally, if B's customers are not even willing to accept the price increase necessary to pay B's employees their direct wages, then social insurance and welfare payments would solve the problem of income replacement quite adequately because there would be no income that needs replacing.

If an employer adopts the unit credit method with no salary projection factors and with immediate funding of actuarial losses and also wishes to eliminate most of the losses from the actuarial calculations, he could restrict his pension promise to a career average benefit accrual. Otherwise, under a final average pay plan, his accountant might well shudder slightly if he understood that the actuarial pension cost for a current year included an expense created by service rendered 30 years in the past.

The actuarial profession is indebted to Mr. Larson for his careful analysis of this brand new funding method. His characterization of the approach as a low cost method for employers who want to pay the very least is perhaps too modest. Clearly, it also offers a heavy funding alternative for the employer who is now paying pensions out of pocket and whose gains therefrom, having been invested and reinvested in the business, now threaten the accumulation of an unreasonable surplus and all the tax penalties associated therewith.

Paul H. Jackson

Actuarial Clubs

Any newly formed actuarial club or any unlisted actuarial club wishing to be listed in the Year Book should advise the Executive Director before December 1, 1973 giving details in the style of the Year Book.

Clubs already listed should check that the present details in the Year Book are up-to-date and advise the Executive Director of any changes.

Social Security

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3. The taxable earnings base is increased from $12,000 to $12,600 in 1974, which will be the new starting point in the automatic provisions. This is also a permanent change in the law.
4. The eligibility requirements for adopted grandchildren are liberalized so that the one year of "support" and "living with" the grandparent can occur at anytime rather than before the grandparent became a beneficiary, as was the case under the previous law.

The amendments also included a few changes in the Supplementary Security Income Program for the Aged, Blind and Disabled written into law last year and scheduled to start operations in 1974. Among the changes in this Program are the following:

1. The SSI payment levels be increased from $130 to $140 per month for individuals and from $195 to $210 per month for couples, effective for July 1974.
2. The payments to "essential persons" as defined under the present State programs, be increased from $65 to $70 per month effective for January 1974.
3. Recipients on a State roll at the end of calendar year 1973 cannot have their income reduced because of the new SSI program. □