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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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**Fellowship Exams***(Continued from page 1)***Part 8**

- a. Investments and valuation of assets
- b. Valuation of Liabilities

**Part 9**

- a. Law
- b. Taxation
- c. Accounting
- d. Social insurance

2. Each of the four Fellowship examinations would include two branches, a Group Coverages branch ("G") and an Individual Coverages branch ("I"), and would consist of three sections:

- a. A 3-hour paper, probably consisting entirely of multiple choice questions, to be taken by all candidates, covering basic material similar to that now given on Parts 6-8.
- b. A 3-hour paper, probably consisting entirely of essay questions, to be taken only by students electing the Group Coverages branch, and covering both basic and advanced material pertaining to the "G" branch.
- c. A 3-hour paper, probably consisting entirely of essay questions, to be taken only by students electing the Individual Coverages branch, and covering both basic and advanced material pertaining to the "I" branch.

The net effect of this would be that, on each Fellowship examination, a student will take a "major" in either Group or Individual Coverages and a "minor" in the other.

3. The number of hours of Fellowship examinations would be 24 instead of 25 at present. In addition, there would be 19 hours of Associateship examinations, for a total of 43 hours instead of the present 44.
4. A student would receive credit for an examination without specification as to whether he had taken the "G" branch or the "I" branch. While it is assumed that students would take the same branch of all Fellowship Parts after attainment of Associateship, it would be possible for a student who has passed one or more examinations in one branch to pass

the remaining examinations in the other branch if his job circumstances or career interests change.

As can be seen from the listing of subject matter shown above, in general concept, Part 6 would consist of material relating to various aspects of securing insurance or pension coverage; Part 7 would cover pricing and related financial aspects of risk coverage; Part 8 would include material relating to the maintenance and continuation of insurance contracts or pension plans and the investment of assets; and finally, Part 9 would contain those subjects pertaining to the influence of external factors in society.

In December 1972 the Society's Advisory Committee on Education and Examinations and the Joint Committee on Review of Education and Examinations held a combined meeting in Chicago for the sole purpose of reviewing the implications of the proposed restructuring on all the joint sponsoring organizations. Each of the six actuarial organizations which jointly sponsor the examinations administered by the Society are represented on the Joint Committee. The Society's Advisory Committee also has liaison delegates from each of the other five organizations.

Since then, the proposal has been considered by the Boards of the five actuarial organizations from whom responses were requested. Each has now responded, indicating general acceptance of the proposed restructuring.

While awaiting the response from these organizations, the General Officers of the Education and Examination Committee continued to work on the restructuring proposal in two specific areas. In the area of proposed transition arrangements, a set of principles has been developed to govern any set of rules for transition. These guidelines for transition rules are as follows:

1. A morning (or afternoon) paper longer than 3½ hours is unacceptable.
2. The total of fractional exams within one new exam must add up to exactly 6 hours.
3. A morning or afternoon paper cannot be subdivided into more than two fractional parts.
4. The length of fractional exams must be in half-hour multiples (i.e., 1, 1½, 2, 2½, etc.).

5. A one-hour fractional exam is acceptable, but only if all students writing that fraction are writing some other portion of the same exam.
6. Each exam on the current syllabus should receive at least 4 exam hours of credit toward the new syllabus.
7. The number of exam hours of credit for the current Parts 9-I and 10-I should be within ½ hour of the corresponding credit for the current Parts 9E and 10E, respectively. However, it is not necessary that students who have passed Parts 9-I or 10-I receive credit for the same portions of the new syllabus as those students who have passed Parts 9E or 10E, respectively.
8. There should be a minimum of situations in which material previously studied by a passing student has to be restudied for the new syllabus.
9. There should be a reasonably close correspondence of subjects and amounts of reading material between "I" and "G" branches of each new exam.

A transition arrangement has been developed which will satisfy the above guidelines. While it has not yet been definitely established that the proposed transition arrangement will be adopted, any significant change from the proposed transition rules will be made within the scope of these guidelines.

The second area of activity relates to the appointment of a special Steering Committee with specific responsibility for monitoring the implementation of the restructured syllabus. It is imperative that the preparation of educational material for the present syllabus be continued while the new syllabus is being developed. Accordingly, the Steering Committee was formed as a subcommittee of the Education and Examination Committee so that development of the restructured examinations could be monitored without conflicting with the need to maintain current educational material.

It is expected that the many details connected with the restructuring will be finalized during 1974-75, and the Steering Committee was appointed with consideration of the assignments of the E&E Committee during these years. Harold Ingraham, who will be Vice-General Chairman of the E&E Committee in 1974-75, has been named to head the Steering Committee. Other members include John

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## Fellowship Exams

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Fibiger, W. James MacGinnitie, Michael McGuinness, Walter Miller and C. Barry Watson. Other General Officers of the E&E Committee will attend Steering Committee meetings when it is appropriate for communication or carrying out E&E Committee duties more efficiently.

The first Steering Committee meeting was held in late August. A decision was made to appoint, for each new Part, an individual with specific responsibility for leading a committee which will examine existing and new study material of the present syllabus as it might affect the Part, recommend new material which should be prepared for the Part, and assess details of the transition to the Part as it would affect study material and personnel of other committees. The selection of these individuals is in progress.

It appears at present that the earliest the restructured examinations could be implemented in practice is May 1976, although this date is still an unofficial target. Students of the Society, who are naturally concerned about the specific details of the transition arrangements because of the impact it will have on them, will be given notice of the detailed transition arrangements not later than 18 months before the first date that the new examinations will be given. This will allow them at least one chance to study for and take both Spring and Fall examinations of the current syllabus in the light of the transition arrangements.

While 18 months is a minimum, it is considered desirable by the E&E Committee to publish transition arrangements as far ahead as possible. This will be done as soon as the date of the first restructured examination has been set and transition arrangements finalized.

The Board of Governors has authorized the Education and Examination Committee to continue with the implementation of the restructuring, with the understanding that developments and decisions on the new examinations will be reported to the Board from time to time.

*Editor's Note: A letter from Mr. Fibiger published in this issue outlines some of the considerations of the Education and Examination Committee in developing this proposal.* □

## Committees

Three new Ad Hoc Committees have been appointed as follows.

### Committee on

#### Cost Comparison Methods and Related Issues

Bartley L. Munson, *Chairman*  
Daphne D. Bartlett  
Lee H. Kemper  
Robert L. Pawelko  
C. Norman Peacor  
Ian M. Rolland

### Committee on

#### 25th Anniversary Celebration

Morton D. Miller, *Chairman*  
Richard M. Fridley, *Vice Chairman*  
Robert H. Hoskins  
Richard Humphrys  
Wendell A. Milliman  
Robert J. Myers  
John K. Roberts  
Richard S. Robertson  
Cecil G. White

### Committee on

#### Representation by Region and Occupation

Richard Humphrys, *Chairman*  
Andrew Delaney  
R. A. Field  
William Halvorson  
Meno T. Lake  
Edwin J. Matz  
Robert J. Randall

## Actuarial Meetings

Oct. 10, San Francisco Actuarial Club  
Oct. 11, Actuaries' Club of Boston  
Oct. 15, Chicago Actuarial Club  
Oct. 17, Seattle Actuarial Club  
Oct. 17, Actuaries' Club of Des Moines  
Nov. 8, Baltimore Actuaries Club  
Nov. 19, Chicago Actuarial Club  
Nov. 21, Seattle Actuarial Club  
Nov. 28, Actuaries' Club of Des Moines

## Deaths

Evelyn P. S. Allen  
Ward Van Buren Hart

## Women's Lib

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are interesting theories as to why more males are born than females but these are outside of the scope of this article. The important point is that this excess of males disappears at a relatively young age and that the distribution is changing to favor females.

If women have a lower mortality rate than men, women will simply outlive men and we are starting to note this. But there are other complications that we are beginning to become aware of and these are important. Not only are women beginning to be treated fairly so that many more jobs are available to them at the same salaries offered males, but in time, and not a long time, there will be more female applicants for particular jobs than there will be male applicants. It stands to reason that women will begin to appear in an ever increasing variety of jobs and that they will gradually move upward to higher and higher position in many industries. In other words, women will triumph in their fight for equitable treatment just by the sheer force of numbers.

But this raises some questions not for the present but for the future. Will the concept of one man married to one woman survive or will plural marriages (more than one wife with one husband) be necessary and therefore socially acceptable? Will women inherit the illnesses of men with their added job opportunities, due to so-called stress jobs, or is this bogus? Will women do any better job in politics and government than males? Will the male-female roles become reversed (bread winner and home-maker) in many cases?

It is likely that women and not men will dominate business and politics and that only biological tampering with the basic elements of life (some of which is now occurring) or atomic war can stop the success of the female movement initiated in the late 1960's.

Perhaps this was anticipated by Kipling when he wrote "The female of the species is more deadly than the male!" □