

be causes tending to a contrary effect, for instance, a greater density of population and the stress of modern life; the latter cause probably affecting male more than female lives. The duration of life in a special class of lives like annuitants may not be influenced by all the causes mentioned, but that some of them will have an effect upon it seems to be more than probable. The object sought in investigating the mortality experience of a past period is to obtain data from which the probable rates of mortality in future may be deduced. With the view, therefore, of obtaining the experience of lives living under conditions more closely resembling those of the present time it has been decided to commence the present investigation with the experience of the year 1875, and to omit altogether that of previous years. If any later year were taken as the commencement of the observation it would hardly allow of the collection of sufficient data.

LIVES IN PRESENT EXPERIENCE.

The lives comprised in the present experience are accordingly:—

(1) The nominees of annuities granted before 1875 who were living in that year on the anniversary of the date of purchase of the annuity.

(2) The nominees of annuities granted under the Acts 10 Geo. 4, c. 24 and 51 and 52 Vict., c. 15, between the 1st January, 1875, and 31st December, 1903.

Where two or more annuities have been granted on the same life only the experience afforded by the one first granted has been included.

The following table gives a summary of the data:—

Government Annuity Experience, 1875-1904.	Summary of data.		
	Males.	Females.	Total.
Number of lives under observation	5,504	13,863	19,367
Number of years of risk	57,652	163,378	221,030
Number of deaths	4,168	9,333	13,501
Number of lives existing at the close of the observation	1,336	4,530	5,866

There does not appear to be any material alteration as regards the ages at which annuities were purchased in the periods before and after 1875 respectively. In both periods about 5 per cent. of the total number of lives were under 40 years of age at the time of purchase and 65 per cent. between the ages of 50 and 70.

MALE ANNUITANTS.

Tables showing in decennial age groups the annual number of deaths in each of the first five years following purchase, together with other details, are published, from which it appears that the total number of deaths of male annuitants recorded in the five years was 618, as compared with 632 expected deaths according to the previous Government Experience, and 607 according to the British Offices Experience. It is pointed out, therefore, that on the whole there is little indication of any important change in the rate of mortality, although considerable divergencies exist in respect of individual age groups. If the ages below 60 are excluded the total deaths are practically identical in all three cases. Owing to the paucity of the data, the deaths occurring in successive years of duration exhibit various irregularities, but the light mortality in the year following purchase is a noticeable feature of the new experience at the older ages.

FEMALES—IMPROVED MORTALITY.

It is observed that in the case of females the results lead to more definite conclusions, the most significant feature being the comparatively light mortality exhibited by the lives included in the new experience. Actual deaths recorded in the five years numbered 1,027, as compared with 1,134 expected deaths according to Government Annuity Experience, and 1,083 according to British Offices Experience. It is stated that there are indications of a distinct improvement in the mortality of Government female annuitants during the period 1875-1904 as compared with the previous period, the total number of deaths recorded being less than the expected deaths for each year of duration—the aggregate difference for the five years being approximately 10 per cent.

Other tables show that the improved vitality of annuitants, although to a certain extent common to nominees of either sex, was during the period much more marked in the case of female lives. Females purchasing an annuity at forty years of age may now, it appears, expect to live 29.01 years, against 27.97 years between 1808 and 1875, while at the age of fifty the expectation is 22.21 years, as compared with 21.07. For males the increases are smaller, but the expectation has for both males and females increased at all ages.

PROPOSED NEW TABLES.

The results of the present investigation, the report states, point to the conclusion that the mortality tables on which the cost of Government life annuities is now based underestimate the vitality of annuitants, and, consequently, that these annuities are granted on too favourable terms to the persons who purchase them. According to a proposed new table the cost of a £100 annuity paid quarterly, with an additional payment of one-fourth of the annuity after death, would be in the case of a male, aged 40, £1,783, as compared with £1,687, on the present table, and in the case of a female £1,917, compared with £1,867. The cost at all ages would be increased, but whereas the advance in the case of males would rapidly lessen until the age of seventy only £15 more would be asked, and at the age of 80 only £4 more, in the case of females the new table would require an additional sum of about £50 at most ages. Even at the age of 75 the cost, according to the new table, would be £47 more and at 80 £33 more. The average increase in the cost would be 2.2 per cent. for male lives and 4.5 per cent. for female lives at the ages at which annuities are usually purchased—i. e., from 50 to 75.

Insurance Briefs.

The Continental, Fidelity-Phenix, Westchester and British Dominions have been admitted to membership in the Western Canada Fire Underwriters Association.

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The Quebec Government announces its intention of introducing a bill to facilitate the organisation of a system of fire protection in the small towns and villages of the province.

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Last week's heavy snow storm in Winnipeg was taken advantage of for tests of some of the automobile fire apparatus. The tests were not altogether satisfactory, some of the machinery involved not being able to cope with the weather conditions.

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The report of an inspector contained in the new report of the Quebec Minister of Public Works states that the school syndics of the province can be persuaded but with great difficulty, to put up enough fire escapes on school buildings. The inspector declares that he has ordered twenty-three equipments put up and three-quarters of them have been put in position.

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The National Life, of Toronto continues to report satisfactory figures of the business for the current year. Applications for new insurance received in the ten months of 1912 up to November 1, totalled \$6,000,000, while the insurance in force at the date named was \$17,800,000. Mr. Albert J. Ralston is the vice-president and managing director of this progressive company, and Mr. A. Murray Hannah, its Montreal manager.

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A conference of the superintendents of the Canadian Division of the Prudential of Newark was held recently at the Chateau Laurier at Ottawa. The home office was represented by F. A. C. Baker, assistant secretary; E. J. MacIver, division manager, and J. P. Mackin, assistant division manager. Addresses were made by Mr. MacIver, Mr. Baker and many of the superintendents. The subjects of some of the papers read were: "Proper Means of Developing Assistancy Material;" "Steady Production Every Week from Every Agent," and "Conservation of Debit." The meeting was in session two days.