

1876.  
NEW ZEALAND.

REPORT BY THE ACTUARIES  
ON THE  
LIABILITIES UNDER LIFE POLICIES AND ANNUITIES  
OF THE  
GOVERNMENT INSURANCE DEPARTMENT.

*Presented to both Houses of the General Assembly by Command of His Excellency.*

SIR,—

London, 12th April, 1876.

In accordance with the instructions of Sir Julius Vogel, we have made a detailed investigation into the financial condition of the Insurance Department of New Zealand. For this purpose schedules have been furnished to us according to forms which we prepared, containing the requisite particulars of the policies in force on the 30th June, 1875, the date at which the investigation is required to be made. With these have been sent balance sheets, at the same date, of the two branches into which the business of the department is divided, and Consolidated Revenue accounts for the period over which its operations extend.

A small number of policies has lately been granted in what is called the Industrial Branch, of which the distinguishing feature is that the premiums are payable weekly. As requested in Mr. Knight's letter of the 18th December last, the transactions of the two branches have been kept entirely distinct, both in the schedules and in the remarks we have to make upon them in this Report.

ORDINARY BRANCH.

The money transactions of the Ordinary Branch, during the five years of its existence, may be thus summarized,—

				<i>Income from</i>			
				£	s. d.	£	s. d.
Premiums	...	...	...	146,150	5 0		
Annuity Purchase Money	...	...	...	16,689	12 7		
Interest	...	...	...	8,424	2 2		
Fines and Fees	...	...	...	81	5 11		
				<hr/>		171,345	5 8
				<i>Outgo for</i>			
Claims	...	...	...	22,750	0 0		
Surrenders	...	...	...	293	7 11		
Annuities	...	...	...	2,950	3 4		
Commission	...	...	...	7,061	3 5		
Expenses	...	...	...	28,322	18 11		
				<hr/>		61,377	13 7
Fund at 30th June, 1875				...	...	£109,967	12 1
						<hr/>	

The department was liable at the same date for 4,958 assurances for £1,833,819, 21 immediate annuities of £1,249, and 10 annuities of other description of £935. The premiums payable under these several contracts amounting to £57,510 per annum.

In order to determine the sufficiency of the fund to meet these liabilities, we had to consider upon what basis the valuation should be made. No sufficient experience has yet been acquired of the mortality among assured lives in New Zealand or in any of the Australian colonies; but having regard to the climate and character of the people, there is reason to believe that it will not differ materially from the corresponding mortality in England. We consider, therefore, that the most suitable table of mortality for the present investigation is that known as the Institute of Actuaries, H<sub>M</sub>, and we have adopted it accordingly for the assurance risks. This table exhibits the mortality among 130,243 male lives, assured at ordinary rates of premium, by twenty of the principal companies in Great Britain, between the years 1797 and 1863. The number of years of life passed through was 1,283,034; the number of deaths, 20,521. And from the care and pains bestowed upon all the details of the work, as well as from the reliance to be placed upon the accuracy of the facts, there can be little doubt that this table is the most trustworthy exponent of the mortality of assured lives that has yet been published. The annuities have been valued by the Carlisle Table, the H<sub>M</sub> Table not being suitable for this class of liabilities, many annuities being granted upon female lives.

As regards the rate of interest, the 36th and 37th sections of "The Government Insurance and Annuities Act, 1874," direct that all moneys received under the Act shall be paid into the Public Account, and may be invested in certain specified securities. For any uninvested part of such moneys interest at the highest bank rate allowed at the time for other Trust Funds shall be credited to the Insurance Account.

From the last Report of the Commissioner, it appears that, with the exception of a small working balance, the whole fund is invested in Treasury bills, bearing interest at the rate of £5 2s. 6d. per cent. per annum. This may, perhaps, be a somewhat higher rate than will be always obtainable in future, but we think that there can be little doubt that for some time to come the rate of interest will be materially higher in New Zealand than in England. And we consider, therefore, that, for the purpose of the present investigation, we shall be quite justified in assuming for our calculations  $4\frac{1}{2}$  per cent. as the rate of interest, and have done so accordingly. This rate is employed in the calculations of the Insurance Department of New York, and of several other of the United States of America, and, in our judgment, is the best suited for the Insurance Department of New Zealand.

To make provision for future expenses, profits, and contingencies, the value of what is called the "loading" has been computed and reserved: that is, a special calculation has been made for each policy of the bare premium which would be sufficient for the risk according to the table of mortality and rate of interest assumed for the valuation, and the difference between the premiums actually payable, and the premiums thus computed, has been capitalized and reserved.

Provision is thus made, among other things, for the heavier mortality expected among those lives on which extra premiums have been charged for health or occupation. The additional annual premiums form in this manner a special fund available to meet the increased annual mortality.

The summary and valuation of the Ordinary Branch made on these principles will be found in the annexed schedule. The general result is as follows:—

Fund	...	...	...	...	...	...	£109,967
Estimated liability	...	...	...	...	...	...	97,776
							£12,191
Surplus	...	...	...	...	...	...	

Having regard to the rates of premium charged, we think that this result is satisfactory; but we wish to add that, in our opinion, this surplus would not be properly divisible. As no division is to be made until another five years have elapsed, the question does not now arise. But when that time shall come, we think that a further reserve will have to be made for the future bonuses on those policies on which a limited number of premiums only is payable, and which constitute about 11 per cent. of the number. If the loading on this class of assurances had been distributed equally over the whole term of life, and a corresponding reserve made on the present occasion, we believe, from some calculations we have made, that the surplus would have been materially reduced.

The rates of premium are undoubtedly very low, especially at the older ages. They are below the prevailing rates in this country, and are lower than are generally charged by the principal Assurance Societies in the Australian colonies.

No considerable surplus is, we think, likely under any circumstances to accrue from such premiums. Their sufficiency will depend mainly upon the cost at which the business will in future be conducted, and the rate of interest at which the funds will be invested.

During the five years now under review, commission and expenses have absorbed more than 24 per cent. of the premiums; but by the last Report it appears that the rate of expense for the year ending the 30th June, 1875, was 19·2 per cent., and there is reason to believe that it will continue to decline. If, however, the rate of interest should fall materially in future, we think that the rates must then undergo a general revision; and under any circumstances we think that the premiums at the older ages are too low and ought to be raised.

#### INDUSTRIAL BRANCH.

The money transactions of this branch show a deficiency of £501 3s. 7d. There have been granted 76 policies for assurances of £8,105, paying in premiums £5 5s. 7d. weekly. A valuation of these risks, made on the same principles as for the Ordinary Branch, results in an estimated liability of £53, so that the apparent deficiency is thereby increased to £554. This of itself is unimportant, as the business has been started so recently, and the amount is small; but it seems to us to be worthy of serious consideration whether the department should grant such assurances at all. The intention apparently was to undertake risks like those of Friendly Societies, or of the Prudential Assurance

Society of London. But the object of the death payments in these societies is not family provision or business requirements, but almost invariably to provide a small sum of money (not exceeding £10) for funeral expenses. In the Prudential Society the average amount assured by each policy is a little over £8, and the average weekly premium on the policies issued last year about 1½d: but the assurances of this branch of the department belong to an entirely different class, the average amount being £107. It is surely unnecessary to incur the trouble and expense of a separate organization for such business as this. It is not easy to understand that persons in a position to effect these assurances can have any real difficulty in paying premiums quarterly, and it is surely to their interest to avoid the increased expense which a system of weekly collections must occasion.

We have only further to add that the several returns required by the Fourth Schedule of the Act have been prepared, and are annexed.

We have, &c.,  
ARTHUR H. BAILEY.  
W. P. PATTISON.

The Hon. the Colonial Secretary, New Zealand.

#### FOURTH SCHEDULE.

##### STATEMENT RESPECTING THE VALUATION OF THE LIABILITIES UNDER LIFE POLICIES AND ANNUITIES OF THE GOVERNMENT INSURANCE DEPARTMENT, TO BE MADE BY THE ACTUARY.

*Question 1.*—The date up to which the valuation is made.

*Answer.*—The date up to which the valuation was made was the 30th June, 1875.

*Question 2.*—The principles upon which the valuation and distribution of profits among the policy-holders are made.

*Answer.*—The principles upon which the valuation was made appear from the subsequent answers; and on the present occasion no distribution of profits has to be made.

*Question 3.*—The table or tables of mortality used in the valuation.

*Answer.*—The table of mortality used in the valuation of policies was the Institute of Actuaries Life Tables (H<sup>M</sup>), deduced from the mortality experience of Life Assurance Companies. Fourteen policies involving more than one life were valued by the Carlisle Table. The Annuities were valued by the Carlisle Table.

*Question 4.*—The rate or rates of interest assumed in the calculations.

*Answer.*—The rate of interest assumed in the valuation of all the policies and annuities was 4½ per cent.

*Question 5.*—The proportion of the annual premium income (if any) reserved as a provision for future expenses and profits. (If none, state how this provision is made.)

*Answer.*—The difference between the premiums payable under the policies and the computed net premium by H<sup>M</sup>, 4½ per cent., has been in each case reserved. The amount so reserved on the ordinary whole-life policies by a uniform premium amounted to 21½ per cent. on the premiums payable.

*Question 6.*—The Consolidated Revenue Account since the last valuation, or, in case no valuation has been made, since the commencement of the business.

*Answer.*—The return asked for under this question is appended. (See page 4.)

*Question 7.*—The liabilities of the Department under life policies and annuities at the date of the valuation; showing the number of policies, the amount assured, and the amount of premiums payable annually under each class of policies, both with and without participation in profits, and also the net liabilities and assets of the Department, with the amount of surplus or deficiency.

*Answer.*—The return asked for under this question is appended. (See page 5.)

*Question 8.*—The time during which a policy must be in force in order to entitle it to share in the profits.

*Answer.*—We are not aware that the New Zealand Insurance Department have yet determined this point.

*Question 9.*—The results of the valuation, showing,—

- (1.) The total amount of profit made by the Department.
- (2.) The amount of profit divided among the policy-holders, and the number and amount of the policies which participated.
- (3.) Specimens of bonuses allotted to policies for £100 effected at the respective ages of 20, 30, 40, and 50, and having been respectively in force for five years, ten years, and upwards, at intervals of five years respectively, together with the amounts apportioned under the various modes in which the bonus might be received.

*Answer.*—The total amount of profits made by the Ordinary Branch was £12,191. In the Industrial Branch there is a deficiency.

Form referred to under Heading No. 6 in Fourth Schedule.

CONSOLIDATED REVENUE ACCOUNT of the Ordinary Branch of the Government Insurance Department for the period commencing 1st March, 1870, and ending 30th June, 1875.

	£	s.	d.		£	s.	d.
Balance on 1st March, 1870 ... ..				Claims under Policies ... ..	22,750	0	0
Premiums received ... ..	146,150	5	0	Surrenders ... ..	293	7	11
Consideration received for Annuities granted ... ..	16,689	12	7	Annuities ... ..	2,950	3	4
Interest ... ..	7,581	15	8	Commission ... ..	7,061	3	5
Interest accrued ... ..	842	6	6	Expenses of Management ... ..	28,322	18	11
Fines ... ..	75	0	11				
Fees ... ..	6	5	0	Balance ... ..	109,967	12	1
	<u>£171,345</u>	<u>5</u>	<u>8</u>		<u>£171,345</u>	<u>5</u>	<u>8</u>

CONSOLIDATED REVENUE ACCOUNT of the Industrial Branch of the Government Insurance Department, for the period commencing 1st March, 1875, and ending 30th June, 1875.

	£	s.	d.		£	s.	d.
Balance on 1st March, 1875 ... ..				Claims under Policies ... ..			
Premiums received—				Surrenders ... ..			
New ... ..	£5	9	3	Annuities ... ..			
Renewal ... ..	40	18	9	Commission ... ..	9	3	4
	<u>46</u>	<u>8</u>	<u>0</u>	Expenses of Management ... ..	538	19	9
Consideration received for Annuities granted ... ..							
Interest ... ..							
Fines ... ..							
Fees ... ..							
Premium Receipt Books ... ..	0	1	0				
Medical Fee deposit forfeited ... ..	0	10	6				
Balance (deficiency) ... ..	501	3	7				
	<u>£548</u>	<u>3</u>	<u>1</u>		<u>£548</u>	<u>3</u>	<u>1</u>

VALUATION BALANCE SHEET of the Ordinary Branch of the Government Insurance Department, as at 30th June, 1875.

Dr.	£	s.	d.		£	s.	d.
To Net Liability under Assurance and Annuity Transactions (as per Summary Statement provided in Fourth Schedule) ... ..	97,776	0	0	By Life Assurance and Annuity Funds (as per Balance Sheet under the Second Schedule) ... ..	109,967	0	0
To Surplus ... ..	12,191	0	0				
	<u>£109,967</u>	<u>0</u>	<u>0</u>		<u>£109,967</u>	<u>0</u>	<u>0</u>

VALUATION BALANCE SHEET of the Industrial Branch of the Government Insurance Department, as at 30th June, 1875.

Dr.	£	s.	d.		£	s.	d.
To Net Liability under Assurance and Annuity Transactions (as per Summary Statement provided in Fourth Schedule) ... ..	53	0	0	By Deficiency ... ..	554	3	7
To Balance against the Branch ... ..	501	3	7				
	<u>£554</u>	<u>3</u>	<u>7</u>		<u>£554</u>	<u>3</u>	<u>7</u>

Form referred to under Heading No. 7 in Fourth Schedule.  
**SUMMARY and VALUATION of the Policies of the Government Insurance Department (Ordinary Branch), as at 30th June, 1875.**

DESCRIPTION OF TRANSACTIONS.	PARTICULARS OF THE POLICIES FOR VALUATION.						VALUATION.			
	No. of Policies.	Sums Assured.	Office Yearly Premiums.	Net Yearly Premiums.	I.—By the H <sup>x</sup> Institute Table. Interest at 4½ per cent.		II.—By the Carlisle Table. Interest at 4½ per cent.			
					£	£	£	£		
<b>I.—ASSURANCES.</b>										
Whole term of life, subject to Premiums throughout life	3,217	1,198,043	33,015-0	25,935-5	£	411,554-1	471,763-1	369,112-1	£	42,442-0
Whole term of life, by a limited number of Premiums...	547	280,523	10,842-1	8,705-7	£	88,301-1	89,380-3	71,589-3	£	16,711-8
Whole term of life, by single Premium	7	853	...	...	£	277-9	...	...	£	277-9
Endowment Assurances	1,064	323,750	12,569-8	10,458-2	£	143,123-8	148,852-8	123,369-0	£	19,754-8
Endowments, returnable Premiums	75	8,450	511-3	...	£	...	...	...	£	1,505-4
Endowments, returnable Premiums, by single Premium	12	1,200	...	...	£	616-7	476-8	454-0	£	850-3
Endowments, non-returnable Premiums	5	1,100	58-9	55-9	£	...	...	...	£	162-7
Assurances for terms of years	17	14,800	252-1	...	£	...	...	...	£	126-1
Assurances on joint lives	13	4,600	175-7	148-7	£	2,072-6	2,123-5	1,797-0	£	275-6
Survivorship Assurances	1	500	22-0	15-1	£	99-5	111-1	76-3	£	23-2
Extra Premiums	...	...	63-5	...	£	...	...	...	£	32
<b>TOTAL ASSURANCES</b>	4,958	1,893,819	57,510-4	...	£	648,045-7	712,687-6	566,897-7	£	82,161-8
<b>II.—ANNUITIES.</b>										
Immediate	21	Per Annum. 1,249-1	...	7-6	£	...	...	...	£	12,193-7
Survivorship	2	335	9-2	89-2	£	1,143-8	125-2	104-0	£	1,039-8
Deferred	5	300	94-2	...	£	1,747-7	744-1	703-7	£	1,044-0
For a fixed term of years	3	300	...	...	£	...	...	...	£	1,336-2
<b>TOTAL OF THE RESULTS</b>	4,989	...	57,613-8	...	£	...	...	...	£	97,775-5

**SUMMARY and VALUATION of the Policies of the Government Insurance Department (Industrial Branch), as at 30th June, 1875.**

DESCRIPTION OF TRANSACTIONS.	PARTICULARS OF THE POLICIES FOR VALUATION.				VALUATION.					
	No. of Policies.	Sums Assured.	Office Yearly Premiums.	Net Yearly Premiums.	By the H <sup>x</sup> Institute Table. Interest at 4½ per cent.		Net Liability.			
					£	£	£	£		
Industrial Assurances	76	8,105	274-5	161-2	£	2,479-2	4,179-4	2,426-3	£	52-9

## FIFTH SCHEDULE.

STATEMENT OF THE LIFE ASSURANCE AND ANNUITY BUSINESS OF THE GOVERNMENT INSURANCE  
DEPARTMENT ON THE 30TH JUNE, 1875.

- Question 1.*—The published table or tables of premiums which are in use at the date above mentioned.  
*Answer.*—See page 7.
- Question 2.*—The total amount assured on lives for the whole term of life which are in existence at the date above mentioned, distinguishing the portions assured with and without profits, stating separately the total reversionary bonuses, and specifying the sums assured for each year of life from the youngest to the oldest ages.  
*Answer.*—See page 8.
- Question 3.*—The amount of premiums receivable annually for each year of life, after deducting the abatements made by the application of bonuses in respect of the respective assurances mentioned under heading No. 2, distinguishing ordinary from extra premiums.  
*Answer.*—See page 8.
- Question 4.*—The total amount assured under classes of assurance business other than for the whole term of life, distinguishing the sums assured under each class, and stating separately the amount assured with and without profits, and the total amount of reversionary bonuses.  
*Answer.*—See page 9.
- Question 5.*—The amount of premiums receivable annually in respect of each such special class of assurances mentioned under heading No. 4, distinguishing ordinary from extra premiums.  
*Answer.*—See page 9.
- Question 6.*—The total amount of premiums which has been received from the commencement upon all policies under each special class mentioned under heading No. 4, which are in force at the date above mentioned.  
*Answer.*—See page 9.
- Question 7.*—The total amount of immediate annuities on lives, distinguishing the amounts for each year of life.  
*Answer.*—See page 10.
- Question 8.*—The amount of all annuities other than those specified under heading No. 7, distinguishing the amount of annuities payable under each class, the amount of premiums annually receivable, and the amount of consideration money received in respect of each such class, and the total amount of premiums received from the commencement upon all deferred annuities.  
*Answer.*—See page 10.
- Question 9.*—The average rate of interest at which the funds of the department were invested at the close of each year during the period since the last investigation.  
*Answer.*—Average rate of interest at which the funds of the department were invested at the close of each financial year:—
- |                 |     |      |           |
|-----------------|-----|------|-----------|
| June 30th, 1871 | ... | 6    | per cent. |
| June 30th, 1872 | ... | 6    | per cent. |
| June 30th, 1873 | ... | 5    | per cent. |
| June 30th, 1874 | ... | 5    | per cent. |
| June 30th, 1875 | ... | 5.08 | per cent. |
- Question 10.*—A table of minimum values, if any, allowed for the surrender of policies for the whole term of life, and for endowments and endowment assurances, or a statement of the method pursued in calculating such surrender values, with instances of its application to policies of different standing and taken out at various interval ages, from the youngest to the oldest.  
*Answer.*—The Table of Mortality used for calculating the surrender values of policies is that known as the "SEVENTEEN OFFICES' EXPERIENCE." The rate of interest assumed in every case is 4 per cent. A deduction of 20 per cent. from the value thus calculated determines the surrender value allowed. In the case of Children's Endowments, the return of all premiums paid, without interest, is allowed as a surrender value.  
Examples of the minimum values allowed for the surrender of policies for the whole term of life, and for endowment assurances appear on page 10.
- Question 11.*—A statement to be furnished of the manner in which policies on unhealthy lives are dealt with.  
*Answer.*—In the case of policies on which extra premiums have been charged for impaired health or other causes, the surrender value is calculated as if the premium for the true age at entry had been charged.  
Policies on lives believed to have an expectation of life less than the average are issued at increased premiums, corresponding with those charged at higher ages. In all calculations, whether for purposes of valuation or surrender, they are dealt with at the true ages, as if no increase in the premiums had been made.

Answer to Question 1.

The published TABLES of PREMIUMS which were in use at the date above-mentioned. For the ASSURANCE of LIVES resident in any part of the World, except within 25 degrees of the Equator.

PREMIUMS TO SECURE £100 PAYABLE AT DEATH.								ENDOWMENT ASSURANCE.—ANNUAL PREMIUMS TO SECURE £100, TO BE PAID AS INDICATED, OR AT DEATH, IF PRIOR.							
Age next Birth-day.	Single Premium.	Annual Premiums to cease after				Annual Premium Whole Life.	At Age 65.	At Age 60.	At Age 55.	At Age 50.	At Age 45.	At Age 40.	Age next Birth-day.		
		5 Years.	10 Years.	15 Years.	20 Years.										
20	28 1 8	6 0 9	3 7 4	2 10 0	2 1 6	1 13 2	1 16 8	2 0 2	9 8 3	1 3 4	0 0	20			
21	28 12 8	6 3 0	3 8 8	2 11 0	2 2 5	1 11 1	1 14 3	2 0 3	8 2 0	4 7 4	5 4	21			
22	29 4 4	6 5 7	3 10 2	2 12 1	2 3 6	1 11 1	1 15 5	2 5 5	5 2 1	5 3 8	4 11 3	22			
23	29 16 6	6 8 3	3 11 9	2 13 8	2 4 7	1 12 10	1 16 7	2 1 0	2 7 5	2 12 4	4 18 0	23			
24	30 9 2	6 10 11	3 13 4	2 14 7	2 5 7	1 13 10	1 17 11	2 2 9	5 3 0	2 16 10	5 9	24			
25	31 2 4	6 14 0	3 15 0	2 15 10	2 6 8	1 14 11	1 19 3	2 2 1	9 3 4	1 9 5	14 4	25			
26	31 15 10	6 16 11	3 16 9	2 17 1	2 7 9	1 16 0	2 0 7	2 6 0	2 14 3	6 9 4	7 3 6	26			
27	32 9 10	7 0 1	3 18 8	2 18 7	2 9 0	1 17 1	2 2 3	2 7 1	1 2 16	10 3 10	9 4 13	27			
28	33 7 0	7 3 0	4 0 4	2 19 10	2 10 4	1 18 2	2 3 1	2 10 0	2 19 8	3 14 10	5 0 4	28			
29	33 17 2	7 6 0	4 1 11	3 1 2	2 11 5	1 19 4	2 5 6	2 12 1	3 2 6	3 19 3	5 7 1	29			
30	34 9 6	7 9 1	4 4 3	3 2 7	2 12 5	2 0 6	2 7 1	2 14 3	3 5 8	4 2 16	5 9 4	30			
31	35 1 11	7 11 9	4 5 2	3 3 9	2 13 5	2 1 8	2 8 9	2 16 6	3 9 0	4 9 5	6 6 2	31			
32	35 14 10	7 14 7	4 6 11	3 5 0	2 14 6	2 2 10	2 10 8	2 18 1	3 12 6	4 15 4	6 17 5	32			
33	36 8 6	7 17 8	4 8 9	3 5 11	2 15 10	2 4 0	2 12 6	3 1 7	3 16 8	5 2 0	7 10 8	33			
34	37 3 0	8 0 11	4 10 6	3 6 10	2 17 0	2 5 2	2 14 7	3 4 6	4 1 0	5 9 7	6 5	34			
35	37 18 0	8 4 0	4 12 6	3 8 0	2 18 2	2 6 6	2 16 1	3 7 9	4 6 0	5 18 3	9 5 5	35			
36	38 13 4	8 7 6	4 14 8	3 10 2	2 19 8	2 8 0	2 19 5	3 11 3	4 11 6	6 8 3		36			
37	39 9 10	8 11 3	4 16 10	3 12 8	3 1 0	2 9 6	3 2 1	3 15 0	4 17 7	7 19 10		37			
38	40 6 3	8 15 0	4 19 1	3 14 4	3 2 7	2 11 2	3 4 1	3 19 1	5 4 5	7 13 4		38			
39	41 3 2	8 18 10	5 1 4	3 16 1	3 4 0	2 12 1	3 8 2	4 3 8	5 12 1	8 9 3		39			
40	41 19 11	9 2 10	5 3 8	3 17 10	3 5 7	2 14 8	3 11 3	4 8 7	6 0 9	9 8 5		40			
41	42 16 0	9 6 5	5 5 8	3 19 5	3 7 0	2 16 5	3 14 7	4 13 10	6 10 8			41			
42	43 12 0	9 10 2	5 7 10	4 1 0	3 8 5	2 18 2	3 18 3	4 19 9	7 1 9			42			
43	44 8 0	9 13 10	5 10 0	4 2 9	3 10 0	2 19 1	4 2 1	5 6 2	7 14 9			43			
44	45 4 10	9 17 5	5 11 11	4 4 4	3 11 6	3 10 4	4 6 6	5 13 3	8 10 3			44			
45	46 1 11	10 1 2	5 13 11	4 6 1	3 13 0	3 10 4	4 11 2	6 1 10	9 8 9			45			
46	47 0 11	10 5 0	5 16 3	4 7 11	3 14 9	3 6 0	4 16 5	6 11 5				46			
47	47 19 4	10 9 0	5 18 7	4 9 8	3 16 10	3 8 5	5 2 5	7 2 5				47			
48	48 19 11	10 13 10	6 1 9	4 12 2	3 19 2	3 11 0	5 9 3	7 15 6				48			
49	50 2 5	10 18 9	6 5 1	4 14 11	4 1 8	3 14 0	5 17 2	8 11 3				49			
50	51 6 6	11 3 9	6 8 9	4 17 8	4 4 0	3 17 4	6 6 2	9 10 3				50			
51	52 12 1	11 9 10	6 12 0	5 1 7	4 6 9	4 1 1	6 16 9					51			
52	53 18 2	11 15 9	6 15 4	5 5 8	4 10 5	5 0 7	8 10					52			
53	55 4 8	12 2 2	6 19 2	5 9 0	4 14 5	5 9 3	8 2 1					53			
54	56 11 7	12 8 7	7 3 6	5 12 8	4 18 3	6 8 1	9 7					54			
55	57 19 3	12 15 2	7 8 10	5 16 6	5 2 3	4 18 0	9 19 8					55			

ANNUITIES AND ENDOWMENTS.

IMMEDIATE ANNUITIES.—Table showing the Sum to be paid for an Immediate Life Annuity of £1, payable by Half-Yearly Instalments, according to the Age and Sex of the Person upon whose Life the Annuity is to depend.						ENDOWMENTS FOR CHILDREN with Return of Premiums.—Rates of Premium to secure Endowments of £100. The Premiums to be returned without interest if Death occur previous to the specified Age.			
Age last Birth-day.	Males.		Age last Birth-day.	Females.		Single Premium.	Annual Premium.	Age next Birth-day.	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.				
20	18 3 0	18 4 7	46	13 8 3	13 19 0	59 5 6	6 3 7	1	
21	18 0 5	18 2 2	47	13 3 3	13 14 3	62 7 3	6 17 0	2	
22	17 17 10	17 19 9	48	12 18 2	13 9 3	65 7 5	7 12 10	3	
23	17 15 2	17 17 4	49	12 12 11	13 4 1	68 6 8	8 11 10	4	
24	17 12 5	17 14 10	50	12 7 7	12 18 10	71 6 6	9 15 1	5	
25	17 9 7	17 12 3	51	12 2 2	12 13 4	74 7 3	11 4 2	6	
26	17 6 8	17 9 8	52	11 16 9	12 7 7	77 9 7	13 1 8	7	
27	17 3 8	17 7 0	53	11 11 3	12 1 8	80 13 11	15 11 9	8	
28	17 0 7	17 4 3	54	11 5 7	11 15 7	84 0 4	19 1 10	9	
29	16 17 5	17 1 6	55	10 19 11	11 9 8				
30	16 14 2	16 18 7	56	10 14 2	11 3 7				
31	16 10 10	16 15 8	57	10 8 3	10 17 7				
32	16 7 5	16 12 8	58	10 2 4	10 11 5				
33	16 3 10	16 9 6	59	9 16 4	10 5 4				
34	16 0 2	16 6 4	60	9 10 3	9 19 1				
35	15 16 5	16 3 0	61	9 4 2	9 12 10				
36	15 12 7	15 19 7	62	8 18 0	9 6 7				
37	15 8 8	15 16 1	63	8 11 10	9 0 4				
38	15 4 7	15 12 6	64	8 5 8	8 14 0				
39	15 0 5	15 8 9	65	7 19 7	8 7 9				
40	14 16 2	15 4 10	66	7 13 6	8 1 6				
41	14 11 9	15 0 11	67	7 7 5	7 15 4				
42	14 7 3	14 16 10	68	7 1 6	7 9 3				
43	14 2 8	14 12 7	69	6 15 8	7 3 2				
44	13 18 0	14 8 2	70	6 9 11	6 17 3				
45	13 13 2	14 3 8							

## Answer to Questions 2 and 3.

THE Total Amount Assured on Lives for the whole term of Life which were in existence on the 30th June, 1875, specifying the Sums assured for each Year of Life; also the Amount of Premiums receivable annually for each Year of Life, distinguishing Ordinary from Extra Premiums.

AGRS.	SUMS ASSURED.		ANNUAL PREMIUMS.				TOTAL.			
			Ordinary.	Extra.		TOTAL.				
				For Lives below the Average Standard.	For Special Risks.					
	£	s. d.	£	s. d.	£	s. d.	£	s. d.		
26	100	0 0	1	7 6	0	2 10	...	1	10 4	
27	500	0 0	6	9 2	1	5 0	...	7	14 2	
28	1,600	0 0	22	13 4	1	12 0	...	24	5 4	
29	650	0 0	9	11 3	...	...	...	9	11 3	
30	2,350	0 0	35	8 10	2	5 2	...	37	14 0	
31	3,800	0 0	58	17 8	2	11 3	...	61	8 11	
32	2,700	0 0	30	15 0	1	0 10	...	31	15 10	
33	7,650	0 0	122	5 6	1	18 0	...	124	3 6	
34	10,000	0 0	165	17 5	7	8 1	...	173	5 6	
35	14,550	0 0	250	8 7	2	13 0	...	253	1 7	
36	16,050	0 0	280	13 1	6	11 11	...	287	5 0	
37	21,250	0 0	383	1 9	9	16 1	1	0 0	393	17 10
38	26,610	0 0	488	1 4	10	17 3	1	10 0	500	8 7
39	22,050	0 0	418	9 11	10	10 1	...	429	0 0	
40	36,415	0 0	713	6 1	32	16 5	1	0 0	747	2 6
41	38,500	0 0	783	13 9	29	11 11	...	813	5 8	
42	37,050	0 0	760	10 2	20	17 6	...	781	7 8	
43	45,800	0 0	971	11 3	29	9 0	0	2 0	1,001	2 3
44	58,300	0 0	1,253	8 5	44	18 2	6	2 0	1,304	8 7
45	56,550	0 0	1,266	9 10	47	17 2	2	14 5	1,317	1 5
46	50,500	0 0	1,156	14 6	50	10 4	10	3 8	1,217	8 6
47	60,150	0 0	1,421	8 2	39	1 8	0	5 6	1,460	15 4
48	65,150	0 0	1,586	9 2	71	2 5	4	15 0	1,662	6 7
49	59,450	0 0	1,495	6 3	45	2 2	0	3 8	1,540	12 1
50	54,600	0 0	1,416	9 5	57	5 7	5	14 4	1,479	9 4
51	58,000	0 0	1,549	1 1	60	10 0	0	16 8	1,610	7 9
52	53,431	0 0	1,488	14 5	33	9 1	3	12 0	1,525	15 6
53	53,750	0 0	1,528	14 5	56	15 3	0	2 0	1,585	11 8
54	55,850	0 0	1,629	6 11	59	2 10	0	11 8	1,689	1 5
55	39,250	0 0	1,188	14 11	63	3 11	0	11 4	1,252	10 2
56	39,050	0 0	1,215	9 10	47	12 8	3	14 0	1,266	16 6
57	35,237	0 0	1,138	10 0	60	1 8	0	1 8	1,198	13 4
58	25,100	0 0	847	14 8	61	5 4	...	...	909	0 0
59	25,550	0 0	878	0 8	31	12 11	1	18 4	911	11 11
60	22,050	0 0	785	6 7	35	11 7	0	2 4	821	0 6
61	12,650	0 0	468	7 5	22	4 0	0	4 0	490	15 5
62	15,500	0 0	601	7 8	40	19 10	4	15 10	647	3 4
63	12,150	0 0	501	17 11	33	1 10	...	...	534	19 9
64	9,900	0 0	421	14 6	28	6 7	0	6 8	450	7 9
65	13,350	0 0	623	15 2	29	4 2	0	10 2	653	9 6
66	12,200	0 0	570	13 11	13	13 6	...	...	584	7 5
67	6,900	0 0	339	7 1	25	10 1	...	...	364	17 2
68	4,650	0 0	227	8 8	12	8 8	...	...	239	17 4
69	3,050	0 0	153	2 5	9	11 0	...	...	162	13 5
70	2,400	0 0	131	0 0	6	9 4	...	...	137	9 4
71	4,200	0 0	243	17 8	17	13 7	...	...	261	11 3
72	1,000	0 0	57	14 8	18	8 4	...	...	76	3 0
73	500	0 0	30	5 0	1	5 0	...	...	31	10 0
TOTALS...	1,198,043	0 0	31,719	12 11	1,295	5 0	50	17 3	33,065	15 2



Answer to Questions 4, 5, and 6.

133 THE Total Amount Assured under Classes of Assurance Business other than for the whole term of Life; the Amount of Premiums receivable Annually in respect of each such Class; and the Total Amount of Premiums received upon all such Policies which were in force on 30th June, 1875.

TABLE.	CLASS OF ASSURANCE.	SUMS ASSURED.	ANNUAL PREMIUMS.						TOTAL PREMIUMS RECEIVED.
			Ordinary.	Extra.		Total.	£ s. d.		
				For Lives below the Average Standard.	For Special Risks.				
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
I.	Temporary Assurances ...	14,800 0 0	240 6 3	11 16 1	...	252 2 4	749 9 0	749 9 0	
II.	Limited Number of Premiums ...	280,523 0 0	10,579 19 9	262 2 5	...	10,842 2 2	24,129 11 7	24,129 11 7	
"	Paid-up Policies ...	853 8 0	...	...	...	...	346 11 10	346 11 10	
III.	Endowment Assurances...	323,750 0 0	12,395 18 11	173 17 9	12 13 1	12,582 9 9	25,123 6 2	25,123 6 2	
IV.	Joint Assurances ...	4,600 0 0	168 14 2	6 19 2	...	175 13 4	661 5 2	661 5 2	
IV a.	Survivorship Assurances ...	500 0 0	16 6 0	5 14 0	...	22 0 0	99 0 0	99 0 0	
V.	Endowments ...	1,100 0 0	58 17 5	...	...	58 17 5	128 17 0	128 17 0	
VI.	Endowments ...	9,650 0 0	511 6 4	...	...	511 6 4	2,147 11 6	2,147 11 6	
	Totals ...	685,776 8 0	23,971 8 10	460 9 5	12 13 1	24,444 11 4	53,385 12 3	53,385 12 3	

Answer to Question 7.

TOTAL AMOUNT of Immediate Annuities on Lives, distinguishing the Amounts for each Year of Life.

AGE 30TH JUNE, 1875.		AMOUNT OF ANNUITIES.		
		£	s.	d.
37	38	30	0	0
43	44	12	10	8
50	51	50	0	0
51	52	350	0	0
56	57	20	0	0
59	60	52	5	0
62	63	40	0	0
64	65	180	0	0
65	66	140	0	0
67	68	143	7	0
68	69	117	0	0
69	70	38	0	0
73	74	28	0	0
75	76	48	0	0
		<hr/>		
		£1,249 2 8		

Answer to Question 8.

THE AMOUNT of all Annuities other than those specified under Heading No. 7.

TABLE.	CLASS OF ANNUITY.	AMOUNT OF ANNUITIES.	ANNUAL PREMIUMS.	SINGLE PREMIUMS.	TOTAL PREMIUMS RECEIVED TO 30TH JUNE, 1875.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
VIII.	Survivorship ... ..	335 0 0	9 3 2	1,137 0 0	1,169 1 1
IX.	Deferred ... ..	200 0 0	70 8 4	592 1 8	662 10 0
X.	Deferred ... ..	100 0 0	23 14 9	213 4 2	245 18 11
	CERTAIN :—				
	Expire 2nd March, 1880 ...	300 0 0	...	...	...
	TOTALS ... ..	935 0 0	103 6 3	1,942 5 10	2,077 10 0

TABLE showing the MINIMUM SURRENDER VALUE of POLICIES for £100.

AGE AT ENTRY.	UNDER TABLE I.			UNDER TABLE II <sup>10</sup> .			UNDER TABLE III <sup>55</sup> .		
	By equal Annual Premiums for the Whole Term of Life.			For the Whole Term of Life. Premiums limited to 10 Annual Payments.			Endowment Assurances payable on attaining the Age of 55, or at previous Death.		
	MINIMUM SURRENDER VALUES AT THE END OF—								
	5 Years.	10 Years.	15 Years.	5 Years.	10 Years.	15 Years.	5 Years.	10 Years.	15 Years.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
20	2 13 3	5 16 0	9 9 8	10 18 1	24 9 10	27 4 11	5 9 8	12 3 11	20 8 10
25	3 4 11	7 1 1	11 10 7	12 2 7	27 5 0	30 9 8	7 4 2	16 1 2	27 0 3
30	3 19 5	8 12 8	14 2 3	13 11 8	30 9 8	34 5 9	9 14 7	21 15 4	36 15 11
35	4 18 2	10 13 6	17 2 11	15 4 4	34 5 9	38 11 1	13 14 1	30 16 3	52 5 11
40	6 2 10	13 0 9	20 9 1	17 3 7	38 11 1	43 2 11	20 13 0	46 11 6	100 0 0
45	7 9 4	15 10 1	23 18 5	19 4 10	43 2 11	47 19 1	34 18 10	100 0 0	...
50	8 17 3	18 2 11	27 10 6	21 5 5	47 19 1	52 16 3	100 0 0	...	...
55	10 8 10	20 19 9	31 2 7	23 4 1	52 16 4	57 9 9	...	...	...