1917.
NEW ZEALAND.

TEACHERS' SUPERANNUATION FUND.

ACTUARIAL EXAMINATION FOR THE TRIENNIAL PERIOD ENDED 31ST DECEMBER, 1916.

Laid before Parliament in pursuance of Section 38 (4) of the Public Service Classification and Superannuation Amendment Act, 1908.

REPORT.

BY THE ACTUARY APPOINTED BY HIS EXCELLENCY THE GOVERNOR-GENERAL TO MAKE THE ACTUARIAL EXAMINATION OF THE TEACHERS' SUPERANNUATION FUND FOR THE TRIENNIAL PERIOD ENDED 31ST DECEMBER, 1916.

Wellington, 22nd September, 1917.

1. I HAVE the honour to submit the following report on the Teachers' Superannuation Fund as at the 31st December, 1916, as required by section 38 of the Public Service Classification and Superannuation Amendment Act, 1908.

2. The fund was established by the Teachers' Superannuation Act, 1905, which came into operation on the 1st January, 1906, but the scheme was recast and brought more into line with the Public Service and Government Railways Funds by the Public Service Classification and Superannuation Amendment Act, 1908. The chief difference between the benefits granted by the two Acts lies in the manner in which the pensions are calculated, only one-half the usual rate of pension being allowed under the original Act for service prior to the 1st January, 1906, and the pensions being calculated on a lower average salary—viz., the average for the whole period of service, instead of for the last three years. A minimum pension of £52 per annum, however, formed one of the benefits under the old scheme for "original members"—viz., those in the service on the coming into operation of the Act—and male contributors had the right to retire at age 60 and females at age 50, irrespective of their length of service.

Of the 2,505 "original members" on the 31st March, 1908, there were only eighty contributors on the 31st December, 1916, who had elected to remain subject to Part IX of the Education Act, 1908, with which the Teachers' Superannuation Act was consolidated.

3. The scheme was further extended by the Public Service Classification and Superannuation Amendment Act, 1912, to include service under the universities, and persons so employed at the date of the amendment were given the option of joining the scheme before the 1st July, 1913, on special terms—viz., their pensions for the time they contribute to be increased by one one-hundred-and-twentieth part of their salaries for every complete year of service, whether continuous or not, prior to the 7th November, 1912, the date of the Act; or, in other words, service prior to the commencement of the Act will be counted towards their pension at half the usual rate.

4. It is compulsory for all persons to become contributors to the fund who are first permanently employed after the passing of the Act—

(a.) In the Education service as a teacher in any public school;
(b.) In any branch of the Education service which is also a branch of the Government service;
(c.) Under the University of New Zealand, Auckland University College, Victoria College, University of Otago, Canterbury College, or the Canterbury Agricultural College.

Other persons first permanently employed in the Education service, not included above, have the option of joining the fund within six months of the date of their appointment.

5. "Education service" means service in any capacity for not less than twenty hours a week—

(a.) Under an Education Board; or
(b.) Under the governing body of a secondary school; or
(c.) Under the Managers of associated classes under Part VII of the Education Act, 1908; or
(d.) Under the Education Department in the case of Inspectors of Schools, or of Inspectors, Managers, or visiting officers of industrial schools, or of teachers of any schools under that Department; or
(e.) Under the University of New Zealand, or under the Auckland University College, Victoria College, University of Otago, Canterbury College, or the Canterbury Agricultural College.

6. The contributions and benefits provided by the Act, together with statements showing the progress of active membership, discontinuance of membership from various causes, and the progress of pensions for each year, will be found in Tables I to IV of the appendix to this report. The ages of the contributors at the date of the valuation, their contributions, and other particulars are shown in Table V, and the pensions granted during the triennium, with the ages at which they were granted, in Table VI.

7. The number of pensioners on the fund at the 31st December, 1916, was 611, drawing pensions amounting to £44,666 per annum; the number of contributors at the same date was 4,653, with aggregate salaries amounting to £926,706, and paying contributions at the rate of £56,208 per annum.

8. The income and outgo of the fund during the three years are shown in the Consolidated Revenue Account, which is as follows:—

Consolidated Revenue Account of the Teachers' Superannuation Fund from the 1st January, 1914, to the 31st December, 1916.

Income.	£ s. d.	*Outgo.*	£ s. d.
Funds at 1st January, 1914	265,136 4 7	Allowances	112,861 15 4
Members' contributions	157,934 10 3	Contributions refunded	21,678 13 6
Government contributions	51,000 0 0	Transfers to other funds	1,134 5 2
Refunds	56 17 7	Commission	301 0 0
Transfers from other funds	794 6 8	Other payments	428 18 1
Interest	42,640 14 6	Funds at 31st December, 1916	381,158 1 6
	£517,562 13 7		£517,562 13 7

Valuation.

9. The rate of interest used in the valuation was 4 per cent.

10. The Experience Table (Table VII) contains the rates per cent. per annum for withdrawals, mortality, retirement on pensions, and increase in salary, used in arriving at the liability. The salary scale has been calculated from the experience at the 31st December last, but the other factors have been taken from the previous experience. As far as female teachers were concerned the past triennium made little change in the rates referred to, while in regard to males the number enlisting, 346—of whom thirty-two lost their lives—made the data quite unreliable as a guide for estimating rates of mortality, &c., to be experienced in the future. The Life and Service Table deduced from these rates is given in Table VIII of the appendix.

11. As regards the wives and children of contributors, it has been assumed that the prospective liability will be relatively the same, age for age, as in the case of male public servants.

12. It has also been assumed that all male and female teachers will retire at the age of sixty-five and sixty respectively, if they remain so long in the service, although there are a few still contributing at higher ages.

13. The benefits to which those contributors who elected to remain subject to the provisions of the old Act are entitled have been valued as if they were equivalent to the generally higher benefits provided by the new Act. Probably this will not overstate the real liability, as these contributors exercised a decided selection in choosing between the old and the new schemes.

14. The valuation balance-sheet is given in detail in Table IX, a summary of which is as follows:—

Liabilities.

	£
Value of contributors' pensions already granted for £42,190 per annum	416,664
„ widows' and children's pensions already granted for £2,476 per annum	20,159
„ prospective pensions for back service	1,254,204
„ „ for future service	854,515
„ „ to widows and children	118,766
„ return of contributions on death or withdrawal	122,064
	£2,786,372

Assets.

	£
Accumulated funds	381,158
Value of future contributions	603,398
„ present and future Government subsidies	1,801,816
	£2,786,372

15. Compared with the previous valuation the liabilities show an increase of £584,100, and the funds and value of future contributions £225,881, making a net increase in the Government's liability of £358,219.

The number of contributors, their salaries, and the annual pensions payable at the 31st December, 1916, and the 31st December, 1913, respectively were as follows:—

	1916.	1913.
Number of contributors	4,653	4,017
	£	£
Annual salaries	926,706	708,589
Average salary per contributor	199	176
Annual pensions payable	44,666	29,898

The addition to the liability is therefore fully accounted for by the general increase in the number of contributors, and the factors on which their prospective pensions are based—viz., age, length of service, and amount of salary.

16. Section 38 (2) of the Act requires the report to be so prepared as to show "the probable annual sums required by the fund to provide the retiring and other allowances falling due within the ensuing three years without affecting or having recourse to the actuarial reserve appertaining to the contributors' contributions."

As the contributions are insufficient to provide the full benefits for new entrants, the whole of the pensions for service prior to joining the scheme, and a certain portion of the pension due to service while contributing, should be provided by the subsidy. The sum payable for pensions, and the respective amounts purchased by contributions and payable by way of subsidy during the ensuing three years—1917, 1918, 1919—are estimated as follows:—

Required for	1917.	1918.	1919.
	£	£	£
Current ordinary pensions	40,486	38,797	37,116
New pensions and family pensions	6,743	13,358	19,950
Total pensions	47,229	52,155	57,066
Deduct amount of pension provided by contributions	7,275	8,732	10,229
Subsidy required	39,954	43,423	46,837

I have therefore to report that, in addition to the annual subsidy of £17,000 now being paid, further subsidies of £23,000, £26,000, and £30,000 will be required for the years 1917, 1918, and 1919 respectively, or an average of about £26,000 per annum. In my report for the triennium ending the 31st December, 1913, an additional subsidy of £16,000 per annum was stated to be necessary, but owing to the exigencies arising out of the war the recommendation has not yet been given effect to. Of the additional subsidy, £26,000, now required, only £10,000 is therefore due to the present triennium.

17. As already shown, the basis of the scheme is that the pensions should be divided into two parts, viz.: (*a*) the part purchased by the contributions, and (*b*) the remainder, which includes the pensions for service prior to joining the scheme, to be paid by way of a subsidy to the fund. The scheme has only been in force for eleven years, and the service is a growing one, consequently the outgo for pensions and the subsidy required will show an annual increase for many years.

At present every increase in the subsidy appears to involve an amending Act, and this, with its consequent delay, should be avoided.

The method employed to meet the deficiency, so long as it is met, is not so very material, but one basing the subsidy on the payments made by the contributors would throw the strain more on the early years of the scheme than the present method, and could be calculated without reference to the Actuary.

A subsidy equivalent to 45 per cent. of the contributions of males and 85 per cent. of the contributions of females would provide for the pensions of new entrants, and so prevent the deficiency from this source accumulating. It would also reduce the deficiency in the case of those already in the service by £359,806, leaving £1,442,010 to be provided for by an additional annual subsidy to cover interest on the amount and make good the principal.

The total payments required if this basis were adopted would be approximately as follows, taking the contributions and deficiency as they stood at the 31st December last:—

	£
Males—45 per cent. of annual contributions	14,751
Females—85 per cent. of annual contributions	19,794
Sinking fund for seventy-five years to repay deficiency with interest	60,896
	£95,441

and the only increases required in the future would be those resulting from a growing population, with the corresponding increase in the teaching staff, or other changes in the data.

18. An alternative method on the same lines, but requiring a smaller payment at the outset, would be to pay a subsidy equivalent to 100 per cent. of the contributions of males and 140 per cent. of the contributions of females. These percentages would require an annual payment commencing at £65,382, and increasing slowly with the growth of the staff and the corresponding increase in the annual payments made by the contributors. The deficiency would be reduced to £1,110,141, and it is estimated that this would disappear through the excess payments in about seventy-five years, as in the previous calculation, enabling the subsidy to be reduced to 45 per cent. for males and 85 per cent. for females.

If the scheme were closed to new entrants at any time, however, this method would require revision.

The term of seventy-five years has been taken as the period in which the deficiency should be liquidated, as this term is used for calculating the sinking fund to extinguish the public debt under the Public Debt Extinction Act, 1910.

19. It is perhaps fitting here to draw attention to the fact that the value to the large employer of a scheme of superannuation for his employees is considered so great that in England not only does the Government provide the benefits for Civil servants without requiring any contributions from the employees, but (to quote from the report of a Royal Commission) "the same system (pensions without contributions) has been introduced into very many establishments of the highest standing in the country, where continuous, zealous, and thoroughly honest service are main requirements." In the New Zealand Superannuation Fund, on the other hand, it has to be borne in mind that the employees themselves shoulder a large part of the burden.

20. It is clearly to the interest of the fund, and therefore to the general body of teachers, that all proposed legislation involving the reopening of options as to joining the scheme which have already lapsed, or an increase in the benefits, or special concessions, should be carefully scrutinized by the Board, and only adopted after actuarial advice. I also think that the existing option under section 23 of the Public Service Classification and Superannuation Amendment Act, 1908, should be repealed after due notice to the teachers affected. A large number of teachers (especially females) leave the service in early life, and collecting the arrears of contributions with interest from those who remain naturally does not put the fund in the same position as if all had joined at the outset.

Investment of the Funds.

21. The funds are invested with the Public Trustee, and the rate of interest earned for the year ending the 31st December, 1916, amounted to £4 12s. 8d. per cent., including the bonus on interest. For the same period the rate earned on the mean funds to the credit of the Public Service scheme was £5 1s. 2d., or £4 18s. 8d. per cent. after allowing for the 2½-per-cent. commission charged by the Public Trustee for collecting the interest. It is to be hoped, therefore, that the provisions of the Public Service Classification and Superannuation Amendment Act, 1915, which enabled the Public Service Superannuation Board to make its own investments, will be extended as early as possible to the Teachers' Superannuation Fund. I need hardly remark that an increase in the rate of interest earned would decrease the Government's liability in connection with the scheme.

PERCY MUTER, F.I.A.,
Actuary, Government Insurance Department.

APPENDIX.

TABLE I.

The Benefits and Contributions provided for by the Act.

(These benefits are slightly modified in the case of those existing contributors (numbering 80) who elected to remain under the provisions of Part IX of the Education Act, 1908, and in the case of persons employed in service under the Universities on the 7th November, 1912, who joined the scheme before 1st July, 1913.)

Contributions

The contributions vary according to the age at the time when the first contribution becomes payable, and are as follows:—

Age 30 and under	5 per cent. of pay.
Over 30 and not exceeding 35	6 ,,
,, 35 ,, 40	7 ,,
,, 40 ,, 45	8 ,,
,, 45 ,, 50	9 ,,
,, 50	10 ,,

Benefits

I. *On Attainment of Pension. Males at Age 65, or after Forty Years' Service; Females at Age 55, or after Thirty Years' Service.*

(1.) A pension of one-sixtieth of yearly salary for each year's service, with a limit of forty-sixtieths (two-thirds) of salary. Maximum pension for entrants after 24th December, 1909, £300.

(2.) Or the option, in lieu thereof, of a return of total contributions.

(Note.—The Board may, with the approval of the Minister of Education, retire contributors on pension in the following cases:—

(*a.*) Where the age of a male contributor is not less than 60, or of a female contributor not less than 50.

(*b.*) Where the age of a male contributor is not less than 55, if his length of service is not less than thirty years.

(*c.*) Where the length of service of a male contributor is not less than thirty-five years.

In any such exceptional cases the Board may, with the approval of the Minister of Education, impose upon the retiring contributor such terms and conditions as to payments into the Fund or otherwise as the Board thinks fit.)

II. *On Retirement before Pension Age (on the Grounds of being medically unfit for Future Duty).*

(1.) At any time after fifteen years' service, on the certificate of two doctors approved by the Board, a pension of one-sixtieth of yearly salary for each year's service, limited to forty-sixtieths.

(2.) Or the option, in lieu thereof, of a return of total contributions.

III. *On Retirement before Pension Age (on other Grounds than Medical Unfitness).*

(1.) On voluntary retirement or dismissal for misconduct, a return of total contributions.

IV. *At Death, whether before or after becoming entitled to a Retiring-allowance.*

(1.) Leaving no widow or children: A return of total contributions less any sums received from the Fund during lifetime.

(2.) Leaving a widow:—

(*a.*) £18 yearly during widowhood; or

(*b.*) A return of total contributions, together with such compensation (if any) as the contributor would have been entitled to receive from the Consolidated Fund on compulsory retirement, less any sums received from the Fund during lifetime. (If death occurs before retirement the compensation is paid from the Consolidated Fund; if after retirement from the Superannuation Fund.)

(3.) Leaving children: 5s. weekly to each child until age 14.

(Note.—The contributions and pensions are payable monthly, and the pensions are computed on the average salary for the last three years.)

TABLE II.

STATEMENT OF PROGRESS OF ACTIVE MEMBERSHIP.

Year.	New Members.			Increase by Promotion.		Discontinued.			Total in Force at End of Year.		
	Number.	Salaries.	Annual Contributions.	Salaries.	Annual Contributions.	Number.	Salaries.	Annual Contributions.	Number.	Salaries.	Annual Contributions.
		£	£	£	£		£	£		£	£
1906-7 ..	2,939	444,950	33,652	..	..	127	18,095	1,604	2,812	426,855	32,048
1907-8 ..	*211	34,600	1,860	14,446	914	*141	29,294	1,952	2,882	446,607	32,870
Part 1908	*197	19,083	1,075	14,000	825	*148	25,044	1,713	2,931	454,646	33,057
1909 ..	334	37,327	1,185	41,670	2,975	113	22,403	1,673	3,152	511,240	35,544
1910 ..	287	35,734	1,862	36,466	2,416	192	35,508	2,537	3,247	547,932	37,285
1911 ..	349	40,267	2,234	41,524	1,823	212	33,731	2,378	3,384	595,992	38,964
1912 ..	*427	50,364	2,740	14,616	710	*170	32,183	2,201	3,641	628,789	40,213
1913 ..	645	108,638	6,216	11,249	1,292	269	40,087	2,765	4,017	708,589	44,956
1914 ..	522	61,978	*2,913	41,789	2,541	270	45,471	*2,579	4,269	766,885	47,831
1915 ..	428	55,792	3,096	79,773	4,610	253	42,428	2,742	4,444	860,022	52,795
1916 ..	468	61,114	3,352	48,365	2,863	259	42,795	2,802	4,653	926,706	56,208
Totals..	6,807	949,847	60,185	343,898	20,969	2,154	367,039	24,946	..	..	..

TABLE III.

PARTICULARS OF DISCONTINUANCE OF ACTIVE MEMBERSHIP.

Year.	By Death.†			By Withdrawal or Dismissal.*		By Pensions.							By Transfer to other Funds.†		Total discontinued.*		
						Ordinary (Age or Service).		Extended Provisions.†		Medically unfit.							
	Number.	Amount paid on Retirement.	Family Pension.	Number.	Amount paid on Retirement.	Number.	Pensions entered upon.	Number.	Pensions entered upon.	Number.	Amount paid on Retirement.	Pensions entered upon.	Number.	Amount paid on Transfer.	Number.	Amount paid on Retirement.	Pensions entered upon.
		£	£		£		£		£		£	£		£		£	£
1906-7 ..	13	128	287	30	206	78	4,207	..	..	6	137	312	..	..	127	471	4,806
1907-8 ..	12	296	266	105	938	20	1,182	..	..	4	234	208	..	..	*141	1,468	1,656
Part 1908	10	415	279	120	1,202	9	503	..	..	9	51	491	..	..	*148	1,668	1,273
1909 ..	8	460	215	76	1,338	22	1,825	2	224	4	..	343	1	27	113	1,825	2,607
1910 ..	8	438	127	131	3,078	38	4,099	8	714	6	..	559	1	3	192	3,519	5,499
1911 ..	9	530	189	152	4,184	32	2,816	7	1,271	10	..	630	2	83	212	4,797	4,906
1912 ..	11	895	62	100	3,717	43	3,421	6	725	10	..	946	..	..	*170	4,612	5,154
1913 ..	13	492	290	190	4,587	40	3,903	12	1,510	14	..	1,372	..	..	269	5,079	7,075
1914 ..	16	1,016	106	196	6,388	32	3,348	14	2,172	9	..	784	3	48	270	7,452	6,410
1915 ..	35	2,167	285	169	4,922	28	2,320	9	1,648	8	..	725	4	878	253	7,967	4,978
1916 ..	‡22	1,666	202	‡179	5,185	33	3,861	8	1,147	16	..	1,442	1	212	259	7,063	6,652
Totals ..	157	8,503	2,308	1,448	35,745	375	31,485	66	9,411	96	422	7,812	12	1,251	2,154	45,921	51,016

* Adjusted. † Compiled from cards. ‡ Transfer of withdrawal, 10th October, 1909, to death, 5th December, 1908, adjusted in 1916.

TABLE IV.

Statement of Progress of Pensions.

Year.	Attainment of Pension Age or Length of Service.						Extended Provisions.*						Retired medically unfit.					
	Granted or transferred.		Void by Death.		In Force.		Granted or transferred.		Void by Death.		In Force.		Granted or transferred.		Void by Death or Expiry.		In Force.	
	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.
		£		£		£		£		£		£		£		£		£
1906–7 ..	78	4,207	..	..	78	4,207	..	..	..	..	..	..	6	312	..	..	6	312
1907–8 ..	20	1,182	4	220	94	5,169	..	..	..	..	..	..	4	208	1	52	9	468
Part 1908	9	503	3	156	100	5,516	..	..	..	..	..	..	9	491	1	52	17	907
1909 ..	22	1,825	4	248	118	7,093	2	224	..	..	2	224	4	343	4	237	17	1,013
1910 ..	38	4,099	8	693	148	10,499	8	714	..	..	10	938	6	559	2	164	21	1,408
1911 ..	32	2,816	3	175	177	13,140	7	1,271	..	..	17	2,209	10	630	1	163	30	1,875
1912 ..	43	3,421	3	163	217	16,398	6	725	..	..	23	2,934	10	946	1	52	39	2,769
1913 ..	40	3,903	8	694	249	19,607	12	1,510	..	..	35	4,444	14	1,372	3	260	50	3,881
1914 ..	32	3,348	12	861	269	22,094	14	2,172	..	..	49	6,616	9	784	3	247	56	4,418
1915 ..	28	2,320	9	833	288	23,581	9	1,648	..	..	58	8,264	8	725	3	341	61	4,802
1916 ..	33	3,861	6	570	315	26,872	8	1,147	..	..	66	9,411	16	1,442	3	337	74	5,907
Totals ..	375	31,485	60	4,613	..	..	66	9,411	..	..	..	..	96	7,812	22	1,905	..	..

Year.	Death of Contributor or Pensioner: Family Pension.						Total Pensions.					
	Granted or transferred.		Void by Death or Expiry.		In Force.		Granted or transferred.		Void.		In Force.	
	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.	Number.	Pension.
		£		£		£		£		£		£
1906–7 ..	10	155	..	..	10	155	94	4,674	..	..	94	4,674
1907–8 ..	20	310	3	39	27	426	44	1,700	8	311	130	6,063
Part 1908 ..	26	403	2	31	51	798	44	1,397	6	239	168	7,221
1909	32	476	5	65	78	1,209	60	2,868	13	550	215	9,539
1910	17	269	4	62	91	1,416	69	5,641	14	919	270	14,261
1911	18	279	9	132	100	1,563	67	4,996	13	470	324	18,787
1912	6	93	9	122	97	1,534	65	5,185	13	337	376	23,635
1913	33	489	4	57	126	1,966	99	7,274	15	1,011	460	29,898
1914	19	307	15	210	130	2,063	74	6,611	30	1,318	504	35,191
1915 ..	30	450	12	161	148	2,352	75	5,143	24	1,335	555	38,999
1916	20	300	12	176	156	2,476	77	6,750	21	1,083	611	44,666
Totals ..	231	3,531	75	1,055	..	..	768	52,239	157	7,573	..	..

* Compiled from cards.

TABLE V.

Present Annual Pay and Contributions of Officers now in Service.*

Age attained.	Number.		Present Annual Pay.		Present Annual Contributions.		Age attained.
	Male.	Female.	Male.	Female.	Male.	Female.	
			£	£	£	£	
76	1	..	250	..	25·0	..	76
73	1	..	250	..	25·0	..	73
72	1	..	150	..	15·0	..	72
69	1	..	269	..	26·9	..	69
68	..	1	..	160	..	16·0	68
66	3	..	990	..	99·0	..	66
65	3	1	1,030	240	103·0	24·0	65
64	8	1	2,021	225	202·1	22·5	64
63	13	..	4,225	..	422·5	..	63
62	10	..	3,205	..	320·5	..	62
61	12	..	4,310	..	417·2	..	61
60	13	2	4,336	280	394·2	28·0	60
59	25	2	7,709	425	707·3	38·3	59
58	31	3	10,394	630	939·5	56·7	58
57	27	6	8,696	1,076	790·0	98 0	57
56	30	8	11,487	1,541	1,021·3	137·3	56
55	16	12	5,022	2,350	426·7	199·6	55
54	44	12	12,917	2,010	1,062·2	165·4	54
53	43	24	12,264	4,395	1,000·4	373·4	53
52	42	34	13,682	6,144	1,099·9	502·3	52
51	50	43	14,973	8,795	1,182·1	683·6	51
50	55	44	16,787	8,362	1,216·3	629·4	50
49	42	41	13,428	7,911	962·4	566·1	49
48	47	42	14,045	7,934	998·7	570·5	48
47	48	47	16,062	9,600	1,153·7	688·9	47
46	42	49	13,655	8,719	945·3	619·1	46
45	46	57	13,593	10,632	852·7	664·8	45
44	44	46	12,948	9,118	807·0	567·3	44
43	46	53	12,844	9,295	799·8	586·8	43
42	53	70	15,773	12,558	960·7	777·8	42
41	44	54	13,587	9,464	792·6	582·7	41
40	43	61	11,558	10,735	625·8	573·2	40
39	40	64	11,846	10,778	652·1	577·0	39
38	65	54	17,416	9,271	954·4	506·6	38
37	53	77	15,129	14,138	787·6	762·4	37
36	61	64	15,727	10,417	835·1	560·6	36
35	65	59	15,989	10,160	829·7	525·8	35
34	65	72	16,373	11,410	839·5	596·1	34
33	40	68	9,824	11,389	497·0	580·8	33
32	58	83	14,951	13,251	755·6	674·9	32
31	56	76	13,847	11,912	692·3	596·4	31
30	49	79	10,771	12,575	538·6	628·7	30
29	57	106	13,064	15,555	653·2	777·8	29
28	69	120	15,529	17,507	776·5	875·3	28
27	88	142	18,028	19,877	901·4	993·8	27
26	60	170	11,917	23,623	595·9	1,181·1	26
25	79	183	15,915	24,237	795·7	1,211·9	25
24	55	188	10,135	24,629	506·8	1,231·4	24
23	46	139	7,990	16,946	399·5	847·3	23
22	27	94	3,898	11,242	194·9	562·1	22
21	14	42	998	3,885	49·9	194·2	21
20	9	27	672	1,610	33·6	80·5	20
19	15	20	910	1,105	45·5	55·3	19
18	13	21	665	1,040	33·3	52·0	18
17	4	12	235	585	11·7	29·3	17
16	2	5	107	195	5·4	9·8	16
15	..	1	..	75	..	3·8	15
Totals ..	1,974	2,679	514,396*	410,011*	32,780·0*	23,286·6*	Totals.

* Compiled from cards.

TABLE VI.

CLASSIFICATION OF PENSIONS GRANTED FROM 1ST JANUARY, 1914, TO 31ST DECEMBER, 1916, INCLUSIVE, SHOWING THE AGES AT WHICH THEY WERE GRANTED.

Age at which Pension granted.	* Attainment of Pension Age or Length of Service.				Retired medically unfit.				Widows and Children.		Total.				Age at which Pension granted.
	Number.			Amount of Pension.	Number.			Amount of Pension.	Number.	Amount of Pension.	Number.			Amount of Pension.	
	M.	F.	Total.		M.	F.	Total.				M.	F.	Total.		
				£ s. d.				£ s. d.		£				£ s. d.	
80 ..	1	..	1	180 0 0	..	..	..	..	..	..	1	..	1	180 0 0	80
79 ..	1	..	1	138 7 0	..	..	..	..	..	..	1	..	1	138 7 0	79
78 ..	1	..	1	39 2 0	..	..	..	..	..	..	1	..	1	39 2 0	78
73 ..	..	..	..	..	..	..	..	..	2	36	..	2	2	36 0 0	73
71 ..	1	..	1	40 12 0	..	..	..	..	1	18	1	1	2	58 12 0	71
70 ..	1	..	1	215 4 0	..	..	..	..	1	18	1	1	2	233 4 0	70
69 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	69
68 ..	1	..	1	154 9 0	..	..	..	..	..	..	1	..	1	154 9 0	68
67 ..	2	1	3	524 8 0	..	..	..	..	1	18	2	2	4	542 8 0	67
66 ..	8	..	8	911 5 0	..	..	..	..	..	..	8	..	8	911 5 0	66
65 ..	12	..	12	1,857 10 0	..	..	..	..	..	..	12	..	12	1,857 10 0	65
64 ..	2	..	2	264 11 0	1	..	1	111 13 0	1	18	3	1	4	394 4 0	64
63 ..	1	..	1	122 14 0	..	..	..	..	..	..	1	..	1	122 14 0	63
62 ..	6	..	6	1,313 7 0	3	..	3	285 4 0	..	..	9	..	9	1,598 11 0	62
61 ..	3	2	5	555 19 0	3	..	3	423 2 0	2	36	6	4	10	1,015 1 0	61
60 ..	8	1	9	1,128 0 0	1	..	1	115 9 0	2	36	9	3	12	1,279 9 0	60
59 ..	..	1	1	71 15 0	1	..	1	237 5 0	1	18	1	2	3	327 0 0	59
58 ..	2	3	5	538 0 0	..	..	..	..	..	..	2	3	5	538 0 0	58
57 ..	4	2	6	875 14 0	1	..	1	116 6 0	1	18	5	3	8	1,010 0 0	57
56 ..	3	2	5	773 14 0	1	..	1	177 2 0	2	36	4	4	8	986 16 0	56
55 ..	1	9	10	1,006 8 0	..	..	..	..	3	54	1	12	13	1,060 8 0	55
54 ..	..	3	3	286 19 0	..	..	..	..	..	..	..	3	3	286 19 0	54
53 ..	..	5	5	367 17 0	..	..	..	..	..	..	..	5	5	367 17 0	53
52 ..	..	5	5	327 16 0	1	..	1	124 10 0	1	18	1	6	7	470 6 0	52
51 ..	..	7	7	502 2 0	..	..	..	..	..	..	..	7	7	502 2 0	51
50 ..	..	3	3	265 18 0	1	1	2	181 3 0	..	..	1	4	5	447 1 0	50
49 ..	..	4	4	419 11 0	..	..	..	..	1	18	..	5	5	437 11 0	49
48 ..	..	6	6	548 3 0	..	1	1	54 16 0	..	..	..	7	7	602 19 0	48
47 ..	..	7	7	607 17 0	..	..	..	..	..	..	..	7	7	607 17 0	47
46 ..	..	3	3	297 10 0	1	1	2	166 2 0	1	18	1	5	6	481 12 0	46
45 ..	..	2	2	161 5 0	..	3	3	195 3 0	..	..	..	5	5	356 8 0	45
44 ..	..	..	..	..	..	1	1	85 19 0	1	18	..	2	2	103 19 0	44
43 ..	..	..	..	..	1	3	4	302 2 0	..	..	1	3	4	302 2 0	43
42 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	42
40 ..	..	..	..	..	..	2	2	98 8 0	2	36	..	4	4	134 8 0	40
39 ..	..	..	..	..	..	2	2	100 2 0	..	..	..	2	2	100 2 0	39
36 ..	..	..	..	..	..	2	2	99 18 0	..	..	..	2	2	99 18 0	36
35 ..	..	..	..	..	..	1	1	37 10 0	1	18	..	2	2	55 10 0	35
34 ..	..	..	..	..	..	1	1	36 7 0	..	..	..	1	1	36 7 0	34
32 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	32
30 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	30
28 ..	..	..	..	..	..	..	..	..	2	36	..	2	2	36 0 0	28
26 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	26
21 ..	..	..	..	..	..	..	..	..	1	18	..	1	1	18 0 0	21
14 ..	..	..	..	..	..	..	..	..	2	26			2	26 0 0	14
13 ..	..	..	..	..	..	..	..	..	5	65			5	65 0 0	13
12 ..	..	..	..	..	..	..	..	..	4	52			4	52 0 0	12
11 ..	..	..	..	..	..	..	..	..	4	52			4	52 0 0	11
10 ..	..	..	..	..	..	..	..	..	5	65			5	65 0 0	10
9 ..	..	..	..	..	..	..	..	..	2	26			2	26 0 0	9
8 ..	..	..	..	..	..	..	..	..	3	39	17	20	3	39 0 0	8
6 ..	..	..	..	..	..	..	..	..	2	26			2	26 0 0	6
5 ..	..	..	..	..	..	..	..	..	1	13			1	13 0 0	5
4 ..	..	..	..	..	..	..	..	..	3	39			3	39 0 0	4
3 ..	..	..	..	..	..	..	..	..	1	13			1	13 0 0	3
2 ..	..	..	..	..	..	..	..	..	1	13			1	13 0 0	2
1 ..	..	..	..	..	..	..	..	..	1	13			1	13 0 0	1
0 ..	..	..	..	..	..	..	..	..	3	39			3	39 0 0	0
Totals	58	66	124	14,495 17 0	15	18	33	†2,948 1 0	69	1,057	90	136	226	18,500 18 0	Totals.

* Including pensions granted under section 12 of the Public Service Classification and Superannuation Amendment Act, 1908, as amended by section 11 of the Public Service Classification and Superannuation Amendment Act, 1909:—

Age at which Pension granted.	Number.			Amount of Pension.	Age at which Pension granted.	Number.			Amount of Pension.
	M.	F.	Total.			M.	F.	Total.	
				£ s. d.					£ s. d.
65	2	..	2	225 11 0	Brought forward	20	..	20	3,253 0 0
64	1	..	1	212 11 0	58	2	..	2	221 0 0
63	1	..	1	122 14 0	57	4	..	4	692 2 0
62	6	..	6	1,313 7 0	56	3	..	3	576 10 0
61	3	..	3	512 5 0	55	1	..	1	130 13 0
60	7	..	7	866 12 0	51	..	1	1	93 12 0
Carried forward	20	..	20	3,253 0 0	Totals ..	30	1	31	4,966 17 0

† Compiled from cards.

TABLE VII.

EXPERIENCE TABLE.

RATES PER CENT. PER ANNUM OF WITHDRAWAL, MORTALITY, RETIREMENT, AND INCREASE OF SALARY.

Contributing Members: Males.					Contributing Members: Females.				
Age.	Rate of Withdrawal (Teachers' Superannuation Fund).	Rate of Mortality (Combined New Zealand Superannuation Funds).	Rate of Retirement (Combined New Zealand Superannuation Funds).	Rate of Increase of Salary (Teachers' Superannuation Fund).	Rate of Withdrawal (Teachers' Superannuation Fund).	Rate of Mortality (Assumed).	Rate of Retirement (Combined New Zealand Superannuation Funds).	Rate of Increase of Salary (Teachers' Superannuation Fund).	Age.
15 ..	6·60	0·20	..	1·8	2·40	0·22	..	..	15
16 ..	5·90	0·20	..	2·4	2·60	0·23	..	0·6	16
17 ..	5·35	0·20	..	5·1	2·80	0·24	..	2·0	17
18 ..	4·90	0·20	..	7·8	3·10	0·25	..	7·4	18
19 ..	4·50	0·20	..	17·1	3·60	0·26	..	13·0	19
20 ..	4·10	0·21	..	24·0	4·20	0·27	..	14·4	20
21 ..	3·70	0·21	..	24·0	5·00	0·29	..	14·6	21
22 ..	3·40	0·22	..	25·2	5·70	0·30	..	14·0	22
23 ..	3·12	0·23	..	23·7	6·20	0·31	..	8·6	23
24 ..	2·90	0·24	..	15·0	6·70	0·31	..	6·2	24
25 ..	2·70	0·25	..	11·7	7·00	0·32	..	5·8	25
26 ..	2·52	0·26	..	8·4	7·15	0·32	..	4·8	26
27 ..	2·37	0·27	..	8·4	7·20	0·32	..	4·0	27
28 ..	2·22	0·28	..	7·2	7·10	0·32	..	4·0	28
29 ..	2·10	0·29	..	6·3	6·90	0·32	..	3·2	29
30 ..	2·00	0·30	..	5·7	6·70	0·32	..	3·4	30
31 ..	1·90	0·32	..	4·8	6·40	0·32	..	2·6	31
32 ..	1·80	0·34	..	5 1	6·20	0·32	..	2·4	32
33 ..	1·70	0·36	..	5·1	5·80	0·32	0·25	2·4	33
34 ..	1·60	0·38	0·18	4·8	5·50	0·32	0·25	2·2	34
35 ..	1·53	0·40	0·20	4·5	5·10	0·33	0·25	2·0	35
36 ..	1·47	0·42	0·20	5·4	4·70	0·33	0·25	1·8	36
37 ..	1·40	0·44	0·20	5·1	4·20	0·33	0·25	2·0	37
38 ..	1·35	0·46	0·21	4·5	3·70	0·33	0·30	2·2	38
39 ..	1·30	0·49	0·22	5·1	3·10	0·34	0·40	1·8	39
40 ..	1·23	0·52	0·23	5·1	2·60	0·34	0·50	2·0	40
41 ..	1·20	0·53	0·24	4·8	2·20	0·36	0·60	1·8	41
42 ..	1·14	0·54	0·25	4·2	1·90	0·38	0·70	2·0	42
43 ..	1·11	0·55	0·26	3·9	1·60	0·40	0·88	2·0	43
44 ..	1·08	0·57	0·27	3·6	1·30	0·44	1·08	1·8	44
45 ..	1·04	0·59	0·28	2·4	0·95	0·48	1·38	1·4	45
46 ..	1·02	0·60	0·29	2·1	0·52	0·52	1·83	1·0	46
47 ..	1·00	0·63	0·30	1·8	..	0·57	2·58	0·4	47
48 ..	1·00	0·67	0·41	1·8	..	0·63	3·63	0·2	48
49 ..	0·98	0·70	0·53	1·2	..	0·69	4·63		49
50 ..	0·96	0·73	0·68	0·6	..	0·76	5·90	..	50
51 ..	0·92	0·78	0·88	0·6	..	0·83	7·43	..	51
52 ..	0·87	0·82	1·12	0·3	..	0·90	9·25	..	52
53 ..	0·82	0·86	1·37	0·6	..	0·98	11·88	..	53
54 ..	0·74	0·92	1·69	..	..	1·07	14·63	..	54
55 ..	0·66	0·98	2·07	..	..	1·15	17·38	..	55
56 ..	0·57	1·05	2·52	..	..	1·25	19·88	..	56
57 ..	0·46	1·15	3·05	..	..	1·34	21·30	..	57
58 ..	0·32	1·25	3·74	..	..	1·45	22·50	..	58
59 ..	0·20	1·37	4·57	..	..	1·56	25·00	..	59
60 ..	..	1·52	5·81	..	..	..	..	..	..
61 ..	..	1·69	7·91	..	..	..	..	..	..
62 ..	..	1·88	13·00	..	..	..	..	..	..
63 ..	..	2·12	21·20	..	..	..	..	..	..
64 ..	..	2·40	29·50	..	..	..	..	..	..

TABLE VIII.

LIFE AND SERVICE TABLE.

BASED UPON THE RATES PER CENT. PER ANNUM OF WITHDRAWAL, MORTALITY, AND RETIREMENT GIVEN IN TABLE VII.

Males.						Females.					
Age.	Existing in Service.	With-drawals.	Deaths.	Retire-ments.	Average Salary.	Existing in Service.	With-drawals.	Deaths.	Retire-ments.	Average Salary.	Age.
					£					£	
15 ..	100,000	6,599	200	..	46·8	100,000	2,400	220	..	52·0	15
16 ..	93,201	5,498	186	..	48·6	97,380	2,532	224	..	52·0	16
17 ..	87,517	4,683	175	..	51·0	94,624	2,650	227	..	52·6	17
18 ..	82,659	4,050	165	..	56·1	91,747	2,844	230	..	54·6	18
19 ..	78,444	3,530	157	..	63·9	88,673	3,193	231	..	62·0	19
20 ..	74,757	3,065	157	..	81·0	85,249	3,580	230	..	75·0	20
21 ..	71,535	2,647	150	..	105·0	81,439	4,072	236	..	89·4	21
22 ..	68,738	2,336	151	..	129·0	77,131	4,396	231	..	104·0	22
23 ..	66,251	2,067	153	..	154·2	72,504	4,496	224	..	118·0	23
24 ..	64,031	1,857	154	..	177·9	67,784	4,541	211	..	126·6	24
25 ..	62,020	1,674	155	..	192·9	63,032	4,412	199	..	132·8	25
26 ..	60,191	1,517	156	..	204·6	58,421	4,177	185	..	138·6	26
27 ..	58,518	1,387	158	..	213·0	54,059	3,893	171	..	143·4	27
28 ..	56,973	1,265	160	..	221·4	49,995	3,549	159	..	147·4	28
29 ..	55,548	1,167	161	..	228·6	46,287	3,194	147	..	151·4	29
30 ..	54,220	1,085	163	..	234·9	42,946	2,878	137	..	154·6	30
31 ..	52,972	1,007	169	..	240·6	39,931	2,556	128	..	158·0	31
32 ..	51,796	932	175	..	245·4	37,247	2,309	120	..	160·6	32
33 ..	50,689	862	183	..	250·5	34,818	2,019	113	87	163·0	33
34 ..	49,644	794	189	89	255·6	32,599	1,793	106	81	165·4	34
35 ..	48,572	743	194	97	260·4	30,619	1,562	99	76	167·6	35
36 ..	47,538	699	199	95	264·9	28,882	1,358	94	72	169·6	36
37 ..	46,545	652	205	93	270·3	27,358	1,149	90	68	171·4	37
38 ..	45,595	615	209	96	275·4	26,051	964	86	78	173·4	38
39 ..	44,675	581	219	99	279·9	24,923	773	83	100	175·6	39
40 ..	43,776	538	228	101	285·0	23,967	623	82	120	177·4	40
41 ..	42,909	515	227	103	290·1	23,142	509	83	139	179·4	41
42 ..	42,064	480	227	105	294·9	22,411	426	84	157	181·2	42
43 ..	41,252	458	227	107	299·1	21,744	348	88	191	183·2	43
44 ..	40,460	437	230	109	303·0	21,117	275	92	228	185·2	44
45 ..	39,684	414	234	111	306·6	20,522	195	97	283	187·0	45
46 ..	38,925	397	234	113	309·0	19,947	104	104	365	188·4	46
47 ..	38,181	382	240	114	311·1	19,374	..	112	500	189·4	47
48 ..	37,445	374	251	154	312·9	18,762	..	118	681	189·8	48
49 ..	36,666	360	257	194	314·7	17,963	..	124	832	190·0	49
50 ..	35,855	344	262	244	315·9	17,007	..	129	1,003	190·0	50
51 ..	35,005	322	273	308	316·5	15,875	..	131	1,180	190·0	51
52 ..	34,102	297	279	382	317·1	14,564	..	132	1,347	190·0	52
53 ..	33,144	272	285	454	317·4	13,085	..	128	1,554	190·0	53
54 ..	32,133	238	296	543	318·0	11,403	..	122	1,668	190·0	54
55 ..	31,056	205	304	643	318·0	9,613	..	111	1,671	190·0	55
56 ..	29,904	170	314	754	318·0	7,831	..	97	1,557	190·0	56
57 ..	28,666	132	329	874	318·0	6,177	..	83	1,315	190·0	57
58 ..	27,331	88	342	1,022	318·0	4,779	..	69	1,076	190·0	58
59 ..	25,879	52	354	1,183	318·0	3,634	..	57	908	190·0	59
60 ..	24,290	..	369	1,411	318·0	2,669	..	..	2,669	190·0	60
61 ..	22,510	..	380	1,781	318·0	..	..	..	..	..	..
62 ..	20,349	..	383	2,645	318·0	..	..	..	..	..	..
63 ..	17,321	..	367	3,672	318·0	..	..	..	..	..	..
64 ..	13,282	..	319	3,918	318·0	..	..	..	..	..	..
65 ..	9,045	..	..	9,045	318·0	..	..	..	..	..	..

TABLE IX.

SUMMARY OF TEACHERS' SUPERANNUATION RESULTS.

VALUATION BALANCE-SHEET AS AT 31ST DECEMBER, 1916.

Liabilities.

	£	£
MALES—		
Value of 223 pensions for £25,132 6s. per annum already granted	208,439	
„ 87 pensions for £1,579 3s. per annum granted to widows of contributors or pensioners	16,727	
„ 69 pensions for £897 per annum granted to children of deceased contributors or pensioners	3,432	
„ prospective pensions for back service	710,102	
„ „ for future service	421,482	
„ „ to widows	100,042	
„ „ to children	15,726	
„ return of contributions on death	7,799	
„ „ on withdrawal	44,924	
		1,528,673
FEMALES—		
Value of 232 pensions for £17,057 8s. per annum already granted	208,225	
„ prospective pensions for back service	544,102	
„ „ for future service	433,033	
„ „ for children	2,998	
„ return of contributions on death	17,290	
„ „ on withdrawal	52,051	
		1,257,699
		£2,786,372

Assets.

	£
Accumulated funds	381,158
Value of future contributions from males	382,703
„ „ from females	220,695
„ subsidy of £17,000 per annum	425,000
„ future increases in subsidy to be provided	1,376,816
	£2,786,372

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