

1922.
NEW ZEALAND.

TEACHERS' SUPERANNUATION FUND.

ACTUARIAL EXAMINATION FOR THE TRIENNIAL PERIOD ENDED 31st DECEMBER, 1919.

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, 1919.

Wellington, 25th January, 1922.

1. I HAVE the honour to submit the following report on the Teachers' Superannuation Fund as at the 31st December, 1919, 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, but the scheme was recast and brought more into line with the Public Service and Railways Funds by the Public Service Classification and Superannuation Amendment Act, 1908, which, on the whole, confers more generous benefits. A few original members (viz., 68) are, however, by election still subject to the older rates of benefit.

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 III 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 IV, and the pensions granted during the triennium, with the ages at which they were granted, in Table V.

7. The number of pensioners on the fund at the 31st December, 1919, according to the cards supplied, was 785, drawing pensions amounting to £63,404 per annum. The number of contributors at the same date was 5,016, with aggregate salaries amounting to £1,265,772 and paying contributions at the rate of £74,316 per annum.

8. The income and outgo of the fund during the three years ended 31st December, 1919, were as follows :—

CONSOLIDATED REVENUE ACCOUNT OF THE TEACHERS' SUPERANNUATION FUND FROM THE 1ST JANUARY, 1917, TO THE 31ST DECEMBER, 1919.									
<i>Income.</i>				<i>Outgo.</i>					
		£	s. d.			£	s. d.		
Funds at 1st January, 1917 ..	..	381,158	1 6	Retiring-allowances ..	..	150,965	15 2		
Members' contributions ..	..	190,527	3 4	Contributions refunded ..	..	36,561	5 5		
Government subsidy ..	..	77,000	0 0	Transfers to other funds ..	..	295	8 8		
Interest ..	..	67,851	19 5	Commission ..	..	1,243	0 11		
Transfers from other funds ..	..	595	19 3	Other payments ..	..	1,366	1 6		
				Funds at 31st December, 1919 ..	..	526,701	11 10		
		<u>£717,133</u>	<u>3 6</u>			<u>£717,133</u>	<u>3 6</u>		

VALUATION.

9. In making the valuation it has been assumed that interest at 4 per cent. per annum will be earned on the funds during the whole future lifetime of members ; that certain proportions of members will withdraw, die, and retire ; and that salaries and the corresponding contributions will increase at certain rates. These and other factors are more specifically set out in the Appendix. In regard to the interest, the rates earned during the triennium were as follows :—

					£	s.	d.	
1917 .. .. .	..	..	..	..	4	12	4	per cent.
1918 .. .. .	..	..	..	..	5	3	3	per cent.
1919 .. .. .	..	..	..	..	5	8	5	per cent.

While it is possible that higher rates may continue to be earned, it is hardly safe to allow more than 4 per cent. for the very long period of time covered by a pension fund.

10. The result of the valuation shortly is as follows :—

					£
Present value of the liability for benefits .. .. .	..	..	..	..	4,122,989
Present value of the contributions receivable from members ..	..	783,111			
Funds in hand .. .. .	..	526,702			
					<u>1,309,813</u>
Present value of total liability of State .. .. .	..	..	..	..	2,813,176
Less present value of existing subsidy of £43,000 per annum ..	..	..	..	..	1,075,000
Value of future subsidies to be provided by the State over and above present subsidy of £43,000 per annum .. .. .	..	..	..	..	<u>£1,738,176</u>

11. This shows a total State liability of £2,813,176, as against £1,801,816 at the last valuation. The augmentation is accounted for by the increase in the number of contributors from 4,653 to 5,016, the salaries from £926,706 to £1,265,772, the pensions from £44,666 to £63,404, and other factors. It may be pointed out, by the way, that unless the subsidy is fixed above a certain minimum figure the liability of the State will normally tend to increase, apart from the growth of the membership.

12. 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."

The contributions are insufficient to provide the full benefits for service after joining the fund, and consequently it is assumed that the principle underlying the section is that the State should pay for pensions arising out of service before joining the fund and for such part of the pensions arising out of subsequent service as is not covered by the contributors' contributions. The sum payable for pensions, the amounts purchased by contributions, and the subsidies payable on this basis during the three years 1920, 1921, and 1922 are as follows :—

Required for				1920.	1921.	1922.
				£	£	£
Current pensions to members .. .. .	..	..	..	57,969	55,960	53,946
New pensions and family pensions .. .. .	..	..	..	8,631	19,011	30,248
Total pensions .. .. .	..	..	..	66,600	74,971	84,194
Deduct amount provided by contributions .. .. .	..	..	..	12,937	15,455	18,347
Subsidy required .. .. .	..	..	..	53,663	59,516	65,847

13. These figures would give for the years 1920, 1921, and 1922 an average subsidy of, say, £60,000 per annum, or £17,000 more than is now being paid. Consideration must, however, be given to the fact that the subsidies actuarially required have not been fully paid. The shortage in payments as compared with actuarial recommendations made in accordance with the Act amount to £132,000, including certain sums required in respect of the period before the first valuation. When accumulated at interest to the middle of 1922 these arrears amount to £175,000, and, of course, provision must in some way be made to meet this. At the very least about £8,000 per annum must be added to future subsidies on this account. Details of the short payments are set out in the Appendix (Table VIII). I have therefore to report that the subsidy required for the years 1920, 1921, and 1922 is £68,000 per annum, or £25,000 more than is now being paid. When making provision for this it is important to see that it is back-dated to 1920, and that interest at 4 per cent. per annum is added to any portion paid late.

GENERAL.

14. The change in the method of investing the funds has produced a marked improvement in the rate of interest earned, which is now about $1\frac{1}{2}$ per cent. above the valuation rate. Any interest earned above the valuation rate will, of course, form an unanticipated profit, of which the fund will get the benefit as it falls in.

15. In my report upon the Public Service Fund I have drawn attention to the need which exists of placing the subsidies to these superannuation funds upon a more automatic and satisfactory basis, and have pointed out the advantages to the State of maintaining sound funds. I need hardly recapitulate the remarks here. I may, however, mention that up to the end of 1919 the subsidies of the State to the Teachers' Superannuation Fund amounted to £178,000 only, as against contributions of over £646,000 by the members themselves. Taking this in conjunction with the statement of American authorities that the development of pension schemes generally tends towards an equal division of cost between employer and employed, it will be realized that the State has, up to the present, fallen far short of this standard.

PERCY MUTER, F.I.A.,
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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 68) 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 the 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 the 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
1917 ..	398	52,722	2,899	36,262	2,107	259	45,676	2,800	4,792	970,014	58,414
1918 ..	420	52,061	2,786	23,605	1,384	318	56,119	3,385	4,894	989,561	59,199
1919 ..	533	80,160	4,059	241,322	14,068	408	80,897	5,154	5,019	1,230,146	72,172
Totals	8,158	1,134,790	69,929	645,087	38,528	3,139	549,731	36,285	..	..	..

PARTICULARS OF DISCONTINUANCE OF ACTIVE MEMBERSHIP.

Year.	By Death.*			By Withdrawal or Dismissal.		By Retirement on Pension.						By transfer to other funds.*		Total discontinued.		
	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.	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	113	1,825	2,607
1910 ..	8	438	127	131	3,078	38	4,099	8	714	6	..	559	1	192	3,519	5,499
1911 ..	9	530	189	152	4,184	32	2,816	7	1,271	10	..	630	2	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	270	7,452	6,410
1915 ..	35	2,167	285	169	4,922	28	2,320	9	1,648	8	..	725	4	253	7,967	4,978
1916 ..	22	1,666	202	179	5,185	33	3,861	8	1,147	16	..	1,442	1	259	7,063	6,652
1917 ..	43	2,749	217	172	6,010	27	3,060	4	544	10	..	1,118	3	259	8,846	4,939
1918 ..	67	5,567	785	222	7,710	20	2,550	3	426	5	..	704	1	318	13,304	4,465
1919 ..	19	2,750	372	292	12,386	73	10,534	4	406	18	..	2,550	2	408	15,317	13,862
Totals ..	286	19,569	3,682	2,134	61,851	495	47,629	77	10,787	129	422	12,184	18	3,139	83,388	74,282

* Compiled from cards.

TABLE III.
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
1917 ..	27	3,060	18	1,388	324	28,544	4	544	2	254†	68	9,701	10	†1,118	5	393	79	6,632
1918 ..	20	2,550	8	610	336	30,484	3	426	..	..	71	10,127	5	†704	3	211	81	7,125
1919 ..	73	10,534†	9	525	400	40,493	4	406	..	..	75	10,533	18	2,550	5	646	94	9,029
Totals..	495	47,629	95	7,136	..	..	77	10,787	2	254	..	..	129	12,184	35	3,155	..	..

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.	
	Num-ber.	Pension.	Num-ber.	Pension.	Num-ber.	Pension.	Num-ber.	Pension.	Num-ber.	Pension.	Num-ber.	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
1917 ..	21	333	14	207	163	2,602	62	5,055†	39	2,242	634	47,479
1918 ..	61	893	14	197	210	3,298	89	4,573†	25	1,018	698	51,034
1919 ..	24	372	17	251	217	3,419	119	13,862	31	1,422	786	63,474
Totals ..	337	5,129	120	1,710	..	..	1,038	75,729	252	12,255	..	..

* Compiled from cards. † Adjusted to agree with annual reports.

TABLE IV.
PRESENT ANNUAL PAY AND CONTRIBUTIONS OF OFFICERS NOW IN SERVICE.

Age attained.	Number.		Present Annual Pay.				Present Annual Contributions.		Age attained.
	Males.	Females.	Males.		Females.		Males.	Females.	
			Total Salaries.	Average Salary graduated.	Total Salaries.	Average Salary graduated.			
			£	£	£	£	£	£	
15 ..	1	..	70	72.3	..	..	3.5	..	15
16 ..	2	2	179	73.4	120	59.5	9.0	6.0	16
17 ..	8	10	534	77.2	675	63.1	26.7	33.7	17
18 ..	11	24	960	84.8	1,702	69.4	48.0	85.1	18
19 ..	20	33	1,723	96.2	2,490	80.5	86.1	124.5	19
20 ..	12	43	1,241	115.4	3,353	98.0	62.1	167.7	20
21 ..	22	52	2,950	136.2	5,611	117.2	147.5	280.5	21
22 ..	29	117	5,180	160.4	18,765	137.5	259.0	938.3	22
23 ..	27	162	4,905	184.2	26,867	157.1	245.2	1,343.3	23
24 ..	38	191	8,035	207.2	33,494	173.0	401.8	1,674.7	24
25 ..	47	200	10,415	225.2	36,371	182.4	520.8	1,818.5	25
26 ..	56	175	13,845	243.3	33,225	189.8	692.3	1,661.3	26
27 ..	61	169	15,514	256.7	32,269	195.5	775.7	1,613.4	27
28 ..	69	149	18,735	268.8	29,639	200.0	936.7	1,482.0	28
29 ..	60	144	16,770	279.2	29,186	204.0	838.5	1,459.3	29
30 ..	72	106	20,680	289.1	21,580	208.0	1,034.0	1,079.0	30
31 ..	66	99	19,893	296.5	20,905	211.8	996.0	1,049.4	31
32 ..	54	87	16,260	306.0	19,310	215.2	822.6	982.8	32
33 ..	52	75	15,360	313.0	16,951	218.5	782.9	859.9	33
34 ..	52	71	17,568	319.8	14,959	221.8	898.9	763.4	34
35 ..	64	76	21,050	323.9	17,355	225.1	1,079.4	897.7	35
36 ..	42	64	14,040	327.9	15,010	227.9	731.5	774.2	36
37 ..	66	60	21,465	332.0	13,193	230.4	1,122.9	703.7	37
38 ..	65	59	20,589	336.0	13,998	232.8	1,094.8	769.3	38
39 ..	61	59	20,573	339.8	13,696	235.2	1,099.4	748.9	39
40 ..	56	73	19,968	343.6	17,710	237.6	1,047.0	980.4	40
41 ..	60	55	19,568	347.4	12,748	240.4	1,068.9	711.4	41
42 ..	42	58	15,707	351.2	14,760	243.4	881.9	807.6	42
43 ..	43	57	15,135	355.2	14,236	246.4	850.3	763.3	43
44 ..	47	52	16,720	359.2	12,545	249.4	1,000.3	784.1	44
45 ..	48	70	18,194	363.4	17,395	252.4	1,121.9	1,083.7	45
46 ..	47	51	16,215	368.1	12,895	255.2	1,023.3	820.1	46
47 ..	43	44	16,015	372.8	11,770	258.0	1,007.6	751.9	47
48 ..	46	53	17,097	376.8	13,855	260.0	1,072.0	869.9	48
49 ..	43	40	17,619	380.0	10,479	261.2	1,259.8	738.5	49
50 ..	44	36	18,480	383.2	9,798	262.0	1,331.2	704.9	50
51 ..	47	34	17,893	386.0	8,815	262.0	1,289.7	638.9	51
52 ..	39	30	15,160	388.8	7,735	262.0	1,087.9	566.2	52
53 ..	50	37	18,845	390.8	9,765	262.0	1,366.8	737.4	53
54 ..	47	31	17,180	392.8	9,130	262.0	1,355.3	713.0	54
55 ..	39	22	15,584	394.8	5,729	262.0	1,259.8	472.6	55
56 ..	35	14	13,249	396.8	3,265	262.0	1,080.1	284.5	56
57 ..	35	8	13,040	398.0	1,975	262.0	1,080.6	163.6	57
58 ..	13	5	5,380	399.2	1,315	262.0	460.3	111.7	58
59 ..	21	3	10,045	400.0	780	262.0	96.3	70.2	59
60 ..	23	4	8,739	400.0	1,015	262.0	792.5	91.4	60
61 ..	30	1	12,160	400.0	270	..	1,103.6	24.3	61
62 ..	20	1	7,652	400.0	280	..	700.9	25.2	62
63 ..	9	1	3,215	460.0	205	..	292.9	20.5	63
64 ..	8	..	3,595	400.0	..	..	352.4	..	64
65 ..	9	..	3,419	400.0	..	..	341.9	..	65
66 ..	2	..	525	..	..	..	52.5	..	66
67 ..	3	..	550	..	..	..	55.0	..	67
69 ..	3	..	1,095	..	..	..	109.5	..	69
Totals..	2,009	3,007	646,578	..	619,194	..	40,064.3	34,251.9	Totals.

TABLE V.

CLASSIFICATION OF PENSIONS GRANTED DURING THE PERIOD FROM 1ST JANUARY, 1917, TO 31ST DECEMBER, 1919, 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.										
	M.	F.	Total.		M.	F.		Total.	M.	F.			Total.								
				£	s.	d.		£	s.	d.		£	s.	d.							
80 ..	..	..	..	..	..	..	..	1	18	..	1	1	18	0	0	80	
77 ..	1	..	1	53	19	0	..	..	..	1	..	1	53	19	0	77		
76 ..	1	..	1	162	18	0	..	1	18	1	1	2	180	18	0	76					
74 ..	..	..	..	..	..	..	..	1	18	..	1	1	18	0	0	74	
71 ..	..	..	..	..	..	..	..	3	54	..	3	3	54	0	0	71	
70 ..	..	1	1	115	14	0	..	..	..	..	1	1	115	14	0	70	
69 ..	1	..	1	170	12	0	..	2	36	1	2	3	206	12	0	69					
67 ..	..	1	1	52	0	0	..	2	36	..	3	3	88	0	0	67				
66 ..	6	..	6	1,307	12	0	..	..	..	6	..	6	1,307	12	0	66		
65 ..	11	1	12	2,330	9	0	..	..	..	11	1	12	2,330	9	0	65		
64 ..	1	..	1	140	3	0	..	..	..	1	..	1	140	3	0	64		
63 ..	1	1	2	76	18	0	2	591	6	0	3	1	4	668	4	0	63				
62 ..	1	1	2	354	18	0	3	471	8	0	4	1	5	826	6	0	62				
61 ..	..	..	..	..	..	..	1	128	15	0	1	1	2	146	15	0	61
60 ..	2	3	5	845	11	0	..	..	..	..	2	3	5	845	11	0	60
59 ..	..	3	3	364	1	0	..	2	36	..	5	5	400	1	0	59				
58 ..	1	2	3	348	17	0	2	284	15	0	3	2	5	633	12	0	58				
57 ..	5	5	10	1,492	7	0	1	224	5	0	6	5	11	1,716	12	0	57				
56 ..	5	4	9	1,508	3	0	4	424	0	0	1	18	9	1,950	3	0	56				
55 ..	2	12	14	1,658	10	0	2	263	16	0	3	54	4	15	1,976	6	0	55			
54	6	6	798	19	0	1	184	9	0	2	36	1	8	1,019	8	0	54			
53	4	4	272	10	0	1	120	7	0	1	4	392	17	0	53			
52 ..	1	8	9	1,139	8	0	2	638	14	0	3	10	13	1,778	2	0	52				
51 ..	..	10	10	1,049	7	0	1	144	13	0	..	1	10	1,194	0	0	51			
50 ..	..	10	10	1,222	11	0	1	138	1	0	..	1	10	1,360	12	0	50			
49 ..	..	3	3	313	8	0	..	..	..	..	..	3	3	313	8	0	49
48	6	6	681	8	0	..	85	16	0	2	36	..	9	803	4	0	48			
47 ..	..	7	7	692	2	0	..	..	..	..	..	7	7	692	2	0	47
46 ..	..	2	2	190	9	0	..	..	..	..	..	2	2	190	9	0	46
45 ..	..	2	2	192	3	0	..	..	..	..	..	2	2	192	3	0	45
44	105	10	0	1	18	..	2	123	10	0	44			
43	2	203	3	0	1	18	2	1	221	3	0	43			
42	60	8	0	2	36	..	3	96	8	0	42			
41	1	18	..	1	18	0	0	41			
40	94	18	0	1	18	..	2	112	18	0	40			
38	57	7	0	1	57	7	0	38			
35	93	19	0	2	36	..	4	129	19	0	35			
34	49	10	0	1	18	..	2	67	10	0	34			
32	1	18	..	1	18	0	0	32			
31	1	18	..	1	18	0	0	31			
30 ..	..	..	..	..	..	..	..	3	54	..	3	3	3	54	0	0	30
29 ..	..	..	..	..	..	..	..	2	36	..	2	2	2	36	0	0	29
28 ..	..	..	..	..	..	..	..	1	18	..	1	1	1	18	0	0	28
27 ..	..	..	..	..	..	..	..	1	18	..	1	1	1	18	0	0	27
24 ..	..	..	..	..	..	..	..	4	72	..	4	4	4	72	0	0	24
23 ..	..	..	..	..	..	..	..	1	18	..	1	1	1	18	0	0	23
13 ..	..	..	..	..	..	..	..	4	52	31	31	4	4	52	0	0	13
12 ..	..	..	..	..	..	..	..	4	52			4	4	52	0	0	12
11 ..	..	..	..	..	..	..	..	2	26			2	2	26	0	0	11
10 ..	..	..	..	..	..	..	..	2	26			2	2	26	0	0	10
9 ..	..	..	..	..	..	..	..	2	26			2	2	26	0	0	9
8 ..	..	..	..	..	..	..	..	4	52			4	4	52	0	0	8
7 ..	..	..	..	..	..	..	..	8	104			8	8	104	0	0	7
6 ..	..	..	..	..	..	..	..	3	39			3	3	39	0	0	6
5 ..	..	..	..	..	..	..	..	5	65			5	5	65	0	0	5
4 ..	..	..	..	..	..	..	..	3	39			3	3	39	0	0	4
3 ..	..	..	..	..	..	..	..	7	91			7	7	91	0	0	3
2 ..	..	..	..	..	..	..	..	4	52			4	4	52	0	0	2
1 ..	..	..	..	..	..	..	..	8	104			8	8	104	0	0	1
0 ..	..	..	..	..	..	..	..	6	78			6	6	78	0	0	0
Totals	39	92	131	17,534	17	0	23	10	33	4,365	0	0	106	1,598	93	177	270	23,497	17	0	Totals.

TABLE VI.

STATEMENT OF THE BASIS UPON WHICH THE VALUATION HAS BEEN MADE.

(1.) The proportions of contributors withdrawing, dying, and retiring at each age were the same as those used in the last valuation—viz., withdrawals were taken according to the experience of the fund to the 31st December, 1913, the retirements, and, in the case of males, the deaths, according to the experience of the combined New Zealand superannuation funds to the same date. The female mortality was taken according to special rates. Owing to the disturbing effect of the war it would have been misleading to have used factors derived from later years.

(2.) Salaries of contributors were taken as at the 31st December, 1919, and scales of average salaries were constructed for males and females. These scales of salary were not themselves assumed in making the valuation, but the ratios of increase derived therefrom were applied to the actual salary of each contributor at the 31st December, 1919.

(3.) The mortality of male pensioners was taken according to the experience of the Public Service, Teachers', and Railways Superannuation Funds combined, up to 1919. That of female pensioners was taken on the same basis as in the Public Service Superannuation Fund valuation—viz., according to a specially constructed table giving rates somewhat below those of the New Zealand female population.

(4.) Widows' and children's benefits were valued on the same basis as before—namely, New Zealand population statistics combined with Farr's Healthy English Females mortality.

(5.) The experience table, giving the actual rates of withdrawal, death, and retirement, and the Life and Service Table based thereupon are omitted from the Appendix on this occasion. The information will be found in Tables VII and VIII of the 1916 valuation report, but the columns therein relating to salary are, of course, not applicable to the present valuation.

TABLE VII.

SUMMARY OF TEACHERS' SUPERANNUATION RESULTS.

VALUATION BALANCE-SHEET AS AT THE 31ST DECEMBER, 1919.

		<i>Liabilities.</i>	
		£	£
MALES—			
Value of 251 pensions for £33,145 8s. per annum already granted ..		289,172	
„ 117 pensions for £2,119 3s. per annum granted to widows of contributors or pensioners		21,916	
„ 100 pensions for £1,300 per annum granted to children of deceased contributors or pensioners		6,052	
„ prospective pensions for back service		1,041,567	
„ „ for future service		567,134	
„ „ to widows		99,381	
„ „ to children		15,162	
„ return of contributions on death		9,462	
„ „ on withdrawal		52,516	
			2,102,362
FEMALES—			
Value of 317 pensions for £26,839 10s. per annum already granted ..		345,409	
„ prospective pensions for back service		863,817	
„ „ for future service		704,438	
„ „ for children		9,911	
„ return of contributions on death		19,822	
„ „ on withdrawal		77,230	
			2,020,627
			£4,122,989
		<i>Assets.</i>	
		£	£
Accumulated funds		526,702	
Value of future contributions from males		456,514	
„ contributions from females		326,597	
„ subsidy of £43,000 per annum		1,075,000	
„ increases in subsidy to be provided		1,738,176	
			£4,122,989

TABLE VIII.

STATEMENT SHOWING SUBSIDIES PAID AS COMPARED WITH SUBSIDIES REQUIRED UNDER THE SYSTEM INDICATED IN THE ACT.

Year ended	Subsidy required.	Subsidy received.	Shortage.	Shortage accumulated at 4 per Cent. to 1922.
	£	£	£	£
31st March, 1906 ..	Nil	5,000	-(5,000)	-(9,365)
31st March, 1907 ..	2,000 (say)	..	2,000	3,602
31st March, 1908 ..	5,000 „	..	5,000	17,317
31st December, 1908 ..	5,000 „	..	5,000	..
31st December, 1909 ..	8,000 „	7,000	1,000	1,665
31st December, 1910 ..	11,000 „	7,000	4,000	6,404
31st December, 1911 ..	17,000	7,000	10,000	15,395
31st December, 1912 ..	17,000	7,000	10,000	14,802
31st December, 1913 ..	17,000	17,000	Nil	..
31st December, 1914 ..	33,000	17,000	16,000	21,897
31st December, 1915 ..	33,000	17,000	16,000	21,055
31st December, 1916 ..	33,000	17,000	16,000	20,245
31st December, 1917 ..	43,000	17,000	26,000	31,633
31st December, 1918 ..	43,000	17,000	26,000	30,416
31st December, 1919 ..	43,000	43,000	Nil	..
Totals	310,000	178,000	132,000	175,066

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