

1927.  
NEW ZEALAND.

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# TEACHERS' SUPERANNUATION FUND.

ACTUARIAL EXAMINATION FOR THE PERIOD COMMENCING 1st JANUARY, 1920, AND ENDING  
31st JANUARY, 1924.

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

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## REPORT.

BY THE ACTUARY APPOINTED BY HIS EXCELLENCY THE GOVERNOR-GENERAL TO MAKE THE ACTUARIAL EXAMINATION OF THE TEACHERS' SUPERANNUATION FUND FOR THE ABOVE-  
STATED PERIOD ENDING 31st JANUARY, 1924.

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Wellington, 6th October, 1927.

1. I HAVE the honour to submit the following report on the Teachers' Superannuation Fund as at the 31st January, 1924, required by section 38 of the Public Service Classification and Superannuation Amendment Act, 1908, as amended by section 54 of the Finance Act, 1922.

2. The fund was originally constituted under the Teachers' Superannuation Act, 1905, but has subsequently been varied by the Public Service Classification and Superannuation Amendment Acts, 1908 and 1912.

3. All persons automatically 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.

“ 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.

4. The contributions and benefits provided by the Act, together with statements showing the progress of active membership, discontinuance of membership from various causes, the progress of pensions for each year, and the pensions granted since the previous valuation date, with the ages at which they were granted, 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.

5. In addition to the statutory benefits above mentioned, the pensions payable to retired teachers in necessitous circumstances and to all widows and children of deceased members have been increased during the valuation period by a cost-of-living bonus from year to year, and as from the 1st April, 1925, the latter classes of additional allowances have been made permanent at the rate of £13 per annum in respect of the widow and of each child. These bonuses are provided for out of the Consolidated Fund, and, as they are not a charge on the Superannuation Fund, they have accordingly not been taken into account in making the valuation.

6. The number of pensioners on the fund at the 31st January, 1924, according to the cards supplied, was 1,078, drawing pensions amounting to £118,508 per annum. The number of contributors in active service at the 1st February, 1924, was 6,852, with aggregate salaries amounting to £1,855,500 per annum, and paying contributions at the rate of £104,141 per annum. The average rate of interest credited to the fund during the valuation period was £5 16s. per cent. per annum.

7. The income and outgo of the fund since the previous valuation were as follows :—

CONSOLIDATED REVENUE ACCOUNT OF THE TEACHERS' SUPERANNUATION FUND FROM THE  
1ST JANUARY, 1920, TO THE 31ST JANUARY, 1924.

<i>Income.</i>			<i>Outgo.</i>		
	£	s. d.		£	s. d.
Funds at 1st January, 1920 ..	526,701	11 10	Retiring-allowances ..	353,896	13 5
Members' contributions ..	385,441	8 6	Contributions refunded ..	70,840	14 8
Government subsidy ..	221,416	13 4	Transfers to other funds ..	1,050	11 6
Interest ..	159,206	14 1	Commission ..	5,264	16 5
Transfers from other funds ..	434	17 2	Other payments ..	3,486	10 1
			Funds at 31st January, 1924 ..	858,661	18 10
	<u>£1,293,201</u>	<u>4 11</u>		<u>£1,293,201</u>	<u>4 11</u>

BASIS OF VALUATION.

8. In estimating the liabilities of the fund it was necessary to arrive at the proportion of the members withdrawing, dying, or retiring at each age. These factors have been carefully investigated in the light of the fund's experience since the previous valuation, and the rates and the Life and Service Table which have been adopted in the valuation as a result of this investigation are stated in Tables VI and VII appended. The next factors which entered into the calculations were the scales of average salaries in respect of males and females for the year immediately following the valuation date. The salary scales constructed were not themselves assumed in making the valuation, but the ratios of increase from age to age were applied to the actual salary of each contributor as at the 1st February, 1924. Pensions and widows' and children's benefits were valued on the same bases employed in the previous valuation. The rate of interest adopted in the valuation was 4 per cent.

RESULTS OF VALUATION.

9. The valuation has been carried out in accordance with the above assumptions, and the results are shown in Table VIII appended, which table may be shortly summarized as follows :—

	£	£
Present value of the liability for benefits .. ..	6,125,697	
Present value of the contributions receivable from members ..	1,192,487	
Funds in hand .. ..	858,662	
	<u>2,051,149</u>	
Present value of total liability of State .. ..	4,074,548	
Less present value of existing subsidy of £68,000 per annum ..	1,700,000	
Value of future subsidies to be provided by the State over and above present subsidy of £68,000 per annum .. ..	<u>£2,374,548</u>	

10. The above statement discloses a total State liability of £4,074,548, as compared with £2,813,176 at the previous valuation, giving an increase of £1,261,372. This increase has been due to two causes, viz.—

(a) The natural tendency of the previous liability to increase on account of the principle laid down by the Act that the Government subsidy shall be so determined as to meet only the deficiency for the triennium immediately following the valuation date; and

(b) The much larger number of contributors and pensioners who are now on the fund.

With reference to (b) above, the following statement compares the number of contributors and total salaries and the number of pensioners and total pensions with the corresponding figures of the previous valuation:—

	Previous Valuation.	Present Valuation.	Increase.
Number of contributors .. .. .	5,016	6,852	1,836
Total salaries .. .. .	£1,265,772	£1,855,500	£589,728
Number of pensioners .. .. .	785	1,078	293
Total pensions .. .. .	£63,404	£118,508	£55,104

11. 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 estimated sums payable for pensions, the amounts purchased by contributions, and the subsidies payable on this basis during the three years succeeding the valuation date are as follows:—

Required for	1924-25.	1925-26.	1926-27.
	£	£	£
Estimated normal pensions .. .. .	127,888	135,718	144,490
Deduct amount provided by contributions .. .. .	30,700	33,815	37,822
Subsidy required .. .. .	97,188	101,903	106,668

12. The above figures would give for the years 1924-25, 1925-26, and 1926-27 an average subsidy of £102,000 per annum, or £34,000 more per annum than is at present being paid. The following considerations, however, must be taken into account:—

- The actuarial recommendations made in the past in pursuance of the Act have not been fully carried out, the actual payments into the fund to the 31st January, 1924, being short by £213,251 of the amounts recommended. From Table IX of the appendix it will be seen that this shortage accumulated at 4 per cent. interest to the end of this year amounts to £314,324, and I consider that at least £15,000 per annum will require to be added to the future subsidies on this account.
- The inclusion since the valuation date of house allowance, &c., in computing contributions and pensions will entail a further special addition to the Government subsidy to the fund, and I consider that an additional subsidy of £54,000 or £18,000 annually during the triennium will be required in this connection.
- The State subsidy should also provide year by year the amount charged to the Superannuation Fund in administration expenses, less possibly the amount of commission due in connection with investments which might be regarded as a deduction from interest. I consider that since the fund requires the assistance of a subsidy the interpretation of section 38 (2) of the Act is that expenses amounting to, say, £2,000 per annum should form part of the subsidy, since they are not provided for by the employees’ contributions.

13. I have accordingly to report that the annual subsidy required for each year of the period ending 31st January, 1927, is as follows:—

Subsidy now being paid .. .. .	£ 68,000
Further annual subsidy required—	£
Paragraph 12 .. .. .	34,000
Paragraph 12 (a) above .. .. .	15,000
Paragraph 12 (b) above .. .. .	18,000
Paragraph 12 (c) above .. .. .	2,000
	<u>69,000</u>

Total annual subsidy required for the years 1924-25, 1925-26, 1926-27 .. £137,000

When making provision for this annual subsidy it is important to see that it is back-dated to 1924, and that interest of 4 per cent. is added to any portion paid late.

## GENERAL.

14. The limitation in respect of teachers joining the Service after the 24th December, 1909, to a maximum pension of £300 per annum is a serious blot on the fund. Not only does such a limitation deprive the State of that hold which a superannuation scheme ought to give on its best men when more remunerative employment offers elsewhere, but it obviously causes those teachers who remain to defer their retirement, and a general movement in this direction might seriously affect the efficiency of the service. The limitation is therefore likely to defeat one of the principal aims and objects of the superannuation scheme, and it only causes a comparatively trifling saving in the cost of the total pensions.

Few, if any, of the teachers who are affected by the limitation have yet reached the normal age of retirement, and possibly many have not fully realized its effect; but I would be failing in my duty if I did not draw special attention to the probable effects of such limitation, particularly as it is almost unknown in large pension schemes elsewhere. In this connection it may not be out of place to mention that the benefits accruing to the State as employer in having a good superannuation scheme are considered so great by the Imperial Government that their Civil Service pension scheme, which includes certain substantial death benefits in addition to a pension on a similar basis to that of the New Zealand Government Superannuation Funds, but without any such limitation by way of maximum pension, is paid for in full by the State.

In the New Zealand Teachers' Superannuation Fund the Government had contributed at the valuation date only £399,417, as against £1,031,725 contributed by the employees themselves—that is to say, the teachers have shouldered practically three-quarters of the burden.

15. I consider also that it would be a great improvement if the present involved method of arriving at the subsidy were abolished in favour of an automatic method based upon a definite percentage of the contributions paid. Any estimate, however, of the percentage that would be necessary would need to make due allowance for the important changes in the constitution of the fund since the valuation date—*e.g.*, the amended salaries scheme, and the inclusion of house allowance, &c., for the purposes of contributions and pensions. These matters are being fully investigated in connection with the 1927 valuation of the fund now in hand, and accordingly I considered that no material benefit would be gained by withholding a report which from causes outside of my control is long overdue.

16. In conclusion I have to acknowledge the capable assistance of Mr. G. W. Melville, F.F.A., and the efficient service rendered by the staff engaged in carrying out the heavy work of the valuation.

C. GOSTELOW, F.I.A.,  
Government Actuary.

## 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 24) 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
1920 ..	619	104,664	5,841	264,234	15,284	464	99,844	5,897	5,174	1,499,200	87,400
1921 ..	1,048	154,143	8,404	109,148	6,100	350	91,448	5,448	5,872	1,671,043	96,456
1922-3 ..	838	143,524	7,881	(24,815)	(1,540)	414	112,240	7,517	6,296	1,677,512	95,280
1923-4 ..	1,029	172,597	9,371	40,555	2,595	467	116,594	7,155	6,858	1,774,070	100,091
Totals ..	11,692	1,709,718	101,426	1,034,209	60,967	4,834	969,857	62,302	..	..	..

PARTICULARS OF DISCONTINUANCE OF ACTIVE MEMBERSHIP.\*

Year.	By Death.			By Withdrawal or Dismissal.		By Pensions.						By Transfer to other Funds.		Total discontinued.		
	Number.	Amount paid on Retirement.	Family Pension.	Number.	Amount paid on Retirement.	Ordinary (Age or Service).	Extended Provisions.	Medically unfit.				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	878	253	7,967
1916 ..	22	1,666	202	179	5,185	33	3,861	8	1,147	16	..	1,442	1	212	259	7,063
1917 ..	43	2,749	217	172	6,010	27	3,060	4	544	10	..	1,118	3	87	259	8,846
1918 ..	67	5,567	785	222	7,710	20	2,550	3	426	5	..	704	1	27	318	13,304
1919 ..	19	2,750	372	292	12,386	73	10,534	4	406	18	..	2,550	2	181	408	15,317
1920 ..	15	3,482	380	369	16,108	55	7,739	3	553	11	..	1,489	11	552	464	20,142
1921 ..	14	2,105	206	271	13,604	48	9,170	4	527	11	..	1,505	2	95	350	15,804
1922-3 ..	18	4,835	395	275	11,522	95	19,169	13	2,301	9	..	2,084	4	394	414	16,751
1923-4 ..	24	3,015	405	339	16,052	79	16,617	15	2,767	8	..	1,145	2	10	467	19,077
Totals ..	357	33,006	5,068	3,388	119,137	772	100,324	112	16,935	168	422	18,407	37	2,597	4,834	155,162

\* Compiled from annual reports.

TABLE III.  
STATEMENT OF PROGRESS OF PENSIONS.\*

Year.	Attainment of Pension Age or Length of Service.						Extended Provisions.						Retired Medically Unfit.					
	Granted.		Void by Death.		In Force.		Granted.		Void by Death.		In Force.		Granted.		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
1920 ..	55	7,739	18	1,963	437	46,269	3	553	2	600	76	10,486	11	1,490	6	616	99	9,903
1921 ..	48	9,170	10	1,046	475	54,393	4	527	2	315	78	10,698	11	1,505	8	760	102	10,648
1922-3 ..	95	19,169	16	1,388	554	72,174	13	2,301	3	509	88	12,490	9	2,084	3	515	108	12,217
1923-4 ..	79	16,617	13	1,314	620	87,477	15	2,766	4	712	99	14,544	8	1,145	5	818	111	12,544
Totals..	772	100,324	152	12,847	..	..	112	16,934	13	2,390	..	..	168	18,408	57	5,864	..	..

Year.			Death of Contributor or Pensioner : Family Pension.						Total Pensions.					
			Granted.		Void by Death or Expiry.		In Force.		Granted.		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	
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	
1920	..	25	380	18	249	224	3,550	94	10,162	44	3,428	836	70,208	
1921	..	12	206	10	140	226	3,616	75	11,408	30	2,261	881	79,355	
1922-3	..	25	395	17	251	234	3,760	142	23,949	39	2,663	984	100,641	
1923-4	..	25	405	11	168	248	3,997	127	20,934	33	3,013	1,078	118,562	
Totals	..	424	6,515	176	2,518	..	..	1,476	142,182	398	23,620	..	..	

\* Compiled from annual reports.

TABLE IV.

CLASSIFICATION OF PENSIONS GRANTED FOR PERIOD FROM 1ST JANUARY, 1920, TO 31ST JANUARY, 1924, 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.			Retired under extended Provisions.			Widows and Children.		Total.		
	Number.		Amount of Pension.	Number.		Amount of Pension.	Number.		Amount of Pension.	Number.	Amount of Pension.	Number.		Amount of Pension.
	M.	F.		M.	F.		M.	F.				M.	F.	Total.
			£ s. d.			£ s. d.			£ s. d.		£			£ s. d.
79 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	36	..	2	36 0 0
73 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
71 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
70 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
69 .. 1			32 7 0	.. ..		.. ..	.. ..		.. ..	1	18	1	2	50 7 0
67 .. 5			1,182 10 0	.. ..		.. ..	.. ..		.. ..	3	54	5	3	1,236 10 0
66 .. 11			2,424 1 0	.. ..		.. ..	.. ..		.. ..	1	18	11	2	2,442 1 0
65 .. 19			4,141 13 0	.. ..		.. ..	.. ..		.. ..	5	90	19	6	4,231 13 0
64 .. 12			3,680 16 0	3 ..		738 4 0	1 ..		36 8 0	3	54	16	3	4,509 8 0
63 .. 6			1,324 4 0	2 ..		372 17 0	2 ..		537 11 0	2	36	10	2	2,270 12 0
62 .. 4			1,473 0 0	1 ..		178 6 0	2 ..		334 18 0	2	36	7	3	2,022 4 0
61 .. 4			1,668 15 0	2 ..		480 4 0	3 ..		778 4 0	..	..	9	4	2,927 3 0
60 .. 7			2,840 14 0	.. ..		.. ..	8 ..		1,248 10 0	2	36	15	10	4,125 4 0
59 .. 5			1,608 15 0	2 ..		297 13 0	2 ..		577 0 0	..	..	9	2	2,483 8 0
58 .. 9			3,113 14 0	2 ..		466 8 0	2 ..		482 8 0	1	18	13	5	4,080 10 0
57 .. 6			3,265 18 0	.. ..		.. ..	1 ..		176 9 0	2	36	7	13	3,478 7 0
56 .. 5			2,608 15 0	.. ..		.. ..	1 ..		365 19 0	3	54	6	23	4,813 5 0
55 .. 6			6,168 4 0	.. ..		.. ..	1 ..		273 16 0	..	..	7	33	6,442 0 0
54 .. 1			2,615 17 0	1 ..		327 19 0	2 ..		469 2 0	1	18	4	17	3,430 18 0
53 .. 10			1,862 19 0	1 ..		434 5 0	2 ..		197 1 0	1	18	1	15	2,512 5 0
52 .. 17			2,887 17 0	2 ..		633 4 0	1 ..		239 6 0	2	36	3	21	3,796 7 0
51 .. 7			1,182 7 0	.. ..		.. ..	1 ..		342 8 0	2	36	1	10	1,560 15 0
50 .. 10			1,531 15 0	1 ..		392 5 0	3 ..		260 4 0	1	18	1	16	2,202 4 0
49 .. 8			1,284 17 0	1 ..		189 6 0	.. ..		.. ..	..	..	1	8	1,474 3 0
48 .. 12			1,893 8 0	1 ..		200 6 0	.. ..		.. ..	2	36	1	14	2,129 14 0
47 .. 8			1,188 13 0	.. ..		.. ..	.. ..		.. ..	1	18	..	9	1,206 13 0
46 .. 3			419 8 0	1 ..		114 0 0	.. ..		.. ..	..	..	..	4	533 8 0
45 .. 1			135 4 0	1 ..		90 15 0	.. ..		.. ..	1	18	..	3	243 19 0
44 .. 1			117 17 0	1 ..		372 19 0	.. ..		.. ..	..	..	1	3	490 16 0
43 .. ..			.. ..	3 ..		426 11 0	.. ..		.. ..	..	..	..	3	426 11 0
42 .. ..			.. ..	1 ..		101 4 0	.. ..		.. ..	..	..	..	1	101 4 0
41 .. ..			.. ..	3 ..		235 13 0	.. ..		.. ..	..	..	..	3	235 13 0
40 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	..	..	..	..	.. ..
39 .. ..			.. ..	1 ..		86 1 0	.. ..		.. ..	..	..	1	..	86 1 0
38 .. ..			.. ..	1 ..		85 1 0	.. ..		.. ..	1	18	..	2	103 1 0
36 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
35 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	36	..	2	36 0 0
33 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	36	..	2	36 0 0
32 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	36	..	2	36 0 0
31 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
27 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	18	..	1	18 0 0
13 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	26	..	..	.. ..
12 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	13	..	..	.. ..
11 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	26	..	..	.. ..
10 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	26	..	..	.. ..
9 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	0	0	..	..	.. ..
8 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	5	65	..	..	.. ..
7 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	26	19	17	468 0 0
6 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	3	39	..	..	.. ..
5 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	4	52	..	..	.. ..
4 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	5	65	..	..	.. ..
3 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	1	13	..	..	.. ..
2 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	4	52	..	..	.. ..
1 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	2	26	..	..	.. ..
0 .. ..			.. ..	.. ..		.. ..	.. ..		.. ..	3	39	..	..	.. ..
Totals	101	176	52,437 19 0	21	18	6,223 1 0	27	8	6,319 4 0	87	1,386	168	270	438 66,366 4 0

\* Compiled from cards.



TABLE V.  
PRESENT ANNUAL PAY AND CONTRIBUTIONS OF OFFICERS NOW IN SERVICE.\*

Age attained.	Number.		Present Annual Pay as from 1st February, 1924.		Present Annual Contributions as from 1st February, 1924.		Age attained.
	Males.	Females.	Males.	Females.	Males.	Females.	
			£	£	£	£	
15	1	..	45	..	2	..	15
16	3	2	190	125	10	6	16
17	23	33	1,947	2,712	97	136	17
18	62	100	5,452	8,279	273	414	18
19	79	147	7,384	12,527	369	626	19
20	69	187	8,004	19,667	400	983	20
21	72	212	11,857	31,436	593	1,572	21
22	60	218	12,450	37,708	622	1,885	22
23	83	249	20,058	50,242	1,003	2,512	23
24	86	256	21,846	53,413	1,092	2,671	24
25	78	236	21,634	49,766	1,082	2,488	25
26	74	225	21,623	49,953	1,081	2,498	26
27	70	163	21,031	36,082	1,052	1,804	27
28	67	173	20,854	40,086	1,043	2,004	28
29	79	166	25,096	39,705	1,255	1,985	29
30	63	146	21,459	34,823	1,073	1,744	30
31	83	132	28,734	32,884	1,450	1,667	31
32	78	120	27,822	30,477	1,414	1,551	32
33	61	108	22,905	27,788	1,174	1,418	33
34	76	106	28,769	27,104	1,503	1,393	34
35	71	84	26,671	22,331	1,372	1,159	35
36	57	73	22,631	20,126	1,184	1,070	36
37	59	70	23,281	20,100	1,216	1,077	37
38	55	77	23,244	20,822	1,229	1,117	38
39	69	75	30,072	20,574	1,623	1,124	39
40	57	68	22,746	19,134	1,270	1,076	40
41	67	62	26,302	17,732	1,420	1,026	41
42	74	59	29,835	16,548	1,666	956	42
43	52	54	21,322	15,896	1,160	911	43
44	67	86	29,395	24,763	1,647	1,483	44
45	59	51	23,327	14,918	1,307	884	45
46	46	61	19,523	18,132	1,159	1,053	46
47	44	52	18,920	16,299	1,082	914	47
48	44	53	19,301	15,927	1,187	1,017	48
49	50	63	22,480	18,136	1,436	1,193	49
50	45	54	18,309	16,425	1,178	1,088	50
51	36	35	15,616	10,792	1,015	722	51
52	51	40	22,786	11,924	1,437	785	52
53	42	28	20,559	8,790	1,471	649	53
54	41	21	21,357	7,068	1,549	520	54
55	40	26	18,407	7,893	1,351	601	55
56	33	11	15,295	3,230	1,102	254	56
57	42	11	17,951	3,360	1,320	274	57
58	36	15	15,338	5,017	1,227	388	58
59	26	4	12,110	1,325	991	114	59
60	26	8	11,536	2,139	945	191	60
61	21	2	9,385	620	782	59	61
62	9	1	3,655	285	299	26	62
63	10	1	5,515	160	505	16	63
64	9	1	4,435	270	412	24	64
65	14	1	6,833	260	625	23	65
66	3	..	890	..	80	..	66
67	3	..	1,275	..	128	..	67
73	1	..	265	..	27	..	73
Totals	2,626	4,226	909,727	945,773	52,990	51,151	.

\* Compiled from cards.

TABLE VI.  
EXPERIENCE TABLE.  
PROBABILITIES PER CENT PER ANNUM OF WITHDRAWAL, DEATH, AND RETIREMENT USED IN THE  
CALCULATION OF VALUATION FACTORS FOR THE TEACHERS' SUPERANNUATION FUND.

Contributing Members : Males.				Contributing Members : Females.			
Age.	Probabilities of Withdrawal, Death, or Retirement within a Year (expressed as a Percentage of the Number existing in Service at the beginning of the Year).			Age.	Probabilities of Withdrawal, Death, or Retirement within a Year (expressed as a Percentage of the Number existing in Service at the beginning of the Year).		
	Withdrawal.	Death.	Retirement.		Withdrawal.	Death.	Retirement.
	Per Cent.	Per Cent.	Per Cent.		Per Cent.	Per Cent.	Per Cent.
15 .. ..	3-20	0-18	..		2-40	0-13	..
16 .. ..	3-20	0-18	..		2-60	0-13	..
17 .. ..	3-20	0-18	..		2-80	0-13	..
18 .. ..	3-20	0-19	..		3-10	0-13	..
19 .. ..	3-20	0-19	..		3-60	0-13	..
20 .. ..	3-20	0-19	..		4-20	0-13	..
21 .. ..	3-08	0-20	..		5-00	0-13	..
22 .. ..	2-96	0-20	..		5-70	0-13	..
23 .. ..	2-84	0-20	..		6-20	0-13	..
24 .. ..	2-73	0-21	..		6-70	0-13	..
25 .. ..	2-62	0-21	..		7-00	0-13	..
26 .. ..	2-51	0-21	..		7-15	0-14	..
27 .. ..	2-40	0-22	..		7-20	0-15	..
28 .. ..	2-30	0-22	..		7-10	0-16	..
29 .. ..	2-20	0-23	..		6-90	0-17	..
30 .. ..	2-10	0-24	..		6-70	0-18	..
31 .. ..	2-00	0-25	..		6-40	0-19	..
32 .. ..	1-90	0-26	..		6-20	0-20	..
33 .. ..	1-81	0-27	..		5-80	0-21	..
34 .. ..	1-72	0-28	0-055		5-50	0-22	..
35 .. ..	1-63	0-29	0-060		5-10	0-23	..
36 .. ..	1-56	0-30	0-065		4-70	0-24	..
37 .. ..	1-50	0-31	0-070		4-20	0-25	..
38 .. ..	1-45	0-32	0-075		3-70	0-26	0-30
39 .. ..	1-40	0-33	0-080		3-10	0-27	0-40
40 .. ..	1-35	0-35	0-085		2-60	0-28	0-50
41 .. ..	1-31	0-37	0-090		2-20	0-29	0-60
42 .. ..	1-28	0-39	0-100		1-90	0-30	0-70
43 .. ..	1-26	0-41	0-120		1-60	0-31	0-90
44 .. ..	1-24	0-44	0-150		1-30	0-32	1-10
45 .. ..	1-22	0-47	0-180		0-95	0-33	1-40
46 .. ..	1-20	0-51	0-210		0-52	0-34	2-00
47 .. ..	1-18	0-55	0-240	..	..	0-35	3-00
48 .. ..	1-16	0-59	0-280	..	..	0-37	4-50
49 .. ..	1-13	0-63	0-320	..	..	0-39	6-00
50 .. ..	1-12	0-68	0-400	..	..	0-41	7-50
51 .. ..	1-10	0-73	0-550	..	..	0-44	9-00
52 .. ..	1-08	0-78	0-750	..	..	0-47	11-00
53 .. ..	1-04	0-83	1-150	..	..	0-50	13-00
54 .. ..	0-98	0-88	1-750	..	..	0-54	16-00
55 .. ..	0-88	0-93	2-750	..	..	0-59	20-00
56 .. ..	0-68	0-99	4-000	..	..	0-64	25-00
57 .. ..	0-43	1-05	6-000	..	..	0-70	25-00
58 .. ..	0-13	1-11	8-000	..	..	0-70	25-00
59 .. ..	..	1-18	10-000	..	..	0-70	25-00
60 .. ..	..	1-25	10-000	..	..	..	100-00
61 .. ..	..	1-33	10-000				
62 .. ..	..	1-41	10-000				
63 .. ..	..	1-50	15-000				
64 .. ..	..	1-60	30-000				
65 .. ..	..	..	100-000				

TABLE VII.

LIFE AND SERVICE TABLE.

BASED UPON THE PROBABILITIES PER CENT PER ANNUM OF WITHDRAWAL, DEATH, AND RETIREMENT  
GIVEN IN TABLE VI.

Males.					Females.				
Age.	Existing in Service.	Withdrawals.	Deaths.	Retirements.	Existing in Service.	Withdrawals.	Deaths.	Retirements.	Age.
15 ..	100,000	3,200	180	..	100,000	2,400	130	..	15
16 ..	96,620	3,092	174	..	97,470	2,534	127	..	16
17 ..	93,354	2,987	168	..	94,809	2,654	123	..	17
18 ..	90,199	2,886	171	..	92,032	2,853	120	..	18
19 ..	87,142	2,789	166	..	89,059	3,206	116	..	19
20 ..	84,187	2,694	160	..	85,737	3,600	111	..	20
21 ..	81,333	2,505	163	..	82,026	4,101	107	..	21
22 ..	78,665	2,328	157	..	77,818	4,436	101	..	22
23 ..	76,180	2,164	152	..	73,281	4,544	95	..	23
24 ..	73,864	2,017	155	..	68,642	4,599	89	..	24
25 ..	71,692	1,878	151	..	63,954	4,476	83	..	25
26 ..	69,663	1,750	146	..	59,395	4,246	83	..	26
27 ..	67,767	1,626	149	..	55,066	3,964	83	..	27
28 ..	65,992	1,518	145	..	51,019	3,622	82	..	28
29 ..	64,329	1,414	148	..	47,315	3,265	80	..	29
30 ..	62,767	1,318	150	..	43,970	2,946	79	..	30
31 ..	61,299	1,226	153	..	40,945	2,621	78	..	31
32 ..	59,920	1,138	156	..	38,246	2,371	76	..	32
33 ..	58,626	1,062	158	..	35,799	2,077	75	..	33
34 ..	57,406	987	161	32	33,647	1,850	74	..	34
35 ..	56,226	917	163	34	31,723	1,618	73	..	35
36 ..	55,112	859	165	36	30,032	1,412	72	..	36
37 ..	54,052	810	168	38	28,548	1,199	71	..	37
38 ..	53,036	769	170	40	27,278	1,009	71	82	38
39 ..	52,057	728	172	42	26,116	910	71	104	39
40 ..	51,115	690	179	43	25,131	653	70	126	40
41 ..	50,203	658	186	45	24,282	534	70	146	41
42 ..	49,314	632	192	49	23,532	447	71	165	42
43 ..	48,441	610	199	58	22,849	365	71	206	43
44 ..	47,574	590	209	71	22,207	289	71	244	44
45 ..	46,704	570	220	84	21,603	206	71	302	45
46 ..	45,830	550	234	96	21,024	109	71	421	46
47 ..	44,950	530	247	108	20,423	..	72	613	47
48 ..	44,065	512	260	123	19,738	..	73	888	48
49 ..	43,179	488	272	138	18,777	..	73	1,127	49
50 ..	42,272	474	287	169	17,577	..	72	1,318	50
51 ..	41,342	455	302	227	16,187	..	71	1,457	51
52 ..	40,358	436	315	303	14,659	..	69	1,613	52
53 ..	39,304	409	326	452	12,977	..	65	1,686	53
54 ..	38,117	374	335	667	11,226	..	61	1,796	54
55 ..	36,741	323	342	1,010	9,369	..	55	1,874	55
56 ..	35,066	238	347	1,404	7,440	..	48	1,860	56
57 ..	33,077	142	347	1,985	5,532	..	39	1,382	57
58 ..	30,603	40	340	2,448	4,111	..	29	1,028	58
59 ..	27,775	..	328	2,777	3,054	..	21	764	59
60 ..	24,670	..	308	2,467	2,269	..	..	2,269	60
61 ..	21,895	..	291	2,190	..	..	..	..	..
62 ..	19,414	..	274	1,941	..	..	..	..	..
63 ..	17,199	..	258	2,580	..	..	..	..	..
64 ..	14,361	..	230	4,308	..	..	..	..	..
65 ..	9,823	..	..	9,823	..	..	..	..	..

TABLE VIII.  
SUMMARY OF TEACHERS' SUPERANNUATION FUND RESULTS.  
VALUATION BALANCE-SHEET AS AT 31ST JANUARY, 1924.  
*Liabilities.*

		£	£
MALES—			
Value of 344 pensions for £61,727 15s. per annum already granted	..	556,869	
„ 152 pensions for £2,749 3s. per annum granted to widows	..	27,542	
„ 96 pensions for £1,248 granted to children	.. ..	5,199	
„ prospective pensions for back service	.. ..	1,315,140	
„ prospective pensions for future service	.. ..	897,259	
„ prospective pensions to widows	.. ..	114,407	
„ prospective pensions to children	.. ..	15,817	
„ return of contributions on death	.. ..	10,931	
„ return of contributions on withdrawal	.. ..	96,856	
			3,040,020
FEMALES—			
Value of 486 pensions for £52,783 9s. per annum already granted	..	666,831	
„ prospective pensions for back service	.. ..	1,102,493	
„ prospective pensions for future service	.. ..	1,152,226	
„ prospective death benefits—viz., return of contributions and pensions to children	.. ..	25,363	
„ return of contributions on withdrawal	.. ..	138,764	
			3,085,677
			£6,125,697
			£
<i>Assets.</i>			
Accumulated funds	.. ..		858,662
Value of future contributions from males	.. ..		670,071
„ future contributions from females	.. ..		522,416
„ subsidy of £68,000 per annum now being paid	.. ..		1,700,000
„ future subsidies to be provided	.. ..		2,374,548
			£6,125,697

TABLE IX.  
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 End of 1927.
	£	£	£	£
31st March, 1906	..	5,000	—(5,000)	—(11,850)
„ 1907	..	..	2,000	4,558
„ 1908	..	..	5,000	10,956
31st December, 1908	..	..	5,000	10,534
„ 1909	..	7,000	1,000	2,026
„ 1910	..	7,000	4,000	7,792
„ 1911	..	7,000	10,000	18,730
„ 1912	..	7,000	10,000	18,009
„ 1913	..	17,000	Nil	..
„ 1914	..	17,000	16,000	26,641
„ 1915	..	17,000	16,000	25,617
„ 1916	..	17,000	16,000	24,631
„ 1917	..	17,000	26,000	38,486
„ 1918	..	17,000	26,000	37,006
„ 1919	..	43,000	Nil	..
„ 1920	..	43,000	25,000	32,898
„ 1921	..	43,000	25,000	31,633
31st January, 1923*	..	71,583	2,084	2,536
„ 1924	..	63,833	29,167	34,121
Totals	..	399,416	213,251	314,324

\* Period of 13 months.

*Approximate Cost of Paper.*—Preparation, not given ; printing (1,600 copies), £22 10s.

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