

1928.

NEW ZEALAND.

NATIONAL PROVIDENT FUND.

ACTUARIAL EXAMINATION FOR THE TRIENNIUM ENDED 31st DECEMBER, 1925,

BY THE ACTUARY APPOINTED BY HIS EXCELLENCY THE GOVERNOR-GENERAL TO MAKE THE ACTUARIAL EXAMINATION OF THE NATIONAL PROVIDENT FUND FOR THE TRIENNIAL PERIOD ENDED 31st DECEMBER, 1925.

Laid before Parliament in pursuance of Section 24 (3) of the National Provident Fund Act, 1910.

Government Actuary's Department, Wellington, 7th June, 1928.

1. I HAVE the honour to submit the following report on the National Provident Fund as at the 31st December, 1925, as required by section 24 of the National Provident Fund Act, 1910.

2. The National Provident Fund falls to be considered under three headings : first, the main scheme ; second, the local-authorities scheme ; and third, the approved-friendly-societies scheme.

THE MAIN SCHEME.

3. The National Provident Fund Act, 1910, which Act, together with subsequent amending Acts, has now been consolidated in the National Provident Fund Act, 1926 (hereinafter referred to as "the Act"), is an endeavour to solve two of the pressing problems of the times—namely, (1) the making of provision for old age, and (2) the maintenance of some degree of family comfort (the bare necessities of life at the very least) when sickness or death robs the breadwinner of his earning-powers.

4. It is somewhat startling to consider that even in such a prosperous country as New Zealand more than one person in every four to reach old age is in receipt of a free old-age pension. The State's annual bill for old-age pensions has risen in the last ten years from £480,000 to £982,000, while in addition free widows' pensions have soared from £38,000 to £302,000.

5. It is therefore in the interests of the State, no less than the individual, that a contributory scheme should be fostered to stimulate thrift. State-subsidized old-age insurance schemes are in force in a number of countries, and, while details naturally vary, two important classes of schemes stand out, one in which participation is voluntary and the other where it is compulsory. Voluntary schemes have been in force in the following countries from the dates shown, viz. : Belgium (1850), Switzerland (1898), Hungary (1900), Holland (1919). France, Italy, and Portugal commenced with the voluntary scheme, but after a trial of sixty, twenty-one, and twelve years respectively they changed over to the compulsory idea, while in the following countries the scheme took a compulsory form from the beginning : Germany (1889), Austria (1906), Rumania (1912), Sweden (1913), Bulgaria (1918), Spain (1919), Czecho-Slovakia (1920), Jugo-Slavia (1922), Russia (1922).

6. The New Zealand National Provident Fund scheme is of the voluntary type, the broad principle underlying the main scheme being that the State undertakes the cost of providing family allowances (proportionate to the size of the family) in the event of the death or prolonged sickness of the wage-earner, and bears the expenses of administration, conditional on the wage-earner contributing sufficient to provide a pension for himself at age 60. To extend the scheme to a national scheme imposing more than voluntary obligations on the community, a correlation of the organizations conducting similar schemes of thrift would be almost essential.

7. The benefits provided by the principal Act and the requisite contributions are fully set out in the Appendix, Table I. A feature of the scheme is that under no circumstances is a member to receive from the fund less than he has paid in. The member has the option to withdraw the whole of his contributions (less benefits) on giving twelve months' notice, and if after his death the allowances that are or have been previously paid to his family fall short of his total contributions the balance is handed over to his representatives.

8. The Government subsidy amounts to one-fourth of the contributions received in the previous year—that is to say, the contributor pays 80 per cent. and the State 20 per cent. of the total cost of the various benefits.

LOCAL-AUTHORITIES SCHEME.

9. The Act permits the National Provident Fund Board to establish pension schemes for the employees of local authorities, and a large number of these schemes have been inaugurated.

10. The purpose is to grant the employees of these bodies a superannuation scheme that will enable them to maintain on retirement a degree of comfort commensurate with that enjoyed during the later years of service, and to secure, in the event of death, an annuity to the widow and allowances to each of the children under age 14.

11. The main benefit is a pension based on "final" salary and the number of years' service. This and subsidiary benefits are specifically set out in Table II of the Appendix.

12. Membership in the fund is optional in respect of the existing staff, but compulsory for all new entrants.

13. The cost of the scheme is borne jointly by the employee, the local authority (employer), and the State. The State bears 20 per cent. of the total cost, the employee contributes a fixed percentage of his salary (the amount of such percentage varying with the age at joining the fund), and the local authority makes up the balance. The ratio of the contribution cost to the employer and employee depends on the age incidence, and consequently may show fluctuation not only between one local authority and another but also in the same local authority at various stages of its existence. At the valuation date the proportion of the total cost of the benefits borne by the local authorities and their employees was approximately 47 per cent. and 33 per cent. respectively.

14. The scheme is noteworthy in many respects, but special mention might be made of the basis of contributions. It was decided that each contributor, with the assistance of his employer and the State, should as far as possible pay in on the average for the benefits that he will receive without any addition to or diminution of the burden of any other contributor. This was effected by basing the contribution for pension on present salary and prospective service to the normal pension age (or prior breakdown), and calculating as they emerge the contributions for the additional pension due to subsequent salary-increases. This method of dealing with the actual instead of the speculative salary-increases involves a series of adjustments at fairly regular intervals, but the additional labour is more than compensated as far as the State is concerned by the increased stability of the scheme. In view of the intention to include in the scheme all employees irrespective of their attained age and to allow back service to count, it was further decided to ease the initial strain on the State and the local authority by spreading their liability over the lifetime of the employee, the latter's contribution terminating at retirement.

APPROVED-FRIENDLY-SOCIETIES SCHEME.

15. Under the Act approved friendly societies may become contributors to the fund on behalf of any of their members, to secure for them, on attainment of age 60, a weekly pension of 10s., 20s., 30s., or 40s. on special terms.

16. The tables of contributions are set out in Table I of the Appendix. The low contributions charged to members are due to—(1) The payment into the fund by the friendly society of a sum equivalent to its release from specified sickness benefits after members' attainment of age 60; (2) the increase of the State subsidy under this section to 50 per cent. of the contributions.

17. In addition to the aforementioned subsidy to each section of contributors the State bears the whole expenses of administration, provides by an annual parliamentary grant a maternity benefit of £6 on the birth of a contributor's child or children (conditional on the parents' joint annual income not exceeding £300), and guarantees the scheme by agreeing to pay into the fund such further amounts as are deemed necessary in accordance with the Actuary's report.

18. The income and outgo during the three years were as follows:—

Consolidated Revenue Account of the National Provident Fund from 1st January, 1923, to 31st December, 1925.

<i>Income.</i>				<i>Outgo.</i>			
		£	s. d.			£	s. d.
Amount of fund, 1st January, 1923	..	793,143	17 10	Maternity allowances	..	119,018	0 0
Contributions	..	455,319	11 6	Retirement..	..	28,901	3 11
State subsidy	..	115,491	17 11	Death ..	..	18,875	4 10
Interest ..	..	178,170	5 9	Incapacity ..	..	6,588	8 0
Fines ..	..	2,478	1 3	Refund of contributions—			
Refund by State of maternity allowances	..	119,018	0 0	Withdrawals and lapses	..	113,052	13 5
Benefits refunded on exit	..	12,187	13 2	Death ..	..	11,442	7 9
Contributions overpaid	..	70	11 8	Refund of contributions overpaid	..	70	11 8
Miscellaneous receipts	..	35	15 3	Amount of fund, 31st December, 1925	..	1,377,967	4 9
		£1,675,915	14 4			£1,675,915	14 4

19. *Income.*—On the income side the chief items of importance are the increase of nearly £84,000 in the total contribution income, and the revenue from interest, which exceeds by over £96,000 the interest earnings of the previous triennium. After allowing for the incidence of the income, the net effective rate of interest credited to the funds each year for the past year six years has been as follows:—

	£	s.	d.		£	s.	d.
1920 ..	4	18	5 per cent.	1923 ..	5	11	9 per cent.
1921 ..	4	19	6 „	1924 ..	5	19	3 „
1922 ..	5	8	7 „	1925 ..	5	16	1 „

The increase of approximately $\frac{1}{2}$ per cent. in the interest-yield over that of the preceding triennium is very gratifying. In this connection it may be stated that a good margin between the rate of interest

earned and that assumed in fixing the scale of contributions is the best possible means of counteracting the effect of a possible fall in mortality-rates above the pension age.

Outgo.—Retirement allowances are increasing, and will continue to do so, but from the very nature of a pension scheme it will be many years before these payments are at all large in comparison with the income.

DATA.

20. The preliminary particulars required for this examination have been supplied on cards by the Superintendent of the fund—a separate card being supplied for each member who was on the books at the valuation date or who had died or withdrawn since the inception of the fund—and these particulars form the main basis of this investigation and valuation.

21. The ages of the contributors at the date of valuation, together with their contributions and other particulars, are shown in Table IV of the Appendix.

THE VALUATION.

22. The main object of an actuarial examination is to ascertain whether the current funds, together with the present value of the future contributions, will be sufficient to meet the future liabilities. Before the valuation can be carried out it is necessary to make a careful estimate of the various factors on which the payment of the benefits and contributions is dependent. These factors may be briefly summarized as follows :—

- (a) Rate of mortality :
- (b) Rate of voluntary withdrawal :
- (c) Rate of marriage :
- (d) Probability of a member having children under fourteen years of age, and the average number of such children :
- (e) Rate of incapacity during the contributory period of membership.

The above factors are required for both the main scheme and the local-authorities scheme, and in regard to the latter it is also necessary to estimate the rate of retirement and the rate of remarriage of widows. Since the factors employed in the valuation should approximately follow the trend of the fund's experience, it is necessary to examine this experience, and, where the facts are too scanty, to combine it with experience of a similar nature. A full investigation of the fund since its inception has accordingly been made, and the results of this investigation have been supplemented where necessary by the latest experiences of the Government Service Superannuation Funds and the New Zealand population. The investigation disclosed a marked decline in the mortality-rates (a feature which has been concurrently observable in similar funds), but in other respects the experience does not differ materially from the assumptions employed in previous valuations.

In view of the fall in the rate of mortality, a feature which increases the liabilities of the fund, it has been necessary to reconstruct all the monetary tables on which previous valuations have been based, and this process has entailed a very considerable amount of additional work. The new tables, however, give full weight to the various special features indicated by the fund's experience, and it is gratifying to note that, owing mainly to the improved rate of interest earned by the investments, the fund is capable of bearing the more stringent valuation bases, which experience, as now indicated, will approximate nearer to the truth. It is hardly possible to arrive at valuation bases which will exactly coincide with the actual future experience of the fund, because the factors involved are affected by changes in social and economic conditions which can only be estimated approximately. With the assistance, however, of the experiences disclosed at each valuation we are able to adjust earlier assumptions where necessary, and thereby approach gradually towards the main underlying rates and probabilities which are peculiar to the fund. The fund is still comparatively young, and it will be many years before its data will be sufficiently reliable to give an experience on which a valuation can be made without the assistance of more or less similar data derived from other sources.

The main elementary probabilities employed in the valuation of the majority of the local-authorities schemes (retiring-age 65) will be found in Table V of the Appendix. Similar probabilities have been employed in the valuation of the remaining sections of the fund, with adjustments to allow for earlier retirement ages, and, in the case of the main and approved-friendly-society schemes, for the heavier withdrawals.

23. Section 24 (2) of the 1910 Act (now section 73 (2) of the 1926 Act) requires the Actuary's report to show "the state of the fund at the close of the period, having regard to the prospective liabilities and assets." Technically these liabilities and assets should each include the present value of future maternity benefits, but as these are annually voted by Parliament, and no amount of variation can affect the stability of the fund, I have omitted them. The valuation balance-sheet is given in detail in Table VI of the Appendix, a summary being as follows :—

Valuation Balance-sheet of the National Provident Fund as at 31st December, 1925.

<i>Liabilities.</i>				<i>Assets.</i>			
		£				£	
Value of liability for—				Amount of the fund at 31st December, 1925			
Pensions .. .. .	..	2,774,909		Value of future contributions .. .. .	..	1,906,247	
Orphans' benefits .. .. .	..	206,971		Value of future State subsidies of one-fourth	..		
Widows' benefits .. .. .	..	211,943		(assumed to be received a year later than	..		
Incapacity allowances .. .. .	..	75,054		above) .. .. .	..	461,582	
Return of contributions on death .. .. .	..	90,947					
Return of contributions on withdrawal .. .. .	..	310,646					
Sundry benefits .. .. .	..	21,126					
Balance (surplus) .. .. .	..	54,200					
		<u>£3,745,796</u>				<u>£3,745,796</u>	

From this it will be seen that the fund has a surplus of £54,200, or a ratio of solvency of 20s. 3d. in the pound, as compared with 19s. 10d. at the last valuation. While it is very gratifying to be able to report such a surplus, it must not be overlooked that the amount of the surplus is relatively small, representing as it does only about $1\frac{1}{2}$ per cent. of the total liabilities, and accordingly it should be regarded as a margin against adverse fluctuations in the future experience, and not as in any way indicating that the benefits can be increased. In this connection I desire to emphasize that while every endeavour has been made to estimate the future trend of the various probabilities that enter into the valuation of the fund, and some effect has been given to the anticipated fall in future mortality-rates, the fund is still too young for its past experience to be relied on as an authoritative guide to the future.

24. Section 24 (2) further requires the report to show “the probable annual sums required by the fund to provide the pensions and other allowances falling due within the ensuing three years without affecting or having recourse to the actuarial reserve appertaining to the contributor’s contributions.” I have taken this to mean that the Actuary is to report what proportion of the estimated claims during the triennium succeeding the valuation is unprovided for by the contributions: in other words, he is to state the further subsidies per annum necessary during the period specified, beyond the statutory one-fourth subsidy, to meet the current charges on the fund; and section 25 (2) of the 1910 Act—now section 74 (2) of the 1926 Act—makes “such further amounts (if any)” an additional charge on the State.

25. I have to report, under the provisions of these sections, that, beyond the present annual subsidy, no “such further amounts” require to be paid during the three years following the date of this valuation.

GENERAL REMARKS.

26. In arriving at the results of the valuation the values of the assets have been accepted as supplied by the Superintendent of the fund, and accordingly the valuation surplus is subject to the security of the investments. In this connection it might not be out of place to point out that the assets of the fund contain a very large proportion of mortgages, and as in a business of such magnitude it is almost inevitable that there will be losses from this class of investment, even with the most careful management, I suggest that portion of this and future surpluses as they accrue be transferred to the Investment Fluctuation Reserve Fund.

27. 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 in carrying out the heavy work of the valuation.

C. GOSTELOW,
Fellow of the Institute of Actuaries (London),
Government Actuary.

APPENDIX.

TABLE I.

THE MAIN-FUND AND APPROVED-FRIENDLY-SOCIETIES SECTIONS.

MEMBERSHIP QUALIFICATIONS.

Any person may become a contributor who—

- (a) Is a resident of New Zealand ;
- (b) Is over sixteen years of age ;
- (c) Is under fifty years of age ; and
- (d) Whose average income during three years prior to joining has not exceeded £300 a year.

BENEFITS.

The following benefits are payable :—

- (1) After contributing for twelve months or for such shorter period as the Board determines, a payment of £6 on the birth of a contributor's child or children, provided the parents' joint annual income does not exceed £300.
- *(2) After contributing for five years, an allowance after three months' incapacity to work of 7s. 6d. per week for each child under fourteen years of age ; not to exceed pecuniary loss. Ceases at age 60. Extends to age 18 in case of an infirm child.
- *(3) After contributing for five years, an allowance, on the death of a contributor, of 7s. 6d. per week for each child until fourteen years of age, and 7s. 6d. per week for the widow so long as any child is under fourteen years of age.
- (4) On reaching age 60, a pension of 10s., 20s., 30s., or 40s. per week, according to the scale of contributions.
- (5) Return of contributions, less benefits, on giving twelve months' notice of cessation of membership. This right is exercisable at any time before drawing the first payment of the pension.
- (6) Return of contributions, less benefits, on death, whether before or after receiving pension.

CONTRIBUTIONS.

Age last Birthday of Contributor when first Contribution is made.	Main-fund Section.	Approved-friendly-societies Section.		Age last Birthday of Contributor when first Contribution is made.	Main-fund Section.	Approved-friendly-societies Section.	
	Weekly Contribution required to secure each Pension of 10s. a Week at Age 60.	Weekly Contribution required to secure a Pension of 10s. a Week at Age 60.†	Weekly Contribution required to secure each additional Pension of 10s. a Week at Age 60.		Weekly Contribution required to secure each Pension of 10s. a Week at Age 60.	Weekly Contribution required to secure a Pension of 10s. a Week at Age 60.†	Weekly Contribution required to secure each additional Pension of 10s. a Week at Age 60.
	(I.)	(II.)	(III.)		(I.)	(II.)	(III.)
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
16	0 9	0 4	0 6	35	2 5	1 3	1 9
17	0 10	0 5	0 7	36	2 7	1 4	1 10
18	0 10	0 5	0 7	37	2 10	1 5	1 11
19	0 11	0 5	0 8	38	3 0	1 6	2 1
				39	3 3	1 7	2 3
20	1 0	0 6	0 8				
21	1 0	0 6	0 8				
22	1 1	0 7	0 9	40	3 6	1 9	2 5
23	1 2	0 7	0 9	41	3 10	1 11	2 8
24	1 3	0 7	0 10	42	4 2	2 1	2 10
				43	4 6	2 3	3 1
25	1 4	0 8	0 11	44	4 11	2 6	3 5
26	1 5	0 8	1 0				
27	1 6	0 9	1 1				
28	1 7	0 10	1 2				
29	1 8	0 10	1 2	45	5 7	2 11	3 9
				46	6 6	3 3	4 2
30	1 9	0 11	1 3	47	7 5	3 9	4 8
31	1 10	0 11	1 3	48	8 4	4 3	5 4
32	2 0	1 0	1 4	49	9 4	4 10	6 2
33	2 2	1 1	1 6				
34	2 3	1 2	1 7				

* These benefits (2 and 3) apply only to the main-fund section.

† NOTE.—In respect of each member contributing at these rates (column ii) the friendly society to which he belongs has the option of supplementing the said contribution by the difference between the rates shown in columns (ii) and (iii), or of making to the fund on the member's attainment of age 60 the following single payment, viz.: £55 12s. in respect of members joining the fund at ages under 50; £45 in respect of members joining the fund at ages 50 or over.

TABLE II.
LOCAL-AUTHORITIES SECTION.

STANDARD BENEFITS AND CONTRIBUTIONS.

Benefits.

- I. *On attainment of normal pension age—viz., (1) males at age 65, females at age 60 ; or (2) after forty years' service and fifteen years' membership in the fund—*
- (a) A pension of one-sixtieth of final* salary for each year's service, and a proportionate part of one-sixtieth of such salary for every fraction of a year of service, with a limit of forty-sixtieths (two-thirds) of salary, but in no case to exceed £300 per annum ;
 - (b) Or the option in lieu thereof of a return of total contributions (less benefits).
- II. *On retirement before normal pension age (on the grounds of being medically unfit for future duty)—*
At any time (not being earlier than one year after the inauguration of the scheme) on the production of satisfactory medical evidence to the Board, a pension calculated in the same manner and with the same limitations as in I (above), or the option in lieu thereof of a return of total contributions (less benefits).
- III. *On voluntary retirement or dismissal—*
A return of total contributions (less any benefits received).
- IV. *At death, whether before or after becoming entitled to a retiring-allowance—*
- (a) Leaving no widow or children : A return of the total contributions paid to the fund on the contributor's behalf, less any moneys received by the contributor out of the fund during his lifetime.
 - (b) Leaving a widow : An allowance of £18 per annum during widowhood, or in lieu thereof a return of contributions as in (a) above.
 - (c) Leaving children : An allowance of 5s. per week on account of each child so long as that child is under the age of fourteen years : Provided that in any case where the contributor leaves children but no widow, if when the youngest child attains the age of fourteen years the aggregate payments made to the children are not equal to the contributions paid to the fund on the contributor's behalf (less any moneys received by him out of the fund in his lifetime) the difference between these two amounts shall be equally divided between the children.
- V. A maternity allowance of £6 on the birth of an employee's child or children (provided the parents' joint income for the twelve months preceding the birth does not exceed £300).

Contributions.

The contributions for the various benefits are based upon the present salary and prospective total service, and adjustments made for each salary-increase. The local authority pays in respect of each employee what is not covered by the State subsidy, and the following percentage of salary contributed by the employee :—

Age at Time of joining the Fund.								Per Cent.
30 and under	..	..	..	..	..	..	..	4
Over 30 and not exceeding 35	..	..	..	..	..	..	..	5
„ 35	„	40	..	..	..	..	..	6
„ 40	„	45	..	..	..	..	..	7
„ 45	„	50	..	..	..	..	..	8
„ 50	..	..	..	..	..	..	..	9

* Final salary is subject to the limitation that no salary-increases during the three years prior to retirement shall count.

TABLE III.

MAIN FUND.

STATEMENT OF RETIRING AND OTHER ALLOWANCES FOR THE TRIENNIUM ENDED 31ST DECEMBER, 1925.

	On Death.				On Incapacity.				On Attainment Age 60.				Total Retiring and other Allowances.			
	Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.	
	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.
Allowances existing 31/12/22 ..	60	..	4,017	0 0	10	..	312	0 0	2	..	130	0 0	72	..	4,459	0 0
Granted during triennium ..	31	..	2,125	10 0	55	..	3,471	0 0	6	..	442	0 0	92	..	3,603	8 0
Total ..	91	..	6,142	10 0	65	..	3,783	0 0	8	..	572	0 0	164	..	8,062	8 0
Discontinued during triennium (as per statement below)	1	..	507	0 0	50	..	3,298	10 0	..	..	..	..	51	..	3,805	8 0
Existing at 31/12/25 ..	90	..	5,635	10 0	15	..	799	10 0	8	..	572	0 0	113	..	7,967	8 0

Particulars of Retiring and Other Allowances discontinued during the Triennium.

Discontinued by death ..	..	..	..	19	10	0	11	1	682	10	0	..	..	11	1	702	0	0
Expiry ..	..	..	1	487	10	0	39	22	301	0	0	..	..	40	22	788	10	0
Total ..	..	..	1	507	0	0	50	32	983	10	0	..	..	51	33	490	10	0

LOCAL-AUTHORITIES SECTION.

STATEMENT OF RETIRING AND OTHER ALLOWANCES FOR THE TRIENNIUM ENDED 31ST DECEMBER, 1925.

	On Death.				On Medical Unfitness.				On Attainment of Retiring Age.				Total Retiring and other Allowances.			
	Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.	
	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.
Allowances existing 31/12/22 ..	42	..	1,251	0 0	14	..	1,079	11 0	73	..	5,958	14 0	129	..	8,289	5 0
Granted during triennium ..	21	..	615	0 0	7	..	598	4 0	71	..	37,438	0 0	99	..	38,651	4 0
Total ..	63	..	1,866	0 0	21	..	1,677	15 0	144	..	313,396	14 0	228	..	316,940	9 0
Discontinued during triennium (as per statement below)	8	..	404	0 0	10	..	831	0 0	16	..	1,411	6 0	34	..	2,646	6 0
Existing at 31/12/25 ..	55	..	1,462	0 0	11	..	846	15 0	128	..	311,985	8 0	194	..	314,294	3 0

Particulars of Retiring and Other Allowances discontinued during the Triennium.

Discontinued by death ..	..	..	..	6	..	402	0	0	16	..	1,411	6	0	22	..	1,813	6	0	
Expiry ..	..	..	8	..	404	0	0	4	..	429	0	0	..	..	12	..	833	0	0
Total ..	..	..	8	..	404	0	0	10	..	831	0	0	16	..	34	..	2,646	6	0

PROGRESS OF RETIRING AND OTHER ALLOWANCES SINCE THE ESTABLISHMENT OF THE FUND TO 31ST DECEMBER, 1925.

	On Death.				On Medical Unfitness.				On Attainment of Retiring Age.				Total Retiring and other Allowances.			
	Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.		Number.		Annual Amount.	
	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.	M.	F.	£	s. d.
Total granted ..	157	..	8,439	10 0	122	..	37,560	1 0	158	..	314,286	17 0	437	..	630,286	8 0
Total discontinued ..	12	..	1,342	0 0	96	..	35,913	16 0	22	..	1,729	9 0	130	..	38,985	5 0
Total existing at 31/12/25 ..	145	..	7,097	10 0	26	..	1,646	5 0	136	..	312,557	8 0	307	..	321,301	3 0

TABLE IV.
PARTICULARS OF MEMBERSHIP (PENSIONERS EXCLUDED).

Attained Age at Valuation Date.				Main and Approved-friendly-societies Scheme.			Local-authorities-superannuation Scheme.			
				Number of Members.	Number of 10s. Pensions.	Weekly Contribution payable.	Number of Members.	Present Salaries.	Prospective Normal Pensions in respect of Present Salaries.	Annual Contribution payable.
						£ s. d.		£	£	£
14	..	..	..	..	..	..	..	..	..	..
15	..	..	..	..	..	..	2	130	87	5
16	..	..	..	95	105	3 18 9	14	768	512	36
17	..	..	..	554	625	23 12 11	18	1,193	804	59
18	..	..	..	939	1,053	41 15 3	29	2,425	1,616	120
19	..	..	..	1,218	1,421	57 19 0	40	3,734	2,500	182
20	..	..	..	1,411	1,671	70 10 5	47	5,242	3,496	258
21	..	..	..	1,433	1,723	75 14 0	44	5,641	3,767	287
22	..	..	..	1,452	1,821	82 6 0	43	7,527	4,985	370
23	..	..	..	1,398	1,755	81 1 4	54	11,196	7,436	557
24	..	..	..	1,365	1,737	83 3 1	51	11,557	7,593	603
25	..	..	..	1,295	1,626	80 19 3	52	11,426	7,548	607
26	..	..	..	1,260	1,573	81 0 2	48	10,950	7,009	618
27	..	..	..	1,091	1,340	71 3 8	58	13,681	8,885	792
28	..	..	..	1,043	1,256	69 14 1	71	17,196	10,806	1,032
29	..	..	..	864	1,036	59 11 5	68	16,760	10,354	1,027
30	..	..	..	823	983	58 5 0	61	15,800	9,790	998
31	..	..	..	736	869	53 3 11	67	16,507	9,870	1,084
32	..	..	..	673	804	51 11 5	58	13,942	8,341	955
33	..	..	..	662	779	52 5 2	67	16,808	9,938	1,180
34	..	..	..	566	696	48 14 1	58	14,421	8,306	1,054
35	..	..	..	560	674	47 15 0	62	16,633	9,334	1,211
36	..	..	..	494	579	44 9 10	69	18,116	9,907	1,395
37	..	..	..	421	494	39 11 7	68	17,108	9,280	1,391
38	..	..	..	400	474	39 5 3	85	23,277	12,628	1,949
39	..	..	..	339	411	36 2 9	79	21,203	11,214	1,890
40	..	..	..	331	396	37 11 11	67	18,119	9,605	1,627
41	..	..	..	257	293	29 1 7	75	20,127	10,489	1,905
42	..	..	..	235	287	28 12 11	81	22,384	11,604	2,179
43	..	..	..	197	241	25 7 10	69	18,116	9,009	1,877
44	..	..	..	175	219	25 18 6	68	19,899	9,901	2,096
45	..	..	..	163	232	29 2 1	76	21,408	10,548	2,323
46	..	..	..	108	150	20 12 4	79	22,774	11,058	2,662
47	..	..	..	100	127	17 17 1	63	17,476	8,755	2,207
48	..	..	..	87	118	18 2 6	59	17,355	8,471	2,285
49	..	..	..	68	107	17 18 6	62	19,239	9,230	2,581
50	..	..	..	56	92	16 3 9	48	14,397	6,769	2,055
51	..	..	..	50	75	14 14 0	62	18,372	8,165	2,657
52	..	..	..	42	74	12 15 1	58	16,865	8,294	2,769
53	..	..	..	29	45	9 3 8	47	15,203	6,808	2,509
54	..	..	..	27	42	8 8 5	46	13,323	5,888	2,363
55	..	..	..	14	21	4 7 2	60	17,345	6,596	2,936
56	..	..	..	17	25	5 6 3	49	15,062	5,993	2,665
57	..	..	..	6	9	1 19 0	41	13,120	5,099	2,489
58	..	..	..	11	18	4 15 2	38	10,523	4,480	2,192
59	..	..	..	9	15	4 6 7	29	9,732	3,304	1,816
60	..	..	..	1	2	0 12 6	30	9,359	3,292	1,961
61	..	..	..	..	..	..	26	7,431	2,653	1,573
62	..	..	..	..	..	..	24	7,049	2,625	1,599
63	..	..	..	..	..	..	31	8,764	3,174	2,256
64	..	..	..	..	..	..	21	5,888	1,877	1,414
65	..	..	..	..	..	..	32	8,711	2,967	2,085
66	..	..	..	..	..	..	9	2,116	781	559
67	..	..	..	..	..	..	12	2,786	930	814
68	..	..	..	..	..	..	2	612	159	154
69	..	..	..	..	..	..	5	1,238	327	350
70	..	..	..	..	..	..	1*	..	..	16
71	..	..	..	..	..	..	3	275	41	77
72	..	..	..	..	..	..	..	..	..	..
73	..	..	..	..	..	..	..	..	..	..
74	..	..	..	..	..	..	..	..	..	..
75	..	..	..	..	..	..	..	..	..	..
76	..	..	..	..	..	..	..	..	..	..
77	..	..	..	..	..	..	1*	..	..	10
				23,075	28,093	1,686 10 2	2,687	688,309	354,898	78,715

* These members (and also two at ages 67 and 71, and three at age 66) are at present contributing only in respect of widows' and children's benefits. Pensions and contributions will be determined on retirement.

TABLE V.

EXPERIENCE TABLE.

PROBABILITIES PER CENT. PER ANNUM OF DEATH, WITHDRAWAL, AND RETIREMENT USED IN THE
CALCULATION OF VALUATION FACTORS FOR THE STANDARD LOCAL-AUTHORITIES SCHEME.

Contributing Members : Males.

Age.	Probabilities of Death, Withdrawal, or Retirement within a Year (expressed as a Percentage of the Number existing in Service at the beginning of the Year).			Age.	Probabilities of Death, Withdrawal, or Retirement within a Year (expressed as a Percentage of the Number existing in Service at the beginning of the Year).		
	Death.	Withdrawal.	Retirement.		Death.	Withdrawal.	Retirement.
	Per Cent.	Per Cent.	Per Cent.		Per Cent.	Per Cent.	Per Cent.
15 ..	0·16	7·00	..	41 ..	0·50	1·35	0·10
16 ..	0·16	6·95	..	42 ..	0·53	1·20	0·10
17 ..	0·16	6·89	..	43 ..	0·56	1·05	0·10
18 ..	0·16	6·81	..	44 ..	0·59	0·90	0·10
19 ..	0·16	6·70	..	45 ..	0·62	0·80	0·10
20 ..	0·16	6·55	..	46 ..	0·65	0·70	0·15
21 ..	0·16	6·35	..	47 ..	0·68	0·60	0·20
22 ..	0·16	6·15	..	48 ..	0·71	0·50	0·25
23 ..	0·16	5·90	..	49 ..	0·74	0·41	0·30
24 ..	0·18	5·65	..	50 ..	0·78	0·33	0·35
25 ..	0·20	5·35	..	51 ..	0·82	0·26	0·40
26 ..	0·21	5·05	..	52 ..	0·86	0·20	0·45
27 ..	0·22	4·70	..	53 ..	0·90	0·15	0·50
28 ..	0·24	4·40	..	54 ..	0·95	0·10	0·60
29 ..	0·26	4·10	..	55 ..	1·00	0·05	0·80
30 ..	0·28	3·80	..	56 ..	1·05	0·02	1·20
31 ..	0·30	3·55	..	57 ..	1·11	0·00	1·90
32 ..	0·32	3·30	..	58 ..	1·17	..	3·00
33 ..	0·34	3·05	..	59 ..	1·29	..	4·50
34 ..	0·36	2·80	..	60 ..	1·41	..	12·00
35 ..	0·38	2·55	..	61 ..	1·53	..	12·00
36 ..	0·40	2·30	..	62 ..	1·68	..	15·00
37 ..	0·42	2·10	..	63 ..	1·85	..	20·00
38 ..	0·44	1·90	0·10	64 ..	2·04	..	30·00
39 ..	0·46	1·70	0·10	65 ..	..	..	100·00
40 ..	0·48	1·50	0·10				

TABLE VI.

SUMMARY OF NATIONAL PROVIDENT FUND VALUATION.

VALUATION BALANCE-SHEET AS AT 31ST DECEMBER, 1925.

Liabilities.

MAIN-FUND AND APPROVED-FRIENDLY-SOCIETIES SECTION.		£	£
Value of 8 pensions for £572 per annum already granted .. ..	..	6,455	
Value of allowances already granted to 88 widows of contributors, totalling £1,716 per annum .. ..	..	9,600	
Value of allowances already granted to 200 children of deceased contributors, totalling £3,900 per annum .. ..	..	17,000	
Value of deferred pensions to survivors of existing contributors .. ..	..	1,311,770	
Value of return of contributions (less benefits) on withdrawal in respect of past contributions .. ..	..	108,632	
Value of return of contributions (less benefits) on withdrawal in respect of future contributions .. ..	..	147,202	
Value of return of contributions (less benefits) on death : In the main scheme this is limited to death (i) without children, or (ii) with children, and death taking place within five years from entry—			
(a) In respect of past contributions .. ..	..	24,329	
(b) In respect of future contributions .. ..	..	55,860	
Value of allowance benefits (immediate to 10,975 members and vesting five years after entry in the case of 11,849 members)—			
(a) Widows' benefits .. ..	..	79,825	
(b) Children's benefits .. ..	..	170,904	
(c) Incapacity allowances .. ..	..	75,054	
Value of return of balance of contributions where allowances or pensions fall short of the total contributions paid, and of sundry minor benefits ..	..	6,600	
			2,013,231

LOCAL-AUTHORITIES SECTION.								£	£
Value of 142 pensions for £12,826 per annum already granted	..	..	..	..	..	..	..	107,637	
Value of 48 pensions for £864 per annum granted to widows of contributors or pensioners	..	..	..	..	..	..	..	10,600	
Value of 46 allowances for £598 per annum granted to children of deceased contributors	..	..	..	..	..	..	..	2,400	
Value of prospective pensions (based on present salary scale) in respect of past service	..	..	..	..	..	..	..	664,281	
Value of prospective pensions (based on present salary scale) in respect of future service	..	..	..	..	..	..	..	684,766	
Value of prospective pensions to widows	..	..	..	..	..	..	..	111,918	
Value of prospective allowances to children	..	..	..	..	..	..	..	16,667	
Value of return of contributions on withdrawal (including widow's option in lieu of pension)	..	..	..	..	..	..	..	54,812	
Value of return of contributions on death prior to retirement (leaving no widow or children)	..	..	..	..	..	..	..	10,758	
Value of return of balance of contributions where allowances or pensions fall short of the total contributions paid, and of sundry minor benefits	..	..	..	..	..	..	..	14,526	
									1,678,365
									3,691,596
Balance (surplus)	..	..	..	..	..	..	..	54,200	
									£3,745,796
Assets.									
Accumulated funds	..	..	..	..	..	..	..	1,377,967	
Value of future contributions	..	..	..	..	..	..	..	1,906,247	
Value of future State subsidies (assumed to be received a year later than contributions)	461,582	
									£3,745,796

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